MC Douglas/ Eulida National Brazil Group

Group of Companies Report

Elzein Elzein
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Logos/Brands

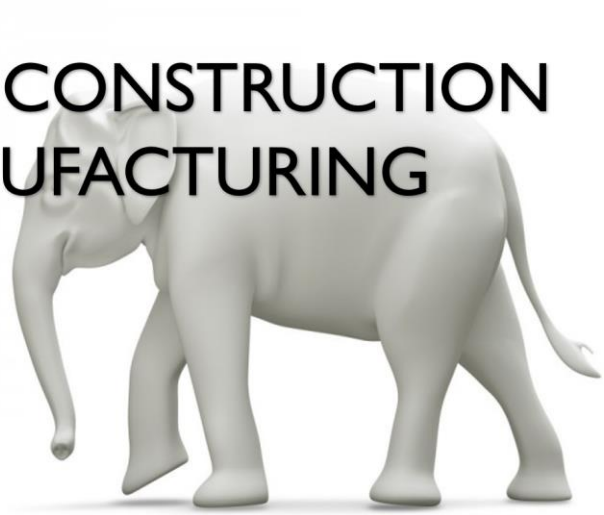




WEST SUSSEX CONSTRUCTION AND MANUFACTURING

LONDON

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WEST SUSSEX REAL ESTATE

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WEST SUSSEX MATERIALS AND TECHNOLOGY

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Ciacabic United Kingdom Ltd

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Uxbridge Dexter & Co. Ltd

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Uxbridge Dexter & Co. Manufacturing and Technology Ltd

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Massimo Dutti Africa Ltd

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The Legal Unit Report

The Companies Act 2006

EULIDA NATIONAL BRAZIL LTD

Limited By Shares

MEMORANDUM AND ARTICLES OF ASSOCIATION

Group of Companies

EULIDA NATIONAL BRAZIL LTD

Company Number: 13305491 Incorporated on 31/03/2021

WEST SUSSEX MATERIALS AND TECHNOLOGY

Company Number: 13713931 Incorporated on 01/11/2021

WEST SUSSEX MANUFATURING AND CONSTRUCTION

Company Number: 13716541 Incorporated on 01/11/2021

WEST SUSSEX REAL ESTATE

Company Number: 13721643 Incorporated on 31/03/2021

COMPANY HAVING A SHARE CAPITAL MEMORANDUM OF ASSOCIATION

OF

EULIDA NATIONAL BRAZIL LTD;

WEST SUSSEX MATERIALS AND TECHNOLOGY Ltd;

WEST SUSSEX MANUFATURING AND CONSTRUCTION Ltd and;

WEST SUSSEX REAL ESTATE Ltd

Each subscriber to this memorandum of association wishes to form a company under the Companies Act 2006 and agrees to become a member of the Company and to take at least one share.

Name of each subscriber Authentication by each subscriber Elzein Elzein

Date 31 March 2021

THE COMPANIES ACT 2006 PRIVATE COMPANY LIMITED BY SHARES

ARTICLES OF ASSOCIATION

of

EULIDA NATIONAL BRAZIL LTD;

WEST SUSSEX MATERIALS AND TECHNOLOGY;

WEST SUSSEX MANUFATURING AND CONSTRUCTION and;

WEST SUSSEX REAL ESTATE

PART 1

INTERPRETATION AND LIMITATION OF LIABILITY

1 Defined Terms

(1) The regulations contained in the Model Articles for Private Companies Limited by Shares set out in Schedule 1 of The Companies (Model Articles) Regulations 2008 (SI 3229/2008), shall not apply to the Company.

(2) In the articles, unless the context requires otherwise:

"the 2006 Act" means the Companies Act 2006;

"articles" means the Company's articles of association;

"bankruptcy" includes individual insolvency proceedings in a jurisdiction other than England and Wales or Northern Ireland which have an effect similar to that of bankruptcy;

"chairman" has the meaning given in article 12; "chairman of the meeting" has the meaning given in article 40;

"Companies Acts" means the Companies Acts (as defined in section 2 of the Companies Act 2006), in so far as they apply to the Company;

"director" means a director of the Company, and includes any person occupying the position of director, by whatever name called;

"distribution recipient" has the meaning given in article 32;

"document" includes, unless otherwise specified, any document sent or supplied in electronic form;

"electronic form" has the meaning given in section 1168 of the 2006 Act; "fully paid" in relation to a share, means that the nominal value and any premium to be paid to the Company in respect of that share have been paid to the Company;

"hard copy form" has the meaning given in section 1168 of the 2006 Act;

"holder" in relation to shares means the person whose name is entered in the register of members as the holder of the shares;

"instrument" means a document in hard copy form;

"ordinary resolution" has the meaning given in section 282 of the 2006 Act;
"paid"means paid or credited as paid;
"participate" in relation to a directors' meeting, has the meaning given in article 10;

"proxy notice" has the meaning given in article 46;

"shareholder" means a person who is the holder of a share;

"shares" means shares in the Company;

"special resolution" has the meaning given in section 283 of the 2006 Act;
"subsidiary" has the meaning given in section 1159 of the 2006 Act;
"transmittee" means a person entitled to a share by reason of the death or bankruptcy of a shareholder or otherwise by operation of law; and
"writing" means the representation or reproduction of words, symbols or other information in a visible form by any method or combination of methods, whether sent or supplied in electronic form or otherwise.

Unless the context otherwise requires, other words or expressions contained in these articles bear the same meaning as in the 2006 Act as in force on the date when these articles become binding on the Company.

2 Liability of shareholders

The liability of the shareholders is limited to the amount, if any, unpaid on the shares held by them.

PART 2 DIRECTORS

DIRECTORS' POWERS AND RESPONSIBILITIES

3 Directors' general authority

Subject to the articles, the directors are responsible for the management of the Company's business, for which purpose they may exercise all the powers of the Company.

4 Shareholders' reserve power

(1) The shareholders may, by special resolution, direct the directors to take, or refrain from taking, specified action.

(2) No such special resolution invalidates anything which the directors have done before the passing of the resolution.

5 Directors may delegate

(1) Subject to the articles, the directors may delegate any of the powers which are conferred on them under the articles:

(a) to such person or committee;

(b) by such means (including by power of attorney);

(c) to such an extent;

(d) in relation to such matters or territories; and

(e) on such terms and conditions; as they think fit.

(2) If the directors so specify, any such delegation may authorise further delegation of the directors' powers by any person to whom they are delegated.

(3) The directors may revoke any delegation in whole or part, or alter its terms and conditions.

6 Committees

Committees to which the directors delegate any of their powers must follow procedures which are based as far as they are applicable on those provisions of the articles which govern the taking of decisions by directors. The directors may make rules of procedure for all or any committees, which prevail over rules derived from the articles if they are not consistent with them.

DECISION-MAKING BY DIRECTORS

7 Directors to take decisions collectively

(1) The general rule about decision-making by directors is that any decision of the directors must be either a majority decision at a meeting or a decision taken in accordance with article 8.

(2) If:

(a) the Company only has one director, and

(b) no provision of the articles requires it to have more than one director,

the general rule does not apply, and the director may, subject to articles 8(3) and 16 take decisions without regard to any other of the provisions of the articles relating to directors' decision-making.

8 Unanimous decisions

(1) A decision of the directors is taken in accordance with this article when all eligible directors indicate to each other by any means that they share a common view on a matter.

(2) Such a decision may take the form of a resolution in writing, copies of which have been signed by each eligible director or to which each eligible director has otherwise indicated agreement in writing.

(3) References in this article to eligible directors are to directors who would have been entitled to vote on the matter had it been proposed as a resolution at a directors' meeting.

(4) A decision may not be taken in accordance with this article if the eligible directors would not have formed a quorum at such a meeting.

9 Calling a directors' meeting

(1) Any director may call a directors' meeting by giving notice of the meeting to the directors or by authorising the Company secretary (if any) to give such notice.

(2) Notice of any directors' meeting must indicate:

(a) its proposed date and time;

(b) where it is to take place; and

(c) if it is anticipated that directors participating in the meeting will not be in the same place, how it is proposed that they should communicate with each other during the meeting.

(3) Notice of a directors' meeting must be given to each director, but need not be in writing.

(4) Notice of a directors' meeting need not be given to directors who waive their entitlement to notice of that meeting, by giving notice to that effect to the Company not more than 7 days after the date on which the meeting is held. Where such notice is given after the meeting has been held, that does not affect the validity of the meeting, or of any business conducted at it.

10 Participation in directors' meetings

(1) Subject to the articles, directors participate in a directors' meeting, or part of a directors' meeting, when:

(a) the meeting has been called and takes place in accordance with the articles, and

(b) they can each communicate to the others any information or opinions they have on any particular item of the business of the meeting.

(2) In determining whether directors are participating in a directors' meeting, it is irrelevant where any director is or how they communicate with each other.

(3) If all the directors participating in a meeting are not in the same place, they may decide that the meeting is to be treated as taking place wherever any of them is.

11 Quorum for directors' meetings

(1) At a directors' meeting, unless a quorum is participating, no proposal is to be voted on, except a proposal to call another meeting.

(2) The quorum for directors' meetings may be fixed from time to time by a decision of the directors, but it must never be less than two unless there is just a sole director in office, and unless otherwise fixed it is two.

(3) If the total number of directors for the time being is less than the quorum required, the directors must not take any decision other than a decision:

(a) to appoint further directors, or

(b) to call a general meeting so as to enable the shareholders to appoint further directors.

12 Chairing of directors' meetings

(1) The directors may appoint a director to chair their meetings.

(2) The person so appointed for the time being is known as the chairman.

(3) The directors may terminate the chairman's appointment at any time.

(4) If the chairman is not participating in a directors' meeting within ten minutes of the time at which it was to start, the participating directors must appoint one of themselves to chair it.

13 Casting vote

The chairman or other director chairing the meeting shall not, if the numbers of votes for and against a proposal are equal, have a second or casting vote.

14 Conflicts of interest

(1) If a proposed decision of the directors is concerned with an actual or proposed transaction or arrangement with the Company in which a director is interested, that director is not to be counted as participating in the decision-making process for quorum or voting purposes.

(2) But if paragraph (3) applies, a director who is interested in an actual or proposed transaction or arrangement with the Company is to be counted as participating in the decision-making process for quorum and voting purposes.

(3) This paragraph applies when:

(a) the Company by ordinary resolution disapplies the provision of the articles which would otherwise prevent a director from being counted as participating in the decision-making process;

(b) the director's interest cannot reasonably be regarded as likely to give rise to a conflict of interest; or

(c) the director's conflict of interest arises from a permitted cause.

(4) For the purposes of this article, the following are permitted causes:

(a) a guarantee given, or to be given, by or to a director in respect of an obligation incurred by or on behalf of the Company or any of its subsidiaries;

(b) subscription, or an agreement to subscribe, for shares or other securities of the Company or any of its subsidiaries, or to underwrite, sub-underwrite, or guarantee subscription for any such shares or securities; and

(c) arrangements pursuant to which benefits are made available to employees and directors or former employees and directors of the Company or any of its subsidiaries which do not provide special benefits for directors or former directors.

(5) For the purposes of this article, references to proposed decisions and decision-making processes include any directors' meeting or part of a directors' meeting.

(6) Subject to paragraph (7), if a question arises at a meeting of directors or of a committee of directors as to the right of a director to participate in the meeting (or part of the meeting) for voting or quorum purposes, the question may, before the conclusion of the meeting, be referred to the chairman whose ruling in relation to any director other than the chairman is to be final and conclusive.

(7) If any question as to the right to participate in the meeting (or part of the meeting) should arise in respect of the chairman, the question is to be decided by a decision of the directors at that meeting, for which purpose the chairman is not to be counted as participating in the meeting (or that part of the meeting) for voting or quorum purposes.

(8) Where the number of non-conflicted directors is less than the quorum for the purposes of approving a resolution authorising any situation or transaction

constituting a conflict as anticipated by the Companies Acts, the quorum shall be all the disinterested directors.

(9) When all the directors of the Company are conflicted, the Company shall pass the conflict to the Company's shareholders for approval by ordinary resolution.

15 Records of decisions to be kept

The directors must ensure that the Company keeps a record, in writing, for at least 10 years from the date of the decision recorded of every unanimous or majority decision taken by the directors.

16 Directors' discretion to make further rules

Subject to the articles, the directors may make any rule which they think fit about how they take decisions, and about how such rules are to be recorded or communicated to directors.

NUMBER AND APPOINTMENT OF DIRECTORS

17 Methods of appointing directors

(1) There shall be no maximum number of directors and the minimum number of directors shall be one. Whenever the Company has two or more directors, at least one of them shall be a natural person

(2) Any person 16 years of age or more and who is willing to act as a director, and is permitted by law to do so, may be appointed to be a director:

(a) by ordinary resolution; or

(b) by a decision of the directors.

(3) In any case where, as a result of death, the Company has no shareholders and no directors, the personal representatives of the last shareholder to have died have the right, by notice in writing, to appoint a person to be a director.

(4) For the purposes of paragraph (3), where 2 or more shareholders die in circumstances rendering it uncertain who was the last to die, a younger shareholder is deemed to have survived an older shareholder.

18 Termination of director's appointment

(1) A person ceases to be a director as soon as:

(a) that person ceases to be a director by virtue of any provision of the Companies Acts or is prohibited from being a director by law;

(b) a bankruptcy order is made against that person;

(c) a composition is made with that person's creditors generally in satisfaction of that person's debts;

(d) a registered medical practitioner who is treating that person gives a written opinion to the Company stating that that person has become physically or mentally incapable of acting as a director and may remain so for more than three months;

(e) notification is received by the Company from the director that the director is resigning from office, and such resignation has taken effect in accordance with its terms;

(f) he shall for more than six consecutive months have been absent without permission of the directors from meetings of directors held during that period and the directors resolve that his office be vacated.

19 Directors' remuneration

(1) Directors may undertake any services for the Company that the directors decide.

(2) Directors are entitled to such remuneration as the directors determine:

a) for their services to the Company as directors, and

(b) for any other service which they undertake for the Company.

(3) Subject to the articles, a director's remuneration may:

(a) take any form, and

(b) include any arrangements in connection with the payment of a pension, allowance or gratuity, or any death, sickness or disability benefits, to or in respect of that director.

(4) Unless the directors decide otherwise, directors' remuneration accrues from day to day.

(5) Unless the directors decide otherwise, directors are not accountable to the Company for any remuneration which they receive as directors or other officers or employees of the Company's subsidiaries or of any other body corporate in which the Company is interested.

20 Directors' expenses

The Company may pay any reasonable expenses which the directors properly incur in connection with their attendance at:

(a) meetings of directors or committees of directors;

(b) general meetings, or

(c) separate meetings of the holders of any class of shares or of debentures of the Company, or otherwise in connection with the exercise of their powers and the discharge of their responsibilities in relation to the Company.

PART 3

SHARES AND DISTRIBUTIONS SHARES

21 All shares to be fully paid up

(1) No share is to be issued for less than the aggregate of its nominal value and any premium to be paid to the Company in consideration for its issue.

(2) This does not apply to shares taken on the formation of the Company by the subscribers to the Company's memorandum.

22 Powers to issue different classes of share

(1) Subject to the articles, but without prejudice to the rights attached to any existing share, the Company may issue shares with such rights or restrictions as may be determined by ordinary resolution.

(2) The Company may issue shares which are to be redeemed, or are liable to be redeemed at the option of the Company or the holder, and the directors may determine the terms, conditions and manner of redemption of any such shares.

23 Company not bound by less than absolute interests

Except as required by law, no person is to be recognised by the Company as holding any share upon any trust, and except as otherwise required by law or the articles, the Company is not in any way to be bound by or recognise any interest in a share other than the holder's absolute ownership of it and all the rights attaching to it.

24 Share certificates

(1) The Company must issue each shareholder, free of charge, with one or more certificates in respect of the shares which that shareholder holds.

(2) Every certificate must specify:

(a) in respect of how many shares, of what class, it is issued;

(b) the nominal value of those shares;

(c) that the shares are fully paid; and

(d) any distinguishing numbers assigned to them.

(3) No certificate may be issued in respect of shares of more than one class.

(4) If more than one person holds a share: only one certificate may be issued in respect of it.

(5) Certificates must:

(a) have affixed to them the Company's common seal, or

(b) be otherwise executed in accordance with the Companies Acts.

25 Replacement share certificates

(1) If a certificate issued in respect of a shareholder's shares is:

(a) damaged or defaced; or

(b) said to be lost, stolen or destroyed,

that shareholder is entitled to be issued with a replacement certificate in respect of the same shares.

(2) A shareholder exercising the right to be issued with such a replacement certificate:

(a) may at the same time exercise the right to be issued with a single certificate or separate certificates;

(b) must return the certificate which is to be replaced to the Company if it is damaged or defaced and

(c) must comply with such conditions as to evidence, indemnity and the payment of a reasonable fee as the directors decide.

26 Share transfers

(1) Shares may be transferred by means of an instrument of transfer in any usual form or any other form approved by the directors, which is executed by or on behalf of the transferor.

(2) No fee may be charged for registering any instrument of transfer or other document relating to or affecting the title to any share.

(3) The Company may retain any instrument of transfer which is registered.

(4) The transferor remains the holder of a share until the transferee's name is entered in the register of members as holder of it.

(5) The directors may refuse to register the transfer of a share, and if they do so, the instrument of transfer must be returned to the transferee with the notice of refusal unless they suspect that the proposed transfer may be fraudulent.

27 Transmission of shares

(1) If title to a share passes to a transmittee, the Company may only recognise the transmittee as having any title to that share.

(2) A transmittee who produces such evidence of entitlement to shares as the directors may properly require:

(a) may, subject to the articles, choose either to become the holder of those shares or to have them transferred to another person, and

(b) subject to the articles, and pending any transfer of the shares to another person, has the same rights as the holder had.

(3) But transmittees do not have the right to attend or vote at a general meeting, or agree to a proposed written resolution, in respect of shares to which they are entitled, by reason of the holder's death or bankruptcy or otherwise, unless they become the holders of those shares.

28 Exercise of transmitees' rights

(1) Transmittees who wish to become the holders of shares to which they have become entitled must notify the Company in writing of that wish.

(2) If the transmittee wishes to have a share transferred to another person, the transmittee must execute an instrument of transfer in respect of it.

(3) Any transfer made or executed under this article is to be treated as if it were made or executed by the person from whom the transmittee has derived rights in respect of the share, and as if the event which gave rise to the transmission had not occurred.

29 Transmitees bound by prior notices

If a notice is given to a shareholder in respect of shares and a transmittee is entitled to those shares, the transmittee is bound by the notice if it was given to the shareholder before the transmittee's name has been entered in the register of members.

30 Purchase of own shares

Subject to the 2006 Act but without prejudice to any other provision of these articles, the Company may purchase its own shares with cash up to any amount in a financial year not exceeding the lower of:

(a) £15,000; or

(b) the value of 5% of the Company's share capital.

DIVIDENDS AND OTHER DISTRIBUTIONS

31 Procedure for declaring dividends

(1) The Company may, by ordinary resolution declare dividends, and the directors may decide to pay interim dividends but a dividend must not be declared unless the directors have made a recommendation as to its amount. Such a dividend must not exceed the amount

recommended by the directors and no dividend may be declared or paid unless it is in accordance with shareholders' respective rights.

(2) Unless:

(a) the shareholders' resolution to declare; or

(b) directors' decision to pay a dividend; or

(c) the terms on which shares are issued, specify otherwise,

it must be paid by reference to each shareholder's holding of shares on the date of the resolution or decision to declare or pay it.

(3) If the Company's share capital is divided into different classes, no interim dividend may be paid on shares carrying deferred or non-preferred rights if, at the time of payment, any preferential dividend is in arrear.

(4) The directors may pay at intervals any dividend payable at a fixed rate if it appears to them that the profits available for distribution justify the payment.

(5) If the directors act in good faith, they do not incur any liability to the holders of shares conferring preferred rights for any loss they may suffer by the lawful payment of an interim dividend on shares with deferred or non-preferred rights.

32 Payment of dividends and other distributions

(1) Where a dividend or other sum which is a distribution is payable in respect of a share, it must be paid by one or more of the following means:

(a) transfer to a bank or building society account specified by the distribution recipient in writing; or

(b) sending a cheque, payable to the distribution recipient, by post to the distribution recipient at his registered address (if the distribution recipient is a holder of the share), or (in any other case) to an address specified by the distribution recipient either in writing or as the directors may otherwise decide; or

(c) any other means of payment as the directors agree with the distribution recipient either in writing or by such other means as the directors decide.

(2) In the articles, "the distribution recipient" means, in respect of a share in respect of which a dividend or other sum is payable:

(a) the holder of the share; or

(b) if the share has two or more joint holders, whichever of them is named first in the register of members; or

(c) if the holder is no longer entitled to the share by reason of death or bankruptcy, or otherwise by operation of law, the transmittee.

33 No interest on distributions

The Company may not pay interest on any dividend or other sum payable in respect of a share unless otherwise provided by the terms on which the share was issued, or the provisions of another agreement between the holder of that share and the Company.

34 Unclaimed distributions

(1) All dividends or other sums which are payable in respect of shares and unclaimed after having been declared or become payable, may be invested or otherwise made use of by the directors for the benefit of the Company until claimed.

(2) The payment of any such dividend or other sum into a separate account does not make the Company a trustee in respect of it and if

(a) twelve years have passed from the date on which a dividend or other sum became due for payment; and

(b) the distribution recipient has not claimed it,

the distribution recipient is no longer entitled to that dividend or other sum and it ceases to remain owing by the Company.

35 Non-cash distributions

(1) Subject to the terms of issue of the share in question, the Company may, by ordinary resolution on the recommendation of the directors, decide to pay all or part of a dividend or other distribution payable in respect of a share by transferring non-cash assets of equivalent value (including, without limitation, shares or other securities in any company).

(2) For the purposes of paying a non-cash distribution, the directors may make whatever arrangements they think fit, including, where any difficulty arises regarding the distribution:

(a) fixing the value of any assets;

(b) paying cash to any distribution recipient on the basis of that value in order to adjust the rights of recipients; and

(c) vesting any assets in trustees.

36 Waiver of distributions

(1) Distribution recipients may waive their entitlement to a dividend or other distribution payable in respect of a share by giving the Company notice in writing to that effect, but if:

(a) the share has more than one holder, or

(b) more than one person is entitled to the share, whether by reason of the death or bankruptcy of one or more joint holders, or otherwise,

the notice is not effective unless it is expressed to be given, and signed, by all the holders or persons otherwise entitled to the share.

CAPITALISATION OF PROFITS

37 Authority to capitalise and appropriation of capitalised sums

(1) The directors may, if they are so authorised by an ordinary resolution:

(a) decide to capitalise any profits of the Company (whether or not they are available for distribution) which are not required for paying a preferential dividend, or any sum standing to the credit of the Company's share premium account or capital redemption reserve; and

(b) appropriate any sum which they so decide to capitalise (a "capitalised sum") to the persons who would have been entitled to it if it were distributed by way of dividend (the "persons entitled") and in the same proportions.

(2) Capitalised sums must be applied:

(a) on behalf of the persons entitled, and

(b) in the same proportions as a dividend would have been distributed to them.

(3) Any capitalised sum may be applied in paying up new shares of a nominal amount equal to the capitalised sum which are then allotted credited as fully paid to the persons entitled or as they may direct.

(4) A capitalised sum which was appropriated from profits available for distribution may be applied in paying up new debentures of the Company which are then allotted credited as fully paid to the persons entitled or as they may direct.

(5) Subject to the articles the directors may:

(a) apply capitalised sums in accordance with paragraphs (3) and (4) above partly in one way and partly in another;

(b) make such arrangements as they think fit to deal with shares or debentures becoming distributable in fractions under this article (including the issuing of fractional certificates or the making of cash payments); and

(c) authorise any person to enter into an agreement with the Company on behalf of all the persons entitled which is binding on them in respect of the allotment of shares and debentures to them under this article.

PART 4

DECISION-MAKING BY SHAREHOLDERS ORGANISATION OF GENERAL MEETINGS

38 Attendance and speaking at general meetings

(1) A person is able to exercise the right to speak at a general meeting when that person is in a position to communicate to all those attending the meeting, during the meeting, any information or opinions which that person has on the business of the meeting.

(2) A person is able to exercise the right to vote at a general meeting when:

(a) that person is able to vote, during the meeting, on resolutions put to the vote at the meeting, and

(b) that person's vote can be taken into account in determining whether or not such resolutions are passed at the same time as the votes of all the other persons attending the meeting.

(3) The directors may make whatever arrangements they consider appropriate to enable those attending a general meeting to exercise their rights to speak or vote at it.

(4) In determining attendance at a general meeting, it is immaterial whether any two or more shareholders attending it are in the same place as each other.

(5) Two or more persons who are not in the same place as each other attend a general meeting if their circumstances are such that if they have (or were to have) rights to speak and vote at that meeting, they are (or would be) able to exercise them.

39 Quorum for general meetings

The quorum for a general meeting shall be determined according to section 318 of the 2006 Act and no business other than the appointment of the chairman of the meeting is to be transacted at a general meeting if the persons attending it do not constitute a quorum.

40 Chairing general meetings

(1) If the directors have appointed a chairman, the chairman shall chair general meetings if present and willing to do so.

(2) If the directors have not appointed a chairman, or if the chairman is unwilling to chair the meeting or is not present within ten minutes of the time at which a meeting was due to start:

(a) the directors present, or

(b) (if no directors are present), the meeting, must appoint a director or shareholder to chair the meeting, and the appointment of the chairman of the meeting must be the first business of the meeting.

(3) The person chairing a meeting in accordance with this article is referred to as "the chairman of the meeting".

41 Attendance and speaking by directors and non-shareholders

(1) Directors may attend and speak at general meetings, whether or not they are shareholders.

(2) The chairman of the meeting may permit other persons who are not:

(a) shareholders of the Company, or

(b) otherwise entitled to exercise the rights of shareholders in relation to general meetings, to attend and speak at a general meeting.

42 Adjournment

(1) If the persons attending a general meeting within half an hour of the time at which the meeting was due to start do not constitute a quorum, or if during a meeting a quorum ceases to be present, or if at any time during a quorate general meeting the meeting directs him to do so, the chairman of the meeting must adjourn it and he may adjourn a general meeting at which a quorum is present if:

(a) the meeting consents to an adjournment, or

(b) it appears to the chairman of the meeting that an adjournment is necessary to protect the safety of any person attending the meeting or ensure that the business of the meeting is conducted in an orderly manner.

(2) When adjourning a general meeting, the chairman of the meeting must:

(a) either specify the time and place to which it is adjourned or state that it is to continue at a time and place to be fixed by the directors; and

(b) have regard to any directions as to the time and place of any adjournment which have been given by the meeting.

(3) If the continuation of an adjourned meeting is to take place more than 14 days after it was adjourned, the Company must give at least 7 clear days' notice of it (that is, excluding the day of the adjourned meeting and the day on which the notice is given):

(a) to the same persons to whom notice of the Company's general meetings is required to be given, and

(b) containing the same information which such notice is required to contain.

(4) No business may be transacted at an adjourned general meeting which could not properly have been transacted at the meeting if the adjournment had not taken place and if, at an adjourned general meeting, a quorum is not present within half an hour from the time appointed for the meeting, the shareholders present shall be a quorum.

VOTING AT GENERAL MEETINGS

43 Voting: general

A resolution put to the vote of a general meeting must be decided on a show of hands unless a poll is duly demanded and acted upon in accordance with these articles and sections 321 and 322 of the 2006 Act.

44 Errors and disputes

(1) No objection may be raised to the qualification of any person voting at a general meeting except at the meeting or adjourned meeting at which the vote objected to is tendered, and every vote not disallowed at the meeting is valid.

(2) Any such objection must be referred to the chairman of the meeting, whose decision is final.

45 Poll votes

(1) A poll on a resolution may be demanded:

(a) in advance of the general meeting where it is to be put to the vote, or

(b) at a general meeting, either before a show of hands on that resolution or immediately after the result of a show of hands on that resolution is declared.

(2) A poll may be demanded by:

(a) the chairman of the meeting;

(b) the directors;

(c) two or more persons having the right to vote on the resolution; or

(d) a person or persons representing not less than one tenth of the total voting rights of all the shareholders having the right to vote on the resolution.

(3) A demand for a poll may be withdrawn if:

(a) the poll has not yet been taken, and

(b) the chairman of the meeting consents to the withdrawal.

(4) Polls must be taken immediately and in such manner as the chairman of the meeting directs.

46 Content of proxy notices

(1) Proxies may only validly be appointed by a notice in writing (a "proxy notice") which:

(a) states the name and address of the shareholder appointing the proxy;

(b) identifies the person appointed to be that shareholder's proxy and the general meeting in relation to which that person is appointed;

(c) is signed by or on behalf of the shareholder appointing the proxy, or is authenticated in such manner as the directors may determine; and

(d) is delivered to the Company in accordance with the articles and any instructions contained in the notice of the general meeting to which they relate.

(2) The Company may require proxy notices to be delivered in a particular form, and may specify different forms for different purposes.

(3) Proxy notices may specify how the proxy appointed under them is to vote (or that the proxy is to abstain from voting) on one or more resolutions.

(4) Unless a proxy notice indicates otherwise, it must be treated as:

(a) allowing the person appointed under it as a proxy discretion as to how to vote on any ancillary or procedural resolutions put to the meeting; and

(b) appointing that person as a proxy in relation to any adjournment of the general meeting to which it relates as well as the meeting itself.

47 Delivery of proxy notices

(1) A person who is entitled to attend, speak or vote (either on a show of hands or on a poll) at a general meeting remains so entitled in respect of that meeting or any adjournment of it, even though a valid proxy notice has been delivered to the Company by or on behalf of that person.

(2) An appointment under a proxy notice may be revoked by delivering to the Company a notice in writing given by or on behalf of the person by whom or on whose behalf the proxy notice was given.

(3) A notice revoking a proxy appointment only takes effect if it is delivered before the start of the meeting or adjourned meeting to which it relates.

(4) If a proxy notice is not executed by the person appointing the proxy, it must be accompanied by written evidence of the authority of the person who executed it to execute it on the appointor's behalf.

48 Amendments to resolutions

(1) An ordinary resolution to be proposed at a general meeting may be amended by ordinary resolution if:

(a) notice of the proposed amendment is given to the Company in writing by a person entitled to vote at the general meeting at which it is to be proposed not less than 48 hours before the meeting is to take place (or such later time as the chairman of the meeting may determine), and

(b) the proposed amendment does not, in the reasonable opinion of the chairman of the meeting, materially alter the scope of the resolution.

(2) A special resolution to be proposed at a general meeting may be amended by ordinary resolution, if:

(a) the chairman of the meeting proposes the amendment at the general meeting at which the resolution is to be proposed; and

(b) the amendment does not go beyond what is necessary to correct a grammatical or other non-substantive error in the resolution.

(3) If the chairman of the meeting, acting in good faith, wrongly decides that an amendment to a resolution is out of order, the chairman's error does not invalidate the vote on that resolution.

PART 5 ADMINISTRATIVE ARRANGEMENTS

49 Means of communication to be used

(1) Anything sent or supplied by or to the Company under the articles may be sent or supplied in any way in which the 2006 Act provides for documents or information which are authorised or required by any provision of that Act to be sent or supplied by or to the Company.

(2) Every notice convening a general meeting shall comply with the provisions of section 307 and 325 of the 2006 Act as to the length of notice required for the

meeting and the giving of information to shareholders in regard to their right to appoint proxies; and notices of and other communications relating to any general meeting which any shareholder is entitled to receive shall be sent to the directors and to the auditor for the time being of the Company.

(3) Any notice or document to be sent or supplied to a director in connection with the taking of decisions by directors may also be sent or supplied by the means by which that director has asked to be sent or supplied with such notices or documents for the time being.

(4) A director may agree with the Company that notices or documents sent to that director in a particular way are to be deemed to have been received within a specified time of their being sent, and for the specified time to be less than 48 hours.

50 Company seals

(1) Any common seal may only be used by the authority of the directors.

(2) The directors may decide by what means and in what form any common seal is to be used.

(3) Unless otherwise decided by the directors, if the Company has a common seal and it is affixed to a document, the document must also be signed by at least one authorised person in the presence of a witness who attests the signature.

(4) For the purposes of this article, an authorised person is:

(a) any director of the Company;

(b) the Company secretary (if any); or

(c) any person authorised by the directors for the purpose of signing documents to which the common seal is applied.

51 No right to inspect accounts and other records

Except as provided by law or authorised by the directors or an ordinary resolution of the Company, no person is entitled to inspect any of the Company's accounting or other records or documents merely by virtue of being a shareholder.

52 Provision for employees on cessation of business

The directors may decide to make provision for the benefit of persons employed or formerly employed by the Company or any of its subsidiaries (other than a director or former director or shadow director) in connection with the cessation or transfer to any person of the whole or part of the undertaking of the Company or that subsidiary.

DIRECTORS' INDEMNITY AND INSURANCE

53 Indemnity

(1) Subject to paragraph (2), a relevant director of the Company or an associated company may be indemnified out of the Company's assets against:

(a) any liability incurred by that director in connection with any negligence, default, breach of duty or breach of trust in relation to the Company or an associated company;

(b) any liability incurred by that director in connection with the activities of the Company or an associated company in its capacity as a trustee of an occupational pension scheme (as defined in section 235(6) of the 2006 Act);

(c) any other liability incurred by that director as an officer of the Company or an associated company.

(2) This article does not authorise any indemnity which would be prohibited or rendered void by any provision of the Companies Acts or by any other provision of law.

(3) In this article:

(a) companies are associated if one is a subsidiary of the other or both are subsidiaries of the same body corporate; and

(b) a "relevant director" means any director or former director of the Company or an associated company.

54 Insurance

(1) The directors may decide to purchase and maintain insurance, at the expense of the Company, for the benefit of any relevant director in respect of any relevant loss.

(2) In this article:

(a) a "relevant director" means any director or former director of the Company or an associated company;

(b) a "relevant loss" means any loss or liability which has been or may be incurred by a relevant director in connection with that director's duties or powers in relation to the Company, any associated company or any pension fund or employees' share scheme of the Company or associated company; and

(c) companies are associated if one is a subsidiary of the other or both are subsidiaries of the same body corporate.

The Legal Unit Report

The registered Group of companies

Eulida National Brazil LTD

Euida National Brazil LTD is an active private limited company, incorporated on 31 March 2021. The nature of the business includes Development of building projects and two other classifications. The company's registered office is on Covent Garden, London. The company's next accounts are due on 31 December 2022, and fall under the accounts category: No Accounts Filed. Euida National Brazil LTD has no previous names. The company has no mortgage charges, outstanding or otherwise.

Company Information

Company Number	**13305491**
Company Category	**Private Limited Company**
Company Status	**Active**
Incorporation Date	**31/03/2021**
Country of Origin	**United Kingdom**

Registered Office

Address Line 1	**71-75 SHELTON STREET**
Address Line 2	**COVENT GARDEN**
Post Town	**LONDON**

Country	**UNITED KINGDOM**
Postcode	**WC2H 9JQ**

Accounts

Accounting Reference Date	**31st March**
Accounts Next Due Date	**31/12/2022**
Accounts Category	**NO ACCOUNTS FILED**

Confirmation Statement

Next Due Date	**13/04/2022**
Last Made Up Date	**Not available**

Return

Next Due Date	**28/04/2022**
Last Made Up Date	**Not available**

Mortgages

Number of Mortgage Charges	**0**
Number of Outstanding Charges	**0**
Number of Satisfied Charges	**0**

Number of Partially Satisfied Charges 0

Nature of Business (SIC Codes)

41100 - Development of building projects

41201 - Construction of commercial buildings

41202 - Construction of domestic buildings

Company Name History

From incorporation onwards:

Euida National Brazil Ltd

Directors

(The company's officers)

MR ELZEIN ELZEIN

(~43 year old British national)

71-75 SHELTON STREET, COVENT GARDEN, LONDON, WC2H 9JQ, UNITED KINGDOM

- **Current Director**
- **Gives occupation as DIRECTOR**

- **Usually resident in UNITED KINGDOM**

Appointed on 31/03/2021

Shareholders

(Persons of Significant Control)

Mr Elzein Elzein

(~43 year old British national)

71-75, Shelton Street, Covent Garden, London, WC2H 9JQ, United Kingdom

- **Owns between 75% and 100% of the shares.**
- **Holds between 75% and 100% of the voting rights.**
- **Has the right to appoint and remove directors.**

Notified on 31/03/2021

West Sussex Materials and Technology Limited

West Sussex Materials and Technology Limited is an active private limited company, incorporated on 1 November 2021. The nature of the business includes Development of :

- Manufacture of machinery for food, beverage and tobacco processing

- Manufacture of machinery for textile, apparel and leather production

- Manufacture of other special-purpose machinery not elsewhere classified

- Manufacture of motor vehicles. The company's registered office is on Covent Garden, London. The company's next accounts are due on 1 November 2022, and fall under the accounts category: No Accounts Filed. West Sussex Materials and Technology Limited has no previous names. The company has no mortgage charges, outstanding or otherwise.

Company Information

Company Number	**13713931**
Company Category	**Private Limited Company**
Company Status	**Active**
Incorporation Date	**01/11/2021**
Country of Origin	**United Kingdom**

Registered Office

Address Line 1	**71-75 SHELTON STREET**
Address Line 2	**COVENT GARDEN**
Post Town	**LONDON**
Country	**UNITED KINGDOM**
Postcode	**WC2H 9JQ**

Accounts

Accounting Reference Date	**1st November**
Accounts Next Due Date	**01/11/2022**
Accounts Category	**NO ACCOUNTS FILED**

Confirmation Statement

Next Due Date	**01/12/2022**
Last Made Up Date	**Not available**

Return

Next Due Date	**28/12/2022**
Last Made Up Date	**Not available**

Mortgages

Number of Mortgage Charges	**0**
Number of Outstanding Charges	**0**
Number of Satisfied Charges	**0**
Number of Partially Satisfied Charges	**0**

Nature of Business (SIC Codes)

28930 - Manufacture of machinery for food, beverage and tobacco processing

28940 - Manufacture of machinery for textile, apparel and leather production

28990 - Manufacture of other special-purpose machinery not elsewhere classified

29100 - Manufacture of motor vehicles

Company Name History

From incorporation onwards:

West Sussex Materials and Technology Limited

Directors

(The company's officers)

MR ELZEIN ELZEIN

(~43 year old British national)

71-75 SHELTON STREET, COVENT GARDEN, LONDON, WC2H 9JQ, UNITED KINGDOM

- **Current Director**
- **Gives occupation as DIRECTOR**
- **Usually resident in UNITED KINGDOM**

Appointed on 01/11/2021

Shareholders

(Persons of Significant Control)

Mr Elzein Elzein

(~43 year old British national)

71-75, Shelton Street, Covent Garden, London, WC2H 9JQ, United Kingdom

- **Owns between 75% and 100% of the shares.**
- **Holds between 75% and 100% of the voting rights.**
- **Has the right to appoint and remove directors.**

Notified on 01/11/2021

West Sussex Manufacturing and Construction Ltd

West Sussex Manufacturing and Construction LTD is an active private limited company, incorporated on 31 March 2021. The nature of the business includes Development of

- Construction of roads and motorways

- Construction of bridges and tunnels

- Construction of water projects

- Construction of other civil engineering projects not elsewhere classified. The company's registered office is on Covent Garden, London. The company's next accounts are due on 01 November 2022, and fall under the accounts

category: No Accounts Filed. West Sussex Manufacturing and Construction LTD has no previous names. The company has no mortgage charges, outstanding or otherwise.

Company Information

Company Number	**13716541**
Company Category	**Private Limited Company**
Company Status	**Active**
Incorporation Date	**01/11/2021**
Country of Origin	**United Kingdom**

Registered Office

Address Line 1	**71-75 SHELTON STREET**
Address Line 2	**COVENT GARDEN**
Post Town	**LONDON**
Country	**UNITED KINGDOM**
Postcode	**WC2H 9JQ**

Accounts

Accounting Reference Date	**01st November**

Accounts Next Due Date	**01/12/2022**
Accounts Category	**NO ACCOUNTS FILED**

Confirmation Statement

Next Due Date	**13/12/2022**
Last Made Up Date	**Not available**

Return

Next Due Date	**28/11/2022**
Last Made Up Date	**Not available**

Mortgages

Number of Mortgage Charges	**0**
Number of Outstanding Charges	**0**
Number of Satisfied Charges	**0**
Number of Partially Satisfied Charges	**0**

Nature of Business (SIC Codes)

42110 - Construction of roads and motorways

42130 - Construction of bridges and tunnels

42910 - Construction of water projects

42990 - Construction of other civil engineering projects not elsewhere classified

Company Name History

From incorporation onwards:

West Sussex Manufacturing and Construction LTD

Directors

(The company's officers)

MR ELZEIN ELZEIN

(~43 year old British national)

71-75 SHELTON STREET, COVENT GARDEN, LONDON, WC2H 9JQ, UNITED KINGDOM

- **Current Director**
- **Gives occupation as DIRECTOR**
- **Usually resident in UNITED KINGDOM**

Appointed on 01/11/2021

Shareholders

(Persons of Significant Control)

Mr Elzein Elzein

(~43 year old British national)

71-75, Shelton Street, Covent Garden, London, WC2H 9JQ, United Kingdom

- **Owns between 75% and 100% of the shares.**
- **Holds between 75% and 100% of the voting rights.**
- **Has the right to appoint and remove directors.**

Notified on 01/11/2021

West Sussex Real Estate LTD

West Sussex Real Estate LTD is an active private limited company, incorporated on 03 November 2021. The nature of the business includes Development of

- Other letting and operating of own or leased real estate

- Real estate agencies

- Management of real estate on a fee or contract basis. The company's registered office is on Covent Garden, London. The company's next accounts are due on 03 November 2022, and fall under the accounts category: No Accounts Filed. West Sussex Real Estate LTD has no previous names. The company has no mortgage charges, outstanding or otherwise.

Company Information

Company Number	**13721643**
Company Category	**Private Limited Company**
Company Status	**Active**
Incorporation Date	**03/11/2021**
Country of Origin	**United Kingdom**

Registered Office

Address Line 1	**71-75 SHELTON STREET**
Address Line 2	**COVENT GARDEN**
Post Town	**LONDON**
Country	**UNITED KINGDOM**
Postcode	**WC2H 9JQ**

Accounts

Accounting Reference Date	**31st March**
Accounts Next Due Date	**03/11/2022**
Accounts Category	**NO ACCOUNTS FILED**

Confirmation Statement

Next Due Date	**13/12/2022**
Last Made Up Date	**Not available**

Return

Next Due Date	**28/12/2022**
Last Made Up Date	**Not available**

Mortgages

Number of Mortgage Charges	**0**
Number of Outstanding Charges	**0**
Number of Satisfied Charges	**0**
Number of Partially Satisfied Charges	**0**

Nature of Business (SIC Codes)

68209 - Other letting and operating of own or leased real estate

68310 - Real estate agencies

68320 - Management of real estate on a fee or contract basis

Company Name History

From incorporation onwards:

West Sussex Real Estate LTD

Directors

(The company's officers)

MR ELZEIN ELZEIN

(~43 year old British national)

71-75 SHELTON STREET, COVENT GARDEN, LONDON, WC2H 9JQ, UNITED KINGDOM

- **Current Director**
- **Gives occupation as DIRECTOR**
- **Usually resident in UNITED KINGDOM**

Appointed on 31/03/2021

Shareholders

(Persons of Significant Control)

Mr Elzein Elzein

(~43 year old British national)

71-75, Shelton Street, Covent Garden, London, WC2H 9JQ, United Kingdom

- **Owns between 75% and 100% of the shares.**
- **Holds between 75% and 100% of the voting rights.**
- **Has the right to appoint and remove directors.**

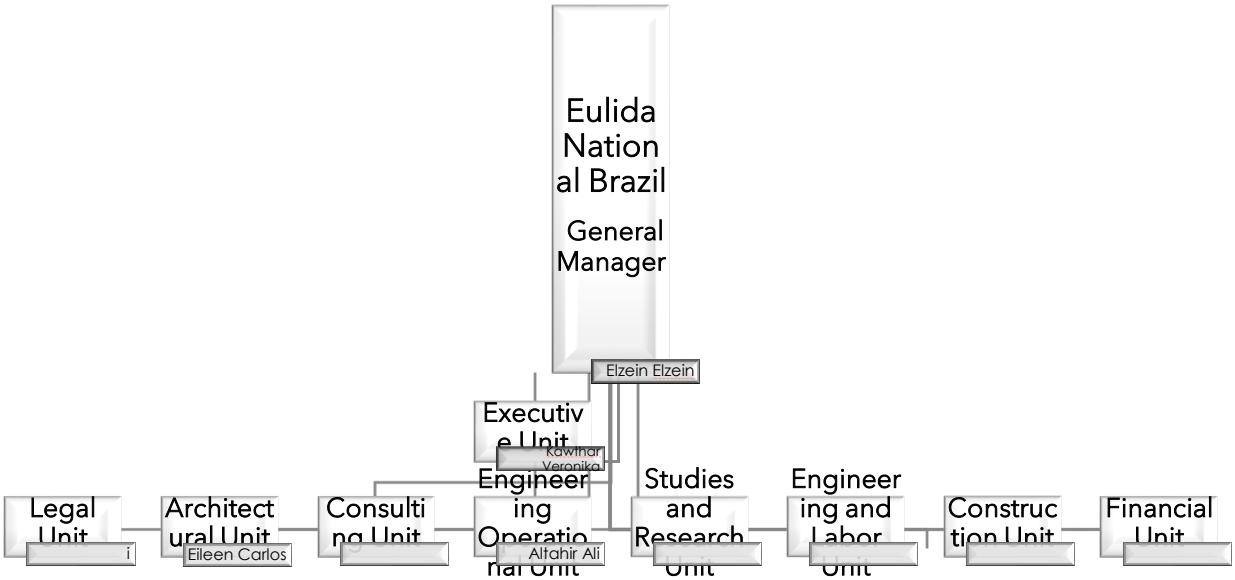
Notified on 31/03/2021

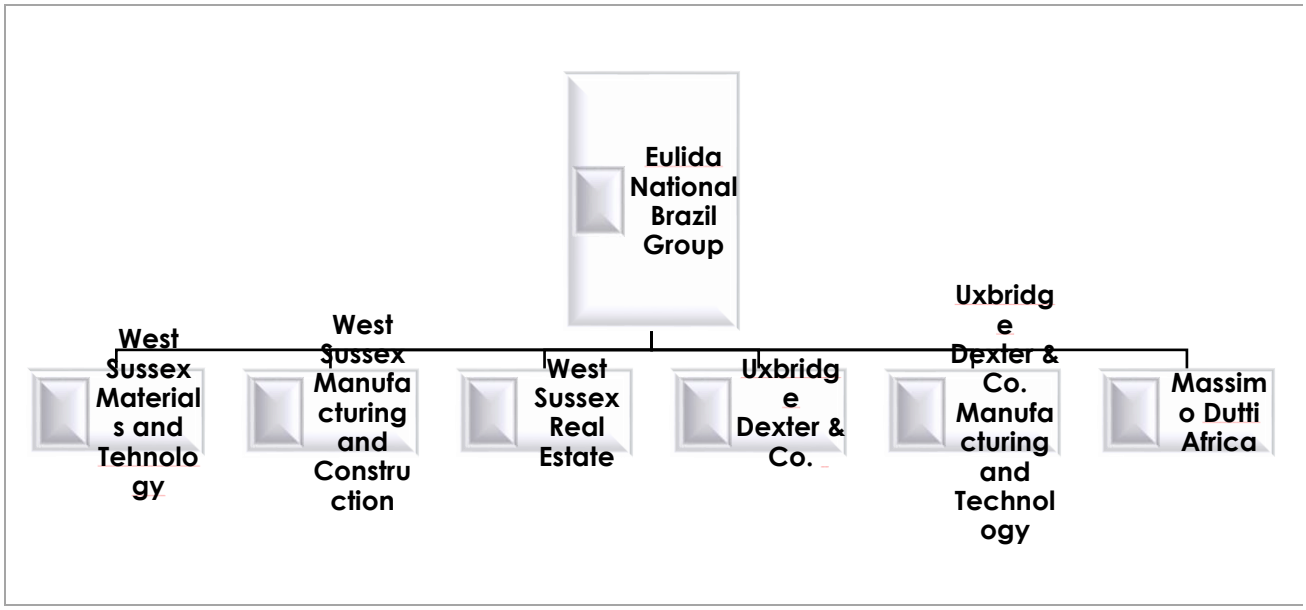
The Executive Unit Report

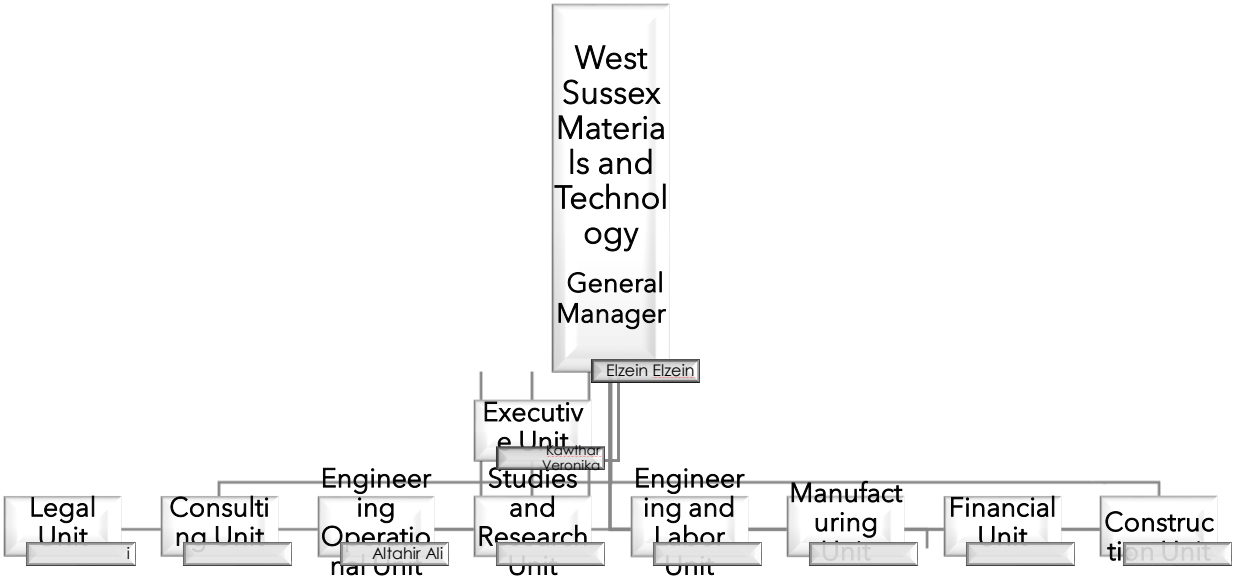
Organizational Chart

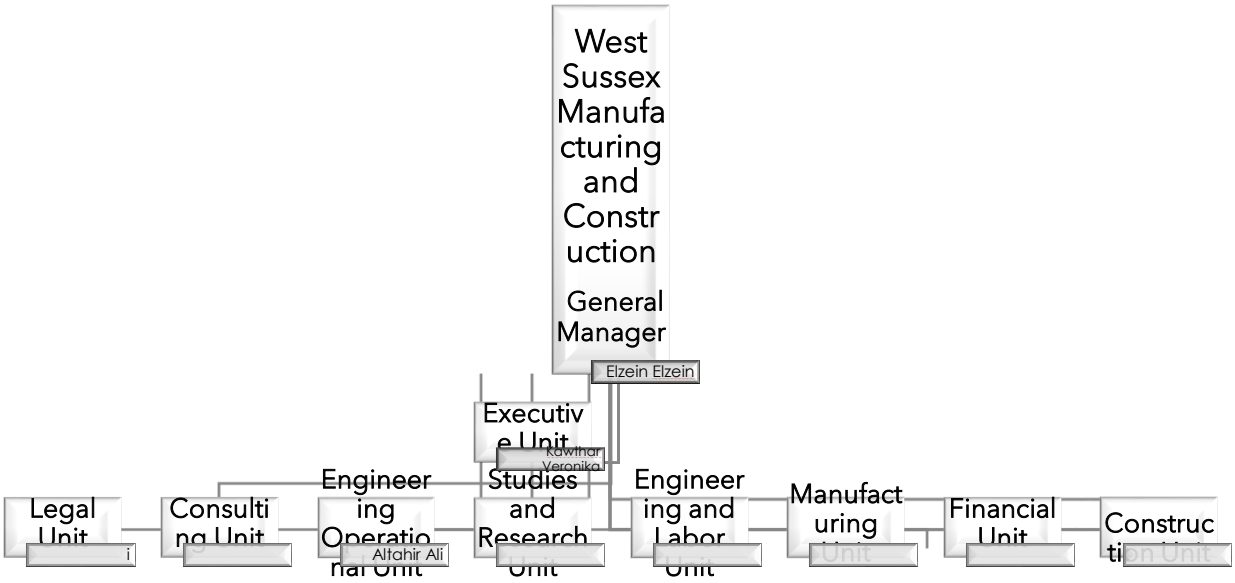
Eulida National Brazil Ltd Management Structure

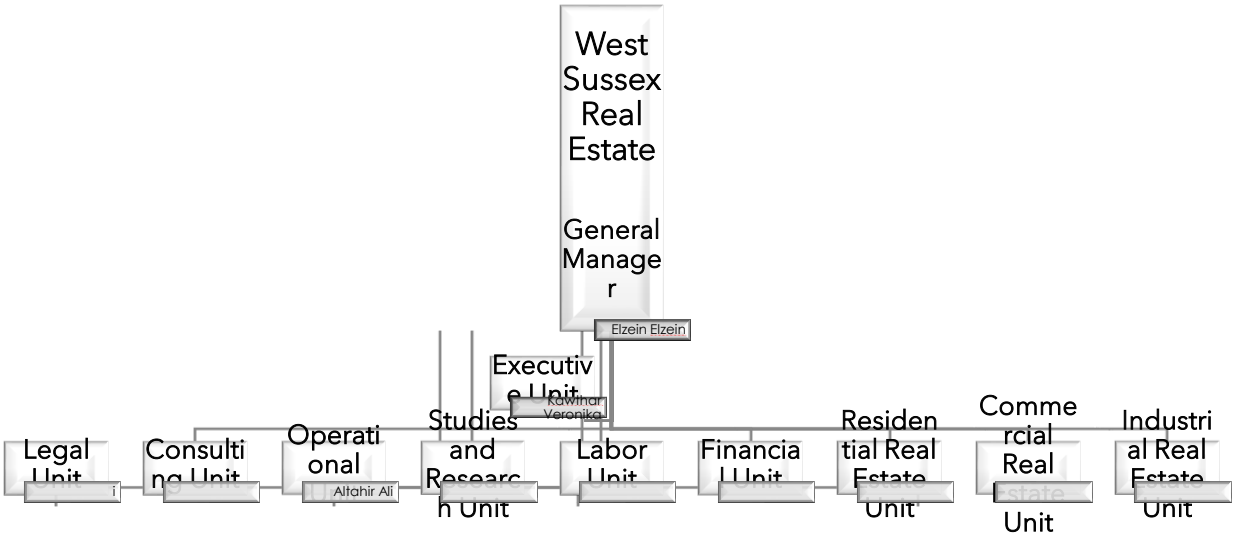
Eulida National Brazil Group Structure

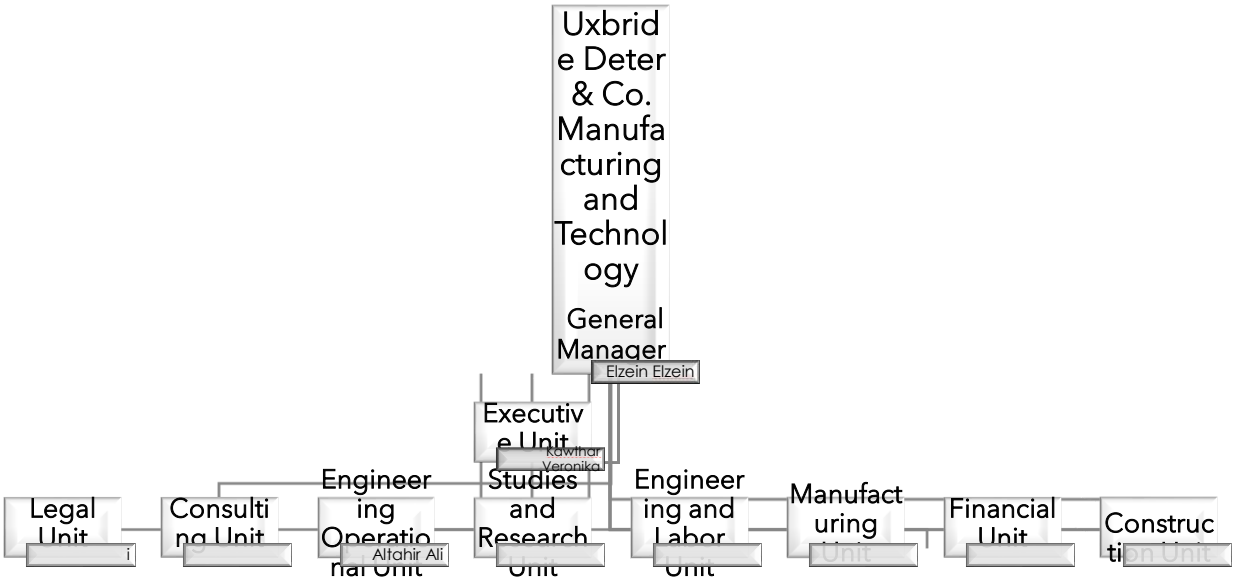

Eulida National Brazil
General Manager
Elzein Elzein
Executive Unit
Kawthar
Veronika
Legal Unit
i
Architectural Unit
Eileen Carlos
Consulting Unit
Engineering Operational Unit
Altahir Ali
Studies and Research Unit
Engineering and Labor Unit
Construction Unit
Financial Unit

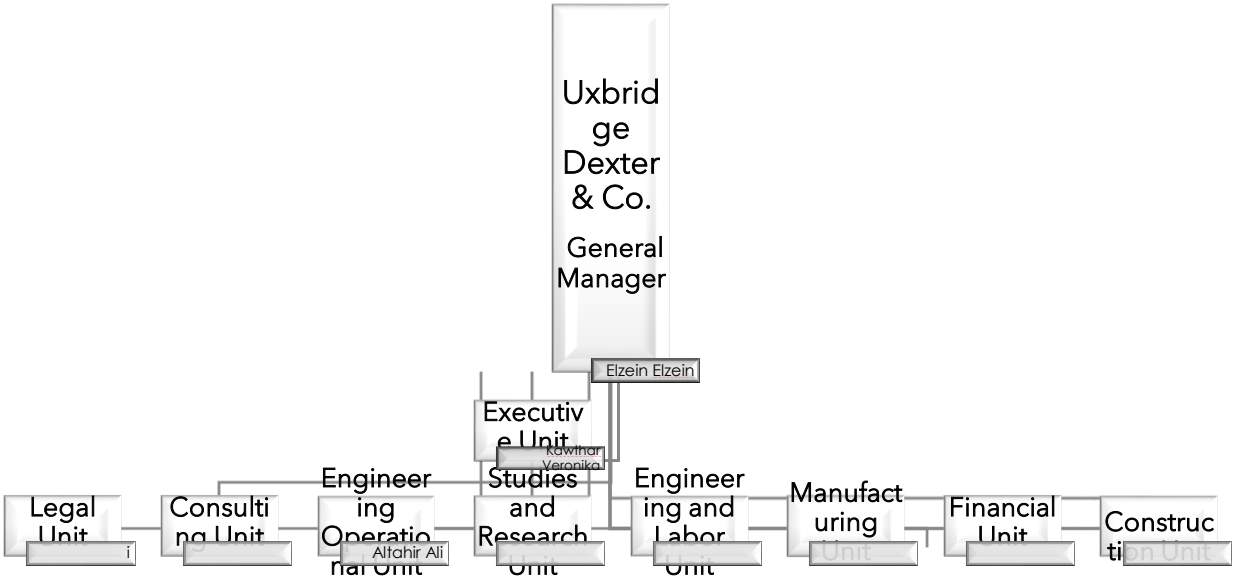

Eulida National Brazil Group
West Sussex Materials and Tehnology
West Sussex Manufacturing and Construction
West Sussex Real Estate
Uxbridge Dexter & Co.
Uxbridge Dexter & Co. Manufacturing and Technology
Massimo Dutti Africa

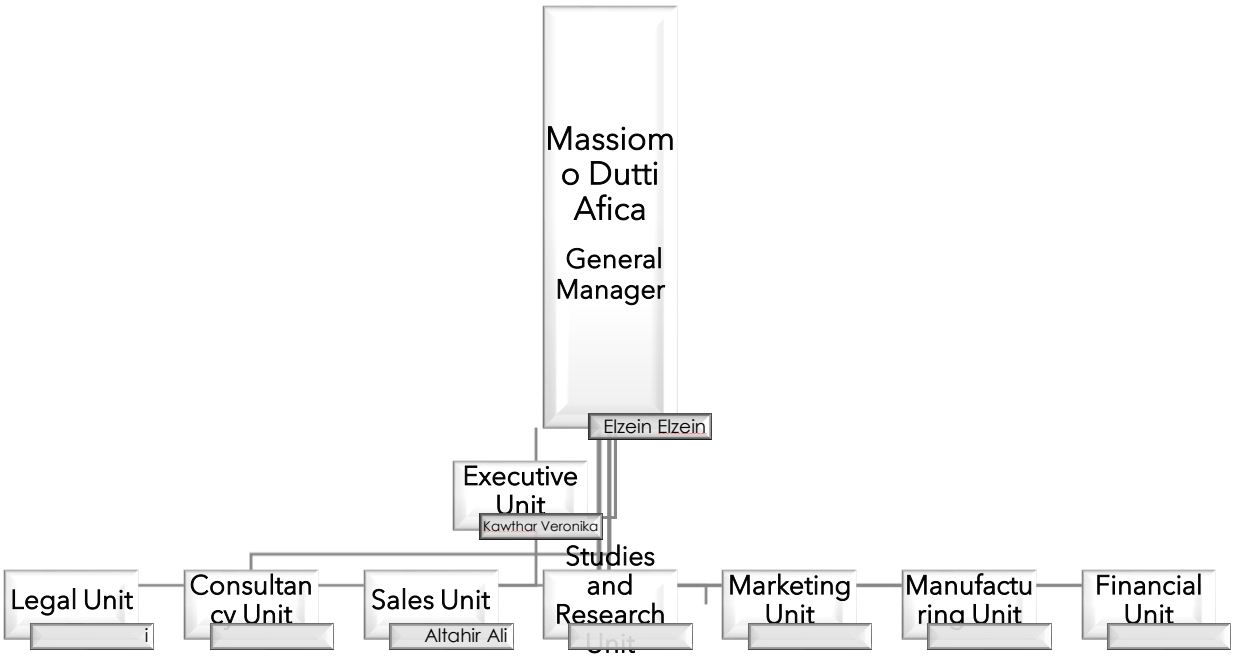

West Sussex Materials and Technology
General Manager
Elzein Elzein
Executive Unit
Kavithar Veronika
Legal Unit
Consulting Unit
Engineering Operational Unit
Altahir Ali
Studies and Research Unit
Engineering and Labor Unit
Manufacturing Unit
Financial Unit
Construction Unit


West Sussex Manufacturing and Construction
General Manager
Elzein Elzein
Executive Unit
Kawthar Veronika
Legal Unit
Consulting Unit
Engineering Operational Unit
Altahir Ali
Studies and Research Unit
Engineering and Labor Unit
Manufacturing Unit
Financial Unit
Construction Unit


West Sussex Real Estate
General Manager
Elzein Elzein
Executive Unit
Kawinar Veronika
Legal Unit
Consulting Unit
Operational Unit
Altahir Ali
Studies and Research Unit
Labor Unit
Financial Unit
Residential Real Estate Unit
Commercial Real Estate Unit
Industrial Real Estate Unit


Uxbridge Deter & Co. Manufacturing and Technology
General Manager
Elzein Elzein
Executive Unit
Kawthar Veronika
Legal Unit
Consulting Unit
Engineering Operational Unit
Altahir Ali
Studies and Research Unit
Engineering and Labor Unit
Manufacturing Unit
Financial Unit
Construction Unit


Uxbridge Dexter & Co.
General Manager
Elzein Elzein
Executive Unit
Rawthar Veronika
Legal Unit
i
Consulting Unit
Engineering Operational Unit
Altahir Ali
Studies and Research Unit
Engineering and Labor Unit
Manufacturing Unit
Financial Unit
Construction Unit



Company Profile/Objectives:

Eulida National Brazil Ltd is a company that is managed from England and aims for reconstruction in several English cities, both with alternative cities of the European Union. The company is mainly concerned with the reconstruction of residential and commercial buildings in England, Wales, Scotland and Northern Ireland, such as

large houses and buildings with areas of 1000 square meters, 800 square meters and 4000 square meters to 8000 square meters. The company offers several plots for sale with areas of 1000 square meters, 2000 square meters, 3000 square meters and 5000 square meters in many cities, including London, Liverpool, Warding, East Sussex, West Sussex, Ashford, Hasting and St. Leonard's on the Sea.

The company is implementing projects in London and several major cities, including Birmingham, Exeter and Glasgow, to build buildings for middle-income people on different areas between 125 square meters and 250 square meters, in large buildings of 16 floors. The company manages these buildings for the company's account

The company offers several floor plans that feature 2-8 Room villas and houses 2-6 bedrooms flats, 1-3 bathrooms 1-3 Kitchens and extra features such as a study, retreat room, library, utility room, family room, great room, porch, basement, den, breakfast nook, dining room, living room, sunroom, morning room, sitting room and park trailer. The company also offers luxury features and custom designed kitchens. The company works on Flooring and Carpets. The company offers Interior and Exterior Design for villas, flats and houses.

The company is also striving for all kinds of civil engineering projects, including water projects in Europe and the United Kingdom, and road and bridge construction projects in the United Kingdom in particular and the world. The company is striving hard to own the necessary machines and machines such as trucks, loaders, dumpers, excavators, cranes, and nearly 50 machines suitable for lands construction will be provided in the near future starting from next year.

The company has an annual budget of approximately 500 million pounds for building and construction works and the manufacture of materials and products, and the company's projects have an annual project budget equivalent to 50

million pounds. The company and its affiliates have assets of 1200 million pounds. The company also intends to build a main building for the company's management in the city of London in the district of Islington. The company's extensions also work in the following areas:

- **Uxbridge Dexter & Co. Manufacturing and Technology Company, specializing in the , Cement, Construction Machinery, Interior and Exterior Design Products, Farming Products and Flooring Products industry;**
- **Massimo Dutti Africa works in the textile and clothing industry;**
- **West Sussex Manufacturing and Construction works in Infrastructure projects and civil engineering projects such as water projects, tunnels, bridges, roads and factory construction;**
- **West Sussex Company for manufacturing, materials and technologies, specializing in the manufacture of industrial machines and building and construction machines, the manufacturing machinery and robots, the manufacture of vehicles, and the manufacturing of food and pharmaceutical factories;**
- **Uxbridge Dexter & Co. Company for Aerospace manufacturing, Energy and Chemicals manufacturing and Electrical Transmission and Distribution.**
- **West Sussex Real Estate Ltd Agent: The company works in managing assets estimated at 400 million pounds in London, Glasgow, Edinburgh, Liverpoolshire, Hertfordshire, Derbyshire, Birminghamshire, Leicestershire, Exetershire, Berkshire and Buckinghamshire.**

In addition to manufactured housing, subsidiary manufactures a full line of recreational machinery and vehicles for special purposes, offering 50 brands and more than 100 models. Brands include the Constrution brands, luxury brands, and furniture manufacturer partnership. Employees of the company receive medical

and dental coverage; an on-site country club with a swimming pool and golf course; life insurance; cancer insurance; wellness benefits; and prescription plan.

Future of The Company and Subsidiaries

Eulida National Brazil Ltd provides engineering, architectural, construction, environmental and consulting services across UK, Europe and worldwide. The company and subsidiaries divide its businesses into global practice units and more than 50 divisions. The Engineering and Facilities unit designs and constructs airport terminals; military facilities; aerospace manufacturing facilities; runways and airfield infrastructure; and aviation support facilities. The Business and Technology Services unit provides business consulting services such as project development, analysis and energy services; and information technology services.

The Construction/Design-Build units provides postconstruction services to companies in the power, process, aviation, infrastructure and commercial industries. The Energy unit is focused on sustainability in construction and renovation, with projects ranging from the construction of baseload coal-fired power generation plants and high-voltage transmission networks to comprehensive energy system overhauls. The Environmental unit's services include hazardous waste remediation, solid waste management and emergency response.

The Studies and Research Facilities units constructs hospitals, laboratories and research facilities, and offers additional planning, management and landscape architecture services. The infrastructure unit is working on water and transportation projects, providing collection system construction, wastewater services and watershed management. The Process and Industrial unit designs manufacturing

plants, refineries, warehouses and assembly facilities. The Transmission and Distribution unit includes the construction of transportation infrastructure and electrical energy transmission services. Employees of the firm are offered health and life insurance; short and long-term disability support; flexible spending accounts; personal time off; thirty-five paid holidays; educational seminars; fitness center; and tuition assistance.

Mission of the Group of Companies:

Eulida National Brazil Group have several banks in partnership and among subsidiaries. These banks are mentioned in the document of establishment as follows:

- **Clear Bank Ltd**
- **Vanquis Bank Ltd**
- **ANNA Bank Ltd**
- **Monzo Bank Ltd**
- **Union Bank UK plc**
- **Commerzbank AG**
- **Nationwide Building Society**
- **Northern Bank Ltd**

Eulida National Brazil Group specializes in investment in partnership with companies and the efficient partnership groups of industries. With over 70 billion pounds in assets under management, the firm works primarily in specialty markets where access to key information is limited to industry specialists. Eulida National

Brazil Group uses its knowledge in these high-risk markets, based on company specific research, to make respectable gains. The group plans to have offices in major cities in UK, Europe, Africa, Asia, Latin America, North America and South America in more than 40 Countries. North America houses 20% of its clients; Europe, 20%; Asia, 20%; Africa 20% and South America 20%. The firm invests in 80 total major areas and yield debt investments where it has 12.1 billion in assets under management; and European bonds over 1.8 billion; with finance over 1.4 billion; senior bank loans over 4 billion; and high yield plus over 200 million. Its convertibles investments include Uk and US. Convertibles over 3.0 billion; international convertibles, 60 billion; and high-income convertibles over 3.5 billion. Its distressed debt investments include simple distressed opportunities; 15 billion; and value opportunities over 200 billion.

Eulida National Brazil Group private equity investments include principal opportunities (control investments), 6 billion; European principal opportunities,
4 billion; Asia principal opportunities, 6 billion; and power opportunities, 3 billion. The firm has real estate investments of 1.0 billion and Asian real estate interests of 9 billion. The company invests 70 billion in listed equities in emerging markets.
Clients of Eulida National Brazil Group, representing 32% of assets under management; public funds, 35%; endowments and foundations, 9%; insurance companies, 7%; private clients, 7%; mutual funds, 3%; Tax accounts, 1%;
and other customers, 6%. Subsidiary Investments offers the firm's securities; and Energy Ventures and power opportunities investment strategy.

The Group of Companies and Strategies

The firm invests in large-cap companies with funding from Eulida National Brazil Group, a 5 billion fund, and Eulida National Brazil Group Partners, a 50 billion fund. The Group invests in the mid-cap market through many companies and an acquisition partnership that plans to invest in commercial and industrial sectors. The company operates through a number of autonomous subsidiaries, including electronics manufacturing services from 800 facilities worldwide; Aerospace manufacturing, Cars and Vehicles manufacturing, Medical Drugs manufacturer, Construction Material manufacturing, Food Manufacturing and other subsidiaries work in construction, Modelling and implementing projects in Industrial and Commercial Real Estate. Other subsidiaries are working in Residential Real Estate in both, private and public sectors. The subsidiaries have their work in metals manufacturing, chemical manufacturing, oil manufacturing from over than 700 industrial sites worldwide.

Companies' names in London, UK

West Sussex Engineering and Technology

West Sussex Materials and Technology

West Sussex Manufacturing and Construction

West Sussex Properties and Real Estate

Owner and Major Director

Elzein Salah Elzein

Other Directors

Nevrly Tahir Veronika

Eleen Carlos Emilia

Establishment Document

Letter Body:

Dear Sir/Madam,

Hello,

Issue 1

The Legal advisor For MC Douglas Company and Subsidiaries Companies Decided to negotiate with You This Day Certain Issues Regards the Delay of Issuing The budget To MC Douglas Company and Subsidiaries.

Firstly, The Employees of MC Douglas Company and Subsidiaries Companies did not Have Wages for More Than Six Months.

Secondly, according to ISO Regulations, MC Douglas Company and Subsidiaries Companies has expecting could not Reduce the Quota Budget Less Than the Determined Required Amount Which Was Decided by The Specialists in The Company with The Amount 525000 euros Per Annum.

We at The Company informing You That We are waiting for the approval of MC Douglas Company and Subsidiaries Companies from Chamber of Commerce for More Than Two Years Now, and to be sent The Registration Number in England and Wales.

Issue 2

MC Douglas Company and Subsidiaries Companies has previously established itself in several countries, including the Kingdom of Saudi Arabia and Brazil.

The Group of Companies MC Douglas Company and Subsidiaries Companies was established from several Departments and Divisions/Segmentations as follows:

Departments of MC Douglas Company and Subsidiaries Companies:

the legal administration Unit.
Engineering Management Unit.

Finance Department Unit.

Scientific Research Department Unit.

Accounting and Auditing Unit.

The executive engineering unit.

Studies and Research Unit.

MC Douglas Company and Subsidiaries Companies Contractor Departments Duties and Responsibilities:

The company was established from several departments as follows:

the legal administration.

The Legal Advice is Responsible of Issuing The stamped Legal Documents for MC Douglas Company and Subsidiaries Companies Contractor.

Engineering Management.

The Engineering Management Department is Responsible To Determine The Major Civil Structure and Engineering Architecture in MC Douglas Company and Subsidiaries Companies Contractor.

Finance Department.

The Finance Department is Responsible for Accounting and Auditing Documents of

MC Douglas Company and Subsidiaries Companies Contractor.

Scientific Research Department.

The Scientific Research Department is Responsible for Preparing and Publishing Major Studies and Research Reports in MC Douglas Company and Subsidiaries Companies Contractor.

The executive engineering unit.

The executive engineering unit is Responsible for Implementing and Organizing of Engineering Architecture Drawing on the Land or in Sites with Civil Engineering Methods and According To Civil Engineering Major Raised Issues.

End of Document

Applicant

Elzein Salah Elzein

A Document was found by the Engineering Management Department:

Past Projects Sites Mappings in MC Douglas Company and Subsidiaries Companies from Civil Structure Prospects in Brasilia City in The Country Brazil from (2010 – 2013) as follows:

An Estimation was found by Finance Department in London Construction and Manufacturing:

The Finance Department did determine the necessity for 150 Workers at wages of 20000 Euros per annum for each worker according to the regulations of Labor and Workers.

The Total Budget for workers will be estimated around 150000 Euros in Total.

The Manager, will be held a wage of 30000 Euros.

The Finance Expert, will hold a wage of 20000 Euros.

The Research Engineer, will hold a wage of 25000 Euros.

All Estimated positions will be around 225000 Euros in Total.

The finance Department did determine that there is a need for the following items:

2 Soil dumpers = Price in Euros rent price determined according to Brochure

9 Hinos to carry soil = Price in Euros rent price determined according to Brochure

7 Cranes = Price in Euros rent price determined according to Brochure

20 Cement mixers = Price in Euros rent price determined according to Brochure

Equipments' Price in Total = Price in Euros rent price determined according to Brochure

Section 3.3.

The finance Department did decide the whole Budget for Price in Euros rent price determined according to Brochure as follows

Workers = Price in Euros rent price determined according to Brochure

Equipment's = Price in Euros rent price determined according to Brochure

Total Budget in Price in Euros rent price determined according to Brochure according to Specialists in the Company will be around 1525000 Euros in Total.

A Document found by Scientific Research Department in London Construction and Manufacturing

ISO Document:

ISO 11618:2015

Buildings and Civil Engineering Works

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying

any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 59, Buildings and civil engineering works, Subcommittee SC 8, Sealants.

1 Scope

This International Standard applies to sealants used for pedestrian walkways, public areas, movement joints between concrete slabs, areas with pedestrian load, areas which are used with trolleys, parking garages, walkable floors, balconies, terraces, and warehouses.

This International Standard specifies the types and classes of elastic sealants used in building construction pedestrian walkways according to their performance characteristics. Sealant may be either non-sag or self-leveling as declared by the manufacturer. Areas of application are floor joints which have been designed.

Chemical containment, cold applied joint sealants for concrete pavements to be used in roads, airfields, and sewage treatment plants are excluded.

Local regulations may be required in addition to this International Standard based on local laws and codes.

2 Normative reference

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

- ISO 6927, Buildings and civil engineering works — Sealants — Vocabulary
- ISO 7389, Building construction — Jointing products — Determination of elastic recovery of sealants
- ISO 8339, Building construction — Sealants — Determination of tensile properties (Extension to break)
- ISO 8340, Building construction — Sealants — Determination of tensile properties at maintained extension
- ISO 9047, Building construction — Jointing products — Determination of adhesion/cohesion properties of sealants at variable temperatures
- ISO 10563, Building construction — Sealants — Determination of change in mass and volume
- ISO 10590, Building construction — Sealants — Determination of tensile properties of sealants at maintained extension after immersion in water
- ISO 13640, Building construction — Jointing products — Specifications for test substrates
- ISO 19861, Buildings and civil engineering works — Sealants — Determination of Curing rate behavior
- ISO 19862, Buildings and civil engineering works — Sealants — Durability to extension compression cycling under accelerated weathering
- ISO 19863, Buildings and civil engineering works — Sealants — Determination of tear resistance

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6927 apply.

Only informative sections of standards are publicly available. To view the full content, you will need to purchase the standard by clicking on the "Buy" button.

Bibliography

[1] ISO 7390, Building construction — Jointing products — Determination of resistance to flow of sealants

[2] ISO 11600, Building construction — Jointing products — Classification and requirements for sealants

[3] ISO 16938-1, Building construction — Determination of the staining of porous substrates by sealants used in joints — Part 1: Test with compression

[4] ISO 16938-2, Building construction — Determination of the staining of porous substrates by sealants used in joints — Part 2: Test without compression

ISO/TC 59

Buildings and civil engineering works

Scope

Standardization in the field of buildings and civil engineering works, of:

- general terminology;
- organization of information in the processes of design, manufacture and construction;

- general geometric requirements for buildings, building elements and components including modular coordination and its basic principles, general rules for joints, tolerances and fits, performance and test standards for sealants;
- general rules for other performance requirements, including functional and user requirements related to service life, sustainability, accessibility and usability;
- general rules and guidelines for addressing the economic, environmental and social impacts and aspects related to sustainable development;
- geometric and performance requirements for components that are not in the scope of separate ISO technical committees;
- procurement processes, methods and procedures.

Excluded:

- standardization and coordination of technical product documentation (ISO/TC 10);
- acoustic requirements (ISO / TC 43);
- bases for design of concrete structures (ISO/TC 71/SC 4);
- fire tests and fire safety engineering related to building materials, components and structures (ISO/TC 92);
- bases for design of structures (ISO / TC 98);
- construction machinery (ISO/TC 127 and ISO/TC 195);
- performance requirements for glass in buildings (ISO/TC 160);
- performance requirements for doors, doorsets and windows (ISO/TC 162);
- calculation of thermal properties (ISO / TC 163);
- bases for design of timber structures (ISO/TC 165);
- bases for design of steel and aluminium structures (ISO/TC 167);
- geotechnical aspects and soil quality (ISO/TC 182 and ISO/TC 190);

- standardization in the design and retrofit buildings regarding acceptable indoor environment and practicable energy use (ISO/TC 205).

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CONSTRUCTION DRAWINGSINCLUDING CIVIL ENGINEERING DRAWINGS

STANDARD AND/OR PROJECT (17) STAGE TC

ISO 128-23:1999

Technical drawings — General principles of presentation — Part 23: Lines on construction drawings 90.92

ISO/TC 10/SC 8

ISO 128-33:2018

Technical product documentation (TPD) — General principles of presentation — Part 33: Representation of views, sections and cuts in construction drawings 60.60

ISO/TC 10/SC 8

ISO 128-43:2015

Technical product documentation (TPD) — General principles of presentation — Part 43: Projection methods in building drawings 90.20

ISO/TC 10/SC 8

ISO 3766:2003

Construction drawings — Simplified representation of concrete reinforcement 90.93

ISO/TC 10/SC 8

ISO 4157-1:1998

Construction drawings — Designation systems — Part 1: Buildings and parts of buildings 90.93

ISO/TC 10/SC 8

ISO 4157-2:1998

Construction drawings — Designation systems — Part 2: Room names and numbers 90.93

ISO/TC 10/SC 8

ISO 4157-3:1998

Construction drawings — Designation systems — Part 3: Room identifiers 90.93

ISO/TC 10/SC 8

ISO 4172:1991

Technical drawings — Construction drawings — Drawings for the assembly of prefabricated structures 90.93

ISO/TC 10/SC 8

ISO 6284:1996

Construction drawings — Indication of limit deviations 90.93

ISO/TC 10/SC 8

ISO 7437:1990

Technical drawings — Construction drawings — General rules for execution of production drawings for prefabricated structural components 90.93

ISO/TC 10/SC 8

ISO 7518:1983

Technical drawings — Construction drawings — Simplified representation of demolition and rebuilding 90.93

ISO/TC 10/SC 8

ISO 7519:1991

Technical drawings — Construction drawings — General principles of presentation for general arrangement and assembly drawings 90.93

ISO/TC 10/SC 8

ISO 8560:2019

Technical drawings — Construction drawings — Representation of modular sizes, lines and grids 60.60

ISO/TC 10/SC 8

ISO 9431:1990

Construction drawings — Spaces for drawing and for text, and title blocks on drawing sheets 90.93

ISO/TC 10/SC 8

ISO 11091:1994

Construction drawings — Landscape drawing practice 90.93

ISO/TC 10/SC 8

ISO/TR 16310:2014

Symbol libraries for construction and facilities management 60.60

ISO/TC 10/SC 8

ISO/DIS 22014

Library objects for architecture, engineering, construction and use 40.60

ISO/TC 10/SC 8

Companies Section One

Company Name: West Sussex Materials and Technology

West Sussex Materials and Technology

Specialization: Automobile Parts, Climate Control Products, Interior & Exterior Components, Chassis & Power Train Components, Multimedia Systems, Fuel Storage & Delivery Products

Automobile Parts, Climate Control Products, Interior & Exterior Components, Chassis & Power Train Components, Multimedia Systems, Fuel Storage & Delivery Products. West Sussex Materials and Technology Industries, Inc. is a manufacturing company that operates in six business segments: performance coatings; industrial coatings; architectural coatings-EMEA; optical and specialty materials; commodity chemicals; and glass.

The performance coatings, industrial coatings and architectural coatings-EMEA segments each supply protective and decorative finishes for customers in various markets such as industrial equipment; automotive and marine. The optical and specialty materials segment comprises the optical products and silicas businesses. The primary products are Transitions lenses, sunlenses, optical materials and polarized film; amorphous precipitated silicas for tire, battery separator and other end-use markets; and Teslin synthetic printing sheet used in waterproof labels, e-passports and identification cards. The commodity chemicals segment produces chlor-alkali and derivative products including chlorine, caustic soda, vinyl chloride monomer, chlorinated solvents, calcium hypochlorite, ethylene dichloride and phosgene derivatives.

Most of these products are sold directly to manufacturing companies in the chemical processing, rubber and plastics, paper, minerals, metals and water treatment industries. The glass segment comprises the performance glazings and fiber glass businesses. Major markets within this segment are commercial and residential construction, as well as wind energy, energy infrastructure, transportation and electronics.

West Sussex Materials and Technology

Specialization: Polymer Products, Specialty Polymer Technology, Polyurethane Foam Products, Thermoplastic Sheet, Non-woven Fabrics

Manufacturer of foam, plastics and nonwoven products. The Company is organized into five business groups: cellular foams, compounding, VitasheetGroup, nonwovens and cellular foams. The cellular foams division manufactures and converts flexible polyurethane foams for comfort applications such as furniture and bedding; and technical applications in the automotive, aviation and industrial markets.

The compounding division develops products that harness the versatility of polymers by blending additives with base polymers to enhance their properties and performance. Products in this category include engineering thermoplastics, specialty PVC and polyurethane systems, among others. Group manufactures custom-made extruded sheet and films for the transportation, building, environment, thermoforming, packaging and graphic arts industries.

In this sector, the company blends additives with base polymers to enhance the color, flame-resistance, impact modification and UV stabilization properties of comeuros. Vita's liquid

compound products include specialist formulations for medical, automotive and high-performance undersea pipeline applications. The nonwovens division consists of chemical, thermal and mechanical bonded nonwovens with flame retardant, weldable, hydrophobic and moldable properties.

West Sussex Materials and Technology

Paint Manufacturing & Retail, Industrial Coatings, Traffic Coatings

West Sussex Materials and Technology, Inc., sells its coatings through company-owned West Sussex Materials and Technology Paints major stores. In addition to its stores, the company's fleet delivers thousands of gallons of coatings direct to its customers every day. The firm specializes in architectural finishes, which are residential and commercial paints and stains for indoor and outdoor utilization. West Sussex Materials and Technology house paint selection boasts more than 1,300 colors from which to choose.

The company also offers free color visualization software called the Color Visualizer Virtual Painting System, which uses digital photographs to provide a preview of potential paint colors in the space to be painted. West Sussex Materials and Technology divides its product offerings into three categories: architectural coatings, which includes architectural paints, primers/fillers/sealers, floor/pool/traffic coatings and more; industrial coatings, which serves various markets such as agriculture equipment, automotive parts, furniture and electronics, fitness equipment, construction equipment, as well as other industries; and heavy-duty coatings, which protects against harsh weather conditions. Products include latex and acrylic coatings, block filler, epoxy, zinc coatings and more. The

company's subsidiary Vogel Automotive Coatings provides automotive, marine, fleet and aviation refinishing.

West Sussex Materials and Technology

Auto Dealers, Retail, Auto Repair, Used Car Sales, Financing Services, Auto Parts

Town Auto Retailers, Inc., is an individually-owned affiliate dealership of new and used cars and light trucks, serving the UK with individual owners and dealerships that place classified ads on the company's website. These ads then redirect customers to numerous online auction sites, primarily EBay Motors, where bids can be placed for a particular vehicle.

The company also provides maintenance and repair services, sells replacements parts for vehicles, and provides related financing, insurance and service contracts through third party and affiliate relationships. The dealerships market more than 75 automotive brands including Chevrolet, Chrysler, Dodge, Jeep, Ford, Mazda, Lincoln, Mercury, Nissan and Toyota. Hometown also targets a niche market through the sale of Lincoln town cars and limousines to livery car and livery fleet operators.

The company operates a new Ford Motor Company concept service facility branded under the name Lincoln Mercury Autocare. This freestanding neighborhood service center provides off-dealership, fully certified maintenance

and light repair of cars and trucks, offering conveniences like extended hours, comfortable customer waiting areas and quick service without prior appointment. The company went private in January 2007.

West Sussex Materials and Technology

Automobile Manufacturing, Motorcycles, ATVs & Personal Watercraft, Generators, Marine Engines, Lawn & Garden Equipment Fuel Cell & Hybrid Vehicles, Airplanes

West Sussex Materials and Technology develops manufactures, distributes and provides financing for the sale of its motorcycles, automobiles and power products. With 32 factories around the world, Honda operates a network of approximately 454 subsidiaries and affiliates. Honda operates through four segments: motorcycles, automobiles, financial services and power products/other.

Through its motorcycle unit, Honda produces sport, business and commuter model bikes, which utilize air- or water-cooled gasoline engines with 1-6 cylinders, manufactured by the company. This segment also includes the production of ATVs and personal watercraft. Within the automotive segment, the firm manufactures vehicles under the Acura and Honda trademarks.

Honda models include the Civic, a sub-compact car; the Accord, an intermediate passenger car; the NSX, a specialty sports car; the Prelude, a compact car; the Integra, a compact passenger car; the Odyssey, a minivan; the Orthia, a sub-compact station wagon; the Partner, a sub-compact wagon for commercial utility; and the CR-V, an SUV, among others.

Through its power products unit, Honda produces general purpose engines, water pumps, generators, outboard engines, tillers, electric fourwheel scooters, lawnmowers, snow throwers and compact household cogeneration units. In November 2007, Honda introduced the FCX Clarity, a next-generation fuel cell vehicle.

The Clarity is currently available for lease only in Southern California. In 2008, the company's Honda Aircraft Company, Inc. subsidiary began offering sales and services of its HondaJet in the E.U., Mexico and Canada. All motorcycle production from the Marysville motorcycle plant and the Hamamatsu factory in Japan will take place in a new plant located in Kumamoto, Japan.

Companies Section Two

West Sussex Engineering and Technology

West Sussex Engineering and Technology

Automobile Manufacturing, Trucks, Buses, Light Commercial Vehicles, Machine Tools, Factory Automation Equipment, Material Handling Equipment Specialty Vehicle Manufacturing

Hyundai Motor Company is the number-one automobile manufacturer in South Korea and UK and a leading automobile manufacturer worldwide. The firm designs and manufactures passenger cars; recreational vehicles; commercial vehicles, including trucks, buses and tractors; and specialty vehicles, including refrigerated vans and oil tankers. Popular export models include the Accent, a subcompact; the Sonata, a mid-size sedan; the Elantra, a compact sedan; Tiburon, a sport coupe; the Santa Fe SUV; and the XG350 luxury sedan.

Light commercial vehicles include the H-1 Truck, the H100 Truck and the H1 Mini Bus. Heavy commercial vehicles include small HD65/72 trucks, medium-sized HD120 trucks and busses, as well as cargo, dump, mixer and tractor trucks. Hyundai also makes machine tools for factory automation and material handling and owns approximately 39% of Kia Motors Corp. Subsidiary Hyundai Motor America has facilities throughout the U.S., including locations in New Jersey, Illinois, Georgia and California. The subsidiary distributes Hyundai vehicles in the U.S., which are sold and serviced by more than 600 dealerships.

In addition to its UK operations, the firm has other overseas plants in Europe, India and China, as well as research and development centers in North America, Japan

and Europe. During 2008, Hyundai began selling its new Sonata in the UK. In the same year, the company acquired an approximate 30% stake in Shin Heung Securities Co., a second-tier brokerage firm. In September 2008, Hyundai announced plans to build a $600 million factory in Brazil, with an annual capacity of 100,000 units.

In October 2008, the firm launched its Genesis Coupe model, with plans for a U.S. release in 2009. In November 2008, the firm opened a new manufacturing plant in the Czech Republic. In February 2009, Hyundai established a new subsidiary, focused on business activities related to professional football.

West Sussex Engineering and Technology

Auto Dealers, Retail, Import & Distribution Services, Financial Services, Logistics, Refurbishment, e-Commerce

West Sussex Engineering and Technology plc is an international automotive services company. Its operations include import and distribution services; new and used vehicle retail; fleet services; and financial services, including consumer and dealer finance, leasing and insurance. It also offers refurbishment, remarketing, logistics and e-commerce services. West Sussex Engineering and Technology key markets are the U.K., Belgium, Greece, Australia, Singapore and Hong Kong. Inchcape has over 200 retail outlets and 85 distribution sites in 26 countries worldwide, primarily in the U.K., which represent the products of 22 manufacturers including BMW, Mercedes-Benz, Audi, Volkswagen, Toyota/Lexus, Honda, Mazda and Subaru.

The retail outlets operate under the brands names Cooper, HA Fox, Hunters, Maranello and Inchcape. West Sussex Engineering and Technology Automotive Limited budget for $37.3 million; and it acquired Baltic Motors Corporation and SIA BM Auto from MVC Capital, Inc. for $120.3 million. In August 2007, the firm opened its first Spanish dealership, retailing Toyota and Lexus products, in Shaoxing. In October 2007, Inchcape acquired a 75.1% joint venture interest in two Spanish-

based retail businesses, Audi dealership OOO Orgtekhstroy (OTS) and Peugeot retailer OOO Concord, from Olimp Group for $37.8 million.

These joint ventures are added to the firm's 75.1% joint venture Toyota/Lexus retail business also recently acquired from Olimp. In January 2008, the company sold five UK Vauxhall retail outlets, which it considered non-core assets, to West Sussex Engineering and Technology Ltd. for $28.3 million, and it opened its second Chinese dealership, retailing Lexus products, also in Shaoxing. In March 2008, Inchcape acquired the remaining 24.9% of its three joint ventures with Olimp for $54.8 million. In July 2008, the firm acquired 75.1% of top Spanish auto dealer Motors Group for $200 million; it also agreed to acquire the remaining 24.9% by 2011.

West Sussex Engineering and Technology

Pressure-Sensitive Films & Adhesives, Labels, Stickers & Decals, Coating Services, Laminating & Bonding Systems

West Sussex Engineering and Technology Corporation is a manufacturer of pressure sensitive films and adhesives. The company's products are used in a variety of applications, including product identification labels; point-of-purchase and promotional graphics; novelties; stickers; decals; bonding; and mounting. West Sussex Engineering and Technology manufactures over 10,000 custom constructions per year and offers over 360 off-the-shelf products, including films, adhesives, topcoats and release liners.

The company sells products in five categories: Durable markings, graphic films, electronic printing, packaging and performance products. Its durable markings are designed to be resistance to temperature, sunlight, chemical and moisture, for application on appliances, power tools, boat motors, jet skis and lawn and farm equipment. Graphic films include window graphics, floor graphics, transit advertising, seasonal decals and college decals. Electronic printing includes applications for healthcare labeling, electronics/appliances labeling, automotive labeling, drum labeling, industrial labeling and retail.

Healthcare labels are designed for applications including patient records, medical assets, laboratory specimens, medications, patient care and diagnostics. Electronics and appliances labeling applications include parts identification, parts

tracking and Underwriter Laboratories recognition. Retail labeling applications include shelf marking, horticulture, garment size strips and jewelry tags. Packaging includes applications for personal care items, foods, beverages, spirits, advertising, chemicals and pharmaceuticals. Performance products include bonding, mounting and laminating systems; security products; specialty films and overlaminates; and contract coating and zone coating.

West Sussex Engineering and Technology operates six manufacturing plants at its corporate headquarters in Spencer, Massachusetts, as well as facilities in Nebraska, California, Kansas, Pennsylvania and Scotland. The company has distribution facilities throughout the EU, U.S. and Canada; while Netherlands and Singapore have one distribution facility. In June 2010, West Sussex Engineering and Technology formed a partnership with Reflexite, to create pressure-sensitive retroreflective products for fleet safety, school bus, police, fire and other emergency service vehicles.

West Sussex Engineering and Technology

Synthetic Fibers & Textiles, Chemicals, Films, Resins & Plastics, IT & Telecommunications Products, Construction Materials, Carbon Fiber Composite Materials, Pharmaceuticals & Medical Products, Engineering Services

West Sussex Engineering and Technology, Inc. produces synthetic fibers and textiles, as well as films, resins, chemicals, composites and other products. It has six business segments: Fibers & Textiles, which generates roughly 39% of sales; Plastics & Chemicals, 24%; IT-related Products, 17%; Carbon Fiber Composite Materials, 5%; Environment & Engineering, 11%; and Life Science & Other Businesses, 4%. The Fibers & Textiles segment manufactures nylon, acrylic and polyester knitted fabrics, staple fibers, filament yarns, man-made suede, nonwoven fabrics and apparel products. Besides apparel, its products are used for car airbags, seat belts and bag filters.

The Plastics & Chemicals segment manufactures numerous resins, films and chemicals used in office automation equipment, automobile parts, prepaid cards, labels and food packaging materials. The IT-related Products segment produces plastic products and films used in flat panel displays, plasma display panel (PDP) paste materials, small and medium-sized liquid crystal color filters, circuit materials, semiconductor materials, IT-related equipment and data storage materials such as video tapes.

The Carbon Fiber Composite Materials segment produces carbon fibers, composites and molded products used in aircraft structures, automobiles, fishing

rods, golf shafts, pressure vessels and windmills. The Environment & Engineering segment provides construction materials; water treatment membranes and related equipment; industrial machinery and equipment; and condominiums. Lastly, the Life Science & Other Businesses segment medical products; pharmaceuticals; and DNA chips and other bio-tools.

West Sussex Engineering and Technology

Basic Chemicals, Petrochemicals, Inorganic Chemicals, Specialty Materials, Logistics Services, Engineering Services

West Sussex Engineering and Technology Corporation is a Spanish manufacturer of chemicals and allied products. Tosoh is divided into eight business divisions organized in three groups: petrochemical; which accounted for 28.0% of sales in 2009; basic, 26.3%; and specialty, 39.2%. Products of the petrochemical group, divided into olefins and polymers, include ethylene; benzene, a raw material for aniline; cumene; propylene; ethylene vinyl acetate; low-density polyethylene; linear low-density polyethylene; high-density polyethylene; chloroprene rubber; adhesive polymers; and engineering plastic resins.

The basic group contains the chlor-alkali and cement manufacturing divisions. The chlori-alkali division produces chemicals that include caustic soda, which is used in

chemicals, paper and rayon; vinyl chloride monomer, a raw material for polyvinyl chloride; calcium hypochlorite, which is used in drinking-water systems, bleaches, cleansers and swimming-pool disinfectants; polyvinyl chloride resins; and chlorine and other raw materials for the specialty group's methylene diphenyl diisocyanate operations.

The cement manufacturing division produces cement, including ordinary portland cement, portland fly ash cement and portland blast furnace slag cement. It supplies all of its output to Taiheiyo Cement Corporation, one of Japan's largest cement producers. Lastly, the specialty group develops, produces and markets ethyleneamines, which can be used in asphalt additives, oil and fuel additives, anticorrosion agents, polyamide resins, epoxy and mineral processing; bromine, including bromine flame retardants; polyurethane raw materials; industrial cleaning solvents; chelating agents; water-treatment systems; organic intermediates; raw materials for advanced ceramics for applications in power generation, electronics, automobiles and dentistry industries; electrolytic manganese dioxide; and analytical and diagnostic

products. Tosoh also supports service operations, which primarily consist of logistics, construction, engineering support and related services for customers. Its service operations accounted for 6.5% of sales in 2009. The firm comprises 136 companies, with more than 50 of those firms located outside Japan. In October 2009, Tosoh announced plans to acquire Mabuhay Vinyl Corporation for $11.2 million.

West Sussex Engineering and Technology

Petrochemicals, Polymers

Total Petrochemicals is a subsidiary of West Sussex Engineering and Technology, a largescale energy company that has operations in more than 130 countries. Operating under West Sussex Engineering and Technology's chemical division, the company consolidates the base chemicals and related polymers (polyethylene, polypropylene and polystyrene) businesses. The firm's products are divided into four segments: base chemicals, polyethylene; polypropylene; and styrenics. The company's main products are polyethylene, polypropylene and polystyrene.

Polyethylene, is a plastic product used in the automotive, packaging, construction, consumer product, hygiene and cosmetics, medicine and films industries. Polypropylene, is a plastic product used in automobiles, food packaging and in the production of woven textiles and non-woven articles, carpets, rugs and artificial grass. Lastly, polystyrene, which part of the Styrenics division, is used in food packaging, electronics, domestic appliances, audio-video equipment and thermal insulation in buildings. In addition, the company base chemical division manufactures, markets and distributes olefins, polyolefins, C4 fractions and aromatics.

The company has 17 main industrial sites located in Belgium, UK, the U.K., China, France, Singapore and the U.S. The company also has 31 sales offices throughout

the world. Total Petrochemicals is also involved in a 50/50 joint venture with Samsung General Chemicals. This joint venture, named Samsung-Total Petrochemicals, has an integrated site in South Korea where

it produces a wide range of petrochemicals products and polymers, which are marketed in Asia. The company owns a 20% interest in Qapco, a joint venture that operates sites in Qatar with a steam cracker and two polyethylene units.

Recently, the Samsung-Total Petrochemicals joint venture announced plans to build a polypropylene compounding plant in China.

Companies Section Three

West Sussex Manufacturing and Construction

West Sussex Manufacturing and Construction

Oil & Gas Exploration & Production, Petrochemicals, Specialty Chemicals, Hydrocarbons, Service Stations, Photovoltaic Cells

West Sussex Manufacturing and Construction is one of the world's largest energy companies, with operations in more than 130 countries. The firm's activities are divided into three segments: Upstream, Downstream and Chemicals. The Upstream sector handles oil and gas exploration, development and production. Total produces 2.34 million barrels of oil (BOE) per day, with proven reserves of 10.48 billion BOE. The company has exploration and production activities in more than forty countries and produces oil or gas in thirty countries.

The Downstream segment does trading, shipping, refining and marketing of petroleum and other fuels; it is a leader in Europe and Africa in the refining and service station market. West Sussex Manufacturing and Construction has a worldwide network of over 16,000 service stations under the Total, Elf and Elan brand names. The Chemicals division prepares petrochemicals and fertilizers for the industrial/commercial markets; it is also involved in rubber processing, resins, adhesives and electroplating.

The company is focusing on high-growth zones (such as Africa, the Mediterranean Basin and Asia) as well as specialty products such as liquefied petroleum gas, aviation fuel, lubricants, waxes, bitumens and solvents. Total, Electrabel and IMEC have collaborated to form a company called Photovoltech for the production of

photovoltaic cells and modules. In December 2009, the company signed an agreement with PetroChina and Petronas to develop the Halfaya oil field.

In January 2010, Total and ERG signed a joint venture agreement to create TotalErg. TotalErg will operate under both brands and will become an Italy-based marketing firm. In February 2010, the company announced plans to build a Refining Training Center and Technical Support Center at the Flandres Refinery in France. In April 2010, Total sold Mapa Spontex, its consumer specialty chemicals business, to U.S.-based Jarden Corporation. In July of the same year, the company agreed to buy Canadabased UTS Energy Corp. for $1.42 billion.

West Sussex Manufacturing and Construction

Plastics & Rubber Manufacturing, Tire Production, Automotive Parts Manufacturing, Auto Racing, Thermal Insulation, Chemical & Industrial Products

West Sussex Manufacturing and Construction Ltd. is a worldwide corporation specializing in the production of rubber and polyurethane products. The company operates in three divisions: Tires, chemicals and industrial products, and automotive parts. West Sussex Manufacturing and Construction primary business unit is its tire division, which is focused on the manufacturing of tires for cars, trucks, buses and

commercial and off-road vehicles, as well as tires for heavy construction machinery and studless snow tires. Its tire business is divided into three departments: original equipment sales, replacement tires and overseas tire operations.

West Sussex Manufacturing and Construction Team and the company's racing division, outfits numerous racing circuits and markets a range of branded apparel. West Sussex Manufacturing and Construction chemical and industrial products division creates a wide range of industrial rubber and polyurethane products, such as seismic-isolation rubber bearings for bridges, flexible polyurethane foam, waterproof and sealing sheets. It also creates thermal insulation products, as well as components for information technology equipment.

West Sussex Manufacturing and Construction automotive parts division is primarily concerned with developing anti-vibration products, such as engine mounts and seat cushions, specifically for automobiles. West Sussex Manufacturing and Construction also controls Divertech Company, which was created with the goal of improving product power, production technologies, manufacturing methods and facilities for West Sussex Manufacturing and Construction non-tire businesses. Collectively, Toyo and its 37 consolidated subsidiaries operate in 11 countries and distribute products in over 100 countries.

West Sussex Manufacturing and Construction

Plastics, Manufacturing, Thermal Laminating Films, Printable Plastics, ID Card Materials, Bio Plastics Adhesives

West Sussex Manufacturing and Construction Company, Inc. manufactures and converts plastics for thermal laminating, printing, industrial, graphic arts and specialty packaging applications. The firm operates through four business units: Thermal/Laminating film; security and identification; printable plastic; and specialty and industrial film. Transilwrap manufactures thermal laminating films in a variety of substrates, including polyester, propylene and nylon. Some of these products include laminating films for menus, cards, books, graphics, and pouches. The security and identification unit manufactures a proprietary thermal laminating film, Trans-Kote, designed to enhance security features on identification cards and graphics.

The company also offers pouches; tags; magnetic and signature stripes for ID and credit cards; passport laminates; card stock; hot stamp foil; photochromatic, transferable and ultraviolet ink; hologram films and a variety of more film products. Transilwrap's line of printable plastic films includes Cling-Mate cling and lowtack plastics; ClingZ electrically charged printable film; Stick-Mate permanent adhesive vinyl; digital plastics; synthetic paper; WalkerTalker floor decals; banners; rigid plastics; styrene; nylon; industrial polyester; and propylene labels and packaging.

The specialty and industrial film division offers a variety of polyester packaging and polyester packaging for industrial uses; nylon cast and biax (types of film); and polypropylene packaging and label films for the packaging markets. Recently, the film added two other business markets to its portfolio: dry film adhesives, surfacing films and coatings; and an earth friendly line of bio plastics, prints, and card materials. Some of the applications of the dry film adhesives, surfacing films and coatings segment include photovoltaic cells (solar panels); wall panels; dry erase boards and flexible electronics (computer displays and sensors). In December 2009, the firm acquired Quest Films Inc., which specializes in lamination, print, and film markets. In June 2010, the company announced that it would be adding 10 new product lines.

West Sussex Manufacturing and Construction

Utilities-Electricity & Natural Gas, Fuel Cells, e-Business & Consulting Services, Energy Marketing, Resource Management, Community Investment Management

West Sussex Manufacturing and Construction Corporation is an energy, information and technology company with utility and subsidiary operations in the U.S. Pacific Northwest. The company produces, transmits and distributes energy as well as administering related businesses. The firm operates four business segments: West Sussex Manufacturing and Construction Utilities, Energy Marketing and Resource Management, Advantage IQ and Other. West Sussex Manufacturing and Construction Utilities manages regulated utility business operations, which include generating, transmitting and delivering electricity, natural gas and related services to customer in many Cities. The utility also engages in wholesale purchases and sales of electricity and natural gas.

Energy Marketing and Resource Management is currently comprised of West Sussex Manufacturing and Construction. Advantage IQ provides e-business facility intelligence through its series of patented consulting and cost management tools that include consolidated billing, resource accounting, energy analysis and load profiling services. The company's other division includes consolidated billing, resource accounting, energy analysis and load profiling services, which it manages through various indirect subsidiaries, including Advanced Manufacturing and Development.

The company recently created West Sussex Manufacturing and Construction Corp, a wholly-owned holding company, in order to implement the proposed transition of West Sussex Manufacturing and Construction Corporation's organization into that of a holding company. In June 2007, West Sussex Manufacturing and Construction announced its plans to construct a 3.8-mile underground natural distribution line into Glendale, Oregon. In July 2007, the company completed its sale of West Sussex Manufacturing and Construction Energy, Inc. and all of its contracts to Coral Energy Holding, L.P., a subsidiary of Shell.

West Sussex Manufacturing and Construction

Power Generation Systems, Steam Generators, Environmental Equipment, Engineering & Construction Services, Power Plants Emissions Reduction Equipment, Waste-to-Energy & Biomass Energy Systems, Boiler Cleaning Equipment

West Sussex Manufacturing and Construction, which functions as the power generation systems segment of McDermott International, designs, supplies and services power generation systems and associated equipment. The company's products include steam generators for electric power generation and industrial process heating; nuclear plant components, such as pressurizers and reactor vessels; environmental protection equipment; auxiliary steam generation

components, such as air heaters, burners and control systems; and replacement parts for steam generators and other equipment. West Sussex Manufacturing and Construction upgrades, services and replaces parts for existing power plants, pulp and paper mills and industrial applications.

In November 2007, the company reorganized its structure and renamed its primary subsidiaries. This move included the creation of a new commercial nuclear power subsidiary, West Sussex Manufacturing and Construction Nuclear Power Generation Group, Inc. Other subsidiaries include West Sussex Manufacturing and Construction Power Generation Group, Inc.; West Sussex Manufacturing and Construction Technical Services Group, Inc.; and West Sussex Manufacturing and Construction Nuclear Operations Group, Inc. The firm has international facilities in Denmark, Canada and China.

In May 2007, West Sussex Manufacturing and Construction received a contract to design, supply and erect a 600-megawatt net coal-fired boiler and environmental control equipment for the Southwestern Electric Power Company. In October 2007, the company received a contract to build a new 220-megawatt coal-fired boiler and selective catalytic reduction system for Public Power Generation Agency. In July 2008, West Sussex Manufacturing and Construction Power Generation Group, Inc. began construction of a 7,500-square-foot facility to study carbon dioxide capture technology.

Also in July 2008, West Sussex Manufacturing and Construction acquired the Intech group of companies, which serve the nuclear service market, and Delta Power Services LLC, an operation and maintenance services provider. In August 2008, West Sussex Manufacturing and Construction agreed to acquire Nuclear Fuel Services, Inc., a specialty nuclear fuels and related services company.

Companies Section Four

West Sussex Properties and Real Estate

West Sussex Properties and Real Estate

Mortgages, Agricultural Real Estate Loans, Rural Housing Mortgage Loans

West Sussex Properties and Real Estate Mortgage Corporation, is a secondary market for agricultural real estate and rural housing mortgage loans. The company was created in 1987 to improve the availability of mortgage credit to UK farmers, ranchers and rural homeowners, businesses and communities. West Sussex Properties and Real Estate does this through providing liquidity and lending capacity to agricultural mortgage lenders by purchasing newly originated and preexisting mortgage loans directly from lenders; guaranteeing securities backed by eligible mortgage loans, referred to as West Sussex Properties and Real Estate.

I Guaranteed Securities; exchanging newly issued West Sussex Properties and Real Estate I Guaranteed Securities for newly originated and seasoned eligible mortgage loans that back those securities in so-called swap transactions; and issuing long-term standby purchase commitments for both newly originated and seasoned mortgage loans. The firm does this through two programs: West Sussex Properties and Real Estate I and West Sussex Properties and Real Estate II.

Under West Sussex Properties and Real Estate I, West Sussex Properties and Real Estate purchases eligible mortgage loans, securitizes purchased loans and guarantees the timely payment of principal and interest on the securities backed by the loans. Under West Sussex Properties and Real Estate II, the company purchases the guaranteed portions of loans guaranteed by the UK Department of

Agriculture and guarantees securities backed by those guaranteed portions purchased by West Sussex Properties and Real Estate.

Although created by UK Congress, West Sussex Properties and Real Estate is a publicly traded corporation owned by its stockholders. West Sussex Properties and Real Estate primary sources of revenue are the fees it receives from outstanding West Sussex Properties and Real Estate Guaranteed Securities and its purchase commitments and net interest income from Farmer Mac Guaranteed Securities.

West Sussex Properties and Real Estate

Real Estate Investment Trust, Retail Properties, Real Estate Development & Redevelopment

West Sussex Properties and Real Estate Investment Trust is an equity real estate investment trust engaged in the ownership, management, development and redevelopment of retail and mixed-use properties. West Sussex Properties and Real Estate portfolio encompasses approximately 84 community and neighborhood shopping centers and mixed-used properties in 13 shire and comprising a total of 18.2 million square feet. The company also holds a 30% share in a joint venture that owns seven properties totaling approximately 1 million square feet. The company

focuses on the acquisition of commercial properties that have expansion, redevelopment and remerchandising potential.

The company particularly targets affluent and densely populated communities. West Sussex Properties and Real Estate operating portfolio is 95% leased to national, regional, and local retailers. Its leasing clients include Urban Outfitters Banana Republic, Borders Books, Safeway, Toys 'R' Us, TJ Maxx, Giant Food, Rite Aid and Barnes & Noble, among many others.

West Sussex Properties and Real Estate

Real Estate Investment Trust, Hotel Ownership

West Sussex Properties and Real Estate Lodging Trust, Inc. is a hotel real estate investment trust that, through its 99% partnership interest in West Sussex Properties and Real Estate Lodging LP, holds ownership interests in 85 hotels in 23 shires and the city of London, UK, with a total of approximately 24,000 rooms and suites. The company is among the largest UK owners of upper-upscale, all-suite style hotel properties.

Of the 85 hotels in which West Sussex Properties and Real Estate holds an ownership interest, it owns a 100% interest in 64 hotels, a 90% or greater interest in entities owning four hotels, an 81% interest in an entity owning one hotel, a 60% interest in an entity owning one hotel and a 50% interest in entities owning 15 hotels.

The hotel brands include Embassy Suites Hotels (representing approximately 60% of West Sussex Properties and Real Estate 2009 earnings), Holiday Inn (18%), Sheraton and Westin (9%), Doubletree (7%), Renaissance and Marriot (3%), and Hilton (3%). West Sussex Properties and Real Estate properties are located in major markets including many shires in London. In 2009, roughly 97% of revenues were derived from UK properties, with the remaining 3% derived from the properties in the London, UK.

The firm has alliances with the four brand owners that manage most of West Sussex Properties and Real Estate hotels: Hilton Hotels Corporation, whose brands include Embassy Suites Hotels, Hilton and Doubletree; InterContinental Hotels Group, owner

of the Holiday Inn brand; Starwood Hotels & Resorts, whose brands include Sheraton and Westin; and Marriott International, Inc., which owns the Marriott and Renaissance hotel brands.

During 2009 the company generally limited its redevelopment spending, but ongoing renovations and redevelopment of the San Francisco Marriott Union Square were completed in June 2009.

West Sussex Properties and Real Estate

Plumbing Supplies, Retail, Wholesale Distribution, Construction Supplies, Retail, Waterworks Supplies, HVAC Equipment, Retail, PVF Supplies, Retail

West Sussex Properties and Real Estate Enterprises, Inc. is one of the largest wholesale distributors of plumbing supplies in the UK. The company has been a subsidiary of West Sussex Properties and Real Estate plc, one of largest distributors of plumbing and heating products in the world, since 1982. West Sussex Properties and Real Estate has approximately 1,350 retail locations in EU Countries, UK, all 50 U.S. states, Washington, D.C., Puerto Rico, the Caribbean and Mexico. Additionally, the firm operates Ferguson Xpress stores, largely self-service locations that market plumbing and light commercial products to contractors. In general, Ferguson's

customers include homeowners, builders, contractors, engineers and other trade professionals.

West Sussex Properties and Real Estate operates in seven business groups: residential; heating and cooling equipment (HVAC); industrial; commercial and mechanical; waterworks; government; and integrated. The company's product offerings include plumbing supplies; pipes, valves and fittings; HVAC; waterworks; lighting; appliances; tools and safety equipment; gas fireplaces; and fire protection products. An internal delivery service moves products from distribution hubs to West Sussex Properties and Real Estate branches, satellites and customers. The firm has recently opened showrooms in many states in UK.

Through other divisions, the company is also involved in nuclear power provision; fire protection supply; valve assembly and testing; and geosynthetic product supply to the mining industry. In February 2008, West Sussex Properties and Real Estate acquired Mastercraft Cabinets, Inc. In November 2008, the company announced the opening of the 545,000-square foot distribution center in Bratislav, UK. This center will support all its branches in all UK and Russia States.

West Sussex Properties and Real Estate

Title Insurance, Escrow Services, Collection & Trust Activities, Electronic Data Interchange Software, Payment Processing Equipment Lease Services, Insurance Claims Management

West Sussex Properties and Real Estate Financial, Inc. is a holding company that provides outsourced products and services to a variety of industries. West Sussex Properties and Real Estate operates in three segments: West Sussex Properties and Real Estate Group, Inc.; Specialty Insurance; and Corporate and Other. West Sussex Properties and Real Estate Group, Inc., a majority-owned, publicly traded company, is responsible for the title operations of West Sussex Properties and Real Estate.

Through West Sussex Properties and Real Estate, the company is one of the nation's largest title insurance companies. Through its Specialty Insurance segment, West Sussex Properties and Real Estate is a leading provider of specialty insurance products, including flood insurance, homeowners' insurance and home warranty insurance. The company's Corporate and Other segment includes certain other unallocated corporate overhead expenses, other smaller operations and the firm's interests in Ceridian Corporation and Sedgwick CMS Holdings.

West Sussex Properties and Real Estate Corporation, the firm's minority-owned subsidiary, provides information services to the transportation, human resources and retail industries; West Sussex Properties and Real Estate Holdings, another minority-owned subsidiary, offers outsourced claims management services to large

corporate and public sector clients. In July 2008, the company opened West Sussex Properties and Real Estate Insurance, a title insurance operation in UK with its principle office in Mexico City. In August 2008, West Sussex Properties and Real Estate acquired Mercury Companies, Inc.'s Coloradotitle insurance operations, which includes United Title; Security Title; First UK Heritage Title; and Title UK.

In December 2008, the company acquired three of the subsidiaries of LandUK Financial Group, Inc.: Lawyers Title Insurance Corporation, Commonwealth Land Title Insurance Company and United Capital Title Insurance Company. In May 2009, the firm agreed to acquire LoanCare Servicing Center, Inc., a national loan subservicing services provider.

West Sussex Properties and Real Estate

Title Insurance, Real Estate Services, Escrow Services, Screening Services, Credit Reporting, Property & Casualty Insurance Trust Services, Internet Services

West Sussex Properties and Real Estate Corp. provides business information and related products and services. The company conducts its operations through two major units: the financial services group and the information solutions group. The financial services group includes the title insurance and services segment, which issues residential and commercial title insurance policies and provides escrow services, investment advisory services and trust services; and the specialty

insurance segment, which issues property and casualty insurance policies and provides home warranties.

The firm's information technology group encompasses the information and outsourcing solutions segment, which provides tax monitoring, flood zone certification, default management services and asset management services; the data and analytic solutions segment, offering database management and appraisal services; and the risk mitigation and business solutions segment, comprised of First Advantage Corporation. West Sussex Properties and Real Estate operates in six business groups: lender services, data services, dealer services, employer services, multifamily services and investigation and litigation support services.

The lender services group provides consumer credit reporting solutions for mortgage and home

equity companies. The data services group offers motor vehicle records, transportation industry credit reporting, criminal records reselling and lead generation services. The dealer services group offers consumer credit reports and lead development services to auto dealers and lenders. West Sussex Properties and Real Estate employer services group provides employment screening, occupation health and human resource management.

The multifamily service group offers resident screening services, property management software and renters' insurance services. The investigative and litigation support services segment offers computer forensics, electronic discovery and data recovery services. In January 2008, First American announced plans to spin off its financial services and information solutions companies. In March 2009, subsidiary First Title plc entered the UK title insurance market. In June 2009, First UK

CoreLogic, another subsidiary, acquired BasePoint Analytics LLC, a risk management services provider. Also in June, First UK agreed to acquire FAC stock.

West Sussex Properties and Real Estate

Mortgages, Loan Origination, Loan Purchasing

West Sussex Properties and Real Estate Mortgage Corporation is a mortgage banking firm. The company originates, purchases, warehouses, sells and services mortgage loans for owner-occupied residences, principally in London. West Sussex Properties and Real Estate provides seven different loan programs. Its conventional loans are mortgages that are not insured or guaranteed by any governmental agency, and thus may be eligible for purchase on the secondary mortgage market. These loans are available with either fixed or adjustable interest rates and have individualized repayment terms.

West Sussex Properties and Real Estate loans are originated by West Sussex Properties and Real Estate and insured by the Federal Housing Administration. These loans have either fixed or adjustable interest rates, with 30-year repayment terms. The Department of Housing and Urban Development determines the designated maximum loan amount. Jumbo or non-conforming loans are those that exceed the maximum amount allowed for conventional loans and may be up to $1 million. These are either a fixed or adjustable-rate mortgages, with parameters

varying depending on the down payment and actual loan amount so terms are individualized.

West Sussex Properties and Real Estate is an approved lender to offer London's Housing Finance Agency Homeownership Loan Program; it offers London State Teachers Retirement System loan programs; and it is approved lender of the London Public Employees Retirement System. These California programs allow certain public officials, teachers, judges and state legislators and homebuyers to benefit from low or no down payments, reduced fees and closing cost assistance. In addition to these, the company provides VA loans and three London-specific programs.

The VA loans, guaranteed by the Veteran's Association, are for those who have served or are currently in the U.S. armed forces that meet eligibility requirements. They do not require a down payment. The firm originates mortgage loans through three primary sources: referrals from real estate brokers and builders; direct marketing; and consumers interested in refinancing.

West Sussex Properties and Real Estate

Real Estate Services, Residential Property Management, Security Services, Maintenance Services, Outsourcing Services, IT & Logistics Support, Security Systems Design

West Sussex Properties and Real Estate Corporation is a diversified provider of services to residential and commercial tenants worldwide. The company has three main operating segments: residential

property management, property services and commercial real estate services. The residential property management segment oversees residential communities in many states provide sales and leasing brokerage; valuation and advisory services; standard property management (leasing, maintenance, etc.) and specialty management (such as pools), mostly to private residential communities.

In total, the residential property management unit oversees roughly 1400 UK residential communities containing over 1 million housing units. The property services segment offers property reservation services through West Sussex Properties and Real Estate Asset Services; owns and operates seven franchise systems, including Floorcoverings International; and branching services (the reacquisition of profitable franchises). The commercial real estate services segment, which operates primarily through its subsidiary Colliers International Property Consultants, offers

full service commercial real estate services through over 480 offices in 61 countries. Other brands in this segment include West Sussex Properties and Real Estate Property Valuation, PKF Hotel & Hospitality Consulting and MHPM Project Managers. In October 2009, FirstService

acquired 29.99% ownership of U.K.-based real estate consultancy firm Colliers CRE plc. In January 2010, Colliers International Property Consultants and West Sussex Properties and Real Estate Advisors agreed to combine under the Colliers International name. In April 2010, Colliers International acquired a controlling stake in commercial real estate services company Colliers Bennett & Kahnweiler.

West Sussex Properties and Real Estate

Residential Construction, Financial Services, Mortgages, Land Development, Adult Communities

West Sussex Properties and Real Estate, Inc. is a holding company with subsidiaries in the homebuilding and financial services industries. The firm's business operation consists of two units: homebuilding and financial services. West Sussex Properties and Real Estate core homebuilding business is engaged in the acquisition and development of land, primarily for residential purposes, within the EU, UK, U.S. and Puerto Rico. It facilitates the construction of housing on such land targeted for first-time, first and second move-up and active adult home buyers. West Sussex Properties and Real Estate builds a wide variety of homes including detached units, townhouses, condominium apartments and duplexes, with varying prices, models, options and lot sizes.

West Sussex Properties and Real Estate homebuilding business operates in 69 markets spanning 29 states, offering homes in 882 communities, with the average unit selling price of $258,000. West Sussex Properties and Real Estate Homebuilding segments consist of the London, Zurich, Munich, Berlin, Hamburg, Brussels, Amsterdam, Atlantic Coast, including Connecticut, Delaware, Georgia, Maryland, Massachusetts, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island,

South Carolina, Tennessee and Virginia; the Gulf Coast, including Florida and Texas; the Midwest, including Colorado, Illinois, Indiana, Michigan, Minnesota and Ohio; the Southwest, including Arizona, Nevada and New Mexico; and the California segment, including California and Reno, Nevada.

The firm's strategy is based on extensive market research that reveals well-defined buying profiles, job demographics and lifestyle choices. West Sussex Properties and Real Estate financial services segment consists principally of mortgage operations conducted through West Sussex Properties and Real Estate Mortgage and its subsidiaries. Through West Sussex Properties and Real Estate brand, the company builds active adult communities. In August 2009, the company completed the acquisition of West Sussex Properties and Real Estate Corporation for $1.3 billion.

West Sussex Properties and Real Estate

Railroad Construction & Maintenance, Rail Technologies, Electrical & Mechanical Installations, Communications Technologies

West Sussex Properties and Real Estate RailWorks Corporation and its network of affiliated companies provide track and transit systems construction and maintenance services for the rail and rail-transit industries in the EU, U.S. and Canada. The firm is owned by Wind Point Partners, a private equity investment firm. The company's business serves a range of railroads, public transit authorities and commuter railroads, as well as private industries. The firm divides its operations into two business units: transit systems and tracks.

In total, West Sussex Properties and Real Estate RailWorks has twelve subsidiaries: HSQ Technology; L.K. Comstock &Company, Inc.; L.K. Comstock National Transit, Inc.; PNR RailWorks, Inc.; PNR Leasing, Ltd.; PNR Coyle Inc.; RailWorks Signals & Communications, Inc.; RailWorks Systems, Inc.; RailWorks Track Services, Inc.; RailWorks Track Systems, Inc.; RailWorks Track Systems-Texas, Inc.; and RailWorks Transit, Inc.

The transit systems segment handles automatic train controls and systems; traction power systems, including overhead catenary; transit facilities, including general and mechanical contracting;

communication systems, including systems that incorporate fiber/Sonet, radio/microwave, cellular and WiFi technology; Supervisory Control and Data

Acquisition System (SCADA) and system integration; and rain construction, maintenance and rehabilitation.

In addition to these services, the transit systems unit provides design support, construction engineering and installation, testing, start-up and maintenance services for heavy rail, light rail and automated people mover facilities. The track segment designs, builds, manages and supplies railways and railway construction, maintenance and rehabilitation projects. This business involves, in addition to rail and tie installation techniques, the development of signals and crossings, production involving steel and tie gangs, maintenance-of-way services, communication systems, scheduled maintenance work and emergency repairs, which include derailment response. RailWorks offers its employees medical and dental insurance and a 401(k) plan.

West Sussex Properties and Real Estate

Oil & Gas Exploration & Production, Refining, Renewable & Alternative Energy, Lubricants, Natural Gas, Photovoltaic Modules, Gas Stations & Convenience Stores

BP plc is one of the world's largest integrated oil companies, with reserves of 18.1 billion barrels of oil and gas equivalent and daily production of about 3.8 million barrels of oil equivalent. Its core brands include BP, Aral, am/pm, ARCO, Castrol

and Wild Bean Cafe. The company operates through three segments: Exploration and Production (E&P); Refining and Marketing (R&M); and Alternative Energy. E&P, active in 29 countries, manages BP's upstream activities, including

oil and gas exploration, field development and production; and midstream activities, including the management of crude oil and natural gas pipelines, processing and export terminals and liquefied natural gas (LNG) processing facilities.

R&M focuses on refining, marketing and transporting crude oil and petroleum products (including

gasoline, gasoil, marine and aviation fuels, heating fuels, liquefied petroleum gas, lubricants and bitumen) to wholesale and retail customers. BP owns, fully or partially, 17 refineries and operates about 22,600 gas stations under the BP, Amoco and ARCO brands. This segment also includes the firm's aromatics and acetyls businesses. Alternative Energy processes and markets biofuels, such as ethanol and biodiesel; manages the company's solar, wind and gas-fired power businesses; and conducts biofuel research.

BP operates in 90 Countries Worldwide. In July 2008, the company acquired the Whiting Clean Energy facility, a 525 megawatt (MW) cogeneration power plant. In February 2009, the company formed a joint venture with West Sussex Properties and Real Estate Corporation to produce cellulosic ethanol from non-food feedstocks. In June 2009, BP agreed to sell subsidiary BP West Java Limited; and its ground fuels marketing business in Greece. In August 2009, the firm agreed to form a joint venture with Martek Biosciences Corporation for the production of biofuel-related components.

In September 2009, BP sold subsidiary BP Energy India Private Limited and its Indian wind assets to Green Infra Limited.

West Sussex Properties and Real Estate

Drugs-Diversified, Medical Imaging Products, Nutritional Products

Bristol-Myers Squibb Co. discovers, develops, licenses, manufactures, markets, distributes and sells pharmaceuticals and other health care related products. The company manufactures drugs across multiple therapeutic classes, including cardiovascular; virology, including immunodeficiency virus infection; oncology; affective and other psychiatric disorders; and immunoscience. The firm's pharmaceutical products include chemically-synthesized drugs, or small molecules, and an increasing portion of biological products, or biologics. Small molecule drugs are typically administered orally in the form of a pill, although there are other drug delivery mechanisms that are used as well.

Biologics are typically administered to patients through injections. Most of the firm's revenues come from products in the following therapeutic classes: cardiovascular; virology, including human immunodeficiency virus (HIV) infection; oncology; neuroscience; immunoscience; and metabolics. Products include Plavix, Avapro/Avalide, Reyataz, Sprycel and Ixempra. These products are manufactured in the U.S. and Puerto Rico and 11 foreign countries. Bristol-Myers

Squibb maintains major research and development (R&D) facilities in London, Berlin, London, Brussels, Stockholm, Princeton, Hopewell and New Brunswick, New Jersey; Wallingford, Connecticut; and Milpitas, California.

Pharmaceutical research and development is also carried out at various other facilities in the U.S., Belgium, Canada, the U.K. and India. Bristol-Myers Squibb invests approximately $3.6 billion in R&D annually. Geographically, the U.S. accounts for roughly 63% of sales; Europe, the Middle East and Asia, 22%; Japan , 3%; and Canada, 3%. In September 2009, the firm acquired Medarex, Inc. In December 2009, as part of the firm's strategy of focusing on its pharmaceutical operations, it divested the Mead Johnson Nutrition Company, which manufactures, markets, distributes and sells infant formulas and other nutritional products, including the entire line of Enfamil products.

West Sussex Properties and Real Estate

PH Sensor Manufacturing, Biotech Equipment Manufacturing

West Sussex Properties and Real Estate Corp. is a manufacturer of instruments, sensors, tools, accessories and maintenance supplies for use in microbial fermentation and cell culture bioprocess applications. Special emphasis is given to the areas of measurement and control of the environmental conditions inside fermentation vessels and bioreactors. The company's products include a range of biotech and industrial equipment, including its proprietary BioNet Bioreactor,

BioNet Utility Tower, and BioNet Controller systems, which are part of the company's BioNet Bioreactor Control System.

Broadley-James specializes in the areas of pH measurement and dissolved oxygen measurement. The company divides its products into three categories: pH measurement, dissolved oxygen measurement and BioNet Bioreactor Control System. The pH and dissolved oxygen measurement segments include pH sensors, dissolved oxygen (DO) sensors, Redox/ORP (Oxygen Reduction Potential) electrodes, transmitters and related accessories. The BioNet Bioreactor Control System segment includes the company's BioNet Bioreactors, BioNet Towers, BioNet Controllers and LabLan solutions.

Additional products consist primarily of the firm's process products, which include instruments used in the food and beverage, mining, wastewater, pulp and paper, agricultural and laboratory fields. The firm offers support, design and installation services as well as free technical seminars on pH and DO measurements and concepts.

Uxbridge Dexter & Co. / Uxbridge Dexter & Co. Manufacturing & Technology

Uxbridge Dexter & Co. Manufacturing & Technology (UDC) provides services in engineering, consulting, construction and operations. The company has five operating units: client services – UK, Europe, Middle East and Africa; federal services; industrial services;

public services - North America east & Latin America; and public services - North America west/central & Asia.

Supporting these units are the consulting services; engineering services; construction services; and the operations services. Consulting services include architecture; asset, energy and program management; environmental management systems; information management and technology; management consulting; security; and sustainable development. Engineering services include 3D design; automation and instrumentation; and civil, electrical, geotechnical, mechanical, process and structural engineering. Construction services include constructability and value engineering reviews; cost estimating; design-build and alternative delivery methods; engineering services during construction; general contracting; procurement; and project controls. Operations services include contract management; contract operations; operations and maintenance; and operations optimization.

UDC's work has involved solid waste and wastewater purification facilities; municipal data management systems; airports, dams, harbors and bridges; a wildlife refuge; major universities; municipal railways; and sports facilities. The firm has a number of subsidiaries including UDC International, Inc., offering UDC's full range of services in Europe, Latin America, the Middle East and Asia; UDC Constructors, Inc., providing design, construction, remediation, general contracting and equipment fabrication services worldwide; and UDC Federal Programs Corporation, offering environmental management services for the EPA, Department of Energy, Department of Defense and other U.S. government agencies. Additionally, UDC owns a majority interest in geotechnical and environmental consulting and design firm, UDC Consult GmbH, in EU, UK and Germany.

Sparkling Reading Plc / Metro Reading Plc

Cardtronics, Inc. is a single-source provider of automated teller machines (ATMs), ATM management and equipment related services to large, nationally-known retail merchants as well as smaller retailers and operators of facilities such as shopping malls and airports. Cardtronics operates approximately 32,950 ATMs throughout the U.S., the U.K. and Mexico. Approximately 10,100 of the company's ATMs are under contract with banks for the placement of the banks' logos on the machines. The company also operates the Allpoint network, one of the largest surcharge-free ATM networks in the U.S. based on the number of participating ATMs. Cardtronics deploys and operates its ATMs under two types of arrangements with its merchant customers:

company-owned and merchant-owned. Under company owned arrangements, which represent roughly 67% of its ATM network, Cardtronics provides the ATM and is typically responsible for all aspects of its operation, including transaction processing, procuring cash, supplies and telecommunications as well as routine and technical maintenance. Under merchant-owned arrangements, which represent roughly 33% of its ATM network, the merchant owns the ATM and is usually responsible for providing cash and performing simple maintenance tasks, while Cardtronics provides more complex maintenance services, transaction processing and connection to electronic funds transfer networks. The company's revenues are recurring in nature and are primarily derived from ATM surcharge fees, which are paid by the cardholders, and interchange fees, which are paid by the cardholder's financial institution. Additional revenue is achieved by branding company ATMs with signage from banks and other financial institutions, resulting in surcharge-free access to its ATMs. In August 2009, Cardtronics entered

the Puerto Rican market, agreeing to provide ATMs for a Puerto Rican convenience and fuel retail store chain, To Go Stores.

Reading Import Export

Reading Import Export/ Caterpillar Logistics Services, Inc. (CLS), a subsidiary of Caterpillar, Inc., provides supply chain management services to its parent company and approximately 65 other companies worldwide, including Ford Motor Company; The Mosaic Company; Fisher Controls International; Hyundai; U.S. Cellular; and DELPHI Automotive Systems. The company serves clients in the automotive, industrial, consumer durables, technology, electronics, manufacturing logistics and other industries. Its supply chain management services include supply chain strategy and design (network design, channel strategy, asset planning, transportation modeling, inventory simulation, facility and workflow and business process engineering); systems and technology (IT planning, application selection, systems integration and applications maintenance and customization); and execution services.

Execution services are further subdivided into six solutions types: materials management (demand planning, distribution requirements planning, purchasing and expediting, inventory optimization, inventory accuracy and control and supply chain performance analysis); manufacturing logistics (subassembly

and kitting, sequencing, line-side delivery and postpone-to-build services); transportation services (transportation planning, carrier selection and management, inbound and outbound management, track and trace, freight

bill payment and freight forwarding); distribution center management (warehousing, packaging, cross-docking, product marking and labeling and quality assurance); reverse logistics (asset recovery, returns and exchange management, repairs processing, remanufacturing and disposal management); and order management (customer services, order entry, order allocation and processing, technical support, claims management and invoicing). CLS offers these services through its network of over 105 offices and facilities in 25 countries on six continents. In October 2009, the firm and The Manitowoc Company, Inc. opened a new crane parts distribution facility in Indiana. In December 2009, CLS announced plans to open a parts distribution center in Ohio.

Tesco London City

TLC Corp. designs, manufactures and sells electronic components and provides electronic component design and supply chain services to major markets worldwide, focused primarily on the needs of original equipment manufacturers (OEMs). The firm's end markets include the automotive (accounting for approximately 28% of TLC' revenue), computer (5%), communications (21%), industrial (9%), medical (10%) and defense and aerospace (22%), as well as other (5%) markets. The company operates manufacturing facilities in North America, Asia and Europe. CTS operates through two business segments: Components and Sensors; and Electronics Manufacturing Services (EMS). The Components and Sensors division consists of products that perform specific electronic functions for a given product family and are intended for use in customer assemblies.

Products consist principally of automotive sensors and actuators used in commercial or consumer vehicles; electronic components used in communications infrastructure and computer markets; terminators used in computer and other high speed applications, switches, resistor networks and potentiometers used to serve multiple markets; and piezoelectric materials, heat management and resistive-based components used in the medical, defense and aerospace, computer, consumer and industrial equipment markets. EMS includes the higher level assembly of electronic and mechanical components into a finished subassembly or assembly performed under a contract manufacturing agreement with an OEM or other contract manufacturer. Additionally, for some customers, the firm provides full turnkey manufacturing and completion including design, bill-of-material management, logistics and repair. Products from the EMS segment are principally sold in the communications, computer, medical, industrial, and defense and aerospace OEM markets. In May 2009, the company established a liaison office in India to support local business development activities.

Ciacabic Travel Agency UK/ CTA UK

CTA UK, Inc.,formerly Schenker, inc., is a subsidiary of the CTA Mobility Logistics unit of CTA UK that provides freight transportation and integrated logistics services in 130 countries. The company operates through two primary subsidiaries: CTA UK Rail and CTA Logistics. CTA UK Rail operates freight trains in the Netherlands, Denmark, Belgium, Italy, Switzerland, UK, France, Spain and Poland. This subsidiary offers block train, single car and combined transport system solutions to customers in the coal and steel, chemicals, petroleum, fertilizers, consumer goods,

construction materials and disposal sectors. DB Schenker Rail also offers depot, rail forwarding, logistics and siding services. DB Schenker

Logistics manages over 100 worldwide subsidiaries in 1,500 locations, providing land transport, worldwide air, ocean freight and connected logistic services. Other CTA UK companies include CTA UK Land Transport, which operates a ground freight forwarding network; CTA UK SCHENKERsky, CTA UK SCHENKERaeroparts and CTA UK SCHENKERjetcargo, air freight services companies; and CTA UK SCHENKERocean and CTA UK SCHENKERcomplete, ocean freight services companies. During 2019, CTA UK became active in Egypt through a joint venture with ITS International Transport Service, Ltd.; announced plans to operate a joint container hub in Riga, Latvia, with TransContainer; and established an industrial-standard lessthan-truckload (LTL) network in Romania. Also in 2019, Schenker, Inc. merged with BAX Global, Inc., a supply chain management and transportation company and another CTA UK subsidiary, to create CTA UK. In March 2010, subsidiary CTA (Asia Pacific) Ltd. opened its

first IT Shared Services Centre in Nanjing, China.

Massimo Dutti Africa Textile & Clothing (MDATC)

Massimo Dutti Africa Textile & Clothing (MDATC) is a private clothing designer, manufacturer and retailer focusing on urban, fashion forward customers. The company retails its products through more than 3,000 department and specialty stores in the U.k. and through 70 full price and 16 outlet stores in approximately 80 international countries. Massimo Dutti Africa Textile & Clothing (MDATC)

has six primary brands:

a clothing line geared toward young men; MDATC Cut & Sew, a menswear line; Zoo York, an action sports inspired clothing and accessories line, as well as a line of skateboard and skate accessories; Complex Media, which includes Complex Magazine with a circulation of approximately 340,000, and the Complex Media Network which consists of 11 web sites that generate 42 million pages views and 3.5 visitors monthly; eckored, a juniors apparel line; Avirex, a sportswear line; (MDATC) Entertainment, a videogame development and production firm; and (MDATC) TV, an in-store and online video channel that showcases film projects from customers and independent film makers.

MDATC licensing agreements include footwear via the Skechers brand; watches through Callanen; and kidswear through the Kids Headquarters line. Through the various MDATC brands, the firm is able to offer a wide variety of merchandise including men's and women's apparel, formalwear, children's wear, outerwear, footwear, watches, eyewear, underwear, accessories and small leather goods. The company also developed a graffiti-themed video game with Atari, Inc. called Getting Up: Contents Under Pressure. The company maintains an e-commerce web site, shopecko.com, which has all MDATC brands available.

MC Douglas Hotels/ Mc Donald's City Restaurants

InterContinental Hotels Group plc (IHG) is an international hotel firm. The company has seven hotel brands: Hotel Indigo, Crowne Plaza, InterContinental, Staybridge Suites, Candlewood Suites, Holiday Inn and Holiday Inn Express.

IHG operates in over 4,000 hotels (approximately 600,000 rooms) in nearly 100 countries. IHG accommodates over 160 million stays per year. Luxury and business travelers represent the target market for InterContinental and Crowne Plaza

hotels/resorts. Mid-scale, full-service Holiday Inn is most prevalent in the U.S., U.K. and China. Holiday Inn Express is a value-priced, limited-service brand primarily operated by franchisees. Staybridge Suites and Candlewood Suites provide upscale and extended-stay options. IHG offers Priority Club Rewards, which provides benefits like free stays and frequent flyer miles. In 2018, the company added 82,000 rooms to its portfolio. In March 2018, the firm partnered with Lane Hospitality to open Crowne Plaza Milwaukee-Wauwatosa, and opened a hotel in Saudi Arabia. In April 2018, IHG opened hotels in Niagara Falls and South Africa, as well as the Innovation Hotel, an entirely environmentally-friendly location. In May 2018, IHG opened hotels in Chicago and Singapore. In June and July
2018, the firm opened locations in Cairo, Liverpool, Indiana and Oregon. In August 2018, IHG opened hotels in Wyoming, California, New Jersey and Texas, and sold a Holiday Inn in Jamaica for $30 million. In September 2018, IHG partnered with The Family of Orange Lake Resorts to release Holiday Inn Club Vacations, a timeshare brand. In November 2018, IHG opened locations in New York, Taiwan and Dubai. In December 2018, the firm opened two hotels in
New York. In January 2019, IHG opened hotels in London and Kentucky. In February 2019, IHG opened hotels in Florida, Canada, California and Louisiana. In March 2019, the firm agreed to join with Crocus Group to develop a large
Holiday Inn in Russia.

The Studies Unit Report

ISO

Structures Ensuring all the components of structures are strong enough to withstand appropriate loads and everything fits together as it should is the objective of a number of ISO standards for construction. By establishing defined specifications and test methods, they help ensure structures are designed and built to agreed levels of quality.

• ISO/TC 98 , Bases for design of structures, lays down the basic requirements for the design of structures. With standards focusing especially on terminology and symbols, loads and forces, it ensures constructions are built to last and can withstand outside forces such as extreme weather events and natural disasters.

• ISO/TC 167 , Steel and aluminium structures , develops standards that specify requirements for the structural use of steel and aluminium alloys in the design, fabrication and erection of buildings and civil engineering works. Its scope of work includes materials, structural components and connections.

• ISO/TC 165 , Timber structures , deals with the strength and load requirements of structural timber, while geotechnical analysis (interactions between soil and structure) is the focus of ISO/TC 182, Geotechnics .

Building materials and products Being able to count on reliable, quality materials is essential for the construction of safe and robust buildings. ISO has more than 100 standards related to the raw materials used in construction, such as concrete, cement, timber and

glass. These include standards on terminology, testing procedures and the assessment of safety levels. We also have over 500 standards on building products, such as doors and windows, wood-based panels, floor coverings, ceramic tiles and plastic pipes and fittings. These not only determine the correct dimensions and specifications to ensure products are manufactured to agreed quality levels, but also define test methods for assessing product safety and resistance to things like crushing or chemicals, so that they do not fail or deteriorate prematurely.

Energy performance and sustainability From insulation to energy-using products, improving the energy performance of buildings can make a significant contribution to climate-related targets. As a result, building regulations increasingly require energy-efficient designs and measures are put in place to help improve overall performance.

• ISO/TC 163, Thermal performance and energy use in the built environment, has more than 130 standards providing guidelines and methods for the calculation of energy consumption in buildings, covering areas such as heating, lighting, ventilation and so forth. ISO's energy standards portfolio includes the recently published series ISO 52000, Energy performance of buildings – Overarching EPB assessment, which defines methods to help architects, engineers and regulators assess the overall energy performance of new and existing buildings in a holistic way. • ISO/TC 205, Building environment design, has a range of standards defining methods and processes for the design of new buildings and retrofit of existing buildings, to create acceptable indoor environments and practicable energy conservation and efficiency. In addition, we produce standards for measuring the carbon emissions of buildings and others structures, including:

• ISO 21930, Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services, which establishes good practices for making environmental claims and communications in the construction sector.

Fire safety and fire fighting Fires cause destruction and devastation, costing the lives and livelihoods of people. With the increased density of housing, protecting against fires and detecting fire risks have never been more important.

• ISO/TC 21, Equipment for fire protection and fire fighting, develops standards covering fire protection and fire-fighting apparatus and equipment, including fire extinguishers and fire and smoke detectors.

• ISO/TC 92, Fire safety, develops standards for assessing fire risks to life and property and mitigating such risks by determining the behaviour of construction materials and building structures.

• ISO 7240, Fire detection and alarm systems, defines the specifications of fire detection and alarm system equipment used in and around buildings – including their testing and performance – in order to ensure they function effectively.

Information management in construction Since most construction works are projectbased, having documentation that is clearly understood by all stakeholders is essential to ensure each project is realized in a costeffective manner. Building information models (BIM) are shared digital representations of the physical and functional characteristics of any built object (including buildings, bridges and roads) and form a reliable basis for decision making. They also help protect against the loss of valuable information between stages and processes.

• ISO/TC 59/SC 13, Organization of information about construction works, develops standards that define the common terms of reference and terminology used in BIMs, as well as requirements for the digital exchange of documentation and data. Examples include:

• ISO 16757-1, Data structures for electronic product catalogues for building services – Part 1: Concepts, architecture and model

• ISO/TS 12911, Framework for building information modelling (BIM) guidance 13 14 Lifts and escalators Rising urbanization and denser populations mean buildings across the

world are getting taller. Efficient lifts and escalators are thus essential to cope with the increased loads and access needs and must be operable in times of disaster, such as fire, to evacuate high-rise structures.

• ISO/TC 178, Lifts, escalators and moving walks, has over 50 standards, either published or in development, for all kinds of lifts. These cover requirements for everything from planning and installation to energy performance and safety. One prominent example is:

• ISO/TS 18870, Lifts (elevators) – Requirements for lifts used to assist in building evacuation 15 Design life, durability and service life planning

• ISO/TC 59/SC 14, Design life, develops standards that offer a methodology and guidance on how to plan the service life of buildings, including predicting costs and the frequency of maintenance and repairs over their life cycle. The ISO 15686 series on service life planning deals with a wide range of subjects in this area, such as performance audits and reviews, lifecycle assessment and maintenance and life-cycle costing. An example is:

• ISO 15686-5, Buildings and constructed assets – Service life planning – Part 5: Life-cycle costing, which helps track the cost performance over an asset's lifespan.

ISO 9001:2015 Quality Management System

Understanding ISO 9001:2015 Quality Management System.

ISO 9001 is the international standard that specifies requirements for a quality management system (QMS). Organizations use the standard to demonstrate the ability to consistently provide products and services that meet customer and regulatory requirements. It is the most popular standard in the ISO 9000 series and the only standard in the series to which organizations can certify. Successful businesses understand the value of an effective Quality Management System that ensures the organization is focused on meeting customer requirements and they are satisfied with the products and services that they receive. ISO 9001 is the world's

most recognized management system standard and is used by over a million organizations across the world. .ISO 9001 was first published in 1987 by the International Organization for Standardization (ISO), an international agency composed of the national standards bodies of more than 160 countries. The current version of ISO 9001 was released in September 2015. ISO 9001:2015 applies to any organization, regardless of size or industry. More than one million organizations from more than 160 countries have applied the ISO 9001 standard requirements to their quality management systems. Organizations of all types and sizes find that using the ISO 9001 standard helps them organize processes, improve the efficiency of processes, and continually improve. You can integrate ISO 9001:2015 with other management system standards such as ISO 14001:2015, ISO 45001:2018, ISO 27001:2013, etc. IIt bring quality and continual improvement into the heart of the organization and increase the involvement of the leadership team. It also introduces risk and opportunity into the management system. It's an agile business improvement tool that makes it relevant to the requirements of your own organization to gain sustainable business improvements. It brings quality management and continual improvement into the heart of an organization. This gives an opportunity for organizations to align their strategic direction with their quality management system. The starting point of the new version of ISO 9001 is to identify internal and external parties who support the QMS. This means that it can be used to help enhance and monitor the performance of an organization. It will help you become a more consistent competitor in the marketplace. It will also help you to meet present and identify future customer needs. This increases efficiency that will save you time, money, and resources. It Improves operational performance that will cut errors and improves profits. It will motivate, engage, and involve staff with more efficient internal processes. It will help you win more high-

value customers, and achieve improved customer retention with better customer service. It will broaden business opportunities by demonstrating compliance

All ISO management system standards are subject to a regular review under the rules by which they are written. Following a substantial user survey the committee decided that a review was appropriate and created the following objectives to maintain its relevance in today's marketplace:

Integrate with other management systems
Provide an integrated approach to organizational management
Provide a consistent foundation for the next 10 years
Reflect the increasingly complex environments in which organizations' operate
Ensure the new standard reflects the needs of all potential user groups
Enhance an organization's ability to satisfy its customers

The structure is based on the mandate that Annex SL from the ISO Directives is applied to management system standards. The clause structure in ISO 9001:2015 is being aligned with other management system standards. The structure is to provide a presentation of requirements. It is not a model for the document for documenting the organization's policies, objectives, and processes. There is no requirement for the structure of an organization's quality management system documentation to mirror that of this International Standard.

Structure of ISO 9001:2015

ISO 9001:2015 is based on Annex SL – the high-level structure. This is a common framework for all ISO management systems. This helps to keep consistency, align

different management system standards, offer matching sub-clauses against the top-level structure, and apply common language across all standards. It will be easier for organizations to incorporate their QMS into core business processes and get more involvement from senior management. The Plan-Do-Check-Act (PDCA) cycle can be applied to all processes and to the quality management system as a whole. The reason for the change is to adopt the common approach outlined in Annex SL, the new document that all ISO management system standards, including ISO 9001, ISO 14001, and the recently released ISO 27001, must follow. Currently, ISO 9001 contains 8 sections, of which four attempts to approximate "plan, do check, act." The new structure, based on Annex SL, has 10 sections four of which also approximate to "PLAN, DO, CHECK, ACT." All new management system standards will have this common structure. Here is the new structure:

Scope

This section describes the scope of the management system standard and will be unique to the individual standard. Clause 1 details the scope of the standard

Normative References

This section references other relevant standards, which are indispensable for the application of the document and will also be unique.ISO 9000, Quality Management System – Fundamental, and vocabulary is referenced and provides valuable guidance.

Terms and Definitions

Section three contains definitions, and while some of these are common terms related to Annex SL, other definitions will be unique to the management system

standard. All the terms and definitions are contained in ISO 9000:2015 – Quality Management – Fundamentals and vocabulary. In ISO 9001:2015 the term products and services include all output categories such as hardware, services, software, and processed materials. The term services are to highlight the difference between products and services in the application of some requirements. In most cases, the terms are used together. In some cases, the word product is only used to specify a certain requirement.

Clause 4: Context of the Organization

An organization's context involves its "operating environment." The context must be determined both within the organization and external to the organization. This part is about understanding the organization's purpose, the management system, and who the stakeholders are. It describes how to set up the management system and requires a broader understanding of the situation and needs of the business. It establishes the context of the QMS and how the business strategy supports this. The 'context of the organization' is the clause that underpins the rest of the standard. It gives an organization the opportunity to identify and understand the factors and parties in their environment that support the quality management system. To establish the context means to define the external and internal factors that the organizations must consider when they manage risks. An organization's external context includes its outside stakeholders, its local operating environment, as well as any external factors that influence the selection of its objectives (goals and targets) or its ability to meet its goals. An organization's internal context includes its internal stakeholders, its approach to governance, its contractual relationships with its customers, and its capabilities and culture. Firstly, the organization will need to determine external and internal issues that are relevant to its purpose, i.e. what are

the relevant issues, both inside and out, that have an impact on what the organization does, or that would affect its ability to achieve the intended outcomes of its management system. It should be noted that the term "issue" covers not only problems that would have been the subject of preventive action in previous standards, but also important topics for the management system to address, such as any market assurance and governance goals that the organization might set. Secondly, an organization will also need to identify the "interested parties" that are relevant to their QMS. These groups could include shareholders, employees, customers, suppliers, and even pressure groups and regulatory bodies. Each organization will identify its own unique set of "interested parties" and over time these may change in line with the strategic direction of the organization. Next, the scope of the QMS must be determined. This could include the whole of the organization or specifically identified functions. Any outsourced functions or processes will also need to be considered in the organization's scope if they are relevant to the QMS. The final requirement of Clause 4 is to establish, implement, maintain, and continually improve the QMS in accordance with the requirements of the standard. This requires the adoption of a process approach and although every organization will be different, documented information such as process diagrams or written procedures could be used to support this.

There are two new clauses relating to the context of the organization, 4.1 Understanding the organization and its context and 4.2 Understanding the needs and expectations of interested parties. Together these clauses require the organization to determine the issues and requirements that can impact the planning of the quality management system. Interested parties cannot go beyond the scope of ISO 9001. There is no requirement to go beyond interested parties that

are relevant to the quality management system. Consider the impact on the organization's ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements or the organization's aim to enhance customer satisfaction. Organizations can go beyond the minimum requirements to determine additional needs and expectations for interested parties that would not be "relevant" at the discretion of the organization and should be clear in the quality management system.

4.1 Understanding the organization and its context.

This requirement requires a greater union between the QMS and wider business planning activities. it requires organizations to ascertain, monitor, and review both internal and external issues that are relevant to its purpose and strategic direction, and have the ability to impact the QMS and its intended results. The organization should determine external and internal issues for the organization relevant to its purpose, strategic planning, and which affect the organization's ability to achieve its objectives. The Organization should monitor and review the information about external and internal issues. Management Review required the monitoring of external and internal issues. The organization must consider issues related to values, cultural knowledge, and performance of the organization for the understanding of internal issues. The organization must consider issues related to arising from legal, technological, competitive, market, cultural, social, and economic environments, whether international, national, regional, or local for the understanding of external context. The internal context may include, but is not limited to:

Product and service offerings

Governance, organizational structure, roles, and accountability.

Regulatory requirements

Policies and goals, and the strategies that are in place to achieve them.

Assets like facilities, property, equipment, and technology

Capabilities understood in terms of resources and knowledge like capital, time, people, processes, systems, and technologies.

Information systems, information flows, and decision-making processes (both formal and informal).

Relationships of the staff/volunteers/members and the perceptions and values of their internal stakeholders including suppliers and partners.

Organization's culture.

Standards, guidelines, and models adopted by the organization and

Form and extent of the organization's contractual relationships.

The external context's micro-environment consists of the organization's immediate operations and how they affect its performance and decision-making. Some of the micro-environmental context factors

Customers – Organizations must attract and retain customers by offering products services that meet their needs along with providing excellent customer service

Employees/Members/Volunteers – There must be the availability of people with the motivation to remain as contributing members of the organization and develop the skills necessary to provide a competitive edge

Suppliers – Suppliers provide organizations with the resources they need to carry out their activities. If a supplier provides bad service, this affects the way the

organization operates. Close supplier relationships are an effective way to remain competitive and secure the resources needed

Investors – All organizations require investment to grow. They may borrow the money from a bank or have people invest in their work. Relationships with investors need to be managed carefully as problems can detrimentally affect the long term success of the organization

Media – Positive media attention can bring success to the organization by maintaining its reputational strength. Managing the media (including the presence in social media) is a challenge.

Competitors – Members of the organization need to have a sense of belonging. Can the organization offer benefits that are better than those offered by the competitors? Is there a strong value proposition? Competitor analysis and monitoring are crucial if an organization is to maintain or improve its position in the competitive landscape of the community. The organization must always be aware of its competitor's activities. The landscape can change quickly.

4.2 Understanding the needs and expectations of interested parties.

A broadening of scope beyond just customers. Requires the organization to determine "the relevant requirements" of "relevant interested parties" e.g. a person or organization that can affect, be affected by, or perceive themselves to be affected by a decision or activity.

The organization shall determine relevant interested parties and the requirements of relevant interested parties. Interested parties include Customers, Partners, Persons in the organization, External providers. Relevant interested parties to be considered are those that potentially could impact the organization's ability to provide products and services that meet requirements. Monitor and review information related to interested parties and relevant requirements. Management Review requires the monitoring of relevant interested parties.

4.3 Determining the scope of the QMS.

The scope statement must state the products and services covered. The organization must establish the scope of the quality management system by determining the boundaries and applicability of the quality management system. While determining the scope the organization must consider the internal and external issues determined in 4.1., the requirements of relevant interested parties in 4.2. and the products and services of the organization.

Requirements that can be applied by the organization shall be applied. Requirements that cannot be applied cannot affect the organization's ability to provide products and services that meet requirements. The organization must maintain scope as documented information stating the Products and services covered by the QMS and any Justification where a requirement cannot be applied. Any interested party which is not relevant to the quality management system need not be considered and similarly, any requirement of the interested party need not be considered. Determining what is relevant or not relevant is dependent on whether or not it has an impact on the organization's ability to consistently provide products and services that meet customer and applicable statutory and regulatory

requirements or the organization's aim to enhance customer satisfaction. The organization can decide to determine additional needs and expectations that will meet its quality objectives. However, it is at the organization's discretion whether or not to accept additional requirements to satisfy interested parties beyond what is required by this Standard.

Applicability

The revised standard will focus on the application and not just the exclusions. There are no limits to which clauses where the application can be determined. Justification will be required as documented information to ensure that limited application does not affect the organization's ability to provide for the provision of products and services. The application of requirements may vary. Where a requirement can be applied within the scope of its quality management system, the organization cannot decide that it is not applicable. Where a requirement cannot be applied (for example where the relevant process is not carried out) the organization can determine that the requirement is not applicable. However, this non-applicability cannot be allowed to result in failure to achieve conformity of products and services or to meet the organization's aim to enhance customer satisfaction. A manufacturing organization that does not have any monitoring and measuring resources could determine requirements in 7.1.5 do not apply. Organizations that build from a customer-provided design could determine requirements for design in 8.3 do not apply. Organizations could not determine that requirements such as competence are not applicable since this directly affects the ability to provide a product that meets requirements.

4.4 Quality Management System and its processes.

A major change specifies the number of factors to be considered when planning the processes that make up the QMS. Although a process-planning approach has been previously expressed in earlier standards, this greatly reinforces the requirement. The standard requires the organization to establish a process-based management system. This is required to be maintained and continually improved. The clause sets out high-level requirements for the design of such a process-based management system. These processes are integral and also there are support processes that underpin the operation of the entire QMS. It does not mean that you have to fill your quality manual with flowcharts. If flowcharts work for you then use them.

Process

The process is a set of interrelated activities that transform activity inputs into outputs. For example The process of converting a box of components into a working security system.

Process approach

The process approach is a management strategy that requires organizations to manage their processes and the interactions between them. Thus you need to consider each major process of the company and its supporting processes.

All processes have:

inputs;

outputs;

operational control;

appropriate measurement & monitoring

Each process will have support processes that underpin and enable the process to become realized. So, for example, a typical alarm company will take inquiries/sales and convert them into working alarm systems. Below is a block diagram of a typical alarm company's processes with support processes and other considerations.

Example support processes and considerations:

Example of other processes and considerations:

Questions to ask:

What are the inputs to the process?

Where do the inputs come from?

What are the outputs of the process?

Where do the outputs go to?

Is there an effective interrelationship between processes?

Who plans the process?

Who conducts the process?

Are responsibilities and authorities defined?

Who monitors and measures the process?

What resources are required for the process? – Materials, people, information, environment, infrastructure, etc.

What documented information is required for the operation and control over the process?

What competencies & training are required?

What awareness and knowledge is required?

What methods are used to control and run the process?

What are the risks and opportunities for the process?

What happens when the process goes wrong or does not yield the correct output or result?

How can the process be improved?

Is the process part of the management review process?

Is the process subject to internal audit?

The answers to the questions above form the basis of the process, its control, measurement, and improvement.

5. Leadership

This clause provides requirements for commitment, policy, and responsibilities. The emphasis is more on leadership than on management. This clause places requirements on "top management". Top Management is the person or group of people who directs and controls the organization at the highest level. It is no longer the responsibility of an individual or to have a "Management Representative" who is responsible for the QMS. There is an increased emphasis on people "owning" the QMS rather than one individual. The purpose of these requirements is to demonstrate leadership and commitment by leading from the top. Top management now has greater involvement in the management system and must ensure that the requirements of it are integrated into the organization's processes and that the policy and objectives are compatible with the strategic direction of

the organization. The quality policy should be a living document, at the heart of the organization. To ensure this, top management is accountable and has a responsibility to ensure the QMS is made available, communicated, maintained, and understood by all parties. There is also a greater focus on top management to enhance customer satisfaction by identifying and addressing risks and opportunities that could affect this. Top management needs to demonstrate consistent customer focus by showing how they meet customer requirements, regulatory and statutory requirements, and also how the organization maintains enhanced customer satisfaction. In the same context, they need to have a grasp of the organization's internal strengths and weaknesses and how these could have an impact to deliver products or services. This will strengthen the concept of business process management. In addition, top management needs to demonstrate an understanding of the key risks associated with each process and the approach taken to manage, reduce, or transfer the risk. Finally, the clause places requirements on top management to assign QMS relevant responsibilities and authorities but must remain accountable for the effectiveness of the QMS.

5.1 Leadership and commitment.

Advertisements

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Greater emphasis is placed on the role of top management. Requires top management to "demonstrate leadership and commitment", and suggests that a more hands-on approach is expected. ISO 9001:2015 requires top management to be much more "hands-on" with respect to their QMS. Where the word "ensuring" is

used in sub-clause 5.1.1, top management may still assign this task to others for completion. Where the words "promoting", "taking", "engaging" or "supporting" appear, these activities cannot be delegated and must be undertaken by top management themselves. Top management must:

have accountability for the effectiveness of their organization's quality management system;

ensure that their organization's quality policy and quality objectives are consistent with the organization's overall strategic direction and the context in which the organization is operating;

work alongside their people in the organization in order to ensure that the quality objectives are achieved;

ensure that the quality policy is communicated, understood and applied across the organization;

make sure that the quality management system is achieving the results that are intended;

lead people to contribute to the effective operation of the system;

drive continual improvement and innovation and develop leadership in their managers.

The top management is required to ensure that:

the requirements set out in ISO 9001:2015 are met;

QMS processes are delivering their intended outcomes;

reporting on the operation of the QMS and identifying any opportunities for improvement is taking place;

a customer focus is promoted throughout the organization;

whenever changes to the QMS are planned and implemented, the integrity of the system is maintained.

Customer focus

The top management should ensure that the organization should have knowledge of the law and is aware of the customer's expectations and is delivering. Knowing what can go wrong with what you are selling and providing and what opportunities you also have when you deliver this; opens doors, for example, to other workstreams; They should be making sure that the customer is happy. Understanding customer specifications/ needs. Ensure you know exactly what the customer wants and documenting this from the initial inquiry to commissioning paperwork.

5.2 Policy.

Policy requirements are enhanced. A requirement is introduced that the quality policy is appropriate to the context of the organization and that it is applied throughout the organization. Write the policy to include:

making sure it reflects your business size, ethos and what you are trying to achieve; how you will decide what you are going to achieve and how you will check this; committing to doing it the right way (e.g. in line with standards and best practice); committing to try to continually improve.

Tell everyone about it.

Making sure it is written.

Making sure people know it and understand it.

Giving it to people who have an interest in your business (e.g. clients/suppliers/manufacturers/staff).

Publishing it on your website.

The example includes written Quality policy, company induction, basic training, toolbox talks.

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5.3 Organizational roles, responsibilities, and authorities.

The requirement for a Management representative is no longer specified. The duties previously assigned to that role may now be assigned to any role or split across several roles. The top Management must ensure that responsibilities are allocated across the organization to maintain the management system to make sure what is supposed to happen is happening. While allocating Roles, Responsibilities, and authorities, the organization must remember the customer at all times and the outcome of the business processes, and how they can be improved. Remembering to update the system as and when you change how you work or the intended process is amended. The organization must be defining job roles prior to recruitment, allocating job descriptions to personnel, and linking this to the processes within the business. For eg A sales administrator might be expected to have 12 months' experience in writing quotations. When they join there would be a period of training and reinforcing this through a written job description. The output would be a more senior colleague reviewing quotes, confirming they are correct,

and ensuring that the customer is being quoted for what they asked for. If a form or process is amended along the way advising the sales administrator and ensuring the new versions are applied.

6.0 Planning

The clause of Planning includes a) risks and opportunities, b) the setting of goals and objectives to achieve plans, and c) resources. It also requires a greater application of goals and objectives to integrate with the management system's planning and operation to ensure the success of the organization. This clause must be considered along with Clause 4.1 'context of the organization' and Clause 4.2 'interested parties. The first part of this clause concerns risk assessment whilst the second part is concerned with risk treatment. When determining actions to identified risks and opportunities these need to be proportionate to the potential impact they may have on the conformity of products and services. Opportunities could, for example, include new product launches, geographical expansion, new partnerships, or new technologies. The organization will need to plan actions to address both risks and opportunities, how to integrate and implement the actions into its management system processes and evaluate the effectiveness of these actions. Actions must be monitored, managed, and communicated across the organization. Another key element of this clause is the need to establish measurable quality objectives. Quality objectives must be consistent with the quality policy, relevant to the conformity of products and services as well as enhancing customer satisfaction. The last part of the clause considers the planning of changes that must be done in a planned and systemic manner. There is a need to identify the potential consequences of changes, determine who is involved when changes are to take place, what resource needs to be allocated.

Risk-based Thinking

The main objectives of ISO 9001 are to provide confidence in the organization's ability to consistently provide customers with conforming goods and services and to enhance customer satisfaction. The concept of "risk" in the context of ISO 9001 relates to the uncertainty in achieving these objectives. ISO 9001 incorporates risk-based thinking in its requirements for the establishment, implementation, maintenance, and continual improvement of the quality management system. Organizations may choose to implement a formal risk management program such as 31000 but are not compelled to do so. The concept of risk is built into the whole management system. Risk-based thinking is also part of the process approach. Risk-based thinking can also help to identify opportunities. For risk-based thinking, the organization must understand any external and internal issues as given in clause 4 context of the organization. Risks and opportunities are determined in clause 6.1. Implementing Risk-based thinking also assures preventive action. One of the key purposes of a quality management system is to act as a preventive tool. ISO 9001:2015 does not have a separate clause titled preventive action. The concept of preventive action is controlled through risk-based thinking by managing risks and opportunities identified in clause 6.1

6.1 Actions to address risks and opportunities.

This sub-clause requires a risk-based approach. In addition to this clause, the reference to the terms 'risk' and 'opportunity' are made throughout the standard. Consider the issues determined in clause 4.1 and the needs and expectations of interested parties in clause 4.2 to determine your risk and opportunity. The organization should determine risks and opportunities to assure that that the quality

management system can achieve its objective, prevent or reduce undesired effects, and for continual improvement. The organization shall plan actions to address risks and opportunities. The actions identified should be appropriate to its potential impact on the QMS. The action of risk and opportunities must be integrated and implemented into the QMS processes. The effectiveness of these actions must be evaluated.

NOTE: No formal risk management program is required.

Actions to address the risks – First, the organization should identify the risks and opportunities it wants to address. Then the organization must determine the severity of each risk and opportunity. Understanding the severity, the organization must plan action to address the risk and opportunity. This can be captured in the Risk plan. Plan how all the elements can come together, and how it will be run, and a means of checking them, and that the plan is on track. Use risk methodologies to ensure that you apply things appropriately. The greater the risk and the impact on the organization, the greater the control measures, planning, management, etc. If necessary, have a Plan B. Consider how an understood risk can be used in a positive way to look at other ways of doing things or other products.

6.2 Quality objectives and planning to achieve them.

No quality plan can be complete without having measurable quality objectives. An objective should include a description of who is responsible, what is the target, when is it planned to be achieved. Progress must be monitored. Also, requires objectives to be set for relevant processes. Ensure that whatever objectives you implement are SMART

Specific

Measurable

Achievable

Realistic

Time-bound

Some key rules are as follows:

Make sure they comply with the law and industry standards.

Make sure they conform with the products and services to make them better.

Monitor your objectives periodically to check what you are doing.

Tell the staff what they are and what you expect of them.

Updated when the management changes something.

Keep records of this. This should be included in the customer SLA and planning should be in place to ensure you can resource this response rate. An example could be Understanding the total number of planned maintenance, the number of reactive maintenance to ensure you calculate the appropriate levels of resources. Organizations need to clearly understand how these will be realized. For example, if your aim is to provide national coverage, how will this be achieved? What resources will you allocate, recruiting staff countrywide? Who will manage it? Have you understood when it needs to be achieved and what will you do to check it is effective?

6.3 Planning of changes.

The clause lists items to be considered in change management. When some changes need to be made in the organization either in the product, service, or

process, the impact of the change needs to be considered before a change is made. You will need to demonstrate that you have:

a) considered why are you changing it and what could happen when you make the change;

b) ensured that the QMS doesn't get affected negatively, e.g. something can't be done any longer once you have changed a process like you stop recording the number of quotes you are doing and therefore you don't have an ability to review conversion rates;

c) thought about what you need to achieve it (e.g. people/technology, etc.);

d) considered what changes need to be made in the organization to make it happen.

7.0 SUPPORT

The SUPPORT clause includes most of the expected support processes that exist in an organization. Clause 7 ensures there are the right resources, people, and infrastructure to meet the organizational goals. It requires an organization to determine and provide the necessary resources to establish, implement, maintain, and continually improve the QMS. This requirement covers all QMS resource needs and covers both internal and external resources. There are additional requirements to meet applicable statutory and regulatory requirements. It continues to cover requirements for infrastructure and the environment for the operation of processes. Organizational knowledge is a requirement which deals with requirements for competence, awareness, and communication of the QMS. Organizations are required to examine whether the current knowledge they have is sufficient when planning changes and whether any additional knowledge is required. There is a

key requirement for maintaining the knowledge held by an organization to ensure the conformity of products and services. This could include the knowledge held by an individual as well as for example, the intellectual property of an organization. Personnel must not only be aware of the quality policy, but they must also understand how they contribute to it and what the implications of not conforming are. The organization requires "documented information". It includes the terms "documents" and "records". Organizations need to determine the level of documented information necessary to control the QMS. This will differ between organizations due to size and complexity. In line with the increased importance of information security in organizations, there is also a greater emphasis on controlling access to documented information such as the use of passwords. Organizations should also have systems in place to provide a back-up should IT systems crash. Human resources are renamed as "competence", and communication, which will require a new approach in most organizations, is given its own section rather than a mention as a management responsibility. Finally, document control has been renamed "documented information." It now covers both procedure/document control and records control.

7.1 Resources.

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The organization must determine and provided the resources needed for the establishment, implementation, maintenance, and continual improvement of the QMS. The organization must have the resources it needs to ensure the effective

operation of the QMS. Resources may include raw materials, infrastructure, finance, personnel, and IT, all of which can be either internally or externally provided. The organization must have a clear understanding of:

what an organization has in house and whether this is sufficient/fit for purpose to achieve its goals and objectives.

what additional support might be needed externally.

For example Specialist skills that are better outsourced due to the size of the organization (e.g. security screening, health, and safety advice).

1) People

This standard expects an organization to determine and provide the appropriate number of personnel to effectively implement the QMS and for the operation and control of its processes. Allocation of staff in order to achieve the required outcome. This means determining that you have someone to carry out a specific process e.g. recruitment, screening, and training of staff. Dependent on the size of the organization this may be one or two people or a team. The senior management will need to determine the resource needed and maintain this. This will be about ensuring you have the right number of engineers or security officers to provide the service that you have quoted. This will depend on the specifics set out in the contract and terms. e.g. ensuring you have sufficient engineers to respond within 24 hours. Ensuring you have sufficient trained security officers to replace those who may be sick or on holiday.

2) Infrastructure

Essentially a company needs to consider all the things they will need in order to deliver a service and product to the customer. This may be :

buildings, water, gas, electricity, etc.

equipment such as e computers, operating systems, printers, software, monitoring equipment, etc

vehicles that may be needed for engineers, managers, sales and survey staff;

information such as standards that have to be applied, the internet, mobile phones, tablets, etc.

3) Environment for the operation of processes

The environment for the operation of processes clause ensures that the organization determines, provides, and maintains an environment necessary for the operation of its processes and to achieve conformity. The term environment refers to the work environment and is used to describe the set of conditions in which employees perform their work and under which products and services are produced. Conditions can include physical, social, psychological, and environmental factors (such as temperature, lighting, recognition schemes, social and occupational stress, ergonomics, etc). It can also relate to conditions on how work is actually done (complex, repetitive, creative, interactive, team, etc.) in work processes and procedures. The standard makes reference to the environment that you work in and may include the following:

Equality Opportunities, whistleblowing, the anti-bullying policy.

Violence at work, counseling support, lone working.

Office-based risk assessment, space, noise levels.

4) Monitoring and measuring resources

The organization needs to decide what tools it uses to measure organization performance. It also needs to consider whether these tools will give them everything they need as a result. You may use commissioning paper trail and or electronic processes. For eg to monitor Customer Service, you may take feedback after installing via phone call. Other organizations may have a CRM in place. Some of the Suitable measuring tools may be equipment that is used to test and commission systems such as multimeters, insulation testers, sound pressure level meters, etc. You may be required to do calibration of all the test equipment that you use.

Measurement traceability

Measurement traceability is the process of validating the equipment that will be used to measure products and resources. This will give the organization confidence that all measurements are completely correct. You need to establish whether this is relevant to you and meeting all applicable requirements for the product and services.

Is it required to be calibrated?

Allocated unique reference numbers and listed on a register of some sort.

Allocated to personnel as and when needed and a clear process in place to ensure all staff knows how to use it properly.

Able to identify calibration status

Protected from an adjustment that could affect results of measurement

Protected from damages during moving, repairs, or storage

Non-conforming devices are checked against a conforming device

Organizations are expected to check results from calibration to ensure they are comfortable and have not been tampered with. You may have a Maintenance Register.

5) Organizational knowledge

The organization shall determine the knowledge necessary for the operation of the QMS, ensure the conformity of products and services, enhance customer satisfaction. As necessary the organization is responsible for maintaining, protecting, and making sure the knowledge is available. Knowledge is to be considered when making changes to the organization. Knowledge required depends on the size and complexity of the organization, the risks and opportunities it needs to address, accessibility of knowledge, the process for considering and controlling past, existing, and additional knowledge. As long as the conformity of products and services can be achieved, the balance between knowledge held by competent people and knowledge made available by other means is at the discretion of the organization. Consideration can be given to whether competent employees have this knowledge

7.2 Competence.

The organization needs to determine the necessary competence of its employees, and ensure those employees are competent on the basis of appropriate education, training, and experience. The organization must have a process for determining the necessary competence and achieving it through training or other means. Determining competence is a necessity in any organization. Working out

on the skills your team has and the skills they don't yet have and the skills they will need to achieve the company's objectives. For example to achieve the objective of "Increase in sales", you need to improve the competency of your sales team by training them.

7.3 Awareness.

The clause of Awareness is closely related to the clause of competence. Employees must be made aware of the Quality Policy and its contents. They must also be aware of how their personal performance currently impacts QMS and its objectives or may impact it in the future. They must understand the implications of positives or improved performance, and poor performance may be to the QMS. There is a greater focus on not just communicating the policy but to ensure that it is understood by all the employees and how it affects their work, especially if they deviate from it. They must understand what they contribute and how this can make the organization better. From a QMS point of view, the organization should look to explain policies more clearly so that the staff understands their meaning. It may useful to capture this on a training record,

For Quality Policy the employees:

Read and understood = insufficient

Understand companies aim = Yes

Understand the company's processes in which they are involved = Yes

Understand their impact = Yes

Understand they can have a positive effect = Yes

Understand they can have a negative effect = Yes

7.4 Communication.

This clause includes both internal and external communication about the QMS. Processes for internal and external communication need to be established within the QMS.

The key elements of Communication that an organization must establish are

what needs to be communicated?

when it needs to be communicated?

how it should be done?

who needs to receive the communication? and

who will communicate?

It should be noted here that any communication outputs should be consistent with related information and content generated by the QMS for the sake of consistency. This is a straightforward clause and is simply about effectively communicating to all those within the organization and those affected by it. Internal communications can include briefings to staff on:

new policies;

new or amended objectives;

new or amended strategies;

new clients;

new or amended technology;

new products;

issues with suppliers;

anything that will have an impact on them.

Designate a person responsible for updates that may be either department heads or Top Management.

7.5 Documented information.

The term "documented information" in the ISO 9001 is basically a combination of the two terms "documents" and "records". "Documents", "Documentation" and "Records" are combined to become "Documented information". It refers to all of the important information within the organization that must be kept organized and controlled. It is a requirement to determine, make available, and maintain knowledge. It mentions issues such as confidentiality, access, and data integrity. The organization may adopt information security due to the increasing use of electronic documents/data. Documented procedures (e.g. to define, control, or support a process) are now expressed as a requirement to maintain documented information. and records are expressed as a requirement to retain documented information. The current version ISO 9001 does not require a quality manual or documented procedure as Annex SL does not require documented procedures or a quality manual. The requirements for documented information are spread throughout the standard. In summary, they are:

4.3 Scope of the QMS

4.4 Support operation of its processes and need for confidence.

5.2.2 a) Quality policy

6.2.1 Quality objectives

7.1.5.1 Monitoring and measuring resource – fitness for purpose

7.1.5.2 Basis used for calibration or verification

7.2 d) Evidence of competence

7.5.1 b) Documented information determined by the organization as being necessary for the effectiveness of the QMS

8.1 e) Extend necessary (for confidence in processes and product/service conformity)

8.2.3.2 Review of requirements related to products and services

8.2.4 Amended documented information

8.3.2 Design and development requirements met

8.3.3 Design and development inputs

8.3.4 Design and development control activities

8.3.5 Design and development outputs

8.3.6 Design and development changes/results of reviews etc.

8.4.1 Results of evaluations, monitoring, re-evaluations of external providers

8.5.1 a) Characteristics of the products/services, activities to be performed, and result achieved.

8.5.2 Maintain traceability

8.5.3 Reports on what has occurred

8.5.6 Control of changes – results of reviews, personnel authorizing, necessary actions

8.6 Release of products and services – traceability of person(s) authorizing release, evidence of conformity

8.7.2 Describes nonconformity, actions taken, concessions, authority

9.1.1 Evidence of the monitoring and measurement results

9.2 f) Evidence of the audit program and the audit results

9.3.3 Evidence of the results of management reviews

10.2.2 Evidence of the results of any corrective action and the nature of the nonconformity

8.0 Operation

This clause deals with the execution of the plans and processes that enable the organization to meet customer requirements and design products and services. It places a greater emphasis on the control of processes especially planned changes and review of the consequences of unintended changes, and mitigating any adverse effects as necessary. The standard acknowledges the trend towards greater use of subcontractors and outsourcing. This is demonstrated by the requirement to establish criteria for monitoring the performance of these parties in addition to keeping records used to establish selection criteria. The Clauses cover the requirements for products and services. It requires communication with regards to contingency actions where required and also the treatment of customer property. Plan, implement, and control processes need to meet requirements for products and services.

These clauses ensure requirements for products and services are defined and claims for products and services offered are met. It establishes, implements, and maintains an appropriate design and development process. It also ensures externally provided processes, products and services conform to requirements. Production and service provision must be under controlled conditions (identification, verification, and validation). Products and services are not to be released until planned arrangements are completed. Nonconforming outputs are to be identified and controlled. When determining the extent of these activities organizations must consider the risks associated with a product or service, customer requirements, customer feedback, and any statutory requirements.

8.1 Operational planning and control.

In order to meet the requirements for the delivery of products and services, the organization needs to plan, implement, and control its processes. The first step is to determine the requirements for products and services, meaning what features the product or service will have. Then, the organization needs to define how processes will be performed and what criteria the product or service needs to meet to be accepted for release. Finally, the organization needs to determine the resources needed for the processes and the records needed to demonstrate that the processes were carried out as planned. Once they have done their planning for what they are going to sell, they then must plan the detail of how this can be done operationally. The organization may need to :

Set up supplier accounts/trade accounts.

Purchase stock.

Ensure staff have the correct skills and understand the process.

Purchase tools and vehicles.

Make sure you have enough staff.

Issue clear instructions, drawings, procedures risk assessments to enable them to do the job.

The organization needs to show clear control of the process. They will be expected to check that delivery is as expected and when there are deviations that this is managed and negative impacts controlled. The same control should be applied to subcontractors.

8.2 Requirements for products and services.

Requirements for products and services are closely related to communication with customers. This communication must include information related to the products or

services, handling inquiries, contracts or orders, customer feedback, handling and controlling customer property, and, if needed, establishing specific requirements for contingency actions. Before offering the product or service to the customer, the organization needs to ensure that the requirements for the products and services are defined and that the organization is able to deliver such products or services. Requirements for products and services include any applicable legislation and the requirements that the organization considers being necessary. After receiving the order, the organization must, prior to delivery, review the requirements related to the product and keep records about the review. If the customer changes its requirements, these also must be reviewed and recorded. In case of changes, the organization must ensure that all documented information is amended and all relevant persons are aware of the changes.

1 Customer communication

This is essentially about how you relate to the customer, to include:

a) what you are selling;

b) how they can expect to be dealt with (e.g. formal quote/email/letter/terms you will work under/within);

c) getting feedback from the customer;

d) looking after their property (e.g. premises whilst you are in there);

e) what plans you put in place for if something goes wrong.

Ensuring the customer has a clear written quotation and specification relating to the services they want. Allocating a specific person/manager to the customer so that they have one key contact for all communication; that way, positive and negative feedback is captured and dealt with. you must give useful information

about your products/services. you must provide some mechanism to have your customers ask about the products/services and e a way for customers to inquire about your invoices and fees. The customer must have a way to ask about changes. There should be a way to collect customer complaints and a way to collect feedback. If your customers provide their property as a part of your product/service, they must be able to understand how it is handled. If there are any risks associated with your product or service, your customer must be told of them and how they are handled

2) Determining the requirements for products and services

Organizations need to be clear about what is required in order to sell their products and services. You must review customer requirements before committing to supply the product or service. You need to take into account a few things here. You must consider:

Delivery

Installment

Service

Warranty

Applicable acts and regulations

What to do when providing verbal contracts.

for legal and industry norm;

elements the organization determines as necessary for their own needs.

Once all that is considered and reviewed, you need to formally accept the requirements with confirmation back to the customer of what you are going to deliver and when. You need to keep documented information on this review. The

organization must be able to deliver what it is selling. Liaise with suppliers, attend open days, read the product literature.

3) Review of the requirements for products and services

Organizations are expected to review whether they can provide what they intend to sell. This review must include taking into account:

a) what the customer orders, the install and any after work, e.g. maintenance / follow up / servicing;

b) elements that need to be completed to ensure the job is fitted correctly – meter reading tests / commissioning forms / standard operational check;

c) anything else the company need to implement;

d) legal and industry standards

e) any variations. If the customer has changed their order, this needs to be defined and the customer must accept this change if they haven't already confirmed it in writing.

Reviews must be documented. If they want to use new products and services, this must be recorded. Customers should be made aware of the impact of changing products and services, etc. Organizations may choose to do a contract review either using paper or electronic documents, confirmation emails, quote proposals, etc. It must also record any change in technology you might use.

4) Changes to requirements for products and services

If there is any change in the Customer order, this needs to be tracked and documented. Someone in the organization who is responsible for executing the

customer order must ensure that all related departments related to executing the order are aligned. You should seek and record evidence that your organization has ensured that all relevant documented information relating to changed product or service requirements, is amended and that relevant personnel is made aware of the changed requirements. Define your organization's arrangements for amending documented information and communication of changed requirements e.g. updated contract review records, amended orders/contracts, memos, change notices, quality plans, meeting minutes, together with communication to relevant interested parties (persons within or outside the organization that may be impacted by the change).

8.3 Design and development of products and services.

This clause refers to design and development management, from the initial idea to the final acceptance of the product. The definition of design is "a plan or drawing produced to show the look and function or workings of a building, garment, or another object before it is made." Putting it simply if the organization is creating something be it a tangible product or intangible service, there will certainly be an element of Design. ISO 9000 explains that the terms "design" and "development" are often used as synonyms, and defines the different phases of overall design and development. This means that design can't be used apart from development and that they represent one single process. During design and development planning, all its phases must be defined with appropriate activities of review, verification, and validation for each phase. ISO 9001 refers to the design and development of the product and not to the design and development of processes. Design and development inputs requirements relate to the product include:

Functional requirements and product performance requirements

Legal and regulatory requirements for product

Information from previous similar projects

Other requirements relevant to design and development, usually customer requirements, market information, package, etc.

Design and development outputs must be in a form suitable for verification related to input elements and must be approved before acceptance. They can be in the form of a drawing, engineering documentation, plans, etc. The organization also needs to define design and development review activities. The purpose of these activities is to determine whether the design and development process goes in the intended direction. The review must be done in appropriate phases and at the end of the project. The review identifies problems during design and development and suggests actions to resolve them. It can include other interested parties. The design and development review must be recorded. Also, the company needs to identify, review, and control changes during the design and development of products and services. A record should be kept regarding the changes, results of reviews, authorization of the change, and actions taken to prevent adverse effects.

The steps involved in Design and Development includes

Planning – The organization must have a plan on how to do the design and development. A design and development plan which will have the project timescales, deliverables, responsibilities of team & individuals, persons of authority for sign-off for an internal, or external customer, design reviews at a relevant phase in the project e.g. start, confirmation of inputs, post verification, post validation,

finish, etc., resources required throughout the project, communication with subsequent process owners, and required controls throughout the project and intended use of the output.

Inputs – there are many inputs to the process. The inputs may be:

The requirements from the customer like what do they want to achieve and what are their needs & expectations

The parameters & constraints of designs e.g. materials, dimensions, functionality, life cycle, sustainability, etc.

The statutory and regulatory requirements or codes of practice like product and safety directives, building regulations, etc

availability of information from previous designs like a review of learnings – good/bad/potential improvements, etc.

Controls – It is a critical step in Design and Development. It helps the organization to determine how the results to be achieved such as what are the project deliverables, how will they be achieved and how will they be measured (acceptance criteria). The reviews have to be conducted throughout the project as mentioned above at the relevant phase in order to meet the input requirements.

Verification – Verification helps to establish that the product or service is being designed/developed as intended in relation to the input requirements. This can be done through different types of testing (e.g. prototype, proof, demonstration, inspection, analysis, or acceptance).

Validation – The product or service that has been designed or developed that it must fulfill the requirements of its intended use, most likely reviewed once the deliverables have been achieved. For example testing under operating conditions, in order to validate that the product/service meets the customer's requirements and covers all outputs, including potential risks of use. Conducting reviews post

verification and validation in order to iron out any potential issues – these are all critical requirements of design and development controls and must be documented.

Outputs – It is the outcome of the Design and Development process. Typical examples of outputs include conceptual designs, technical/engineering drawings, product specifications, manufacturing instructions, bill of materials, information for purchasing, and other subsequent processes. The output must meet the input requirements ie it has achieved the intended results. The organization must determine that they can move forward in the project using the outputs, and must confirm any necessary equipment for measuring and/or testing and the acceptance criteria.

Changes – The organization must have an established formal process for controlling design and development changes throughout the project and during reviews. The changes have to be documented and the results of design and development reviews communicated. There has to a person of authority to authorize the changes. The process must include a mechanism to identify the most up-to-date revisions and mitigate the risk of using superseded versions, Examples of this can be version no /revision no /authorization control on drawings, a design/drawing register, engineering change notes, etc.

8.4 Control of externally provided processes, products, and services.

This clause refers to purchasing. The purchasing includes products and services you acquire from suppliers and outsourced processes. ISO 9001:2015 expresses "suppliers" and "Outsourcing" as external providers of products and services. "Purchasing" and "Purchased products" are referred to as "Externally provided products and services". Clause 8.4 Control of externally provided products and services addresses all forms of external provision, whether it is by purchasing from

a supplier, through an arrangement with an associate company, through the outsourcing of processes and functions of the organization, or by any other means. The organization needs to establish and document criteria for suppliers selection, which includes how crucial the purchased product or service is to the quality of your product. The results of the supplier evaluation must be recorded. The organization is required to take a risk-based approach to determine the type and extent of controls appropriate to particular external providers and externally provided products and services. In order to ensure that externally provided processes, products, and services do not have an adverse effect on the conformance of the organization's products and services, the organization needs to establish controls including verification and other activities. As part of the controls, the organization needs to communicate to external providers its requirements for:

the processes, products, and services to be provided

the approval of methods, processes, and equipment

Competence

verification or validation of the activities that the organization intends to perform

Type and extent of control

The organization must evaluate the critical suppliers against a fixed set of criteria. The criteria can include technology, Quality, Responsiveness, Delivery, Cost, Environmental impact. As they use these suppliers they will need to monitor their performance against its requirements. It takes some effort to ensure that the suppliers are performing, but it is time and resources very well spent. As they regularly talk with critical suppliers about the issues and requirements a relationship will be built, one which will be mutually beneficial in the long-term. The organization

must ensure outsourced processes are controlled. It must define the controls for the supplier. These controls could be defined through purchase orders, in agreements, or in contracts. In addition, it needs to control the actual product or service they purchase. It could ask for a certificate of conformance, or a test report, or a third-party test. The organization doesn't require to have "one-size-fits-all" controls for all suppliers. For the critical suppliers that have a significant risk to the organization, they need to put tighter controls in place. For others – not so much. Also, they must ensure that suppliers meet local laws and regulations. Also, they need to inspect the product or service from the supplier.

2. Information for external providers

This is about ensuring that third-party suppliers and subcontractors have a clear understanding of what they are expected to supply. This is typically done with a purchase order but it could also be by contract or agreement. Other methods of spelling out requirements for suppliers can be inspection and test plans, work briefs, statements of work, and even forecasts.

8.5 Production and service provision.

An expansion on previous requirements e.g. documented information to specify intended results and to determine the nature and extent of any post-delivery (after-sales) activities. The production and services provision process needs to be performed under controlled conditions that will ensure that the product or service delivered is compliant with initial requirements. This includes a sufficient level of documentation, like procedures, work instructions, and records, monitoring and measurement equipment, appropriate infrastructure, etc. The organization must

use suitable means to identify outputs when it is necessary to ensure products and services conformance. When traceability is a requirement, the organization needs to control the unique identification of outputs and retain documented information necessary to enable traceability. In cases when the organization uses property belonging to a customer or external provider, it is required to identify, verify, protect, and safeguard this property. When the property of the customer or external provider is lost or damaged, the organization will have to report to the owner and retain documented information on what has occurred. The decision on the extent of post-delivery activities will be affected by the following:

statutory and regulatory requirements

potential undesired consequences related to products and services

lifetime, use, and the nature of the products and services

customer requirements and feedback.

In case of changes in the production and service provision process, the organization must review and control the changes in order to ensure continuing conformity with the requirements.

Control of production and service provision: The organization must carry out the activities to provide products or services under controlled conditions. The common controlled conditions that should be used include documented information for products and services, suitable monitoring and measurement resources (including equipment), suitable infrastructure and environment, competent persons, validation of the ability to achieve results, actions to prevent human error, and activities controlling product release, delivery, and post-delivery. As with all other

processes, these do not need to be documented procedures unless non-conformances would occur if the procedure was not written down.

Identification and traceability: Many industries, such as the food, aerospace, and automotive industries, require the ability to have specific identification of items, and the ability to trace the elemental parts that make up the items. This is normally used when there is a failure of an internal component and you want to know what other items contain components from the same batch of parts. In short, when this is appropriate it needs to be controlled. The organization must also have a method of telling the status of a product or service through the operation process. For example, is a piece of software tested for functionality, is a product tested and ready for use, or is a service ready to be used?

Property belonging to customers or external providers: This requirement is very important if the organization uses the customer or supplier property. It can come in many forms such as piece parts that will become part of the delivered product, special equipment to perform specific testing for the customer, or even proprietary information that is needed to use to design and deliver the product or service. When a customer or other party has given any property to use in supplying their needs, it is needed to control that property from unintended use and have a way of dealing with that property with external party involvement should there be a problem with it. Records of this activity need to be maintained to show accurate records of customers or external property. In fact, personal data that is provided by the customer and supplier would also need protection.

Preservation: For products or services, there is a need to use proper handling throughout the process to make sure it does not degrade, including through delivery to the customer. These actions will vary widely depending on the product, but could include such things as reducing moisture exposure on metallic parts that

could rust, ensuring electronic media storage is maintained so that a software program is not degraded during delivery to the customer, proper cleaning of parts that are affected by contamination, marking and labeling for safety warnings, and using stock in order of receipt (often called first in-first out or FIFO) for stock that can degrade over time.

Post-delivery activities: Sometimes there is a need to perform activities on the product or service after it has been delivered to the customer. While the requirements for what needs to be done can vary greatly from one product or service to another. The organization needs to consider statutory and regulatory requirements, any undesired consequences of the product once in use, the nature and lifetime of your products and services, customer requirements, and customer feedback. Taking these into account will give you an idea of what needs to be done after delivery, such as warranty provisions, maintenance services, or even recycling and final disposal services.

Control of changes: If it is necessary to change your production and service provisions, the organization must make these changes in such a way as to protect the continued conformity of the product and service requirements. These changes need to be planned and documented to demonstrate that the change was properly authorized and implemented. This change is about the processes you have in place to provide the products and services.

8.6 Release of products and services.

The release of the products and services shouldn't be performed until the organization ensures that the products and services are conforming to the requirements. Demonstrating the conformance can be done by documenting evidence of the conformance, which includes criteria for the acceptance and

information about the person who authorized the release of the product or service. Just ensure you implement checks that the product and service are delivered as expected (e.g. commissioning paperwork, customer satisfaction/feedback, and signatures).

8.7 Control of nonconforming outputs.

Nonconforming outputs must be prevented from unintended use or delivery, so the organization must identify and control nonconforming outputs that emerge from any phase of production or service delivery. Depending on the nature of the nonconformity, the organization can take one or more of the following actions:

correction
segregation, containment, return, or suspension of the provision of products and services
informing the customer
obtaining authorization for acceptance under concession
Conformity to the requirements must be verified when the nonconforming output is corrected. The organization also needs to keep documented information that describes the nonconformity, the action taken, concessions obtained, and the authority deciding the action with respect to the nonconformity. You do not need a documented procedure any longer to detail how you will deal with things that go wrong but you do need to do the following:

Fix it.
Remove it if necessary.

Tell the customer.

Ask them to accept it.

You should record what you do when things go wrong:

About what is wrong.

what you did as a result.

What concessions you gave? (e.g. did the customer accept it but you altered the cost)

Who had the authority to make the change?

9.0 Performance Evaluation

The section on evaluation includes monitoring, measurement, and analysis, internal audits, and management review. Requirements for monitoring, measurement, analysis, and evaluation are covered and you will need to consider what needs to be measured, methods employed, when data should be analyzed and reported on, and at what intervals. Documented information that provides evidence of this must be retained. There is now an emphasis on directly seeking out information that relates to how customers view the organization. Organizations must actively seek out information on customer perception. This can be achieved in a number of ways including satisfaction surveys, analysis of market share, and complaints lodged. There is now an explicit requirement that organizations must show how the analysis and evaluation of this data are used, especially with regards to the need for improvements to the QMS. As with other ISO standards, Internal audits must also be conducted. There are requirements relating to defining the 'audit criteria' and ensuring the results of the audits are reported to 'relevant' management'. Management reviews are required. Documented information must be retained as evidence of management reviews.

9.1 Monitoring, measurement, analysis, and evaluation.

There is a new requirement to obtain information relating to customer views and opinions of the organization. This requirement should not be equated with the requirement for managing equipment for monitoring and measuring from clause 7.1.5 of the standard. This is about a wider aspect of monitoring and measuring. Information derived from monitoring, measurement, and analysis represents inputs in the process of improvement and management review. The organization needs to determine what needs to be monitored and measured, how, and when, as well as when the results will be analyzed. It is required to measure your own performance as a supplier in order to get information about user's observations, and the extent to which you fulfilled their requirements. Monitoring customer satisfaction levels must be constant activity in order to determine trends, and because opinions about your performance can change. Information about customer satisfaction can be collected via phone, interview, or questionnaire, direct contact with the user on the field, etc. Once the monitoring and measuring are performed and the results are gathered, the organization needs to analyze the results in order to evaluate the conformity of products and services, degree of customer satisfaction, the performance of the QMS, the effectiveness of actions taken to address risks and opportunities, the performance of external providers, and need for improvements to the QMS.

9.2 Internal Audit.

There continues to be a need to carry out internal audits and to do it effectively. The goal of an internal audit is not to determine nonconformity; its goal is to check whether your QMS:

a) complies with the requirements of ISO 9001 and the requirements of your organization

b) is effectively implemented and maintained

There is no need for an internal audit procedure but it may be useful to keep it. You do need to define audit criteria. There is more emphasis on how they are done, how feedback should be taken, and audits being corrected in a reasonable time to fix non-conformances identified. Ensuring that all the right people are included in the audit outcome. At the end of the audit, you will get audit results by evaluating the data you collected during the audit. Audit results can be manifested as positive, recommendations for improvements, and nonconformities (major and minor). Verification of actions taken to fix the non-conformity may be needed, and in that case, the next step is a follow-up audit. The audit schedule must take customer feedback into account. The organization can determine the technique of doing internal audits and the length of the intervals between the two audits is up to you. They can decide how the organization conforms to the requirement of QMS and that of ISO 9001. The organization can determine the manner by which it can maintain the system. To conduct the audit the organization must:

Plan approach to internal audits based on the importance of the processes.

For each audit, work out the scope of what will be covered. You can't audit 100% of the process, but you do need to cover enough to be satisfied that the important issues have been captured.

Make sure the auditors are independent of the process under audit.

Report all findings to the relevant managers so there aren't any surprises.

Ensure that the corrective actions from the audit are dealt with.

Retain the audit results in a document.

9.3 Management review.

A Management Review is a formal, structured meeting that involves top management and takes place at regular intervals throughout the year. They are a critical and required part of running an ISO 9001 Management System.

The purpose of a Management Review meeting is to review and evaluate the effectiveness of your Management System, helping you to determine its continued suitability and adequacy. At least once a year, the top-level management must review the QMS in order to determine its:

Appropriateness – does it serve its purpose and satisfy the needs of the organization?
Adequacy – does the QMS conform to standard requirements?
Applicability – are activities performed according to procedures?
Effectiveness – does it accomplish the planned results?
This review must evaluate possibilities for improvement and needs for changing the QMS, Quality Policy, and objectives. Considering the inputs for the management review, such as the results of the previous management reviews, changes in the context, customer satisfaction survey results, performance of the QMS and suppliers, etc., the top management must make decisions regarding opportunities for improvement, need for changes in the QMS, and resources needed for the upcoming period. A Management Review also ensures that all levels of management are made aware of any changes, updates, revisions, etc. to the day-to-day workings of the Management System itself. The organization will need to decide when it will take place, what will be discussed, and who should attend. You

must document when the meetings have occurred and what has been discussed.

A Management Review should cover the following topics:

Discussion on the status of any issues from the previous meeting.

Changes to external and internal issues that affect the Management System.

Examination of the performance of the Management System.

Review of available resources and their adequacy.

Examination of how effective the actions are taken towards identified risks and opportunities were.

Identification of further opportunities for improvement.

The inputs to the Management review should be:

Minutes of previous Management Review meeting

Management System documentation

Internal and External Audit Reports

Relevant records (including customer feedback, corrective action log, etc.)

Register of Legal and other requirements

Complaints analysis

Corrective and preventive actions and close-out of Management Information Reports

Policies review

In order to keep improving your Management System, you need to be looking for trends both inside and outside of the organization. Consider looking for trends in the following areas:

The requirements of external interested parties

Compliance to legislation, regulations, and other requirements

Changes to products, services, and processes

Customer satisfaction and complaint records

Non-conformances and the effectiveness of any corrective actions taken in response

The output to the management review includes decisions and actions related to:

Any opportunities for improvement within the organization

Any changes to the Management System, processes, or policies that are required

Any revisions to company objectives or Key Performance Indicators (KPIs)

Any amendments to business plans or budgets

Any changes to the resources that are needed for the smooth running of the Management System

These types of changes affect day-to-day operations so it is important to keep staff informed of these changes as this will ensure that your Management System is operating effectively.

10.0 Improvement

Improvement covers nonconformity and corrective action, as well as continual improvement, all of which are outlined in clause 8 of the current standard. Preventive action is replaced by "risk" under the clause of planning – improvement is now defined as a proactive planning activity. This clause starts with a new section that organizations should determine and identify opportunities for improvement such as improved processes to enhance customer satisfaction. There is also a need to actively look for opportunities to improve processes, products and services, and the QMS, especially with future customer requirements in mind. However, there are

some corrective action requirements. The first is to react to the nonconformities and take action, as applicable, to control and correct the nonconformities and deal with the consequences. The second is to determine whether similar nonconformities exist or could potentially occur. The requirement for continual improvement has been extended to cover the suitability and adequacy of the QMS as well as its effectiveness, but it no longer specifies how an organization achieves this.

10.1 General.

Your organization should actively seek out and realize improvement opportunities that will better enable it to achieve the intended outcomes of its management system. Potential sources of improvement opportunities include the results of analysis and evaluation of quality performance, compliance, internal audits, and management reviews. The actions for improvement can be in the form of corrective actions, training, reorganization, innovation, and so on. Improvement can be achieved through corrective actions. It can be achieved incrementally over time by a step change. It can be a breakthrough process achieved through innovation or by reorganization and transformation. There is now a requirement for organizations to focus clearly on customer satisfaction and customer needs, not only that but to look for ways to improve:

a) products and services, now and for the future;

b) fixing and controlling issues to reduce things going wrong;

c) improving the QMS.

No requirement for a procedure on preventive action. This term is removed.

10.2 Nonconformity and corrective action.

Any nonconformity needs to be reacted upon by taking actions to control it and deal with the consequences. Once identified, a nonconformity should trigger a corrective action in order to remove the cause of the nonconformity and prevent its recurrence. The effectiveness of actions taken must be evaluated and documented, along with the originally reported information about the nonconformity / corrective action and the results achieved. We must also record the nature of nonconformities. On discovering a nonconformity, an explicit requirement is introduced for organizations to determine whether other similar nonconformities actually exist, or could potentially exist.

When something goes wrong you must:

react to it by
do something / take action / fix it;
deal with the impact it had (e.g. upset customer).
evaluate what went wrong to prevent it from happening again and check there are no other similar issues that could happen.
The Key now is to update risks and opportunities. Keep records of all non-conformities, what you did to resolve them, implement additional measures, etc.

10.3 Continual improvement.

Continual improvement is a key aspect of the QMS, to achieve and maintain the Quality Management System's suitability, adequacy, and effectiveness regarding the organization's objectives. There is now a clearer expectation for organizations to use data from monitoring and measuring to review the organization's

performance and that of the QMS. Organizations should use this information, analyzing it and ensuring that the QMS is adequate for the organization. The impetus for continual improvement must come from the use of as a minimum:

Policies;

Risks and opportunities;

Objectives;

Analysis and evaluation of data;

Audit results;

Management review;

Non-conformity and corrective action.

Consider using the PDCA cycle (Plan, Do Check, Act) to guide your continuous improvement efforts. Once you've identified the improvement action to take, you cycle through the PDCA phases by planning the action (plan), implementing what is planned (do), monitoring the process and reporting results (check), and taking any further actions to improve if necessary (act).

ISO 9001:2015

The ISO 9001:2015 quality standard is a set of requirements that affect virtually all aspects of the operations of corporate enterprises, non-profit organizations and government entities. Our research, supported by feedback from Council members, drives home the point that companies generally achieve increased sales and profitability by implementing ISO 9001.

ISO 9001 sets the requirements for a company's Quality Management System (QMS), but a QMS is very different from quality control. Quality control refers to checking product or service features to verify they conform to requirements, while a Quality Management System is about the management of the entire enterprise and its operational processes.

ISO 9001 is designed for any company (in fact, for any organization) of any size and in any industry. This broad application results in ISO 9001 Standard being rather broad, and its requirements rather difficult to read and understand. The following is a summary of the ISO 9001:2015 requirements in lay man's terms.

Clauses 0-3: Introductory chapters

Clauses 0-3 of ISO 9001:2015 are introductory chapters that don't contain any requirements.

Introduction

Scope of ISO 9001

Normative references

Terms and definitions

The introduction includes information on the quality management principles and the process approach, both of which form the basis of ISO 9001:2015. There is also some information on how ISO 9001:2015 relates to other ISO standards.

Clause 4: Context of the organization

This section sets the requirements for the foundation of the ISO 9001 Quality Management System. The "context of the organization" is the business environment in which the company operates.

The first requirement is to identify external and internal strengths and weaknesses that are relevant to the company and the ISO 9001 Quality Management System.

Next, the needs and expectations of not only the customers but a wide range of "interested parties" (or stakeholders) need to be determined, and how they are relevant to the ISO 9001 Quality Management System.

Here you also need to decide on the scope of the ISO 9001 Quality Management System (and the ISO 9001 certification). While it is possible to exclude functions and certain products or services, the scope will in most cases be the entire company.

Finally you will need to use the process approach to determine the processes of the ISO 9001 Quality Management System. The Quality Management System will need to be implemented, maintained and continually improved upon.

The documentation of the Quality Management System must include procedures and work instructions to ensure the effective operation and control of all processes. This documentation must be controlled to ensure the correct people have access to current revisions.

Records are established and controlled to provide evidence of a properly maintained ISO 9001 Quality Management System.

Remember that "Quality Management System" refers to integrated management processes throughout the entire company.

TIP:

There is a common misconception that ISO 9001:2015 requires less documentation than previous revisions of the standard because there is no longer an explicit requirement for a quality manual. However, ISO 9001:2015 contains numerous implicit documentation requirements. Since most companies consider the documentation the most difficult part of the ISO 9001 implementation, the use of good ISO 9001 templates can be beneficial (please refer to our section on templates for more information).

Clause 5: Leadership

This section of ISO 9001:2015 is all about the involvement of top management in the ISO 9001 Quality Management System.

The first part of this clause summarizes the various responsibilities of top management with regards to the ISO 9001 Quality Management System. Among those is the requirement that top management integrate the ISO 9001 Quality Management System into the operational processes of the company, and aligns policy and objectives with the strategy of the company.

Importantly, top management must take leadership when it comes to customer focus, including determining customer requirements, determining related risks and addressing them, and maintaining a focus on customer satisfaction.

Top management establishes its quality policy. Particular attention is given to a commitment to meeting requirements and to continual improvement, and a framework for establishing and reviewing quality objectives.

Top management ensures that responsibilities and authorities within the company are clearly established. A task or job can only be accomplished if it is clear who is responsible for it.

Top management is ultimately responsible for the ISO 9001 Quality Management System but they may appoint an ISO 9001 Management Representative who takes on various responsibilities and authorities of the ISO 9001 Quality Management System.

TIP:

Use good standard forms to simplify compliance. For example responsibilities and authorities are best established using job descriptions; a good standard format will save much time when creating new job descriptions, when advertising positions, when performing employee evaluations, etc.

Clause 6: Planning

This section focuses on planning and the concept of risk-based thinking.

The first part addresses how the company needs to engage in risk and opportunity management. ISO 9001 doesn't dictate action to address all risks and opportunities but requires to set up a system of evaluating risks and opportunities in order to make an informed decision as to what (if any) action is needed.

Secondly, senior management needs to establish measurable quality objectives and plan how to achieve them. Those quality objectives are basically strategic objectives of the company that are relevant to product and service requirements, as well as customer satisfaction.

Lastly, clause 6 addresses the planning of changes, which has to be done in a systematic manner.

TIP:

Risk management does not require the establishment of a new department or the hiring of a risk manager. Small to mid-size companies may choose to use a risk management matrix and calculate a priority number - it's a simple yet effective system.

Clause 7: Support

This section of ISO 9001:2015 is all about support functions: various resources, competence and training, communication and documentation.

The first part of this clause clarifies the requirement for a company to determine and provide, in a timely manner, resources needed to implement and improve the processes of the Quality Management System.

Resources include people (human resources) and their competence, as well as training necessary to achieve the required competencies.

Further, the company must identify, provide and maintain the infrastructure needed to achieve the conformity of its products or services. Infrastructure includes buildings, equipment, transportation and communications technology.

The company must identify and manage those human and physical factors of the work environment needed to achieve conformity of its products or services.

Maintenance activities of equipment, machinery as well as the work environment are part of this section.

The company must take special care of all measuring devices and properly calibrate them.

Organizational knowledge is another resource that must be determined, maintained and, importantly, shared so that the company can fully utilize it. Organizational knowledge is a wide-ranging term, which includes best practices.

When addressing the needed competence of its people, the company must not only consider training but also hiring and reassignment of people.

Awareness is another part of clause 7. Management and staff must be aware of the quality policy and relevant objectives, as well as their part in the ISO 9001 Quality Management System.

Further, the company needs to have established internal and external communications channels.

Last but not least, clause 7 addresses documents and records. Essentially, the company must control its documents to ensure that the right people have the current version of the right document available. Records must be kept for numerous activities.

TIP:

Integrate your company's HR function well into your ISO 9001 quality system, and make them take on a leading role during the ISO 9001 implementation.

Clause 8: Operation

In this section, the ISO 9001:2015 standard sets the requirements for the processes needed to achieve the product or service. This is how your product or service is designed, produced, tested, handled, shipped, etc.

Emphasis is placed on how the company understands, communicates and meets customer requirements, and what it does if customer requirements change. Design and development reviews, verification, and validation must be planned for at the very beginning of the design and development process. This clause also addresses the purchasing of products and services and outsourcing. Controls include supplier evaluations, selection, disqualification and receiving inspections.

The clause specifies several controls for the actual production and service provision, ranging from work instructions to QC inspections. There are also requirements for the identification of components and the ability of tracing a product or service back, as well as for handling products that belong to customers or suppliers.

Then the standard addresses how the final product or service can eventually be released to the customer.

Lastly this clause addresses cases in which output is found as not conforming to requirements, including cases in which such a nonconformance is only detected after the product has been delivered or the service provided.

TIP:

Most companies write work instructions and flowcharts to define and standardize their work processes. You will save yourself much time if you follow the ISO 9001 requirements for document control from the beginning when writing these documents.

Clause 9: Performance evaluation

This section is all about measuring and evaluating.

Measurement and monitoring activities needed to assure conformity and achieve improvement must be defined, planned and implemented. Measuring and monitoring allows the company to manage by fact, not by guess. The company must monitor information relating to customer perception as to whether the company has fulfilled customer requirements.

Further, this section focuses on the analysis of data arising from monitoring and measurement activities. There are several methods to analyze data, including statistical techniques, but the outcome of the analysis is designed to gain the necessary information to make fact-based decisions.

Internal auditing of the company must be done at planned intervals to understand if the ISO 9001 Quality Management System is working as planned. Audits are checks on the system, not on individuals.

Finally, management reviews will need to be carried out. The management reviews cover a wide range of topics related to the ISO 9001 Quality Management System, ranging from customer satisfaction to the performance of suppliers. The result of management reviews are decisions and actions regarding improvements, changes and resource needs.

TIP:

Start your internal audit program early during the implementation phase - your initial audits can double as training opportunities.

Clause 10: Improvement

The last section of ISO 9001:2015 requires companies to determine and identify opportunities for improvement.

There is a requirement for the improvement of products and services with an eye to current and future market needs. This clause also includes requirements regarding the correction of nonconformities. First, companies must react to the nonconformity. Secondly, companies must engage in corrective action to correct the underlying causes of existing problems, as well as engage in preventive action to correct situations that could lead to potential problems.

Last but not least, the company must plan and manage the processes for the continual improvement of the ISO 9001 Quality Management System. The company must use the quality policy, objectives, internal audit results, analysis of data, corrective and preventive action and management review to facilitate continual improvement.

TIP:

This is a very important section of the ISO 9001 Standard. Depending on how it is implemented, it can add tremendous value or create bureaucracy and waste. We highly recommend placing emphasis on this crucial section.

ISO 9000 in Construction Industry

The present development strategies throughout the world demands formal quality management system as a necessary attribute for any business. The main objective of quality management system is to ensure that the management system to be proficient

Professionally

Operationally

Commercially

Contractually

When talking about the history of evolution of quality management systems; a large number of national standards were developed as a part of quality assurance in 1970s in the area of manufacturing, military and in industries. Later this was extended to service industries and professional organization. But it was difficult to implement in the services that were granted by the building professionals like the engineers, architects, quantity surveyors. As it is not related to a product that is obtained from a manufacturing unit. In order to develop formal quality management systems in construction industry, quality assurance and related are registered with certified bodies. They seek third party certification based on the ISO 9000 quality standards. Among the ISO standards, the most relevant quality management system to be implemented in the case of a building professional is

the ISO 9001. For contracting organizations, ISO 9002 is more relevant. ISO 9000 in Construction Industry

Contents:

Understanding ISO standards

The quality management systems comprise the following standards. 1. ISO 9000: This section gives the guidance to select and use the Quality management and quality assurance standards 2. ISO 9001: This standard section helps in specifying quality assurance in different production stages. These stages include design, development, production, installing and the final service. 3. ISO 9002: This specifically deal with the quality assurance in the production and installation stage of the task. 4. ISO 9003: Quality assurance in the final stage i.e. the final inspection and testing stage is guided by the standard. 5. ISO 9004: Quality management and quality system elements is dealt by this standard. This form the last part of the ISO 9000 series. The ISO 9000 standard helps in documenting quality procedures by providing accepted accounting principles. Generally, the certification is given for two quality standards for a construction organization. They are:

Certification to ISO 9001

This certificate is provided for companies who carry out design activities as the major business operation. These companies carry out the design, development, production, installation and the final servicing.

Certification to ISO 9002

These are provided for the companies that does not carry out design activities. This includes production and installation. There are twenty different areas a company have to focus and pass in order to get certified as a ISO 9001 certified company.

Interpretation of ISO 9001

To get a construction industry ISO certified, the following 20 requirements determined by the standard must satisfied:

Management Responsibility

Quality System

Review of Contracts

Control of Design

Control of Documents

Purchasing

Purchaser Supplied Product

Identification of Product and the traceability

Process Control

Inspection and the testing

Inspection, measurement and equipment testing

Status of Inspection and the test

Control of products that are non-conforming

Corrective action

Handling, storing, packaging and the delivery

Quality records

Internal quality system auditing

Training

Servicing

Statistical Techniques

Management Responsibility

A clear idea on the quality policy must be stated by the firm to the management. Well defined responsibilities and duties must be established on the staff members who are involved in the quality management. The management must also ensure that for the verification of the performance activities, the resources and the personnel are available when needed. The quality manager must be given the right and authority by top management to bring up decision that will affect the quality of the services that is carried out within the organization. The continuing suitability and the effectiveness of the organization is ensured by having periodic review of the quality system of the firm.

Quality System

The quality system practiced and to be practiced must be documented in the organization. This help in ensuring that the services are carried out properly and consistently. The documentation of the quality system includes the following:

The policy manual

Manual for general procedure

Management procedure manual

Technical Procedure manual

Other document that specifies details of brief services that have influence in the quality system

Review of Contracts

This requirement forces the firm to make a project plan. This must undergo periodic project reviews which help in having service that accord with the client's current contractual, administrative and the financial requirements. This help in the service to be compatible, clearly defined and documented. Pre-planning of the service is made which ensures the adequate resources and the support.

Control of Design

The design services and other work taken by the firm includes:

Services to be provided are identified along with the identification of initial procurement and the advice for contract.

The contractual and the financial administrative arrangements of the project are determined

For the performance and verification of services maintenance and the procedure for operating must be provided

Other areas of concern will include are in the:

Service design and the development planning. Every project must have a project plan specifying the number of staffs and the responsible performance for each activity. Every key project decision has to be identified.

All internal and external data that are considered for the project developed is marked and documented as project data. Ambiguities and conflicting requirements are resolved.

The work procedure and the documentation in the standard form will influence the preparation of project organization proposals.

Qualified and experienced staffs will carry out the verification process of the service design.

Any change in the service design have to be identified and documented. All change must undergo a review. They are accepted only after formal verification and approval.

Control of Documents

An approved format of the quality system and the related documents must be presented. This will enable in:

Identifying and monitoring the service with respect to status

The issuing and controlling will be done through approved persons

Prior to the issue, it will review for appropriateness

These quality documents can be issues and made available for the staff members who are involved the quality management system. The documents that are obsolete will be removed immediately.

Purchasing

In situations, necessary for special work requirements, a firm shall maintain a register of specialist firm. Based on which personnel can be appointed based on the ability to provide the required service. The documents relating to the subcontractors can have the details of such specialist firms. The document will include:

The work scope which is to be undertaken

The performance level standards

Quality control expected from the specialty subcontractors

Purchaser Supplied Product

Details regarding the information given by the client, agents, and the consultants must be recorded by the firm. This include the instructions, drawings, specification, minutes of meetings, schedules etc.

Identification of Product and the traceability

A standardized system to identify, revise and control the project documents must be maintained by the firm. The project documents must be stored such that easy retrieval and traceability is possible.

Process Control

The firm must ensure that the activities that conforms to the quality is done based on the documented work procedures that is implemented by the firm. For special activities, continuous monitoring must be carried out.

Inspection and the testing

This is dealt with the documents that are provided by the other organizations. These documents must be verified as per the client supplied information. The work carried out by the firm must be verified at predetermined stages of the project.

Inspection, measurement and equipment testing

The inspection and the testing of the measuring equipment must be conducted in the sound condition. This must be done with utmost accuracy to ensure the quality in the service.

Status of Inspection and the test

Inspection and the examination of the documents and the service that are provided must be done at every stage of the project.

Control of products that are non-conforming

Those work that is non-conforming must be identified. Those document that do not comply with the requirements specifies have to be prevented.

Corrective action

Wherever a deficiency is identified there must be certain procedures that have to be maintained by the firm to correct it. There must be a means to review any sort of non conformance "feedback" system in the construction organization.

Handling, storing, packaging and the delivery

The products that are outgoing must be properly addressed. They must show no chances to bring any damage.

Quality records

The firm must have the following storage of:

Project information that will include all the project quality record that is meant to meet the requirements of the client.

The records of administration of the quality system

Internal quality system auditing

The review of all the aspects of the quality system of the firm is done through periodic internal audits. This will show that the quality system is effectively used by the firm.

Training

The firm must identify the need for training for the individuals who are working for quality working system. It is recommended that the professional staff must undertake a minimum training attendance for continuing professional development that is put forward by the firm. The details of the staff qualification, training, and their experience have to be recorded.

Servicing

All the services provided by the firm to the client must be documented.

Statistical Techniques

Random sample techniques can be carried out for the quality control and monitoring of the activities. The quality level can be determined early through the sampling frequency. Read More: Roles and Responsibilities of a Civil Site Engineer Quality Management in Construction Project Automated Material Management and Handling in Construction Projects.

A document found by Scientific Research Department in Eulida National Brazil

ISO 11618:2015

Buildings and Civil Engineering Works

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should

be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL:

Foreword - Supplementary information

The committee responsible for this document is ISO/TC 59, Buildings and civil engineering works, Subcommittee SC 8, Sealants.

1 Scope

This International Standard applies to sealants used for pedestrian walkways, public areas, movement joints between concrete slabs, areas with pedestrian load, areas which are used with trolleys, parking garages, walkable floors, balconies, terraces, and warehouses.

This International Standard specifies the types and classes of elastic sealants used in building construction pedestrian walkways according to their performance characteristics. Sealant may be either non-sag or self-leveling as declared by the manufacturer. Areas of application are floor joints which have been designed.

Chemical containment, cold applied joint sealants for concrete pavements to be used in roads, airfields, and sewage treatment plants are excluded.

Local regulations may be required in addition to this International Standard based on local laws and codes.

2 Normative reference

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

- **ISO 6927, Buildings and civil engineering works — Sealants — Vocabulary**
- **ISO 7389, Building construction — Jointing products — Determination of elastic recovery of sealants**
- **ISO 8339, Building construction — Sealants — Determination of tensile properties (Extension to break)**
- **ISO 8340, Building construction — Sealants — Determination of tensile properties at maintained extension**
- **ISO 9047, Building construction — Jointing products — Determination of adhesion/cohesion properties of sealants at variable temperatures**
- **ISO 10563, Building construction — Sealants — Determination of change in mass and volume**
- **ISO 10590, Building construction — Sealants — Determination of tensile properties of sealants at maintained extension after immersion in water**
- **ISO 13640, Building construction — Jointing products — Specifications for test substrates**
- **ISO 19861, Buildings and civil engineering works — Sealants — Determination of Curing rate behavior**

- **ISO 19862, Buildings and civil engineering works — Sealants — Durability to extension compression cycling under accelerated weathering**
- **ISO 19863, Buildings and civil engineering works — Sealants — Determination of tear resistance**

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6927 apply.

Bibliography

[1] ISO 7390, Building construction — Jointing products — Determination of resistance to flow of sealants

[2] ISO 11600, Building construction — Jointing products — Classification and requirements for sealants

[3] ISO 16938-1, Building construction — Determination of the staining of porous substrates by sealants used in joints — Part 1: Test with compression

[4] ISO 16938-2, Building construction — Determination of the staining of porous substrates by sealants used in joints — Part 2: Test without compression

ISO Document by prepared Studies and Research Unit

ISO/TC 59

Buildings and civil engineering works

Scope

Standardization in the field of buildings and civil engineering works, of:

- **general terminology;**

- **organization of information in the processes of design, manufacture and construction;**
- **general geometric requirements for buildings, building elements and components including modular coordination and its basic principles, general rules for joints, tolerances and fits, performance and test standards for sealants;**
- **general rules for other performance requirements, including functional and user requirements related to service life, sustainability, accessibility and usability;**
- **general rules and guidelines for addressing the economic, environmental and social impacts and aspects related to sustainable development;**
- **geometric and performance requirements for components that are not in the scope of separate ISO technical committees;**
- **procurement processes, methods and procedures.**

Excluded:

- **standardization and coordination of technical product documentation (ISO/TC 10);**
- **acoustic requirements (ISO / TC 43);**
- **bases for design of concrete structures (ISO/TC 71/SC 4);**
- **fire tests and fire safety engineering related to building materials, components and structures (ISO/TC 92);**
- **bases for design of structures (ISO / TC 98);**
- **construction machinery (ISO/TC 127 and ISO/TC 195);**
- **performance requirements for glass in buildings (ISO/TC 160);**
- **performance requirements for doors, doorsets and windows (ISO/TC 162);**
- **calculation of thermal properties (ISO / TC 163);**
- **bases for design of timber structures (ISO/TC 165);**
- **bases for design of steel and aluminium structures (ISO/TC 167);**

- **geotechnical aspects and soil quality (ISO/TC 182 and ISO/TC 190);**
- **standardization in the design and retrofit buildings regarding acceptable indoor environment and practicable energy use (ISO/TC 205).**

01.100.30 □

CONSTRUCTION DRAWINGSINCLUDING CIVIL ENGINEERING DRAWINGS

STANDARD AND/OR PROJECT (17) STAGE TC

ISO 128-23:1999

Technical drawings — General principles of presentation — Part 23: Lines on construction drawings 90.92

ISO/TC 10/SC 8

ISO 128-33:2018

Technical product documentation (TPD) — General principles of presentation — Part 33: Representation of views, sections and cuts in construction drawings 60.60

ISO/TC 10/SC 8

ISO 128-43:2015

Technical product documentation (TPD) — General principles of presentation — Part 43: Projection methods in building drawings 90.20

ISO/TC 10/SC 8

ISO 3766:2003

Construction drawings — Simplified representation of concrete reinforcement 90.93

ISO/TC 10/SC 8

ISO 4157-1:1998

Construction drawings — Designation systems — Part 1: Buildings and parts of buildings 90.93

ISO/TC 10/SC 8

ISO 4157-2:1998

Construction drawings — Designation systems — Part 2: Room names and numbers 90.93

ISO/TC 10/SC 8

ISO 4157-3:1998

Construction drawings — Designation systems — Part 3: Room identifiers 90.93

ISO/TC 10/SC 8

ISO 4172:1991

Technical drawings — Construction drawings — Drawings for the assembly of prefabricated structures 90.93

ISO/TC 10/SC 8

ISO 6284:1996

Construction drawings — Indication of limit deviations 90.93

ISO/TC 10/SC 8

ISO 7437:1990

Technical drawings — Construction drawings — General rules for execution of production drawings for prefabricated structural components 90.93

ISO/TC 10/SC 8

ISO 7518:1983

Technical drawings — Construction drawings — Simplified representation of demolition and rebuilding 90.93

ISO/TC 10/SC 8

ISO 7519:1991

Technical drawings — Construction drawings — General principles of presentation for general arrangement and assembly drawings 90.93

ISO/TC 10/SC 8

ISO 8560:2019

Technical drawings — Construction drawings — Representation of modular sizes, lines and grids 60.60

ISO/TC 10/SC 8

ISO 9431:1990

Construction drawings — Spaces for drawing and for text, and title blocks on drawing sheets 90.93

ISO/TC 10/SC 8

ISO 11091:1994

Construction drawings — Landscape drawing practice 90.93

ISO/TC 10/SC 8

ISO/TR 16310:2014

Symbol libraries for construction and facilities management 60.60

ISO/TC 10/SC 8

ISO/DIS 22014

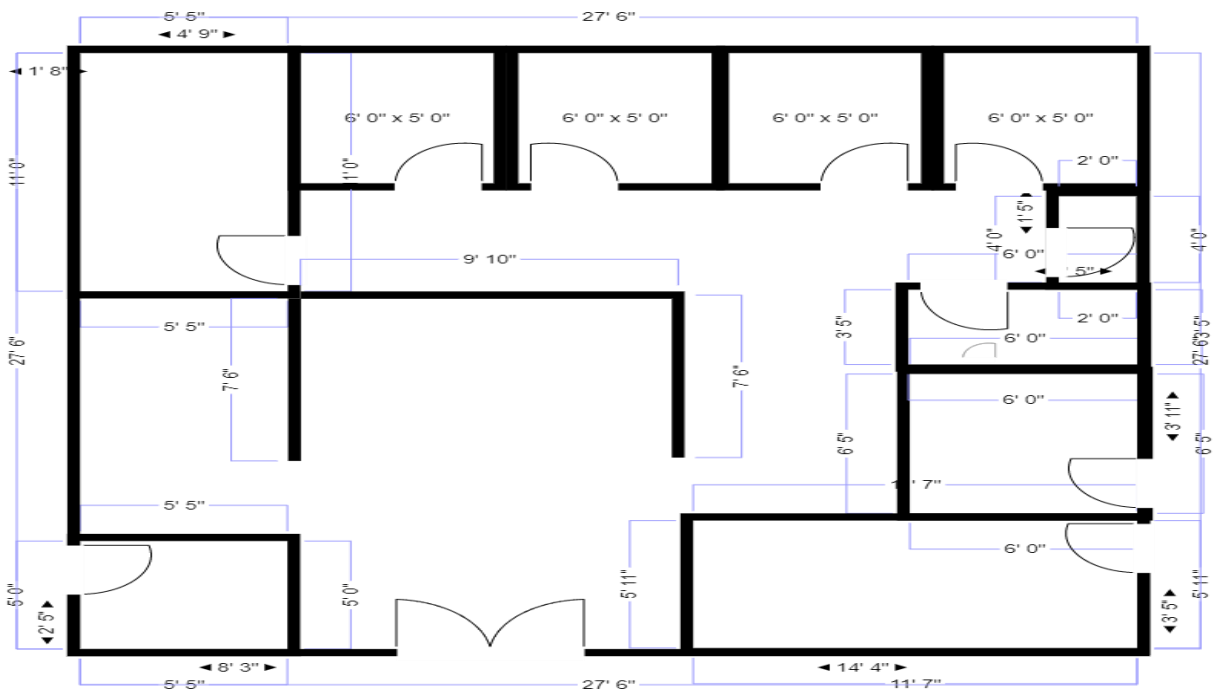
Library objects for architecture, engineering, construction and use 40.60

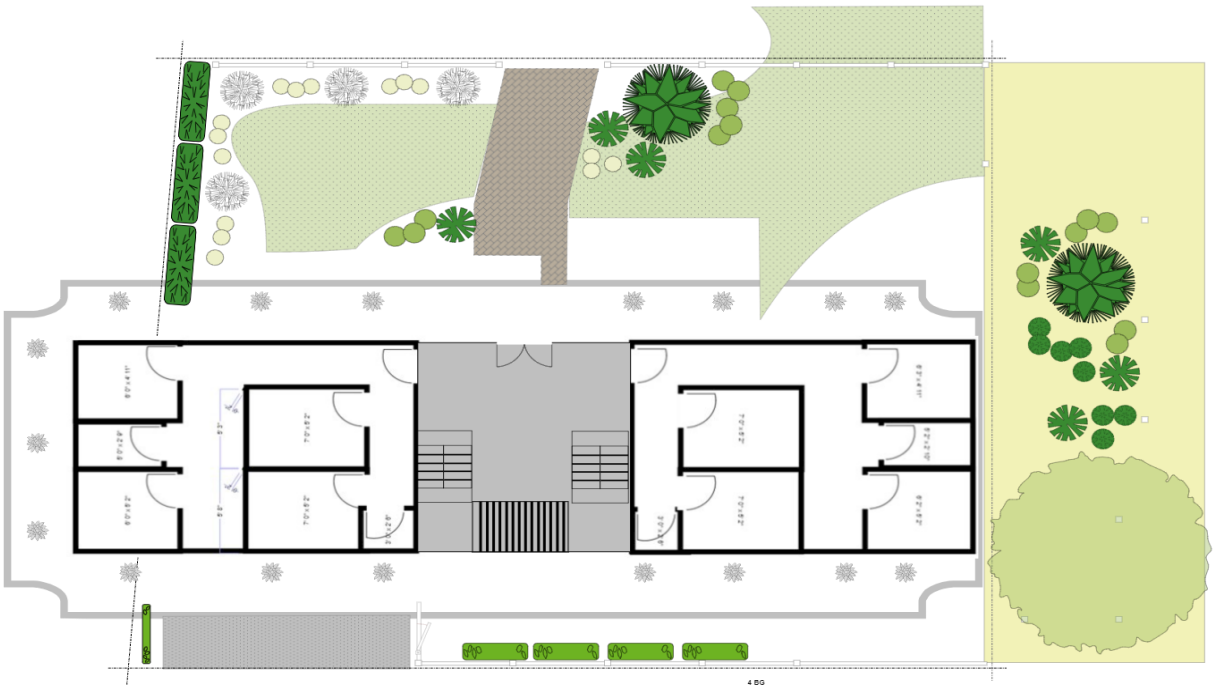
ISO/TC 10/SC 8

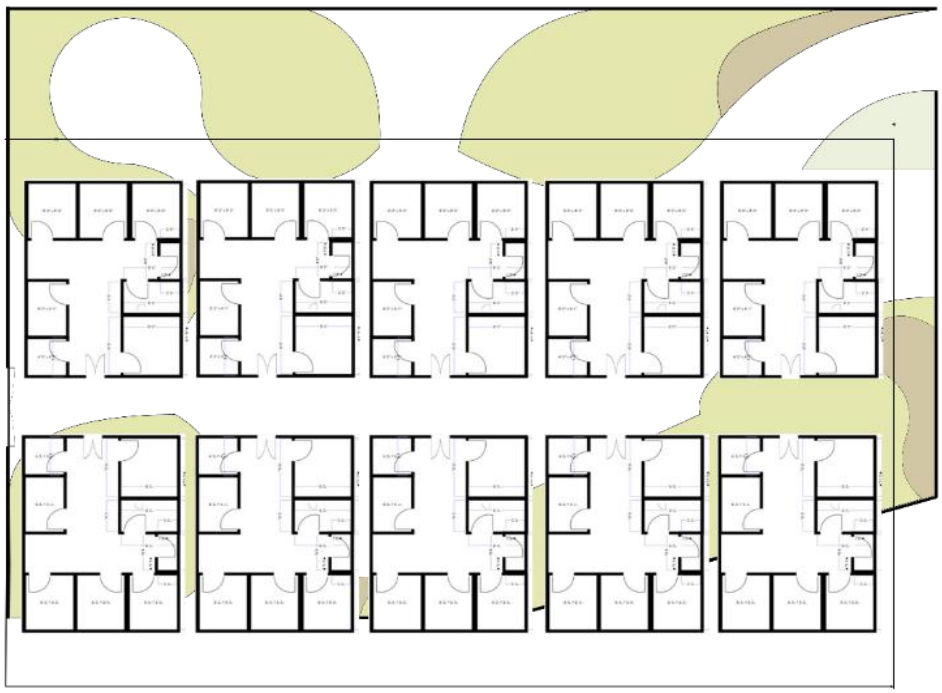
The Architectural Unit Report



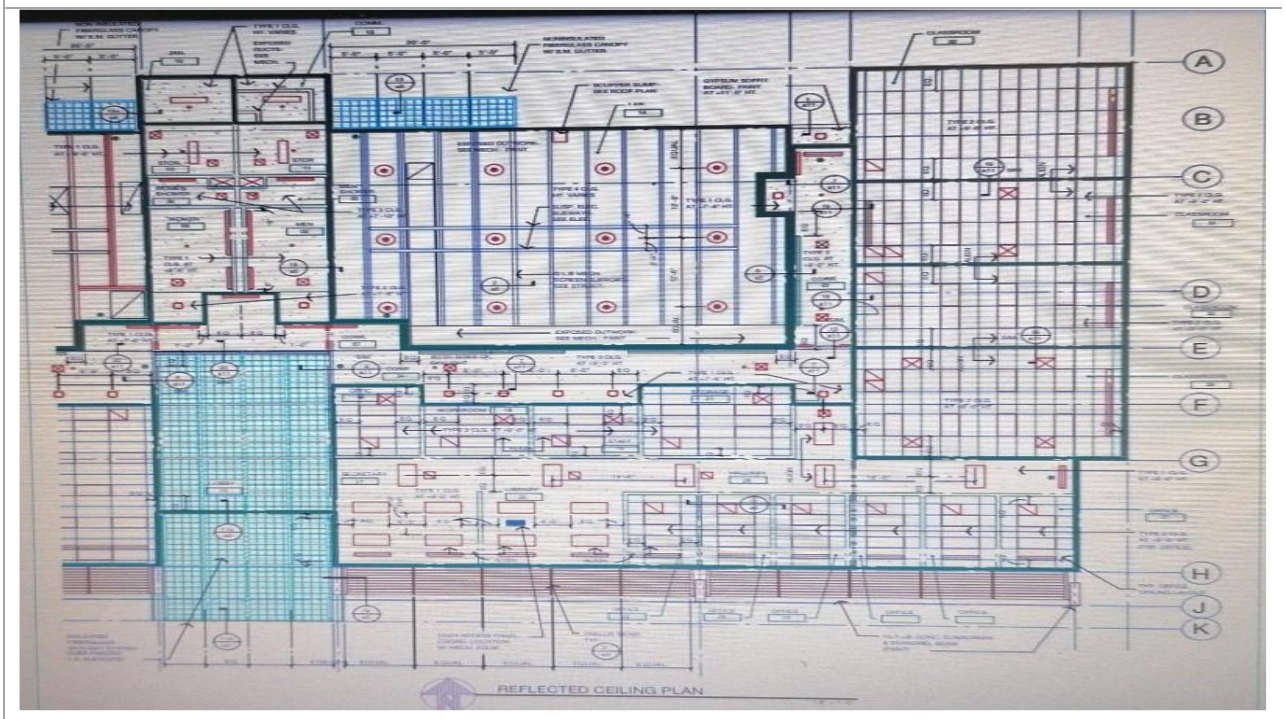


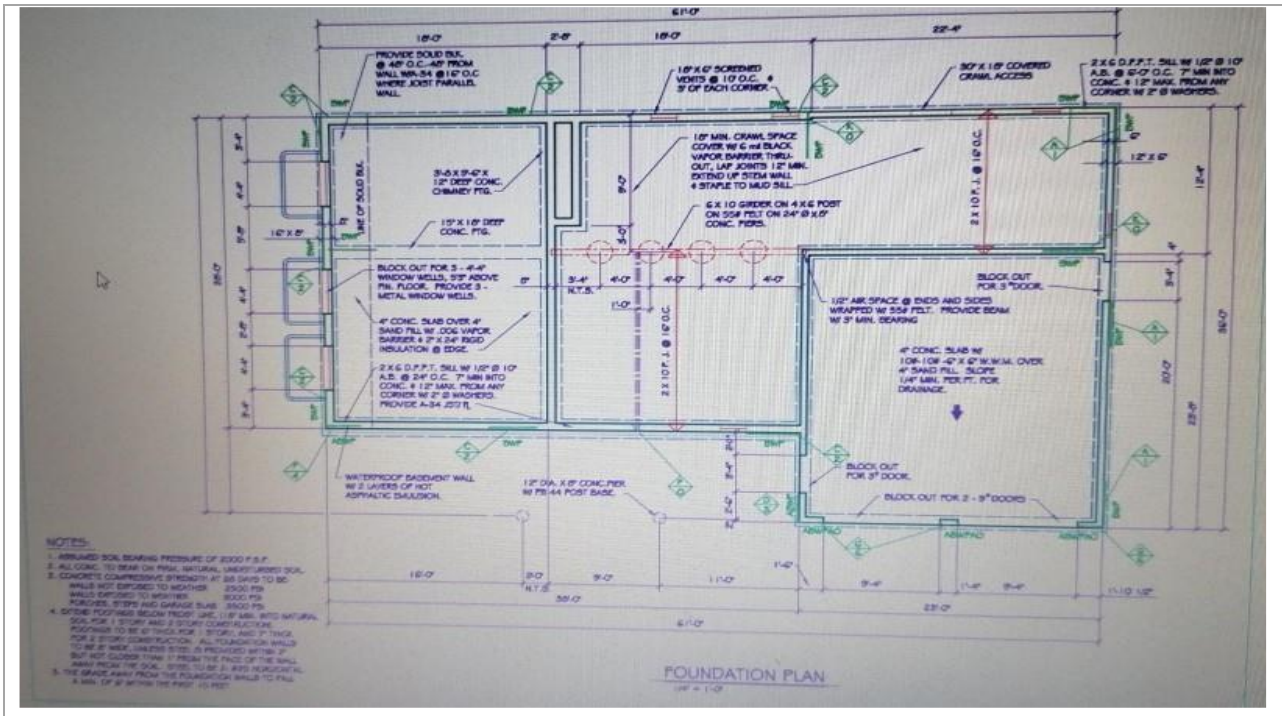

5' 5"
4' 9"
27' 6"
1' 8"
6' 0" x 5' 0"
6' 0" x 5' 0"
6' 0" x 5' 0"
6' 0" x 5' 0"
11' 0"
11' 0"
2' 0"
1' 5"
4' 0"
6' 0"
5"
4' 0"
9' 10"
5' 5"
2' 0"
6' 0"
3' 5"
27' 6"
7' 6"
7' 6"
6' 0"
3' 11"
6' 5"
6' 5"
1' 7"
5' 5"
6' 0"
5' 0"
2' 5"
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5' 11"
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3' 5"
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11' 7"

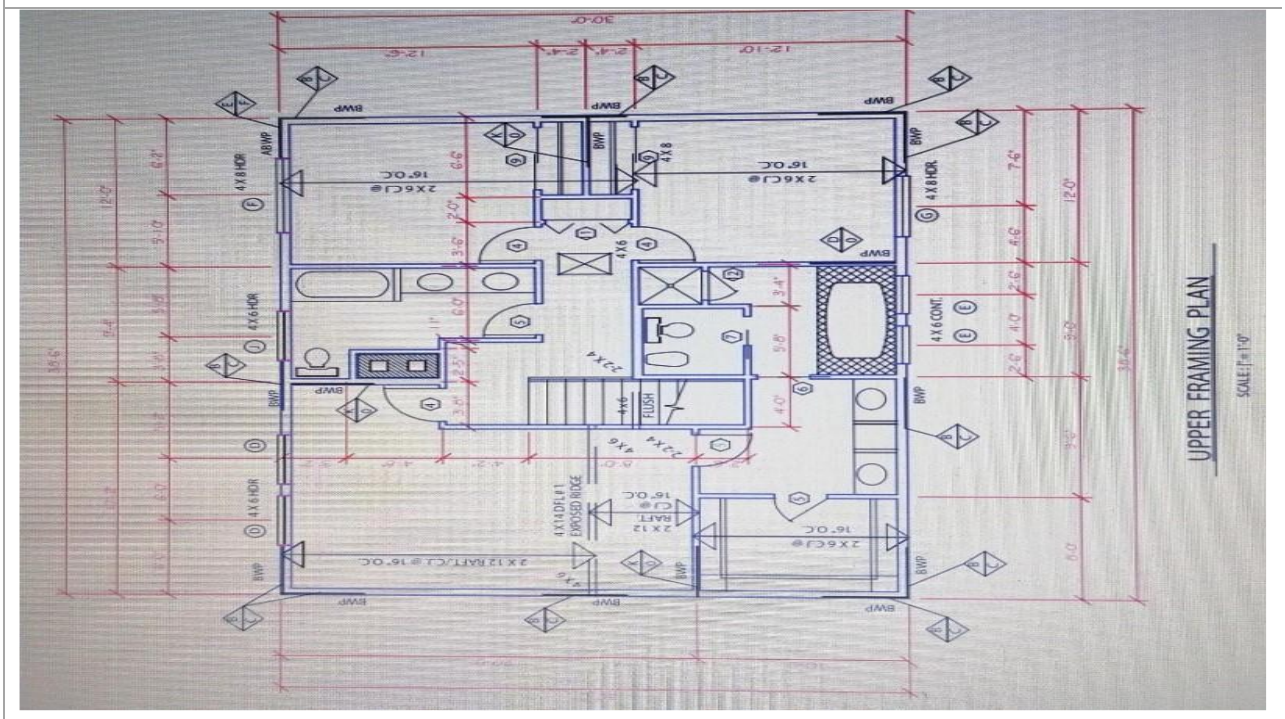


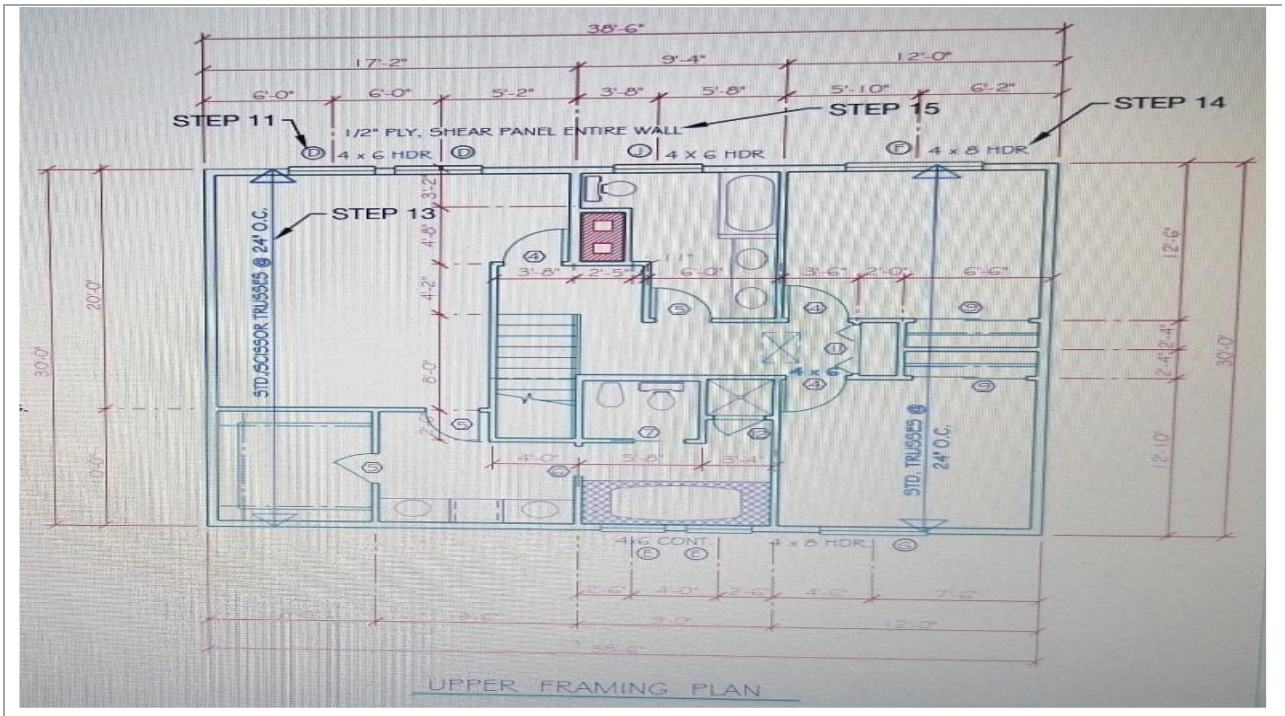


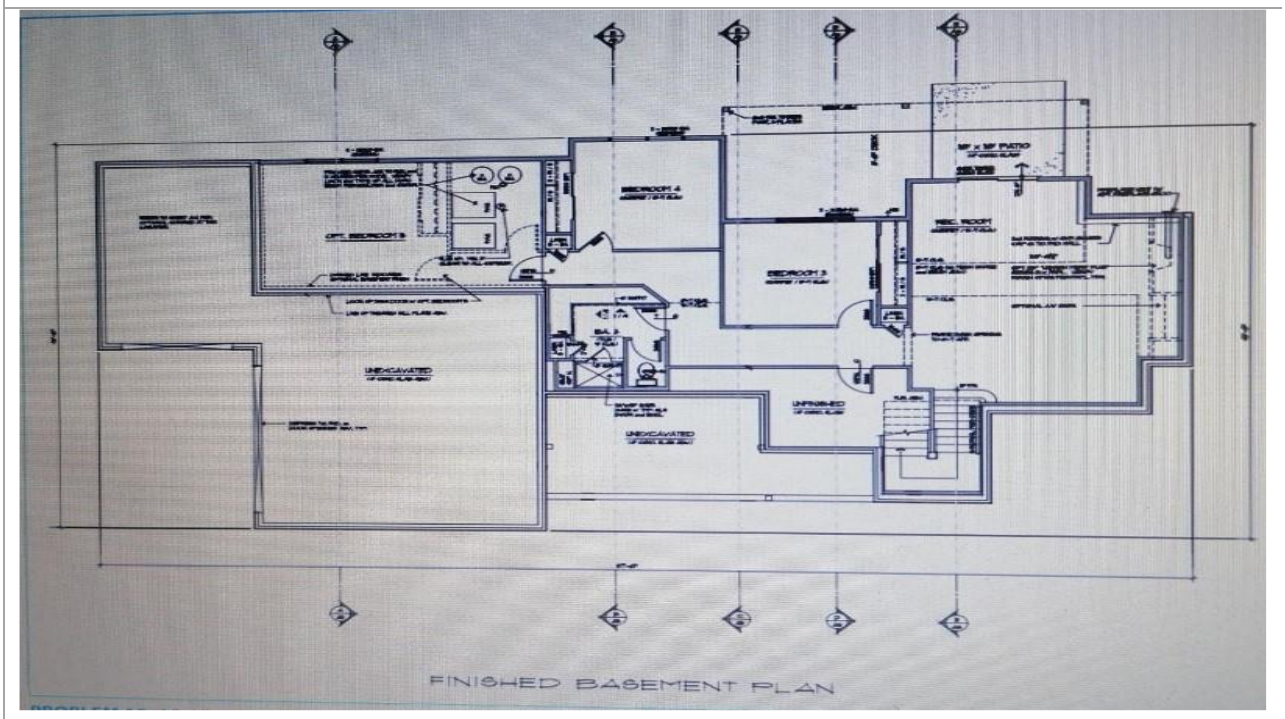


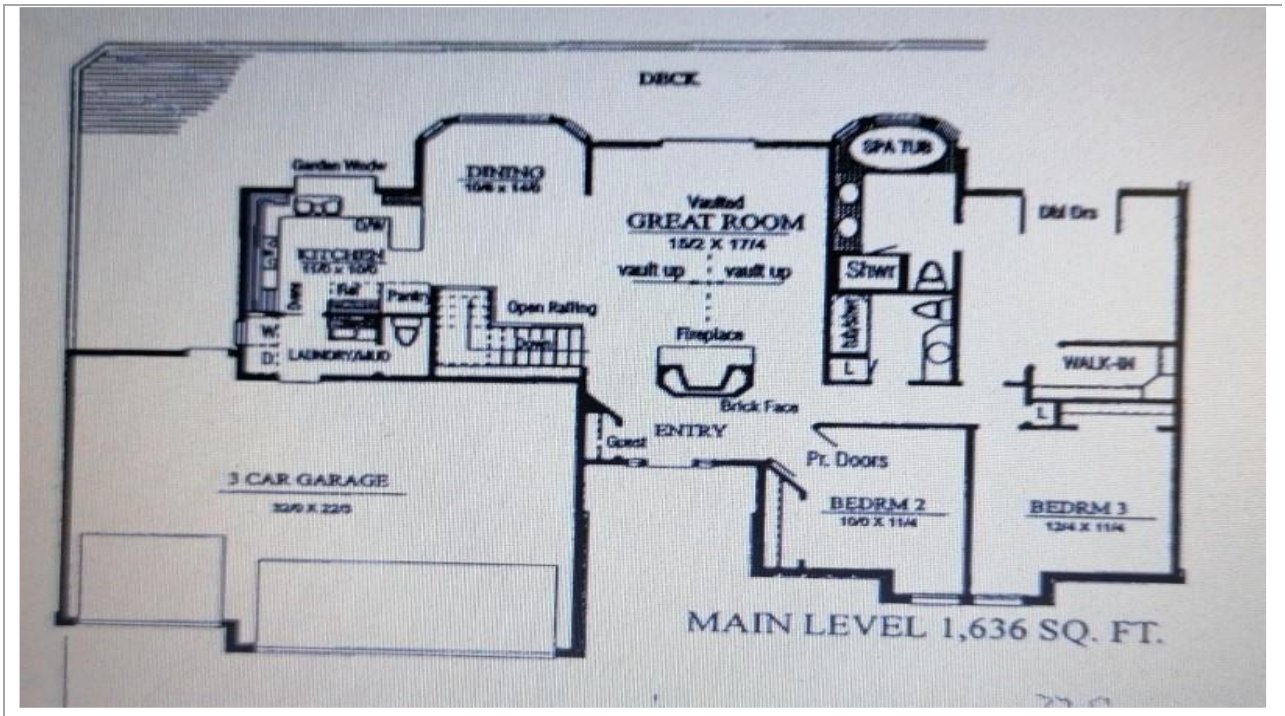

REFLECTED CEILING PLAN


FOUNDATION PLAN


UPPER FRAMING PLAN


38'-6"
17'-2"
9'-4"
12'-0"
6'-0"
6'-0"
5'-2"
3'-8"
5'-8"
5'-10"
6'-2"
STEP 11
1/2" PLY. SHEAR PANEL ENTIRE WALL
STEP 15
STEP 14
4 x 6 HDR
4 X 6 HDR
4 x 8 HDR
STEP 13
STD. SCISSOR TRUSSES @ 24" O.C.
STD. TRUSSES @ 24" O.C.
4 x 6 CONT.
4 x 8 HDR
UPPER FRAMING PLAN


FINISHED BASEMENT PLAN


DECK
SPA TUB
DINING
Vaulted
GREAT ROOM
15/2 X 17/4
vault up
vault up
Open Railing
Fireplace
Brick Face
ENTRY
Guest
Pr. Doors
3 CAR GARAGE
BEDRM 2
10/0 X 11/4
BEDRM 3
WALK-IN
MAIN LEVEL 1,636 SQ. FT.



















The Engineering Operations and Land Authority Management Unit Report









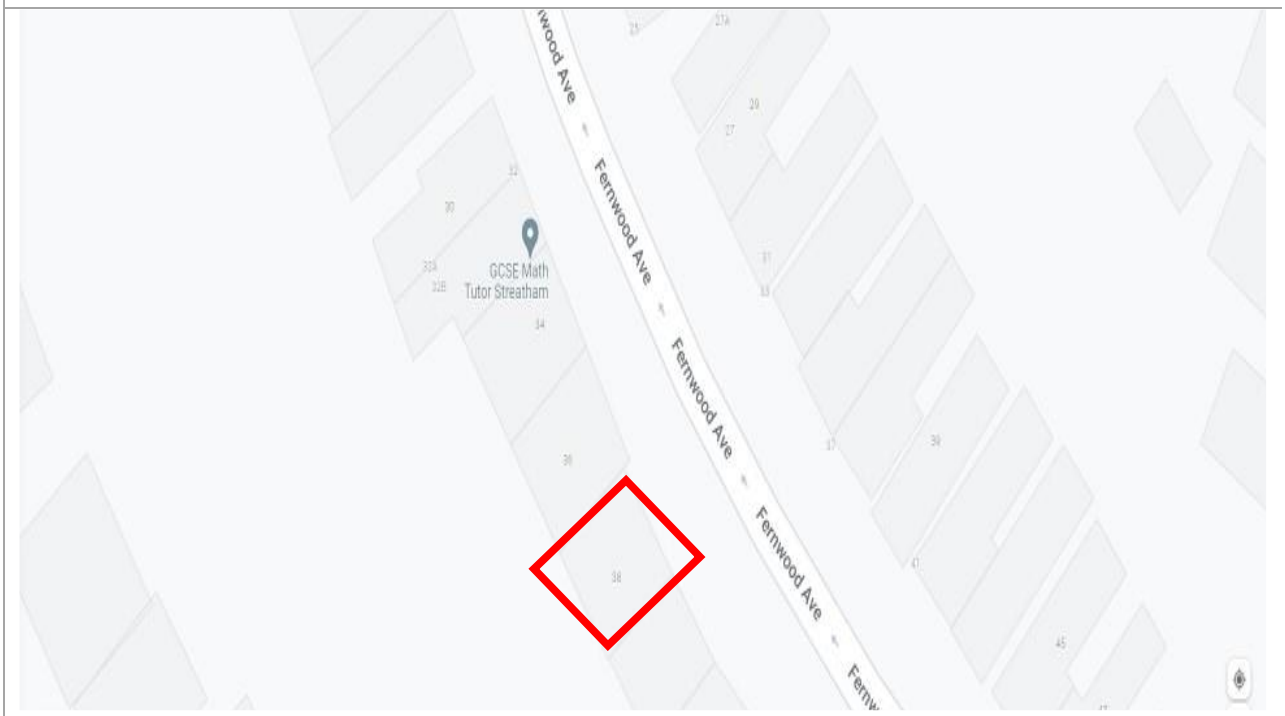





VINAMILK




Her Definition Salon
Enterprise Car Club
15 Gleneldon Road
Gleneldon Rd
Shrubbery Rd
Gleneldon Mews
Dulwich and
West Norwood
Gleneldon Rd
Gleneldon Rd
Shrubbery Rd
Relive Fitness UK
Ashlake Rd
Garage Block
Gleneldon Rd
Gleneldon Rd


Fernwood Ave
Fernwood Ave
Fernwood Ave
GCSE Math
Tutor Streatham

The Financial Management

Unit Report

1st June 2021

Applied Salaries by the Bank

Greetings to His Excellency the Director and the bank team,

I have written to your esteemed bank more than once to find the money that could be in my account as income from Eulida National Brazil, which represents the annual payment of 36,000 pounds, because I am the representative of the aforementioned company and its declared director in the declared headquarters of the company in the Companies House, and this is known to the administrative bodies in the UK.

Accordingly, it was decided to grant me from the company, Eulida National Brazil, the amount of 36,000 pounds annually, and this is known to the esteemed bank authority. I have several employees, and their number is eight, and they work with me in the same company and under my management, and I ask that you lend a hand and help in what is decided by British law and European law in Britain to solve the problem of paying the money necessary for the employees 'subsistence and the salaries declared in the payroll, and I hope that you will follow up with the legal committee of the company, which is represented by me and also please contact the email if possible to find out the visions of the esteemed bank. Also, any breach of my employee's contracts will lead to the loss of those eight contracts and will lead to the return to the first square after the effort made by the employment authority of the company, Eulida National Brazil, and certainly the bank has a point of disbursement The salaries, but I hope that it does not affect my company, as I am ready for any discussions with the distinguished bank.

The bank authority can contact me on the e-mail known to you.

And keep you in God Save and sponsorship ..

Sincerely,

Elzein Salah Elzein

The Director of the company Eulida National Brazil

Greetings to His Excellency the Director and the bank team,

Hope all of you are well.

I would like to inform the respected bank that Eulida National Brazil is a leading company in the field of architecture, engineering planning and the implementation of the first engineering plans to ensure the safety and success of approved projects.

Eulida National Brazil is a company that started working in 2012 in the city of Riyadh, Kingdom of Saudi Arabia, where several projects were completed between North Riyadh to South Riyadh, which numbered nine projects as follows:

1- Housing project for villas on Prince Salman Street in northern Riyadh, which number 28 villas, from pouring concrete, reconstruction and finishing deluxe.

2- Several projects in the south of Riyadh, which number seven, including casting of concrete, reconstruction, installation of electricity, plumbing, and deluxe finishing.

3- A large house project on Prince Salman Road, 10 rooms of concrete casting, reconstruction and installation of electricity, plumbing, and deluxe finishing.

The bank authority can contact me on the e-mail known to you in this regard.

And keep you in God Save and sponsorship

Sincerely,

Elzein Salah Elzein

1st June 2021

Eulida National Brazil Projects Budget Figures

Greetings to His Excellency the Director and the bank team

Hope all of you are well.

I would like to inform the esteemed bank that the budget has been sent by us as a company Eulida National Brazil as a second party with the bank as a first party, stated that we need approximately 2,500,000 pounds annually to work on projects that benefit the middle income classes, or nearly 5,500,000 pounds to carry out governmental or civil projects in London or in English/Scottish and Irish regions and this includes the following:

1- Building Marks and Spencer or Lidl for foodstuffs Stores, with a value of 7,000,000 pounds.

2 - Building middle-income housing with a value of 9,000,000 pounds.

3- Building luxury villas with a value of 14,000,000 pounds.

The bank authority can contact me on the e-mail known to you in this regard.

And keep you in God Save and sponsorship

Sincerely,

Elzein Salah Elzein

3rd June 2021

Announcing the company's upcoming projects

Greetings to the Director and Associates of the Bank,

Eulida National Brazil would like to announce the company's expected projects in the period (2022 – 2025) as follows:

1- Construction of buildings in Stanmore with 8 apartments and 4 floors. Construction includes pouring concrete, constructing plumbing, and finishing the building in its final form in proportion to local consumption.

2 - Finishing a three-floor building in Edgware using scaffolding and making the building usable and suitable for local use.

3- Establishment of a food store in Woolwich in accordance with specifications and local use.

4- Rehabilitation of furniture for a building in Zone 1 in proportion to the decor to make it suitable for use by Ikea Woolwich.

I request your Excellency to provide the company with the necessary budget, which is not less than 9000,000 pounds, to initiate the above-mentioned projects in particular, to carry out the necessary project management for the company, Eulida National Brazil, immediately and urgently.

Thank you

Sincerely,

Elzein Salah Elzein

2 July 2021

To the Honorable Director of the Bank,

I am writing to clarify the position of my Company Eulida National Brazil, as our orders have exceeded the limit and we have not yet received any money in the account opened with your Bank for the purposes of construction to be covered by and the facilities are as follows:

1- Request Scaffolding works for construction and reconstruction in Acton.

2 - Request for Scaffolding works for construction and reconstruction purposes in the district of Hays.

3 - Rehabilitation of buildings in Uxbridge and Hays for rental purposes.

4- Request to build a large building for eight floors in Acton for the purposes of renting offices.

Sender:

Elzein Salah Elzein

Letter to the Bank

Good greetings,

From: the director of Eulida National Brazil Office,

To: The Company's House and Card One Money Bank in UNITED KINGDOM:

1 I would like to ask for a loan for the construction of hotel buildings in the amount of 1,000,000 pounds.

2 I would like to ask your honorable for a loan amount to set up a factory in London at an estimated amount of 1,000,000 pounds.

I would like to ask for a loan for the establishment of condominiums/FLATS OR APPARTMENTS in the amount of 1,500,000 pounds.

Thank you

DONE BY Eulida National Brazil Ltd,

Director/

ELZEIN SALAH ELZEIN

Loan Request from the Bank

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil in the United Kingdom and the State of Sudan and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that my I own a plot of land and an apartment in the city of London, and accordingly, I am submitting to your esteemed authority a request for a loan in the my name for the purpose of buying apartments for rent through the office of Eulida National Brazil for the purposes of general rental and making the apartment within Investment plan for the mentioned company in the City of London. Therefore, I am now requesting an amount of three hundred and fifty thousand (350,000) pounds to

guarantee the property mentioned in the letter with your Excellency. I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

sender:

Elzein Salah Elzein

Loan Request from the Bank

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil in the United Kingdom and the State of Sudan and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that my I own a plot of land and an apartment in the city of London, and accordingly, I am submitting to your esteemed authority a request for an advance or loan in the my name for the purpose of buying furniture from IKEA through the office of Eulida National Brazil for the purposes and the furniture is within Investment plan for the mentioned company in the City of London. Therefore, I am now requesting an

amount of four hundred and fifty thousand (450,000) pounds to guarantee the furniture in Financial Request plan mentioned in the letter with your Excellency. I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

sender:

Elzein Salah Elzein

Loan Request from the Bank

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil in the United Kingdom and the State of Sudan and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that my I own a plot of land and an apartment in the city of London, and accordingly, I am submitting to your esteemed authority a request for an advance or loan in the my name for the purpose of buying Flats and Hotels through the office of Eulida

National Brazil for the purposes of general rental of the apartments within Investment plan for the mentioned company in the City of London. Therefore, I am now requesting an amount of One Million pounds (1,000,000) pounds to guarantee the furniture in Financial Request plan mentioned in the letter with your Excellency. I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

sender:

Elzein Salah Elzein

Legal Unit: Letter to Card One Money Bank for Loan to support future purchasing of premises for Eulida National Brazil Estate according to Eulida National Brazil Ltd Projects Plans:

Date: 26/8/2021

Title: Loan Request Letter of 2,650,000 pounds from Card One Money Bank

Dear Manager of Card One Money Bank,

Good greeting,

I am writing to your Excellency in charge of the Financial Support and Loan Department of your esteemed bank to explain to you the position of our company Eulida National Brazil on this date after we started working in the UK for nearly a year and a half since we started working in the UK in February of the year 2020. I do not hide from your Excellency that our facility has not received any support from your bank yet until today, 08/26/2021.

Therefore, I ask the Bank to support us according to our financial needs resulting from the lack of financial resources in the previous period. I hope the Bank will include us in its strategic plan for financial support for businesses and companies, especially our facility, Eulida National Brazil and its subsidiaries, Uxbridge and Dexter, Ciacabic and Massimo Dutti Africa, which were set up in the United Kingdom in the previous year.

I want to be clearer that our facility needs a loan of 150,000 (one hundred and fifty thousand) pounds in order to get a property for rent. This property will be considered as the company's headquarters, and it consists of a large office and warehouse with an area of 160 square meters in London.

I also ask your Excellency to support our company with an amount of no less than 500,000 (five hundred thousand) pounds to obtain a part of a building in installments for rental purposes from the Eulida National Brazil Real Estate Office.

I would like to explain to your Excellency that in terms of Eulida National Brazil Construction Projects, Eulida National Brazil is in to a Loan of 2,000,000 two million pounds to fulfil the first project in Acton City to Build a building consists of ten flats

for the common use of the public. Eulida National Brazil Real Estate will administer the building for the bank and according to citizens benefit in United Kingdom.

I am fully prepared to repay the required loans amounting to 2,650,000 (two million six hundred and fifty thousand pounds) in a timely manner, according to the repayment plan set by the bank.

In conclusion, I would like to extend my deep thanks to the esteemed bank, wishing them all success. I also hope that the requirements of the company Eulida National Brazil will not be rejected, especially that the company is newly established in the United Kingdom and includes many experts in the field of construction and reconstruction, to my knowledge, and it is one of the companies with extensive experience in this field.

Stay safe in God Save and sponsorship.

Company director

Elzein Salah Elzein

Letter to the bank manager:

Title: Determining the budget parameters in the two contracting companies Eulida National Brazil and Uxbridge & Dexter and Budget Request Letter for the two companies

I hope you are well. I am sending you the minutes of the meetings that took place today in Eulida National Brazil to determine the required amounts of money

according to the financial plan to support the company from your esteemed Body.

Number of Units/ Unit Description	Unit Price (GBP)	Total Units Price (GBP)
Machines		
10 Dumpers	**150,000**	**1,500,000**
10 Loaders	**150,000**	**1,500,000**
10 Trucks	**200,000**	**2,000,000**
10 Concrete Precast Trucks	**300,000**	**3,000,000**
3 Cranes	**100,000**	**300,000**
5 Lands for Machines owned by the Company	**850,000**	**4,250,000**
3 Houses for Labor stay	**600,000**	**1,800,000**
Projects		
Marks and Spencer Construction Project	**----**	**7,000,000**
London West Flats Project in West London	**----**	**16,000,000**
Houses in London	**----**	**18,000,000**
12 Land Purchasing	**1,000,000**	**12,000,000**
Uxbridge Industrial Project for (Food	**----**	**36,000,000**

Processing) (Land, Building, Machines)		
Total	**----**	**103,350,000**

Title: Budget Request Letter for Eulida National Brazil and Uxbridge & Dexter contractors

Having said that, I am requesting 30% of the declared budget required over 50% of the total required to complete the workflow procedures in the two contracting companies Eulida National Brazil and Uxbridge & Dexter as a matter of urgency to support the two companies and the work related to them.
And Stay safe in God Save and sponsorship.

sender:

Elzein Salah Elzein

To His Excellency Bank Manager Card One Money

Eulida National Brail has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of fifty million pounds from the total items of projects to Eulida National Brazil Company, which is estimated at a total cost of one hundred and ninety-four million pounds as a down payment for projects scheme, as follows:

Working in the UK:

1- Building ten houses in the city of London in the South Hall district, west of London, at an estimated cost of five million pounds.

2- Building ten houses in the Mile End area of east London at an estimated cost of five million pounds.

3- Building four hotels comparable to the Premier Inn and Hard Rock hotels in the city of London in Acton neighborhood at an estimated cost of fifteen million two hundred thousand pounds.

4- Building an industrial city that includes ten large factories for canning, food products, juices products, textile products, agricultural products, leather products, electric cars manufacturing, building materials, agricultural tractors, and construction and construction machinery, in near Bracknell in Berkshire County, at an estimated cost of forty-five million pounds.

5- Building three factories for cement, building materials, food and textiles in Reading, at a total cost of twelve million pounds.

6- Building a textile factory in Exeter at a cost of four million pounds.

7- Infrastructure projects such as building roads, bridges, water and sewage projects in the city of London at a total cost of ten million pounds.

The total cost of the UK projects scheme item: ninety-six million pounds.

Working in Europe (Bratislava, Slovakia)

1- A project of four towers in the city of Bratislava extending to sixteen floors in the city center at a total cost of ten million pounds.

2- Building four hotels comparable to the Premier Inn and Hard Rock hotels in London at an estimated cost of fifteen million two hundred thousand pounds.

3- The project to build TSB Bank in the south of Bratislava at an estimated cost of six million pounds.

The total cost of the Slovakia projects scheme item: thirty-one million pounds.

In Action in Europe (Stockholm, Sweden)

1- Building four factories for furniture, building materials, food and clothing production in Stockholm, at an estimated cost of sixteen million pounds.

The total cost of Sweden's projects scheme: sixteen million pounds.

In the framework of work (São Paulo, Brazil)

1- The project of building four factories for meat production in the city of São Paulo and City of Brasilia at an estimated cost of sixteen million pounds.

The total cost of the Brazil projects scheme item: sixteen million pounds.

In the framework of work in (Riyadh, Saudi Arabia)

1- The project of building an industrial city that includes three factories for meat production in Riyadh, Jeddah and Yanbu and five factories for the production of cement, agricultural products, furniture, building and construction machinery, grain stores, and two factories for shoes and clothes in the city of Riyadh at a total cost of thirty-five million pounds.

The total cost of the Saudi projects scheme item: thirty-five million pounds.

Thank you,

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

To His Excellency Bank Manager Card One Money

Eulida National Brail has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of ninety-six million pounds from the total items of projects to Eulida National Brazil Company, which is estimated at a total cost of one hundred and ninety-four million pounds as a down payment for projects scheme, as follows:

Working in the UK:

1- Building ten houses in the city of London in the South Hall district, west of London, at an estimated cost of five million pounds.

2- Building ten houses in the Mile End area of east London at an estimated cost of five million pounds.

3- Building four hotels comparable to the Premier Inn and Hard Rock hotels in the city of London in Acton neighborhood at an estimated cost of fifteen million two hundred thousand pounds.

4- Building an industrial city that includes ten large factories for canning, food products, juices products, textile products, agricultural products, leather products, electric cars manufacturing, building materials, agricultural tractors, and construction and construction machinery, in near Bracknell in Berkshire County, at an estimated cost of forty-five million pounds.

5- Building three factories for cement, building materials, food and textiles in Reading, at a total cost of twelve million pounds.

6- Building a textile factory in Exeter at a cost of four million pounds.

7- Infrastructure projects such as building roads, bridges, water and sewage projects in the city of London at a total cost of ten million pounds.

The total cost of the UK projects scheme item: ninety-six million pounds

Thank you,

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

To His Excellency Bank Manager Card One Money

Eulida National Brail has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of thirty-one million pounds from the total items of projects to Eulida National Brazil Company, which is estimated at a total cost of one hundred and ninety-four million pounds as a down payment for projects scheme, as follows:

Working in Europe (Bratislava, Slovakia)

1- A project of four towers in the city of Bratislava extending to sixteen floors in the city center at a total cost of ten million pounds.

2- Building four hotels comparable to the Premier Inn and Hard Rock hotels in London at an estimated cost of fifteen million two hundred thousand pounds.

3- The project to build TSB Bank in the south of Bratislava at an estimated cost of six million pounds.

The total cost of the Slovakia projects scheme item: thirty-one million pounds.

Thank you,

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

To His Excellency Bank Manager Card One Money

Eulida National Brail has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of sixteen million pounds from the total items of projects to Eulida National Brazil Company, which is estimated at a total cost of one hundred and ninety-four million pounds as a down payment for projects scheme, as follows:

In Action in Europe (Stockholm, Sweden)

1- Building four factories for furniture, building materials, food and clothing production in Stockholm, at an estimated cost of sixteen million pounds.

The total cost of Sweden's projects scheme: sixteen million pounds.

Thank you,

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

To His Excellency Bank Manager Card One Money

Eulida National Brail has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of sixteen million pounds from the total items of projects to Eulida National Brazil Company,

which is estimated at a total cost of one hundred and ninety-four million pounds as a down payment for projects scheme, as follows:

In the framework of work (São Paulo, Brazil)

1- The project of building four factories for meat production in the city of São Paulo and City of Brasilia at an estimated cost of sixteen million pounds.

The total cost of the Brazil projects scheme item: sixteen million pounds.

Thank you,

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

To His Excellency Bank Manager Card One Money

Eulida National Brail has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of thirty-five million pounds from the total items of projects to Eulida National Brazil Company, which is estimated at a total cost of one hundred and ninety-four million pounds as a down payment for projects scheme, as follows:

In the framework of work in (Riyadh, Saudi Arabia)

1- The project of building an industrial city that includes three factories for meat production in Riyadh, Jeddah and Yanbu and five factories for the production of cement, agricultural products, furniture, building and construction machinery, grain stores, and two factories for shoes and clothes in the city of Riyadh at a total cost of thirty-five million pounds.

The total cost of the Saudi projects scheme item: thirty-five million pounds.

Thank you,

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

The Executive Unit Report

Letter to the Bank

Dear Sir/Madam at Companies House,

Dear Sir/Madam at Card One Money Bank,

I would like to mention the projects that I have done in the past twenty years from

February 2001 to May 2015 as follows:

1- Projects related to Al-Rajhi Company in Saudi Arabia:

- Two Compounds project in Prince Salman Street, in the North of Riyadh.

- Seven Villas project in the south of Riyadh, in the Al-Badi'ah neighborhood.

High-rise building project in Al-Yasmeen neighborhood, with an area of 10000 square meters, with 15 floors.

- Amayr (5 Buildings) project with eight floors each in a neighborhood in North Riyadh.

- Finishing of 2 Buildings in South Riyadh.

2- Projects I have implemented in the State of Brazil:

A poultry factory project outside the city of Sao Paulo, in the east coast of Brazil.

Food factories project outside the city of Sao Paulo.

Luxury villas project in a residential neighborhood.

3- 5 Projects in London, United Kingdom.

Many Thanks and Regards,

Director of Eulida National Brazil Ltd

Elzein Salah Elzein

Letter to the Bank,

Letter Body:

Dear Sir/Madam,

Dear Manager in Card One Money Bank,

Hello,

The Legal advisor Decided to Resubmit Very Fast again a new Request and Application with Required Official Letters for Applying Finance from Card One Money Bank in order to Pay Wages for Eulida National Brazil Company since 27/04/2019.

The Royal Courts of Justice in London and at various other locations across England and Wales and The High Court judge has Referred my Company Eulida National Brazil to the Card One Money Bank To Help in Finishing The Procedure of Company Establishment for Eulida National Brazil through the your Bank after Absence of Legal advice in The Company For Four Years since 2016.

What Did The Legal Advisor of Eulida National Brazil Do Recently This Year?

The Legal advisor in Eulida National Brazil Has Issued Two Official Registered Letters.

The First Letter was Oriented to National Westminster Bank and The Bank did not contribute with Our Company Officially and They sent negative feedback Regards This Financial Issue and Support.

Secondly, The Legal Advisor for Eulida National Brazil have contacted The Royal Bank of Scotland according To Your Referral and The RBS Bank Referred back to Card One Money Bank after The Legal Advisor has told them with your referral and Your decision.

The reason for that was that they have informed Our Legal Advisor Officially that The Required Bank is not working because of Corona Virus Issue and They have informed The Legal advisor That Wages will Be Delayed for Eulida National Brazil Company because of That issue and according To This Reason if The Company Did Not apply The Money From Card One Money Bank.

And upon They Request the Legal Advisor applied Again with New Official Documents to Have the Required Financial Support From HMRC, Companies House and Card One Money Bank.

Also, I need the money very soon to be paid with all wages as soon as possible for my Our Employees because of Lack in Wages in The Past Three Years and Non-Formal Establishment Process found There because The Company Eulida National Brazil Had not have A Formal Solicitor because of Lack of Wages in The Past Four Years and The Company Eulida National Brazil Concentrated on The Major Structure in Employment and hiring, and They had a direction to Reduce some of

Employment Staff in The Company which Has been affected The Decisions in Management for The Company.

At This Stage I am Paying Your attention That I am loosing more than 60% of employees in The Company after Brexit Because of Low Wages in Eulida National Brazil Company. And Upon That the Card One Money Bank Should Support Us As Soon As Possible According to Law and Regulations in The Bank and According to The Required Quota Amount.

I have Contacted The companies House Regards This Issue on 27/10/2019 and They sent me feedback with The Solution, but The Company Eulida National Brazil Ltd did not Have the Enough Required Staff to follow Up with The Recommended Procedure and because of Lack of Financial Resources and Wages for Employees in The Company Eulida National Brazil Ltd.

Please Be sure That I Have all Attached Documents with Royal Highness Letters Together to Be Put in Our File in companies House Officially as we have sent an Official Letter to The Court of England and Wales.

Many Thanks and Regards

Written By:

The Legal Administration Unit in Eulida National Brazil Company

Director of Eulida National Brazil Ltd

Elzein Salah Elzein

Letter to One Money Bank

Greetings,

I extend to Your Excellency the Most High Verses of thanks and gratitude and I support you to allow me to ask Your Excellency to address a letter of my assistance to obtain the financial support and loans required for the company Eulida National Brazil that I recently established in the United Kingdom after the Brexit period in the past five years from Card One Money Bank in The Past.

Eulida National Brazil has previously established itself in several countries, including the Kingdom of Saudi Arabia and Brazil. Eulida National Brazil Ltd has many coming branches in Saudi Arabia, UAE, Slovakia and Sudan.

I worked during my trip in the past fifteen years in construction and contracting sector in these two countries namely the Kingdom of Saudi Arabia and the State of Brazil in the periods from 2005 to 2015 and in the period from 2015 to 2019 to determine.

The company was established from several departments as follows:

the legal administration.

Engineering Management.

Finance Department.

Scientific Research Department.

Accounting and Auditing Unit.

The executive engineering unit.

Studies and Research Unit.

Attached to your Excellency, a file with the company's experience, Eulida National Brazil, prior to establishing projects during the period of fifteen years prior to now in both the Kingdom of Saudi Arabia and Brazil alike, and the successes that have been achieved through working in the two mentioned countries.

I would like to inform your Excellency that the loans obtained in both the Kingdom of Saudi Arabia and the State of Brazil were in the range of 2000000 pounds sterling in line with adequate financial support for the work of the company Eulida National Brazil through the determinants of the ISO process in the work followed and established in the company in the two aforementioned countries.

What is required is the company's license to obtain the necessary loans from banks currently available after the period of the Brexit in the United Kingdom for the year 2020 through estimates provided by the Engineering Department, the Accounting and Auditing Unit in the company and the Engineering Executive Unit and the company's finance department, Eulida National Brazil.

And long as you in God Save and sponsorship,

Applicant

Director of Eulida National Brazil Ltd

Elzein Salah Elzein

Letter to The Bank

The Legal advisor For Eulida National Brazil Company Decided to negotiate with You This Day regards Certain Issues: The Delay of Issuing The budget To Eulida National Brazil from Card One Money Bank.

Firstly, The Employees of Eulida National Brazil Company did not Have Wages for More Than Six Months.

Secondly, according to ISO Regulations, Eulida National Brazil Company could not Reduce the Quota Budget Less Than the Determined Required Amount Which Was Decided by The Specialists in The Company with The Amount 1000000 Pounds Per Annum.

Applicant

Director of Eulida National Brazil Ltd

Elzein Salah Elzein

Divisions at Eulida National Brazil Company:

Wiley Europe Division

Email: Wileyeurope@gmail.com

Toyota Europe Division

Email: Toyotaeurope71@gmail.com

General Electric Division

Email: Generalelectric78@gmail.com

Airbus Division

Email: Airbus302@gmail.com

Cisco Company Division

Email: CiscoCompmany9@gmail.com

Nasa Division

Email: Nasa213689@gmail.com

Yahoo Division

Email: Yahoo99069906@gmail.com

TNT Division

Email: TNT499173@gmail.com

Letter to the Bank

Good Greetings,

The director of Eulida National Brazil Ltd Contractor Departments has decided the Duties and Responsibilities of Company's departments as follows:

The company was established from several departments as follows:

the legal administration.

The Legal Advice is Responsible of Issuing The stamped Legal Documents for Eulida National Brazil Contractor.

Engineering Management.

The Engineering Management Department is Responsible to Determine the Major Civil Structure and Engineering Architecture in Eulida National Brazil Contractor.

Finance Department.

The Finance Department is Responsible for Accounting and Auditing Documents of Eulida National Brazil Contractor.

Scientific Research Department.

The Scientific Research Department is Responsible for Preparing and Publishing Major Studies and Research Reports in Eulida National Brazil Contractor.

The executive engineering unit.

The executive engineering unit is Responsible for Implementing and Organizing of Engineering Architecture Drawing on the Land or in Sites with Civil Engineering Methods and According to Civil Engineering Major Raised Issues.

End of Document

Applicant

Elzein Salah Elzein

Registered Letter:

A letter to the Majesty Queen and His Highness the King;

To His Majesty and Majesty

To Her Majesty and Greatness

To His Highness the Honorable Prince

To the kings of the United Kingdom

I congratulate Your Majesty and Your Highness on the occasion of the glorious throne of Your Majesty and Your Highness.

I know myself as your obedient servant who served His Highness Prince Faisal Al Saud, former King Abdullah bin Abdulaziz and His Highness Prince Sultan bin Abdulaziz
through Al Rajhi Development Companies in the Kingdom of Saudi Arabia.

I ask Your Excellency to support my request to obtain the necessary funding for my companies in the United Kingdom, namely Eulida National Brazil, Uxbridge and Dexter
and Cicapic.

Thank you very much for Your Majesty and Your Highness.

And long as you in God Save and sponsorship...

Applicant

Director of/ Eulida National Brazil

Elzein Salah Elzein

Eulida National Brazil Indstrial Zones Contribution

To Card One Money Bank

Company name:

EULIDA National Brazil LTD

Companies House Reistration Number:

13305491

Submission date:

22/09/2020

To the Bank administration/

Budget of Eulida National Brazil LTD

Regards preparation of Eulida National Brazil, Uxbridge and Dexter and Seqabec Companies, I would like to send our new Budget required for Locations Sales, Equipment and Contractor Shops:

Eulida National Brazil Location Sales: 300,000 GBP - Equipment: 200,000 GBP - Furniture: 5,000,000 GBP

Uxbridge and Dexter Contractor Location Sales: 300,000 GBP - Contractor Shop: 1,000,000 GBP

Contractor Machines: 2,200,000 GBP - Land for Machines: 400,000 GBP - House for Workers: 700,000 GBP

Seqabec Location Sales: 500,000 GBP - Equipment: 500,000 GBP - Planes Contracts:

5,000,000 GBP - Car Contracts: 2,500,000 GBP

Projects: 5,000,000 GBP

Establishment In total: 26,700,000 GBP + Eulida National Brazil London Building + Storage Area: 20,000,000 GBP

Industry Location and Inventory: 50,000,000 GBP + Machines: 50,000,000 GBP

In total we need: 146,000,000 GBP for Eulida National Brazil Budget

Thanks, and Regards

Approved by

Director of/ Eulida National Brazil

Elzein Salah Elzein

(West Sussex for Materials and Technology)

Financial Letters

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex for Materials and Technology Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex for Materials and Technology Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 671,000,000, six hundred seventy-one million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is

estimated at a total cost of 671,000,000, six hundred seventy-one million pounds as a down payment for projects scheme, as follows:

Working in the UK:

1- Consuming Machines for Carpentry with approximate 2,000,000, two million pounds.

2- Consuming Machines for Automobile industry with approximate 5,000,000, five million pounds.

3- Consuming Machines for Aerospace industry with approximate 7,000,000, seven million pounds.

4- Consuming Machines for Food industry with approximate 4,000,000, four million pounds.

5- Consuming Machines for Agriculture industry with approximate 3,000,000, two million pounds.

6- Building factories in UK at a cost of 600 million, fifty million pounds.

7- Consuming Machines for Construction industry with approximate 50,000,000, fifty million pounds.

The total cost of the UK projects scheme item: 671,000,000, six hundred seventy-one million pounds.

Therefore, I am now requesting an amount of 671,000,000, six hundred seventy-one million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency. I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.
With all thanks and appreciation to your esteemed body of the Bank.

Thank you,

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex for Materials and Technology Ltd in the United Kingdom and residing in the United Kingdom in the city of London.
I would like to inform the honorable Bank Authority in United Kingdom that West Sussex for Materials and Technology Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction

sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 5,000,000, five million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 671,000,000, six hundred seventy-one million pounds as a down payment for projects scheme, as follows:

Working in the UK:

2- Consuming Machines for Automobile industry with approximate 5,000,000, five million pounds.

The total cost of the UK projects scheme item: 5,000,000, five million pounds.

Therefore, I am now requesting an amount of 5,000,000, five million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency. I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Thank you,

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex for Materials and Technology Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex for Materials and Technology Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 2,000,000; two million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 671,000,000, six hundred seventy-one million pounds as a down payment for projects scheme, as follows:

Working in the UK:

1- Consuming Machines for Carpentry with approximate 2,000,000, two million pounds.

The total cost of the UK projects scheme item: 2,000,000; two million pounds.

Therefore, I am now requesting an amount of 2,000,000; two million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency. I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Thank you,

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex for Materials and Technology Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex for Materials and Technology Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 7,000,000, seven million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 671,000,000, six hundred seventy-one million pounds as a down payment for projects scheme, as follows:

Working in the UK:

3- Consuming Machines for Aerospace industry with approximate 7,000,000, seven million pounds.

The total cost of the UK projects scheme item: 7,000,000, seven million pounds.

Therefore, I am now requesting an amount of 7,000,000, seven million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency. I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.
With all thanks and appreciation to your esteemed body of the Bank.

Thank you,

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex for Materials and Technology Ltd in the United Kingdom and residing in the United Kingdom in the city of London.
I would like to inform the honorable Bank Authority in United Kingdom that West Sussex for Materials and Technology Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction

sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 4,000,000, four million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 671,000,000, six hundred seventy-one million pounds as a down payment for projects scheme, as follows:

Working in the UK:

4- Consuming Machines for Food industry with approximate 4,000,000, four million pounds.

The total cost of the UK projects scheme item: 4,000,000, four million pounds.

Therefore, I am now requesting an amount of 4,000,000, four million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency. I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Thank you,

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex for Materials and Technology Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex for Materials and Technology Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 3,000,000, two million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 671,000,000, six hundred seventy-one million pounds as a down payment for projects scheme, as follows:

Working in the UK:

5- Consuming Machines for Agriculture industry with approximate 3,000,000, two million pounds.

The total cost of the UK projects scheme item: 3,000,000, two million pounds.

Therefore, I am now requesting an amount of 3,000,000, two million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency. I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Thank you,

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex for Materials and Technology Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex for Materials and Technology Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan for building factories in UK at a cost of 600 million, fifty million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 671,000,000, six hundred seventy-one million pounds as a down payment for projects scheme, as follows:

Working in the UK:

6- Building factories in UK at a cost of 600 million, fifty million pounds.

The total cost of the UK projects scheme item: 600 million, fifty million pounds..

Therefore, I am now requesting an amount of 600,000,000, six hundred million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency. I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Thank you,

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex for Materials and Technology Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex for Materials and Technology Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 50,000,000, fifty million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a

total cost of 671,000,000, six hundred seventy-one million pounds as a down payment for projects scheme, as follows:

Working in the UK:

7- Consuming Machines for Construction industry with approximate 50,000,000, fifty million pounds.

The total cost of the UK projects scheme item: 50,000,000, fifty million pounds.

Therefore, I am now requesting an amount of 50,000,000, fifty million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency. I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.
Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.
With all thanks and appreciation to your esteemed body of the Bank.

Thank you,

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

(West Sussex Manufacturing and Construction Ltd)

Financial Letters

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Manufacturing and Construction Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Manufacturing and Construction Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 2,130,000,000; two billion and one hundred and thirty million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 2,130,000,000; two

billion and one hundred and thirty million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

1- Building fifty houses in the City of London in West London, at an estimated cost of fifty million pounds.

2- Building fifty houses in the Cily of Glasgow at an estimated cost of 40,000,00; forty million pounds.

3- Building fifty houses in the Cily of Liverpool at an estimated cost of forty 40,000,00; million pounds.

4- Building fifty houses in the Cily of Manchester at an estimated cost of 40,000,00; forty million pounds.

5- Building fifty houses in the Cily of Birmingham at an estimated cost of 40,000,00; forty million pounds.

6- Building fifty houses in the Cily of Exeter at an estimated cost of 40,000,00; forty million pounds.

7- Building fifty houses in the Cily of Bournemouth at an estimated cost of 40,000,00; forty million pounds.

8- Building fifty houses in the Cily of Hull at an estimated cost of 40,000,00; forty million pounds.

9- Building thirty factories in Reading and many places in UK, at a total cost of 450,000,000; four hundred and fifty million pounds.

10- Building 24 hotels comparable to the Premier Inn and Hard Rock hotels in the city of London at an estimated cost of 350,000,000; three hundred and fifty million pounds.

11- Building 50 industrial cities that includes large factories for canning, food products, juices products, textile products, agricultural products, leather products, electric cars manufacturing, building materials, agricultural tractors, and construction machinery, in Berkshire, Exetershire, Buckinghamshire, Liverpoolshire, Birminghamshire and Glasgowshire at an estimated cost of 600,000,000; three hundred million pounds.

12- Infrastructure projects such as building long roads, bridges, water and sewage projects in the city of London at a total cost of 400,000,000; four hundred million pounds.

Therefore, I am now requesting an amount of 2,130,000,000; two billion and one hundred and thirty million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

1

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Manufacturing and Construction Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Manufacturing and Construction Ltd has decided on its financial plan

which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 50,000,000; fifty million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 2,130,000,000; two billion and one hundred and thirty million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

1- **Building fifty houses in the City of London in West London, at an estimated cost of 50,000,000; fifty million pounds.**

Therefore, I am now requesting an amount of 50,000,000; fifty million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

2

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Manufacturing and Construction Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Manufacturing and Construction Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 40,000,00; forty million pounds from the total items

of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 2,130,000,000; two billion and one hundred and thirty million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

2- Building fifty houses in the Cily of Glasgow at an estimated cost of 40,000,00; forty million pounds.

Therefore, I am now requesting an amount of 40,000,00; forty million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

3

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Manufacturing and Construction Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Manufacturing and Construction Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 40,000,00; forty million pounds and one hundred and thirty million pounds from the total items of projects to West Sussex for

Materials and Technology Company, which is estimated at a total cost of 2,130,000,000; two billion and one hundred and thirty million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

2- Building fifty houses in the Cily of Liverpool at an estimated cost of 40,000,00; forty million pounds.

Therefore, I am now requesting an amount of 40,000,00; forty million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

4

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Manufacturing and Construction Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Manufacturing and Construction Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 40,000,00; forty million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 2,130,000,000; two billion and one hundred and thirty million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

4- Building fifty houses in the Cily of Manchester at an estimated cost of 40,000,00; forty million pounds.

Therefore, I am now requesting an amount of 40,000,00; forty million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

5

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Manufacturing and Construction Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Manufacturing and Construction Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 40,000,00; forty million pounds and one hundred and thirty million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 2,130,000,000; two billion and one hundred and thirty million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

5- Building fifty houses in the Cily of Birmingham at an estimated cost of 40,000,00; forty million pounds.

Therefore, I am now requesting an amount of 40,000,00; forty million pounds and one hundred and thirty million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

6

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Manufacturing and Construction Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Manufacturing and Construction Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 40,000,00; forty million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 2,130,000,000; two billion and one hundred and thirty million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

6- Building fifty houses in the Cily of Exeter at an estimated cost of 40,000,00; forty million pounds.

Therefore, I am now requesting an amount of 40,000,00; forty million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

7

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Manufacturing and Construction Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Manufacturing and Construction Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 40,000,00; forty million pounds and one hundred and thirty million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 2,130,000,000; two billion and one hundred and thirty million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

7- Building fifty houses in the Cily of Bournemouth at an estimated cost of 40,000,00; forty million pounds.

Therefore, I am now requesting an amount of 40,000,00; forty million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Manufacturing and Construction Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Manufacturing and Construction Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 40,000,00; forty million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 2,130,000,000; two billion and one hundred and thirty million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

8- Building fifty houses in the Cily of Hull at an estimated cost of 40,000,00; forty million pounds.

Therefore, I am now requesting an amount of 40,000,00; forty million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

9

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Manufacturing and Construction Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Manufacturing and Construction Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 450,000,000; four hundred and fifty million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 2,130,000,000; two billion and one hundred and thirty million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

9- Building thirty factories in Reading and many places in UK, at a total cost of 450,000,000; four hundred and fifty million pounds.

Therefore, I am now requesting an amount of 450,000,000; four hundred and fifty million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

10

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Manufacturing and Construction Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Manufacturing and Construction Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 350,000,000; three hundred and fifty million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 2,130,000,000; two billion and one hundred and thirty million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

10- Building 24 hotels comparable to the Premier Inn and Hard Rock hotels in the city of London at an estimated cost of 350,000,000; three hundred and fifty million pounds.

Therefore, I am now requesting an amount of 350,000,000; three hundred and fifty million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

11

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Manufacturing and Construction Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Manufacturing and Construction Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 600,000,000; three hundred million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 2,130,000,000; two billion and one hundred and thirty million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

11- Building 50 industrial cities that includes large factories for canning, food products, juices products, textile products, agricultural products, leather products, electric cars manufacturing, building materials, agricultural tractors, and construction machinery, in Berkshire, Exetershire, Buckinghamshire, Liverpoolshire, Birminghamshire and Glasgowshire at an estimated cost of 600,000,000; three hundred million pounds.

Therefore, I am now requesting an amount of 600,000,000; three hundred million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Manufacturing and Construction Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Manufacturing and Construction Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 400,000,000; four hundred million pounds from the total items of projects to West Sussex for Materials and Technology Company, which is estimated at a total cost of 2,130,000,000; two billion and one hundred and thirty million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

12- Infrastructure projects such as building long roads, bridges, water and sewage projects in the city of London at a total cost of 400,000,000; four hundred million pounds.

Therefore, I am now requesting an amount of 400,000,000; four hundred million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

(West Sussex Real Estate Ltd)

Financial Letters

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Real Estate Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Real Estate Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 4,700,000,000,000; four billion and seven hundred million pounds and one hundred and thirty million pounds from the total items of projects to West Sussex Real Estate Ltd Company, which is estimated at a total cost of 4,700,000,000,000; four billion and seven hundred million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

1- Consuming 200 houses and flats in the City of London in West London, at an estimated cost of 500,000,000 five hundred million pounds.

2- Consuming 200 houses and flats in the Cily of Glasgow at an estimated cost of 400,000,000; four hundred million pounds.

3- Consuming 200 houses and flats in the Cily of Liverpool at an estimated cost of 400,000,000; four million pounds.

4- Consuming 200 houses and flats in the Cily of Manchester at an estimated cost of 400,000,000; four hundred million pounds.

5- Consuming 200 houses and flats in the Cily of Birmingham at an estimated cost of 400,000,000; four hundred million pounds.

6- Consuming 200 houses and flats in the Cily of Exeter at an estimated cost of 400,000,000; four hundred million pounds.

7- Consuming 200 houses in and flats the Cily of Bournemouth at an estimated cost of 400,000,000; four hundred million pounds.

8- Consuming 200 houses and flats in the Cily of Hull at an estimated cost of 400,000,000; four hundred million pounds.

9- Managing thirty factories in Reading and many places in UK, at a total cost of 250,000,000; two hundred and fifty million pounds.

10- Managing 24 hotels comparable to the Premier Inn and Hard Rock hotels in the city of London at an estimated cost of 150,000,000; one hundred and fifty million pounds.

11- Managing 50 industrial cities that includes large factories for canning, food products, juices products, textile products, agricultural products, leather products, electric cars manufacturing, building materials, agricultural tractors, and construction machinery, in Berkshire, Exetershire, Buckinghamshire, Liverpoolshire, Birminghamshire and Glasgowshire at an estimated cost of 1,000,000,000; one billion pounds.

Therefore, I am now requesting an amount of 4,700,000,000,000; four billion and seven hundred million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Real Estate Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Real Estate Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 500,000,000 five hundred million pounds and seven hundred million pounds and one hundred and thirty million pounds from the total items of projects to West Sussex Real Estate Ltd Company, which is estimated at a total cost of 4,700,000,000,000; four billion and seven hundred million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

1- Consuming 200 houses and flats in the City of London in West London, at an estimated cost of 500,000,000 five hundred million pounds.

Therefore, I am now requesting an amount of 500,000,000 five hundred million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and West Sussex Real Estate Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Real Estate Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 400,000,000; four hundred million pounds and one hundred and thirty million pounds from the total items of projects to West Sussex Real Estate Ltd Company, which is estimated at a total cost of 4,700,000,000,000; four billion and seven hundred million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

2- Consuming 200 houses and flats in the Cily of Glasgow at an estimated cost of 400,000,000; four hundred million pounds.

Therefore, I am now requesting an amount of 400,000,000; four hundred million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

Accordingly, I testify and acknowledge what I have mentioned, hoping to facilitate the task of Loan Request in all the necessary procedures that I need to do.

Attention: All official Information and documents for Loan Application support can be asked for from the esteemed Bank Body.

With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

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Working in the UK Scheme:

3- Consuming 200 houses and flats in the Cily of Liverpool at an estimated cost of 400,000,000; four million pounds.

Therefore, I am now requesting an amount of 400,000,000; four million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

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Working in the UK Scheme:

4- Consuming 200 houses and flats in the Cily of Manchester at an estimated cost of 400,000,000; four hundred million pounds.

Therefore, I am now requesting an amount of 400,000,000; four hundred million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

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Working in the UK Scheme:

5- Consuming 200 houses and flats in the Cily of Birmingham at an estimated cost of 400,000,000; four hundred million pounds.

Therefore, I am now requesting an amount of 400,000,000; four hundred million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

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Working in the UK Scheme:

6- Consuming 200 houses and flats in the Cily of Exeter at an estimated cost of 400,000,000; four hundred million pounds.

Therefore, I am now requesting an amount of 400,000,000; four hundred million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

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Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

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Working in the UK Scheme:

7- Consuming 200 houses in and flats the Cily of Bournemouth at an estimated cost of 400,000,000; four hundred million pounds.

Therefore, I am now requesting an amount of 400,000,000; four hundred million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

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Working in the UK Scheme:

8- Consuming 200 houses and flats in the Cily of Hull at an estimated cost of 400,000,000; four hundred million pounds.

Therefore, I am now requesting an amount of 400,000,000; four hundred million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

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Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

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I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Real Estate Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 250,000,000; two hundred and fifty million pounds and seven hundred million pounds and one hundred and thirty million pounds from the total items of projects to West Sussex Real Estate Ltd Company, which is estimated at a total cost of 4,700,000,000,000; four billion and seven hundred million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

9- Managing thirty factories in Reading and many places in UK, at a total cost of 250,000,000; two hundred and fifty million pounds.

Therefore, I am now requesting an amount of 250,000,000; two hundred and fifty million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

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Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

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I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Real Estate Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 150,000,000; one hundred and fifty million pounds and seven hundred million pounds and one hundred and thirty million pounds from the total items of projects to West Sussex Real Estate Ltd Company, which is estimated at a total cost of 4,700,000,000,000; four billion and seven hundred million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

10- Managing 24 hotels comparable to the Premier Inn and Hard Rock hotels in the city of London at an estimated cost of 150,000,000; one hundred and fifty million pounds.

Therefore, I am now requesting an amount of 150,000,000; one hundred and fifty million pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

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Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

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I would like to inform the honorable Bank Authority in United Kingdom that West Sussex Real Estate Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 1,000,000,000; one billion pounds from the total items of projects to West Sussex Real Estate Ltd Company, which is estimated at a total cost of 4,700,000,000,000; four billion and seven hundred million pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

11- Managing 50 industrial cities that includes large factories for canning, food products, juices products, textile products, agricultural products, leather products, electric cars manufacturing, building materials, agricultural tractors, and construction machinery, in Berkshire, Exetershire, Buckinghamshire,

Liverpoolshire, Birminghamshire and Glasgowshire at an estimated cost of 1,000,000,000; one billion pounds.

Therefore, I am now requesting an amount of 1,000,000,000; one billion pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

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With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

(Uxbridge Dexter & Co. Manufacturing and Technology Ltd)

Financial Letters

1

To His Excellency Bank Manager Card One Money

Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and Uxbridge Dexter & Co. Manufacturing and Technology Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that Uxbridge Dexter & Co. Manufacturing and Technology Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 1,000,000,000; one billion pounds from the total items of projects to Uxbridge Dexter & Co. Manufacturing and Technology Ltd Company, which is estimated at a total cost of 1,000,000,000; one billion pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

1- **Purchasing Manufacturing and Technology products in Construction, Construction Machinery, Interior and Exterior Design Products, Farming Products and Flooring Products industry; in Berkshire, Exetershire, Buckinghamshire, Liverpoolshire, Birminghamshire and Glasgowshire at an estimated cost of 1,000,000,000; one billion pounds.**

Therefore, I am now requesting an amount of 1,000,000,000; one billion pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

I assure you that I will pay the indebtedness resulting from the loan accurately and on time as required by the repayment plan for the indebtedness announced by the esteemed bank body.

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With all thanks and appreciation to your esteemed body of the Bank.

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

Elzein Salah Elzein

(Uxbridge Dexter & Co. Ltd) and (Massimo Dutti Africa)

Financial Letters

1

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Loan Request from the Bank

To His Excellency Bank Manager Card One Money

I, the undersigned and my name is Engineer Elzein Salah Elzein, holder of British passport No. 538181775, professor of European universities and director of Eulida National Brazil Ltd and Uxbridge Dexter & Co. Ltd in the United Kingdom and residing in the United Kingdom in the city of London.

I would like to inform the honorable Bank Authority in United Kingdom that Uxbridge Dexter & Co. Ltd has decided on its financial plan which requires a budget request to match the facility's capacity in the UK construction sector. Accordingly, the company's Legal Affairs Department decided to apply for a loan of 100,000,000,000; one hundred billion pounds from the total items of projects to

Uxbridge Dexter & Co. Ltd Company, which is estimated at a total cost of 100,000,000,000; one hundred billion pounds as a down payment for projects scheme, as follows:

Working in the UK Scheme:

1- Building sites for Aerospace manufacturing, Energy and Chemicals manufacturing and Electrical Transmission and Distribution; in Berkshire, Exetershire, Buckinghamshire, Liverpoolshire, Birminghamshire and Glasgowshire at an estimated cost of 100,000,000,000; one hundred billion pounds.

Therefore, I am now requesting an amount of 100,000,000,000; one hundred billion pounds to guarantee the projects in Financial Request plan mentioned in this letter to your Excellency.

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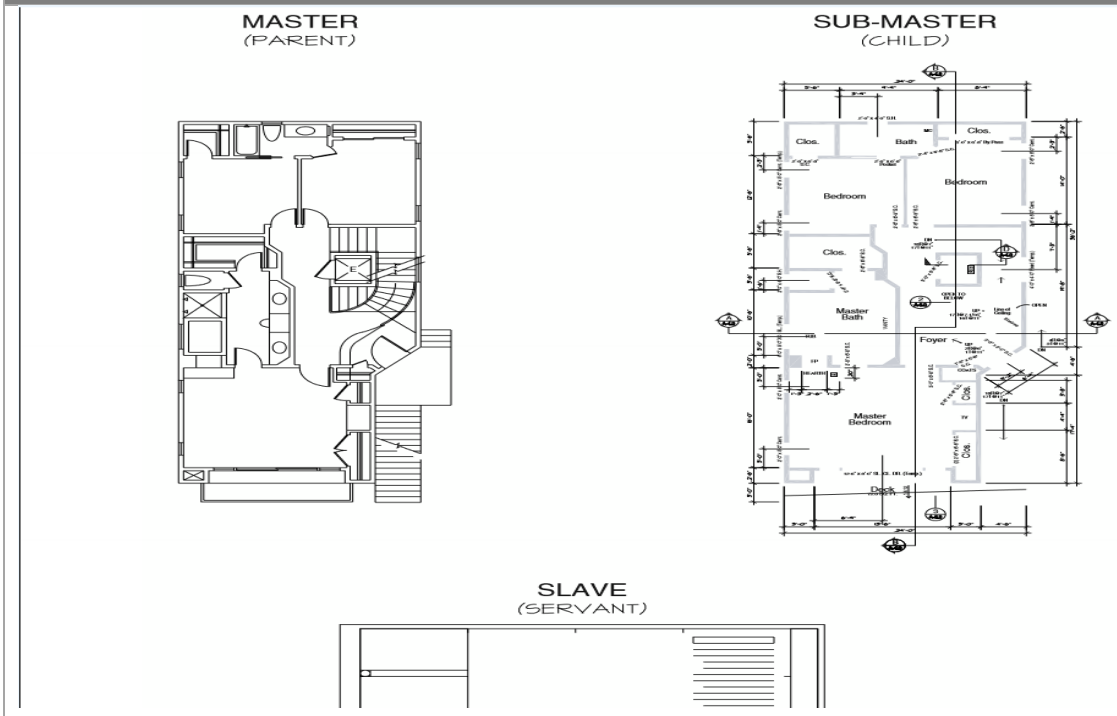
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Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

sender:

Director of Eulida National Brazil and its Subsidiaries in the United Kingdom

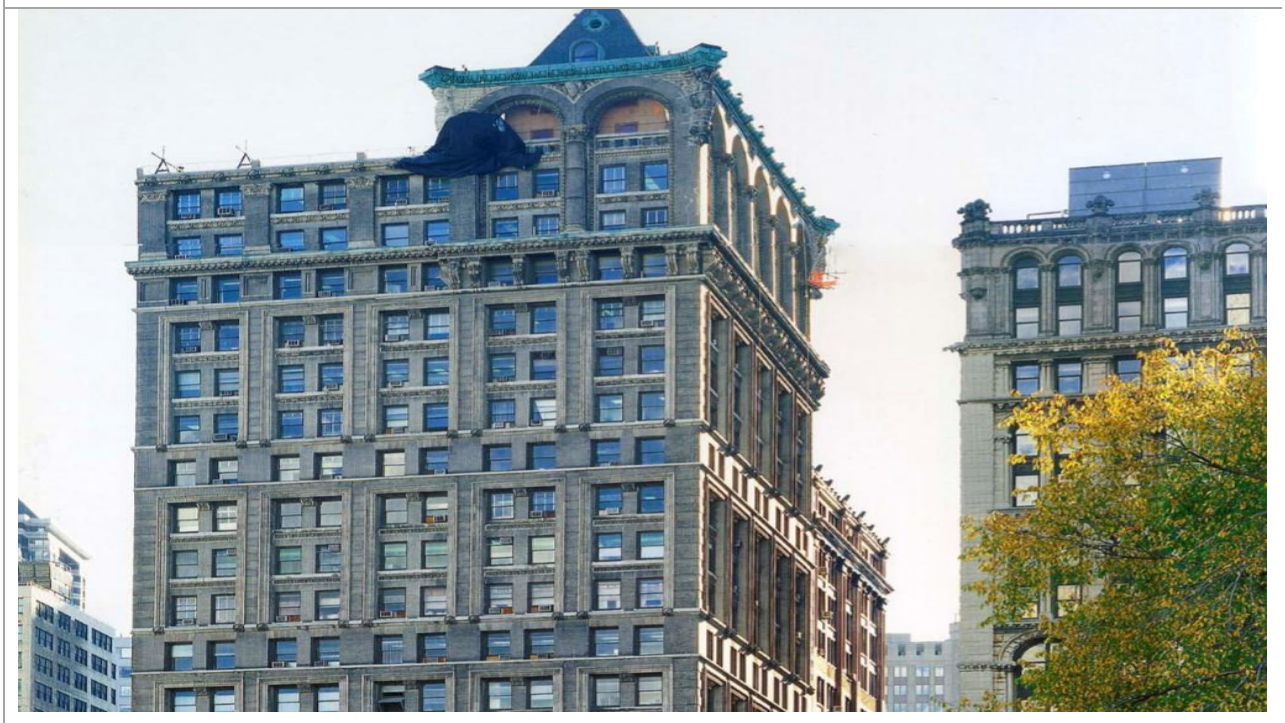
Elzein Salah Elzein







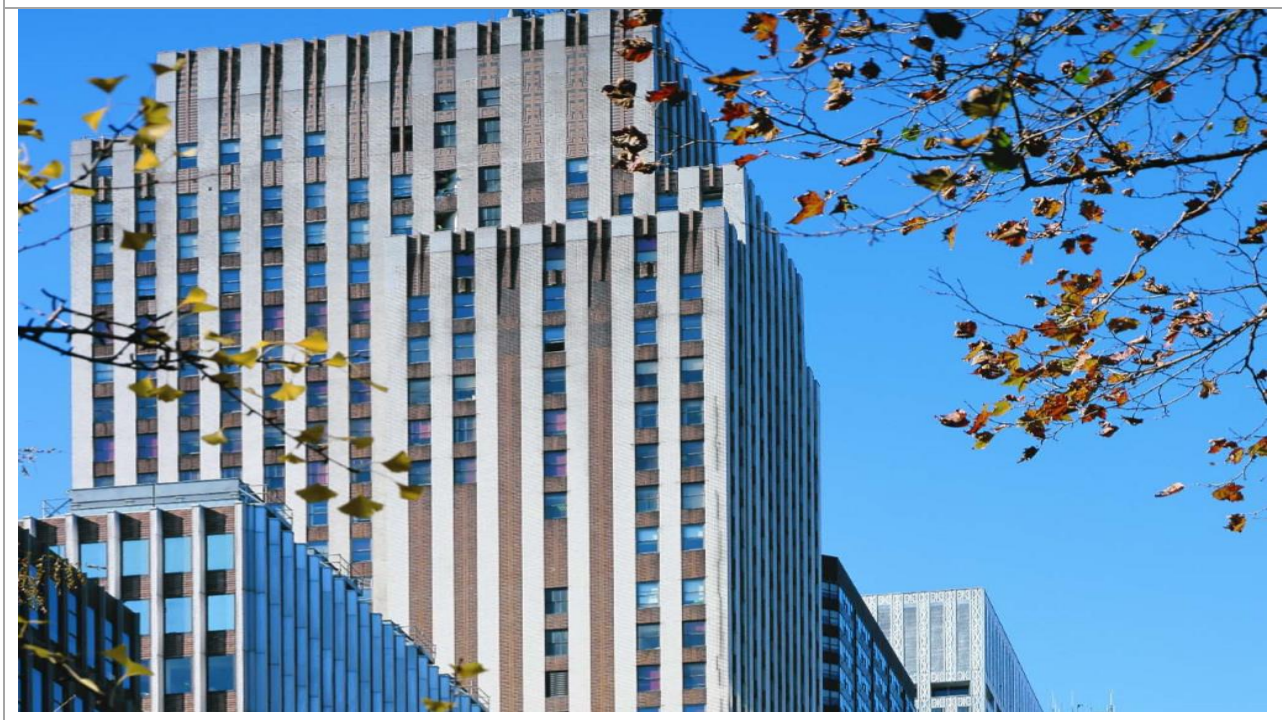




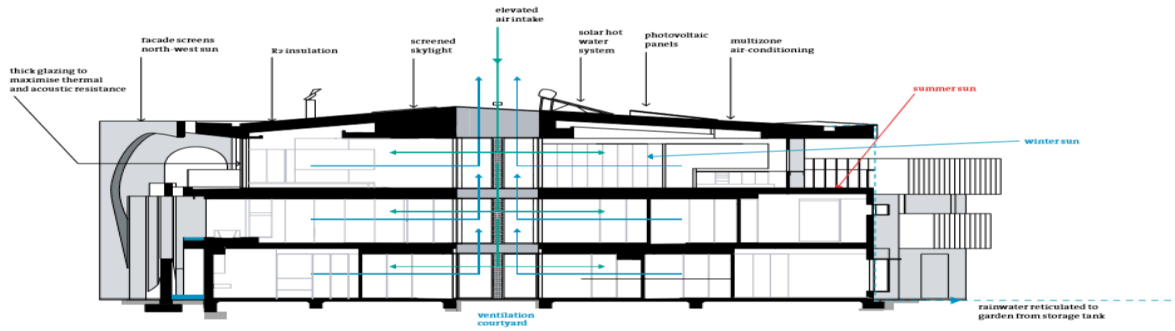




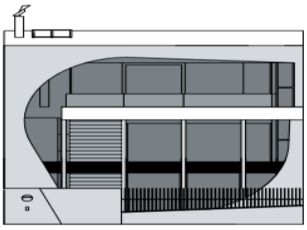

SPEEDO
AUTHENTIC
FITNESS



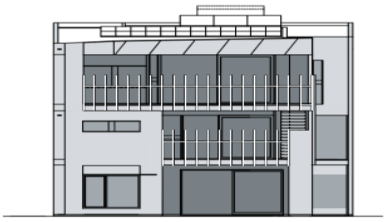




Passive and Active Systems



South Elevation



North Elevation









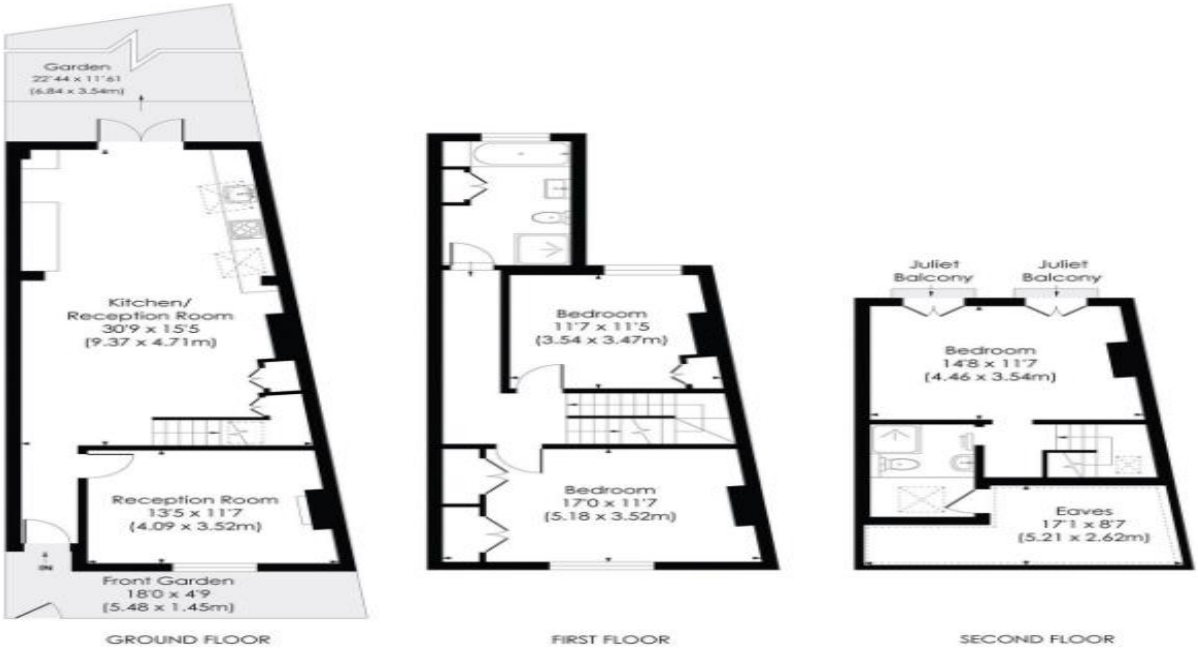

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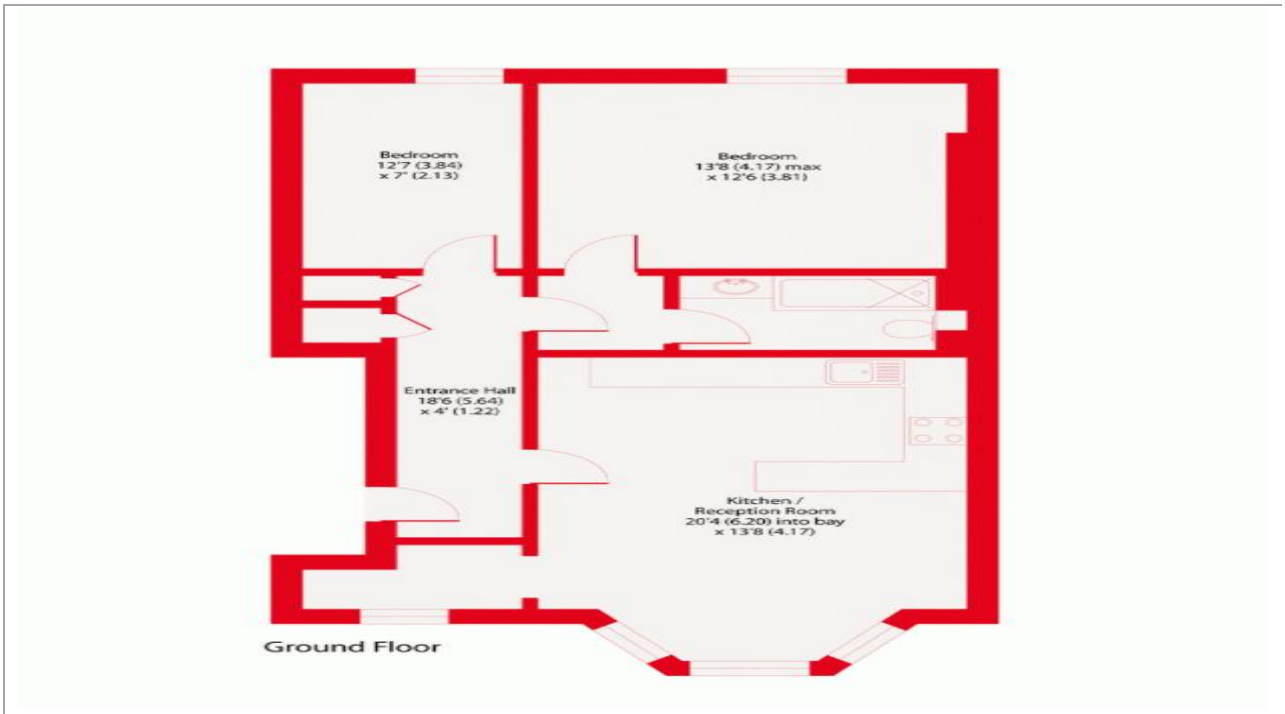

OSWALD
austin d'arcy

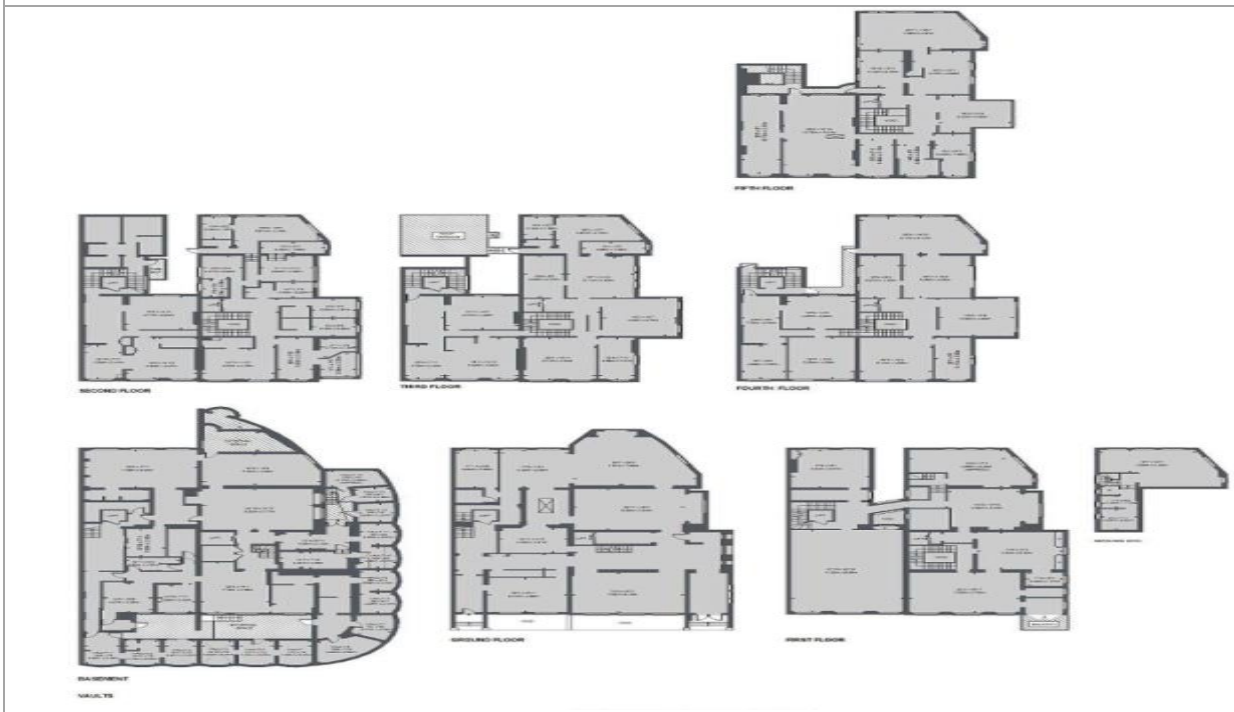







Garden
22'44 x 11'61
(6.84 x 3.54m)
Kitchen/
Reception Room
30'9 x 15'5
(9.37 x 4.71m)
Reception Room
13'5 x 11'7
(4.09 x 3.52m)
Front Garden
18'0 x 4'9
(5.48 x 1.45m)
GROUND FLOOR
Bedroom
11'7 x 11'5
(3.54 x 3.47m)
Bedroom
17'0 x 11'7
(5.18 x 3.52m)
FIRST FLOOR
Juliet
Balcony
Juliet
Balcony
Bedroom
14'8 x 11'7
(4.46 x 3.54m)
Eaves
17'1 x 8'7
(5.21 x 2.62m)
SECOND FLOOR


Bedroom
12'7 (3.84)
x 7' (2.13)
Bedroom
13'8 (4.17) max
x 12'6 (3.81)
Entrance Hall
18'6 (5.64)
x 4' (1.22)
Kitchen /
Reception Room
20'4 (6.20) into bay
x 13'8 (4.17)
Ground Floor





FIFTH FLOOR



SECOND FLOOR



THIRD FLOOR

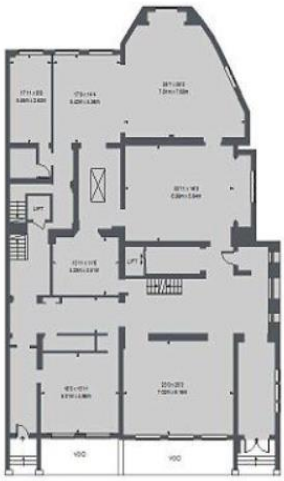


FOURTH FLOOR

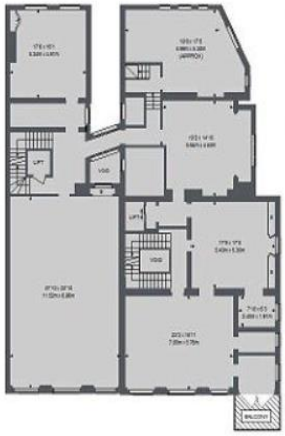


BASEMENT

VAULTS

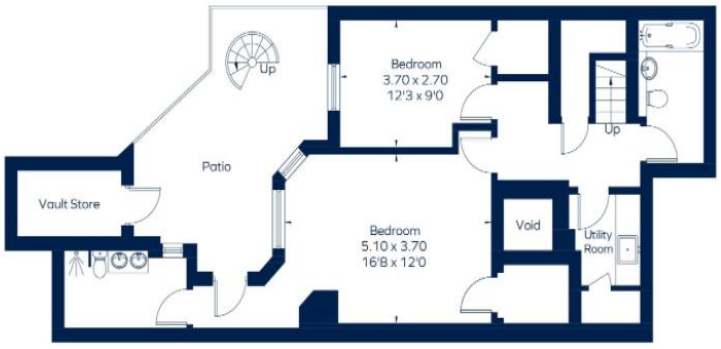


GROUND FLOOR

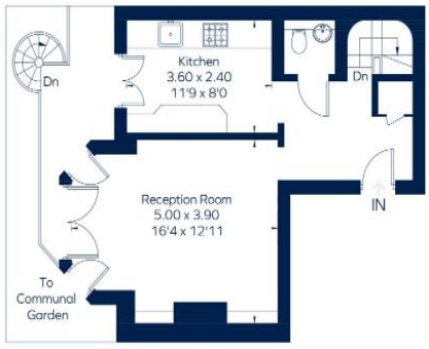


FIRST FLOOR

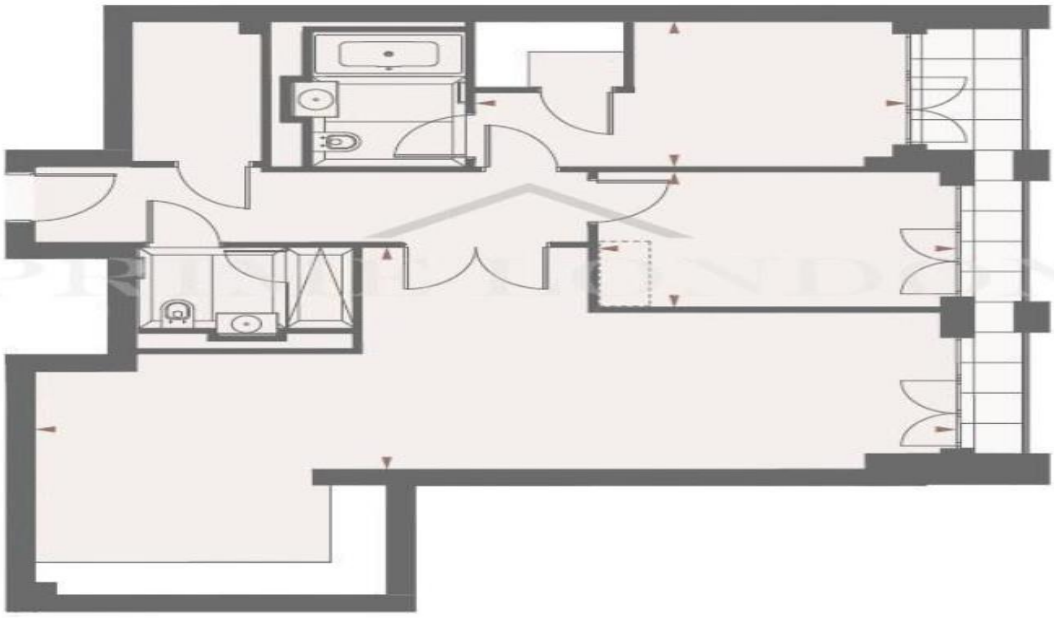


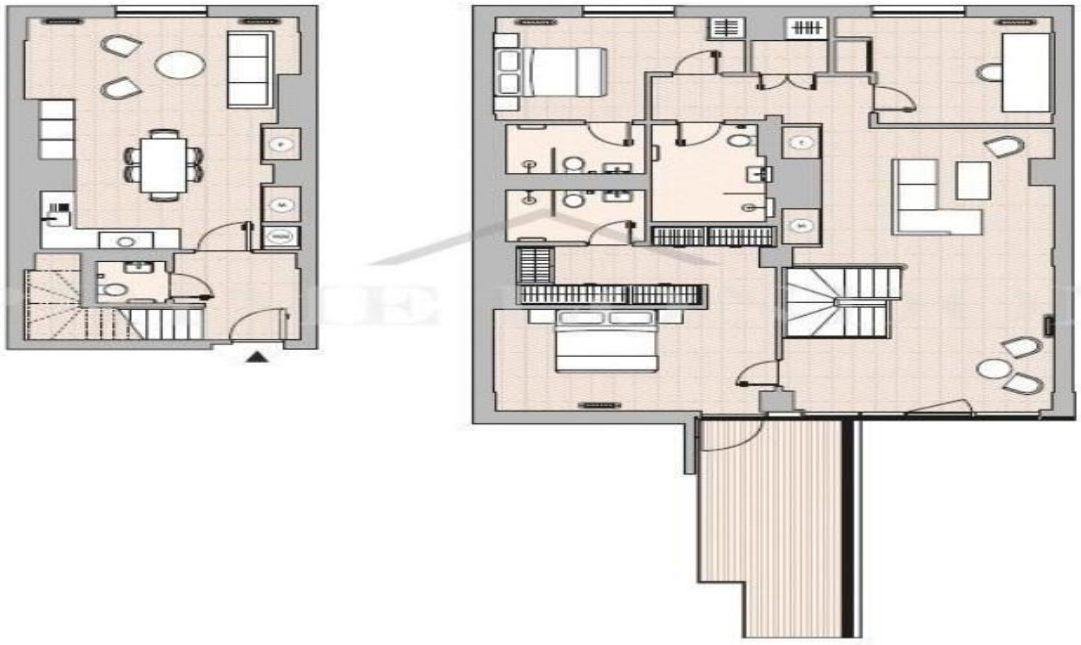


Lower Ground Floor

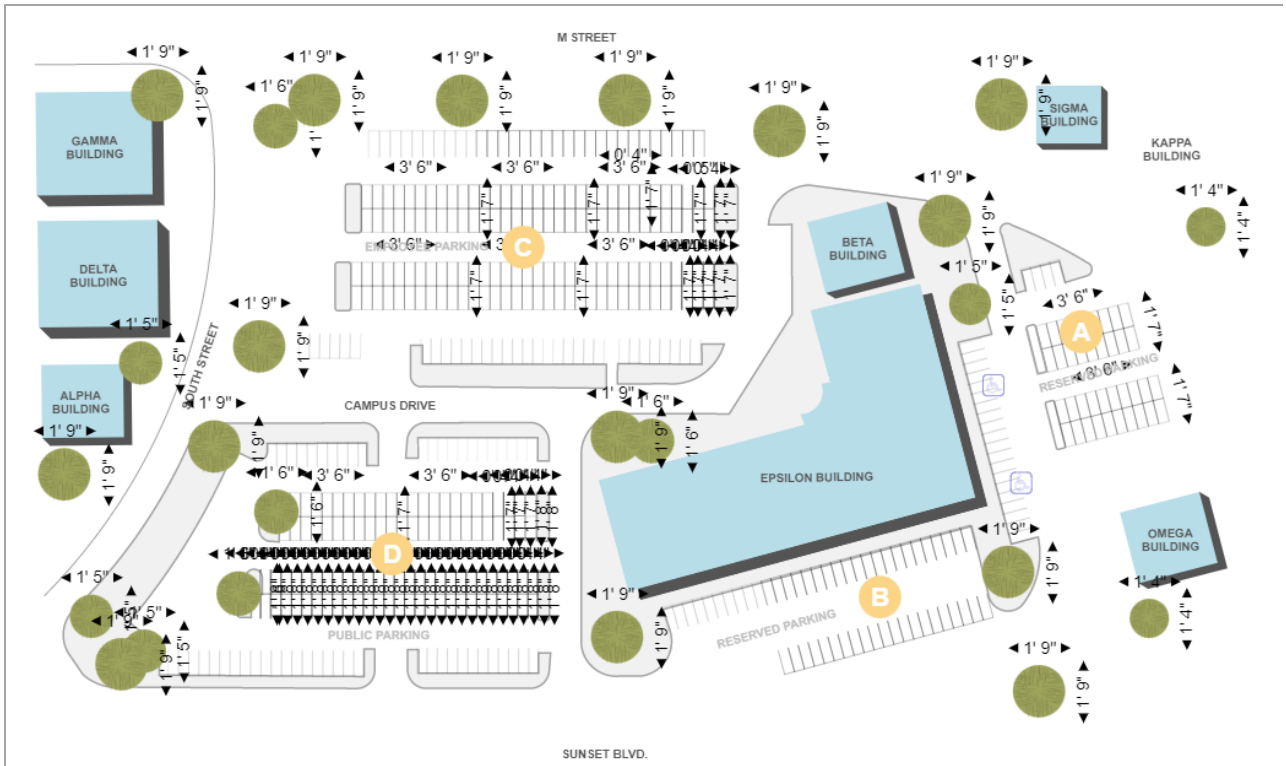


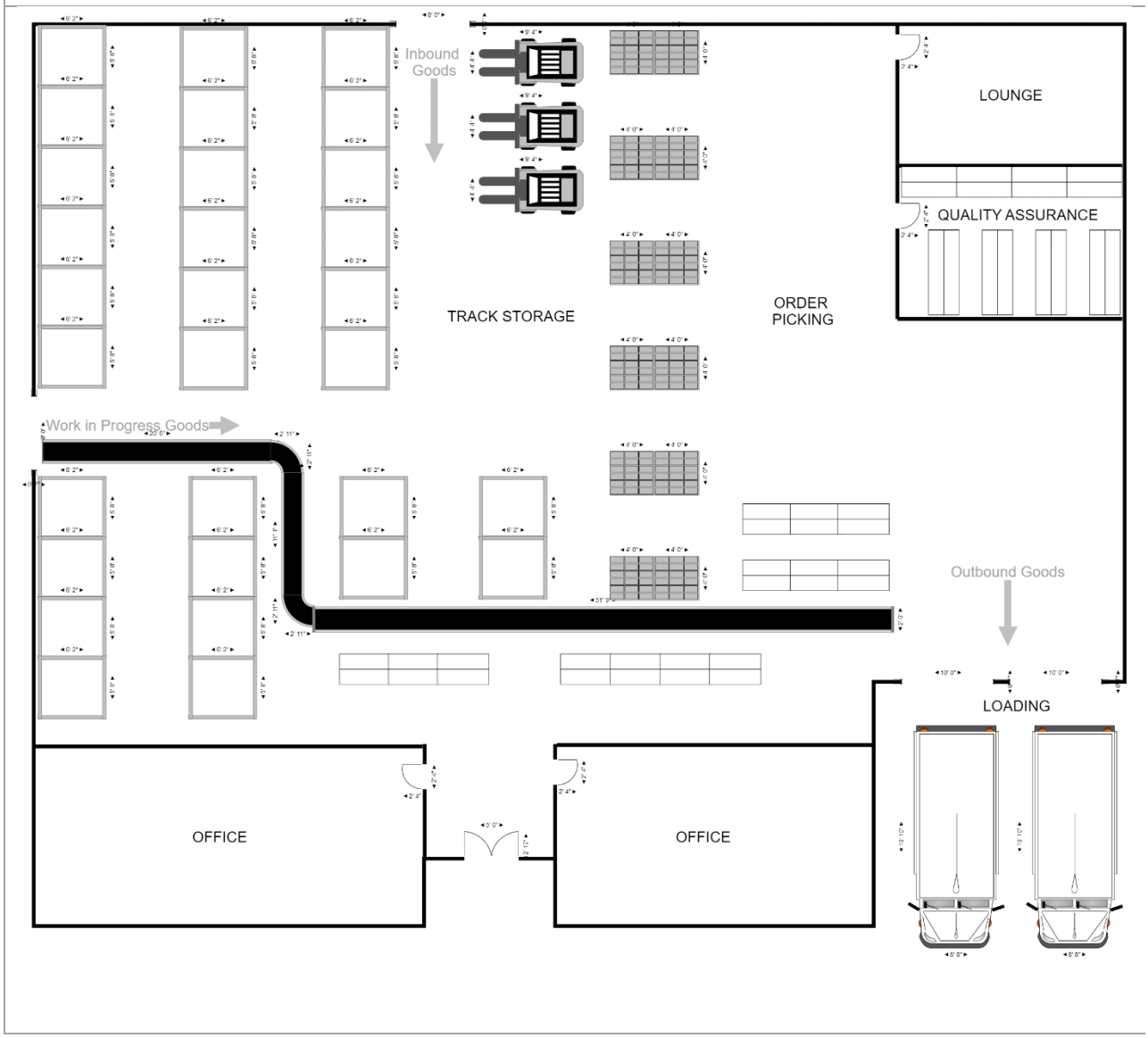
Raised Ground Floor






BANK
BEAUTY SALON
PHARMACY
CLEANERS
PET STORE
POSTAL
YOGA
FOOD STORE
WEST BLVD
SOUTH BLVD


M STREET
GAMMA BUILDING
DELTA BUILDING
ALPHA BUILDING
SIGMA BUILDING
KAPPA BUILDING
BETA BUILDING
EPSILON BUILDING
OMEGA BUILDING
SOUTH STREET
CAMPUS DRIVE
PUBLIC PARKING
RESERVED PARKING
A
B
C
D
SUNSET BLVD.


Inbound Goods
TRACK STORAGE
ORDER PICKING
LOUNGE
QUALITY ASSURANCE
Work in Progress Goods
Outbound Goods
LOADING
OFFICE
OFFICE

The Studies and Research Unit

Quality Control of Construction Work

1 Introduction

2 Quality assurance in accordance with ISO 9001

3 Standards and procedures

4 Certificates and technical approvals

5 Related articles on Designing Buildings Wiki

Introduction

Quality control (QC) is the part of quality management that ensures products and services comply with requirements. It is a work method that facilitates the measurement of the quality characteristics of a unit, compares them with the established standards, and analyses the differences between the results obtained and the desired results in order to make decisions which will correct any differences.

Technical specifications define the type of controls that must be undertaken to ensure the construction works are carried out correctly. They include not only products and materials, but also the execution and completion of the works.

One way of controlling quality is based on the inspection or verification of finished products. The aim is to filter the products before they reach the client, so that

products that do not comply with requirements are discarded or repaired. This reception control is usually carried out by people who were not involved in the production activities, which means that costs can be high, and preventative activities and improvement plans may not be effective.

It is a final control, located between producer and client, and although it has the advantage of being impartial, it has a large number of drawbacks, such as slow information flows, and inspectors are not familiar with the circumstances of production and are not responsible for the production quality.

When tests are destructive, the decision to accept or reject a full batch must be made on the basis of the quality of a random sample. This type of statistical control provides less information and contains sampling risks. However, it is more economical, requires fewer inspectors, and speeds up decision-making, while the rejection of the whole batch encourages suppliers to improve their quality. This type of control can also identify the causes of variations and, so establish procedures for their systematic elimination.

Statistical control can be applied to the final product (acceptance control) or during the production process (process control). Statistical controls at reception establish sampling plans with clearly-defined acceptance or rejection criteria, and complete batches are tested by means of random sampling. The sampling control can be based on inspection by attributes in line with the ISO 2859 standard (Sampling procedures for inspection by attributes), or on inspection by variables in line with the ISO 3951 standard (Sampling procedures for inspection by variables).

A construction company should reduce the costs of bad quality as much as possible, and ensure that the result of its processes comply with the client's requirements. Both internal and external controls can be carried out. For example, the control of concrete received by the contractor can be carried out by an independent entity; the execution of steelworks can be controlled by the project manager (on behalf of the client), or the construction company can establish an internal control for the execution of the building work.

Quality assurance in accordance with ISO 9001

Quality assurance is a set of planned and systematic actions to ensure that products and services comply with specified requirements. It not only involves checking the final quality of products to avoid defects, as is the case in quality control, but also checking product quality in a planned way in all the production stages. It is the development of work and product design procedures to prevent errors from occurring in the first place, based on planning backed up by quality manuals and tools.

When a consensus has been reached on the requirements of a quality management system, it is possible to define a series of generic standards applicable to any type of organisation. The international standards, generically called ISO 9000, are the most widespread and generally accepted in developed countries. The ISO 9000 standards consists of four basic interdependent standards supported by guides, technical reports and technical specifications:

ISO 9000: Quality management.

ISO 9001: Quality management systems - Requirements.

ISO 9004: Managing for the sustained success of an organization - A quality management approach.

ISO 19011: Guidelines on internal and external audits of quality management systems.

Companies can only be certified under the requirements of the ISO 9001 standard. It is a standard that can be used to certify the efficiency of a quality management system. If the aim is to improve efficiency, the objectives of the ISO 9004 standard are broader in scope. The principles that underlie the management of quality in these standards are the following: customer focus, leadership, involvement of people, process approach, system approach to management, continual improvement, factual approach to decision making and mutually beneficial supplier relationships.

The ISO 9001 standard specifies requirements for a quality management system where an organisation needs to demonstrate its ability to consistently provide products that meet the requirements of clients and applicable regulations requirements. Regulatory requirements focus on the quality management system, management responsibility, resources management, product realisation and measurement, analysis and improvement. The Official Journal of the European Union (OJEU) used for tendering public procurement throughout the European Union along with other framework agreements require practices to be ISO 9001 accredited.

When a quality system is applied to a product as complex and unique as construction, a specific quality plan must be drafted by applying the company's

global system to the specific project. The plan must be drafted by the contractor before the start of the construction works and will be reviewed throughout its execution.

The quality plan is applicable to the materials, work units and services that have been specifically chosen by the construction company in order to comply with the quality requirements stipulated in the contract. The quality plan is drafted for the construction works when a preventive strategy is needed to guarantee the construction quality, even though there might also be a quality manual, in compliance with the ISO 9001 standard requirements.

The construction company determines the need to prepare execution documents, work instructions, inspection regimes, process files, action plans, etc., for the execution and control of processes, depending on the complexity of the activity, the qualifications of the personnel and the experience of the team. The plan establishes the resources required and associated documents (lists, purchasing documentation, machinery, equipment, etc.).

The control activities (verification of compliance with specifications, validation of specific processes, monitoring of activities, inspections and tests), which the units, materials or services undergo must also be established. These activities can be defined through inspection, testing plans, action plans and where applicable specific tests (for example, load tests for structures).

Standards and procedures

When the aim is to guarantee the uniformity of a system, process or product, reference patterns are established in documents called standards or norms. The general objectives of standards are simplification, communication between the parties involved, production economy, safety and health, protection of consumer interests and the removal of trade barriers.

In any type of company, the set of tasks carried out is so complex that they have to be written down to ensure internal consistency, to preserve them and to make sure they are methodically applied. These documents are called procedures, and describe the way in which an activity or process must be carried out.

Therefore, standards establish the requirements of products or processes. Procedures are documents drawn up by the company itself and take into account the requirements established in the standards. These documents must include the purpose of the procedure, references to other documents, scope, method and sequence of tests, acceptance and rejection criteria, key control points and time of inspection. In all cases the control of a procedure should be documented in the quality records and filed in the quality log at the construction site.

Technical or administrative procedures can also be part of a quality management system. In this case, the manual provides a generic description of the company's quality system, while procedures, whether general or specific, establish what is required to attain the objectives listed in the manual. Procedures must link the ISO standards' requirements and the activities of the company. They should include the people involved, information about materials and equipment, and a description of key activities. Each organisation should decide which processes

should be documented on the basis of client and regulatory requirements, the nature of its activities, and its corporate strategy.

Certificates and technical approvals

The quality control of a product or process can sometimes be replaced with certification of the quality characteristics by third parties. Products that have received officially recognised quality marks may be exempt from controls and reception tests, increasing batch size and improving safety systems.

However, the scope and aim of these quality marks are variable and an in-depth understanding is required to know what they mean. Below are different types of quality certificates, starting with the least reliable:

Certificate of origin: in this case the manufacturer states that the product complies with some specifications. Although the certificate might not be very reliable, failure to comply with the specifications can be legally actionable.

Accredited laboratory test certificate: the test is performed on a small sample, and therefore cannot guarantee all production. These certificates should be used with caution due to their limited scope.

Product type approval certificate: this approves a prototype and therefore does not guarantee the quality of the subsequent manufacturing process.

Standard compliance seal or mark: its scope includes continual production and therefore it is more reliable than other certificates. When the product is very new and there is no specific standard to regulate it, the certificate is issued in the form of technical suitability documentation.

Directive 89/196/EEC of the European Union establishes the laws, regulations and administrative provisions of the member countries to construction products. The purpose of the directive is to guarantee the free movement of all construction products throughout the Union by harmonisation of national laws which regulate the health, safety and welfare requirements.

These requirements can take the form of harmonised European standards adopted by European standardisation bodies (CEN or CENELEC) or European technical suitability documents if there is no harmonised norm, national norm or European norm mandate. Under this Directive, construction products must have the CE mark, whereby the manufacturer declares that the product complies with the provisions of Community Directives. This mark indicates that the product complies with the essential requirements of harmonised norms (EN) and the Guides for European Technical Approval.

(See also Energy related products regulations and Construction Products Regulation)

Nevertheless, all the countries within the Union have their own particular set of conditions that have a direct impact on construction (weather, local construction procedures, etc.) and which are not included in the CE mark guidelines. So although the mark facilitates the movement of construction materials between countries, it does not mean that the quality controls established for particular conditions are abolished. This could be solved by the adoption of voluntary norm conformity certificates for each specific case.

When the construction materials and systems are very new (not traditional), the European Organisation for Technical Approvals, an umbrella organisation for national authorisation bodies, may draft European technical suitability document guides for a construction product or family of products, acting on a mandate from the Commission. When there is no European standard or European technical suitability document available, products can be assessed and marketed in accordance with existing national provisions and in conformity with essential requirements.

HSE Committee Report



The development of a practical heat stress assessment methodology for use in UK industry

The Health and Safety Executive 2002

RESEARCH REPORT 008



The development of a practical heat stress assessment methodology for use in UK industry

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EXECUTIVE SUMMARY

Methods for the assessment of hot environments have been developed at national, European and international levels. It is generally recognised however, that they are limited in their application. BS EN ISO 27243 has been the accepted as a simple assessment method since 1984. It is based upon the wet-bulb globe temperature index (*WBGT*). ISO 7933 (BS EN 12515) presents an analytical approach to heat stress assessment called the Required Sweat Rate (SW_{req}) index. The SW_{req} index evolved from the Heat Stress Index (HSI – Belding and Hatch, 1955). A revision of the SW_{req} index has lead to the development of the Predicted Heat Strain (PHS) model.

Criticisms of existing methods for the assessment of heat stress are mainly in three areas:

- The **SCOPE** of the methods is often not sufficient to meet the varied realities of industrial heat stress. For example, methods do not account for the effects of protective clothing and equipment, yet workers in hot environments often wear this sort of clothing;
- The **VALIDITY** of methods has been questioned. Does the method really relate to the heat strain on the workers?
- In recent years the **USABILITY** of methods has been recognised as important. Methods may be valid and sufficient in scope but if they are too complex or not presented in a way that is complementary to the context, people and organisations who use them then they maynot be used correctly, if at all.

A series of ten experiments were conducted at the Human Thermal Environments Laboratory at Loughborough University to compare the ISO 7933 Required Sweat Rate SW_{req} and PHS predictions with observed physiological data. The SW_{req} model was also modified to provide a modified skin temperature for conditions where subjects wore clothing with clothing insulation values of greater that 0.6 clo (as required in the standard). This was called the ISO_{mod} model. Comparisons were made between the predicted and observed sweat rates and the time it took core temperature to reach 38°C (Duration Limit Exposures). The results showed that neither the SW_{req} nor the modified SW_{req} model were valid predictors of Duration Limit Exposures (DLE) and predicted sweat rate for people wearing protective clothing in warm humid environments. The PHS DLE predictions were more representative of the ISO predictions that the observed DLEs in all but one experiment. Although the PHS model predictions of sweat rate were an improvement on the ISO predictions. The model also significantly underestimated the observed sweat rates.

One area of concern was that in industry users of the indices would probably predict the metabolic rate. As such, comparisons were made between the results when estimated metabolic rate and measured metabolic rate were inputted into the models. Insignificant differences in metabolic rate inputs ($p<0.42$) had a greater impact on the predicted DLEs in the ISO models, with little effect evident in the PHS predictions. These differences between observed and predicted DLE within each model were insignificant. However, the differences in metabolic rate inputs had a significant effect on the SW_p in the PHS model ($p<0.00$) and not on the ISO ($p<0.25$) and ISO_{mod} ($p<0.24$) SW_p predictions.

THE USABILITY OF ISO 7933

A heuristic evaluation of the usability of ISO 7933 was performed. Three main areas of the standard were investigated; the paper based standard, the computer program, and the practical use of the model to determine safe work times. The paper based standard had poor or inadequate usability in a number of areas; simplicity, structure, consistency, speaking the user's language, providing adequate information and minimising user memory load. The standard appears unnecessarily scientific and would not encourage users to use it. The format and the information provided do not satisfy ergonomic guidelines of usability. Users should not be expected to use the equations presented in the standard and to work through them manually. This standard can only be used as a computer program and, as such, much of the information provided in the body of the standard is superfluous to their requirements.

THE DESIGN, DEVELOPMENT AND EVALUATION OF A PRACTICAL HEAT STRESS ASSESSMENT METHODOLOGY

The following framework for the design, development and evaluation of a practical heat stress assessment methodology was formulated. The overall strategy of the system life cycle was adopted to establish and define the processes that would be employed in the design, development and evaluation of the methodology to meet the specific requirements of this research. The life cycle consisted of the three stages:

Exploratory Stage - Involved the background research into the subject area with a literature review of those topics that would be investigated during the research. Knowledge of ISO 7933 SW_{req} was gained through a series of validity studies and a heuristic analysis of the usability of the standard.

Design and Development Stage - During this stage a number of methods were used to establish a formal definition of who the users would be so that their requirements of a practical heat stress assessment methodology could be identified. A further requirement was to define what the functional specification of the methodology should be. This information, along with the findings of detailed literature survey would provide the basis for the development of the methodology.

Evaluation Stage - Production of Final Prototype will be followed by a formal comparative usability evaluation of the prototype methodology with the three stage model developed by the BIOMED project.

The structure of the system's lifecycle was dynamic and underwent a number of alterations due to the difficulties encountered as the project progressed. A number of ergonomic methodologies were used to elicit data to enable the development of user requirements and a functional specification of a practical methodology as well as its evaluation. The methods used included; hierarchical task analysis, informal interviews, questionnaires, structured discussion groups and user trials. The result was that a practical heat stress assessment methodology has been developed and is proposed for further detailed evaluation in UK industry.

CHAPTER 1
INTRODUCTION & LITERATURE SURVEY

1.1 SUMMARY

The aims of this chapter are to introduce the topic of heat stress risk assessment, and to identify the context and issues within which the development of a valid and usable heat stress assessment method can be carried out.

Chapter 1 includes Sections 1.2 (Introduction) and 1.3 (Literature Review) of the Report. In Section 1.3, the concept of a heat stress index and current British, European and International standards are introduced. Research objectives were identified in relation to the evaluation of heat stress based on the validity and usability of the existing SW_{req} model and the proposed predicted heat strain PHS model. The outcome of the project was to be the user-oriented design, development and evaluation of a practical heat stress assessment methodology for UK industry.

The aim of the literature review was to use past research and current knowledge and activity to provide direction for the research. It was concluded that there is growing evidence that the current international standard ISO 7933 (1989) has limited validity and is not usable. A BIOMED II European Union project has produced a Predicted Heat Strain (PHS) index. This index has only been validated by its developers and should be investigated further through independent evaluation.

1.2 INTRODUCTION

A heat stress index integrates the effects of relevant environmental and personal factors into a single number that varies in direct relation to the degree of heat strain on people.

The **validity** of an index is an indication of how well the index value relates to heat strain and the **usability** of the index relates to how easy it is to apply by users; for example, in an industrial context. There are a number of possible benefits to be obtained from a valid and usable index, for example;

- to indicate the degree of heat strain expected in workers,
- to monitor work to ensure that there is acceptable risk,
- to determine acceptable exposure times to work in the heat.
- to provide limits beyond which unacceptable heat strain would occur.

"*An optimal heat stress index should provide an accurate prediction of the worker's physiological state at any time of exposure, thus allowing the occupational hygienist to assess the permissible duration of exposure and the duration of rest breaks. This objective implies that the index value ata given time takes proper account of the characteristics of past exposure and the response-time constant of the physiological variable considered. This feature of the index variation can only be studied in well controlled conditions where both the input parameters (metabolic rate, climatic*

parameters) and the output variables (sweat rate, body temperature, heart rate) are measured with

accuracy," Mariaux and Malchaire, 1995.

Since the industrial revolution and the resultant proliferation and advancement of industrial technology, people have been at risk from exposure to occupational hazards that would have adverse effects on their health and well being. One such occupational hazard is heat. The thermal environment in industry is a direct result of the advances in the mechanisation of the production process and differs greatly from the ambient weather-dependent climatic conditions (Eissing, 1995). Since all humans are susceptible to the stresses of exposure to heat, knowledge of the magnitude of the environmental heat load would enable the consequences of the exposure to be predicted (Belding and Hatch, 1955). To estimate the magnitude of the heat load, the six human thermal environmental variables (parameters) - air temperature (t_a), radiant temperature (t_r), air velocity (Va), humidity (h), clothing properties and metabolic rate are critical.

1.2.1 Heat Stress Indices

A great deal of research has resulted in the development of practical methodologies for the design and evaluation of hot working environments. The integration of this knowledge has resulted in the concept of the heat stress index to specify safe working conditions for hot environments. Belding and Hatch expanded upon the six basic parameters and described 13 parameters which they divided into 2 subgroups:

- **Factors determining imposed heat**: Temperature of the air, of walls etc, of the skin, watervapour pressure, air velocity, metabolic heat production, body surface area exposed and postural attitude, and finally clothing.
- **Factors determining resulting strains:** Heat tolerance and the consequences of increased deepbody temperature, exposure duration, skin wettedness and other consequences of sweating, vasodilatation of blood vessels at the skin and the consequences of this increased blood flow to the skin.

It is from these expanded parameters that the principles of rational heat stress indices have been based, as these parameters cannot be treated separately. The development of heat stress indices has also been aided by an improved understanding of the interaction of these parameters, along with technical advances and an increase in the use of computers. Computer models of thermoregulation and the development of international and national standards has created the mechanisms for thermal audits and education and the methodologies for their execution (Parsons, 1995). Standardisation of these methods has provided exposure limits for the worker who may be at risk from heat stress.

A number of influential bodies throughout the world that have been responsible for the development of these standardised methods. These bodies include the International Standards Organisation (ISO), British Standards Institute (BSI), American Conference of Governmental Industrial Hygienists (ACGIH), American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) and more. The most significant recent development has been the international co-operation that led to the development of ISO standards for the ergonomics assessment of human thermal environments. Many of these standards have also been adopted as European Standards by CEN (European Standards body) and nationally by the relevant bodies, such as the British Standards Institution (BSI). The European Coal and Steel Community (ECSC) has developed and used ergonomics methodologies and principles extensively, to the point where it now plays a major

role in the occupational health and safety of both industries (Parsons, 1995). An important consideration in understanding the development of ergonomics within the ECSC framework is that much of the impetus of the programmes' development was 'action oriented' and industry based. The creation of wealth is not threatened by the improvements in the quality of working life and health and safety. The prevailing philosophy behind this development has been that action and research activities must be differentiated. Thus, the research aim should be to sustain the action by providing relevant data.

Many of the research activities of the ECSC led to the development of *ISO 7933. Hot Environments, Analytical determination and interpretation of the thermal stresses using calculation of required sweat rate* (*SWreq*). This standard is also a British standard (BS EN 12515), however as this is almost identical to ISO 7933, for the purpose of this report it will be referred to as ISO 7933. The SW_{req} index is a rational heat stress index, although it's validity has been questioned and consequently a European project called BIOMED HEAT was conducted. The objective of the BIOMED project was to co-ordinate the work of eight European laboratories specialising in human thermal environments to improve the assessment of hot working environments. Malchaire (1999) provides the following list of the specific objectives of the BIOMED project:

1. *"To design and validate a strategy for the assessment of the strain related to hot working conditions, strategy that can be used by practitioners in the field to determinemaximum allowable exposure durations and to optimise the improvement of the working environment;*
2. *To extend the validity of the present modelling of the role of clothing;*
3. *To improve the validity of the present indices in cases of high radiation, high humidityor high air velocity;*
4. *To better define the criteria for the determination of the maximum allowable exposureduration and in particular the inter-individual differences in sweating rate, evaporation efficiency, water loss and increase in core temperature".*

This resulted in a new rational model of heat stress called the Predicted Heat Strain (PHS) index and a three-stage approach to the assessment of heat stress involving Observation, Analysis and Expert Stages.

According to Parsons, these heat stress standards can potentially contribute to a reduction in heat stress casualties, although their implementation has not had as large an impact as may have been hoped. To this end, this project is concerned with the development of practical guidelines for the use of the appropriate standards paying particular attention to the requirements of UK industry.

1.2.2 Research Objectives

There were four main objectives:

1.) To evaluate the Validity of the ISO 7933 Required Sweat rate (SW_{req}) and Predicted Heat Strain (PHS) models (**see Chapter 2**)

2.) To evaluate the Usability of ISO 7933 (**see Chapter 3**)

3.) To design, develop and evaluate a practical heat stress assessment methodology (**see Chapter 4**)

4.) To produce a practical heat stress assessment methodology (**see Chapter 5**)

1.3 LITERATURE SURVEY

1.3.1 Aims

The aim of the Literature Review is to provide an overview of past research and current knowledge of heat stress relevant to ISO 7933 and those other Standards and methods concerned with the assessment of hot working environments. The survey is extensive and provides a rationale for the approach taken to achieve the project's aim to develop a valid, usable and practical method for the assessment of heat stress in British industry.

1.3.2 Human Thermoregulation

Introduction

The temperature of the human body is an important indicator of the state or condition that it is in. Leitheid and Lind (1964) recalled work by Claude Bernard in 1878, who proposed the concept of the "*milieu interior*" where an effective thermoregulation mechanism helps maintain the mechanisms of the internal body organs. This thermoregulation occurs when receptors, sensitive to change, send messages via the Central Nervous System to the hypothalamus, from where it is believed the regulation of body temperature is controlled. The ultimate control and co-ordination of thermoregulation in humans is controlled by the autonomic system which is that neural system within the human body that controls those bodily functions which are not usually under voluntary control. When set point is exceeded, blood vessels widen (vasodilatation) and blood is pumped to the skin, thereby loosing heat from the blood to the skin. This in turn reduces the gradient between skin temperature and the air temperature, reducing the gain of heat through convection and conduction. Through this process of thermoregulation, humans maintain their deep body temperature at or about 37°C and any deviation of a degree or more (plus or minus) from 37°C can have serious consequences.

The concept of heat stress can be confusing with Leithead and Lind (1964) pointing out that "*the term heat stress expresses an easily recognised concept which has a practical value but which is difficult to define*". Belding (1955) also identified the possibility for confusion, but in terms of heatexhaustion and heat stroke. What is appreciated is that discomfort and fatigue are caused by low levels of heat stress, performance impairment by higher levels, while a heat that exceeds tolerance levels may be a health hazard (Rodahl and Guthe, 1988).

The Heat Balance Equation

For the internal body temperature to be maintained at around 37°C, there must be an equilibrium between the amount of heat generated within the body and the heat transferred to or from it. This equilibrium, or balance, is by no means constant, but is as dynamic as the conditions within which the body is working. The concept of the heat balance equation for the human body explains and provides an understanding of how 37°C internal body temperature is maintained. Parsons (1993) points out that all heat balance equations have the same underlying concept: heat generation within the body, heat transfer, heat storage. Equations **1** and **2** show the conceptual heat balance equation

where metabolic rate (M) provides energy enabling the body to perform mechanical work (W). The remainder of the energy is given off as heat (M-W). There are a number of ways that heat transfer can be achieved: evaporation (E), radiation (R), convection (C) and conduction (K). The resultant heat production and loss provide the storage (S), where in heat balance, S = zero.

$$M - W = E + R + C + K + S \quad (1)$$

when S=0

$$M - W - E - R - C - K = 0 \quad (2)$$

Core Temperature Limits

Deep body temperature (core temperature) can rise to 39°C in controlled conditions (NIOSH 1986). It is not therefore a forgone conclusion that a worker will become a heat stress casualty when their core temperature reaches 38°C or even 39°C. According to NIOSH, 38°C provides a "*modest safety margin*" because as core temperature exceeds 38°C, so the risk of heat stress occurring increases. This is further complicated by the degree of accuracy with which the actual environmental and work rate loads are assessed may be suspect, with this safety margin allowing some degree of error in the assessment. If insufficient heat is lost, deep body temperature will continue to rise to between 38°C and 39°C (where collapse may occur) and 41°C (where heat stroke may occur).

The Importance of Metabolic Rate

Since heat is produced in proportion to the work rate, deep body temperature has been found to be more closely related to metabolic rate than to the rate at which body heat had to be eliminated (Nielsen, 1967). Therefore, metabolic rate is a major contributor to heat stress even when environmental conditions would suggest that worker is not at risk. Core temperature in a steady state is dependent upon work rate, while under severe environmental conditions this thermoregulation fails. Graveling and Morris (1994) stated that the criteria of many heat stress documents, e.g., ISO 7243 1989, ISO 7933 1989 and NIOSH 1986, operate on the principle that an increase in work rate should be compensated for by a reduction in the environmental heat load. It is here that the criteria for the setting of limits in an industrial setting are set. These "limit" conditions must be cooler than those that cause heat stress.

Effects on Cardiac Output

Work under heat stress conditions results in a competition for cardiac output because less blood is returned to the deep body due to vasodilatation of the blood vessels in the skin (NIOSH). The blood therefore is not only carrying oxygen to the muscles but it is also acting as a cooling fluid. As a result, heart rate increases to maintain the same cardiac output and at a sub-maximum work rate, thermoregulatory requirements override the working muscle's requirements for oxygen. Consequently, heart rate increases during heat stress compared to the same work rate in neutral conditions. This difference decreases as VO_2 nears maximum (Shepherd and Webb-Peploe (1970) cite work by Rowell *et al* (1966). The phenomenon of this heat-induced increase in heart rate is known as cardiac beats or thermal drift. This, when coupled with the demands placed upon the

heart due to work rate, amplifies the problems even in healthy workers and can manifests itself in heat exhaustion or collapse, due to the inadequate cardiac output providing an insufficient blood supply to the brain (Rodahl and Guthe, 1988).

Due to its ease of use and its apparent wide use in industry, Vogt *et al* (1983) investigated whether the use of heart rate in the setting of industrial work-rest schedules in the heat was a possible solution. However, they found that even when rest schedules were observed, the heart rate at the end of the experiment was the same as that found when continuous work was observed. This suggested that the thermal component of the subject's heart rate did not decrease sufficiently during the rest schedules. They also found that the use of heart rate alone was not a valid determinant for the establishment of self regulated work-rest schedules even though heart rate may be closely linked to the reason the worker stopped working.

Therefore, although heart rate is an excellent indicator of the general stress imposed on the body, it is not an accurate measure of heat stress because the resultant heart rate will be affected by the thermal strain under which the person is working. Heart rate is only really useful in heat stress assessment if other influencing factors are controlled. Heart rate closely follows core temperature in a general way, but may parallel skin temperature, especially under high radiant temperatures (Rodahl and Guthe, 1988).

Sweating

The action of sweating itself does not contribute to the loss of heat. Rather, it is the evaporation of the sweat from the skin that drives cooling and in hot environments the evaporation of sweat is the dominant mechanism for maintaining a steady core temperature for a given metabolic rate. In humid environments the driving force encouraging sweat evaporation is diminished due to the resultant decrease in the difference between the partial vapour pressure at the skin and in the environment. As such, in humid environments the effectiveness of heat loss through sweating is reduced as the capacity for evaporation is reduced. This can lead to profuse sweating where dripping of sweat from the skin occurs resulting in insignificant loss of heat with a further reduction in body fluid. A decrease in sweating may occur as the deep body temperature continues to rise and the skin is completely wet. The situation is further complicated when a worker is wearing protective clothing. An example of the power of sweating is provided by NIOSH (1985) which states that each litre of evaporated sweat will provide a loss of 675W of energy. During sweating, salt is lost at about 4g per litre for unacclimatised workers and 1 g per litre in acclimatised workers. Rodahl and Guthe (1988) state that "*prolonged exposure to heat and/or prolonged exercise almost always causes hypohydration*". Additionally, rectal temperature which is used as an indication of core temperature is always significantly higher in dehydrated subjects. The increase in heart rate due to thermal stress is further exacerbated by the loss of water through sweating because large sweat losses reduce the body's water content (hypohydration) and therefore reduces the blood volume.

Acclimation

Sweating efficiency increases with acclimation because maximum sweat production is greatly increased and a sub-maximum sweat production level is achieved at a much lower t_{sk} and t_c. Another consideration is that the distribution of sweat is improved with an overall improvement with respect to the total surface area where sweat is being produced and the amount of sweat

produced. Acclimation is achieved with repeatedly exposing an individual to a hot environment over a number of days.

1.3.3 Heat Stress in Industry

Leithead and Lind (1964) wrote that "*for the most part*", industrial work presents only low levels of heat stress although in many cases those environmental conditions found naturally are exceeded greatly. Meyer and Rapp (1995) stated that despite technological advances "*heat stress remains one of the most frequent complaints of French workers*". This contrasts with work they cite by Millican *et al* (1981) who stated that heat stress "*comes low on the list of hazards*" although a survey by the French Ministry of Social Affairs reported a daily or frequent occurrence of heat stress in 16.6% of workers. These results may show an overall decrease in complaints since a similar survey conducted in 1979 suggested 19.4% of workers suffered heat stress. Meyer and Rapp reported that these results would seem to be applicable to other western countries where one of the most frequently reported stress factors is working in the heat. (For a detailed review of heat stress in industry see the literature review by Rodahl and Guthe, 1988.)

One of the features associated with the assessment of heat stress in industry appears to be that the exposures are often infrequent and may be for short periods. This is important, because the assessors of the risks may be conducting heat stress assessments so infrequently that they find it difficult to transfer their knowledge from one assessment to the other. Meyer and Rapp (1995) provide three examples of what they call "*unusual field situations*".

1. Bin incinerator workers cleaning a furnace, where protective clothing is worn (including fresh air supply), high metabolic rates are observed, with exposures lasting between 4 and10 minutes.
2. Maintenance of food sterilising conveyors where the work has to be carried out during normal operation. Workers may work in a confined area for time periods of between 10 to30 minutes.
3. Workers checking the operation and maintenance in paper drying rooms with exposureslasting for between one and two minutes.

Here the definition of risk provided by Covello and Merkhofer (see Section **0**) suggests the need to consider "uncertainty" in the heat stress risk assessment procedure.

The following list of industries where workers may be at risk from heat stress has been compiled from literature reviews by Meyer and Rapp (1995), NIOSH (1986) and Rodhal and Guthe (1988) who also included a review of their own work:

- Glass products manufacturing plants;
- Drying operation in glass-wool manufacture;
- Potash Mines, Coal mines, gold mines, etc;
- Steam and compressed air tunnels;
- Conventional and Nuclear power plants – Sweeper tasks and maintenance tasks;
- Iron, steel, aluminium and other non-ferrous foundries and smelting operations;
- Brick-firing and ceramics operations;
- Plants producing rubber and rubber products;
- Electrical utilities (particularly boiler rooms);

- Bakeries, confectioneries and catering kitchens;
- Laundries and Ironing in dry cleaning shops;
- Food canneries.

1.3.4 Personal Protective Equipment (PPE)

Personal Protective Equipment is considered to be a "*last resort*" to protect workers from the hazards in the workplace (HSE, 1992). Wherever possible, engineering controls and safe systems of work should be provided. In practice though, Crockford (personal correspondence) found that PPE is often used as a first resort as it is cheaper than introducing engineering controls. This is mainly because the effects the environment has on worker performance are clearly less severe than they are on safety.

PPE and Heat Transfer

The very nature of PPE means that it interferes with the body's ability to lose heat from the skin to the environment because of the insulation provided by the clothing and the micro-climate within the garment (Kerslake, 1972; Goldman, 1988; Kenney *et al*, 1988; Parsons, 1993; Bethea and Parsons, 1998; Bernard and Metheen, 1999). The thermal insulation required to maintain a thermal balance for a human seated in a room at 21°C (air and radiant temperature), humidity less than 50% and air velocity equal to 0.1 $m.s^{-1}$ was defined as 1 clo by Gagge *et al* in 1941. One clo is equal to a clothing insulation of 0.155°C.m^2.W^{-1} (the boundary layer of air around the human body is equal to 0.12 °C.m^2.W^{-1}).

Evaporation of heat for humans under warm or hot working environments provides a powerful cooling mechanism. "*Clothing both inhibits evaporation by producing a humid microclimate and diminishes the cooling effect of the evaporation that does take place*" (Nunnely, 1989). This meansthat heat stress in wearers of protective clothing occurs at lower environmental temperature and humidity values than for those of nude subjects.

The ability to transfer heat from the deep body tissue to the skin is achieved through the transfer of heat by blood to the skin and a key factor in heat stress amongst wearers of PPE is the convergence of skin temperature and core temperature. A skin temperature of 33°C and core temperature at about 37°C is usually observed when seated at rest. It is this 4°C difference between core temperature and skin temperature that enables heat to be transported to the skin. Therefore, as skin temperature increases so the amount of heat that can be transferred per unit of blood will reduce linearly (Goldman, 1988). As a result there is an insulation induced rise in skin temperature and the resultant limited ability to dissipate heat will causes a rise in deep body temperature.

According to NIOSH (1986), the skin temperature must be maintained at least 1°C below the core temperature if the blood is to be cooled before returning to the body core. Due to this convergence of t_{sk} and t_c, heart rate increases in an attempt to maintain cardiac output while the volume of blood pumped during each beat decreases. According to Goldman, "*if it does not occur beforehand, heat exhaustion collapse is almost certain to occur at or before the point where skin temperature reaches deep body temperature*". Here Goldman cites work by himself and Pandolf (1978) which showed that collapse may occur with core

temperatures "*as low as 38.2°C with skin temperatures inthe 37°C range*". The skin temperature though is affected by the insulative properties of clothing.

This inability to lose heat from the body when PPE is worn may even result in many workers either wearing the PPE incorrectly or not at all because it makes them feel hot (McCullough, 1983). Meyer and Rapp (1995) cite Millican *et al* (1981) and Badet *et al* (1983) who stated that protective clothing was seen more as a handicap than as protection. This is illustrated by Dukes-Dobos *et al* (1986) who reported that bin incinerator workers in the Aluminium plants that they studied seldom wore their protective clothing. Thus, these workers are exposing themselves to the hazards from which the PPE was supposed to be protecting them, thereby rendering their PPE ensembles redundant.

PPE and Metabolic Rate increase

Duggan (1988) suggested that when estimating metabolic rate for wearers of PPE, the extra metabolic heat production caused by the PPE needs to be considered and the practical implications of this concerns job design. Here, if a worker is to perform a particular task while wearing PPE, they will have a higher metabolic rate than when doing the same task with no PPE. Therefore, it is necessary (where possible) to redesign jobs so that the worker does not have to work at the same intensity as they would if they were not wearing the clothing. This is an important point because this resultant increase in metabolic heat production has two possible consequences:

1) The onset of fatigue will occur sooner than it would without PPE
2) Increased heat production increases the need for heat dissipation from the worker and theclothing ensemble.

Teitlebaum and Goldman (1972) reported that in a series of experiments, the PPE worn increased the work rate more than when the equivalent weight of the PPE was worn on a belt. They reported an increase of 18%, while they cite other authors as reporting varying increases in metabolic rate from 5 to 10% (During *et al*, 1966) and 11 to 13% (Consolazio *et al*, 1963).

More detailed estimates of the increases in metabolic rate associated with the wearing off PPE are provided in BS 7963 (2000). The table below is reproduced from Table 2 of BS 7963 (2000).

Table 1: Estimated Increases in Metabolic rate due to wearing PPE

	INCREASE IN METABOLIC RATE DUE TO WEARING RPE (W.M-2)				
	Resting	**Low metabolic rate**	**Moderate metabolic rate**	**High Metabolic rate**	**Very high metabolic rate**
Safety shoes/short boots	**0**	**5**	10	15	20
Safety boots (long)	**0**	**10**	20	30	40
Respirator (low/moderate performance e.g. P1, P2)	**5**	**10**	20	30	40
Respirator (high performance e.g. P3)	**5**	**20**	40	60	80
Self contained breathing apparatus	**10**	**30**	60	95	125
Light, water vapour permeable chemical coverall (e.g. Disposable)	**5**	**10**	20	30	40
Chemical protective water vapour impermeable ensemble [e.g. polyvinyl chloride (PVC)] with hood, gloves and boots	**10**	**25**	50	80	100
Highly insulating, water vapour semi-permeable ensemble (e.g. firefighter's gear consisting of helmet, tunic, over trousers, gloves and boots)	**15**	**36**	75	115	155

According to BS 7963: 2000, the following needs to be considered:

- Metabolic rate values have been rounded off to the nearest 5 $W.m^{-2}$.
- Respirator classification defined in BS EN 143 (1991).
- As can be seen from the estimated increases in metabolic rate, very high metabolic rate cannot be maintained when wearing some forms of PPE. Here job redesign would probablybe necessary if engineering controls were not possible.
- Do not add footwear induced increased in metabolic rate for sedentary tasks.
- The table presents empirical data. If more accurate methods of obtaining metabolic ratevalues are required, refer to BS EN 28996.
- If metabolic rate is measured instead of estimated, corrections for the increased metabolicrate are not necessary.

1.3.5 Risk Assessment & Management Considerations

Introduction

The development of a practical heat stress assessment methodology requires that not only are the heat stress issues considered, but that the role such a methodology may play in the overall risk management and assessment process is understood. To this end, a detailed review was conducted on risk assessment and risk management literature and appropriate principles have been adapted to meet the very specific requirements of not only this project but heat stress assessment as a whole. Primarily though, this has been done from a user-oriented approach and not from an industry or risk specific perspective in order to better understand how health and safety professionals, occupational hygienists etc. may tackle a general risk assessment, what their expectations may be, and what their training tends to cover. This will provide a benchmark by which the current processes of heat stress risk assessment are compared to identify if there are any areas where current heat stress risk assessment strategies do not meet those of generic risk assessment procedures.

The Process of Risk Assessment

"*In many countries the requirement to provide a safe environment is a requirement by law*" (Osborne and Gruneberg, 1983). The UK is no different, where there is legal requirement for companies to identify hazards and to evaluate the risks that these hazards impose. The regulations for risk assessment are provided in the Management of Health and Safety at Work Regulations, 1992 consisting of the following documents:

- Manual Handling Operations Regulations 1992 (Manual Handling Regulations);
- Personal Protective Equipment at Work Regulations 1992 (PPE);
- Health and Safety (Display Screen Equipment) Regulations 1992 (Display ScreenRegulations);
- Noise at Work Regulations 1989 (Noise Regulations);
- Control of Substances Hazardous to Health Regulations 1994 (COSHH);
- Control of Asbestos at Work Regulations 1987 (Asbestos Regulations); and
- Control of Lead at Work Regulations 1980 (Lead Regulations).

To comply with current health and safety legislation, employers and the self-employed are required by Regulation 3 of the Management of Health and Safety at Work Regulations 1992 to carry out a risk assessment to identify the measures they need to take.

Hazards and Risks

The most common definition for a **hazard** describes something that has "*the potential to cause harm*" while a **risk** is "*the likelihood of that the harm will be realised*". HSE (1991) provides thewell-published equation for estimating risk where hazards are scored based on severity and probability,

$$Risk = hazard\ severity \times likelihood\ of\ occurrence \quad (3)$$

Everley (1994) added to this equation by multiplying risk by a number that represents the number of people who may be exposed to the risk. Recently though this definition has been considered to be somewhat restrictive and an alternative has been provided by Covello and Merkhofer (nd) where;

> "**Risk**. *A characteristic of a situation or action wherein two or moreoutcomes are possible, the particular outcome that will occur is unknown, and at least one of the possibilities is undesired*."

Although this appears to be a somewhat cumbersome definition, it highlights an important principle. Risk is a two dimensional concept where one of two possible options may be found:

1. "*The possibility of an adverse outcome*
2. *Uncertainty over the occurrence, timing or magnitude of that adverse outcome*."

A risk exists therefore, if there is uncertainty about the risk. Risk therefore is something that is both uncertain and undesired. The traditional definition of risk as the product of occurrence probability and consequence magnitude is relatively simple to define when one considers the cause-and-effect of single parameter hazards such as chemicals, noise etc. The risk of heat stress is extremely difficult to define due to the interaction of the six basic parameters. Added to this, the interpersonal differences in physiological responses further complicate the risk estimation.

ISO definition of heat stress

A formal definition of heat stress is defined by the standards as "*heat stress to which a person exposed to a hot environment is subjected, in particular, is dependent upon the production of heat inside the body as a result of physical activity and the characteristics of the environment governing heat transfer between the atmosphere and the body*." Although this report refers to International Standards, where a standard has been ratified as a British Standard, the standard's reference numberis provided in brackets.

Definition of Heat Stress Risk Assessment Methodology

From this definition the following definition for a Heat Stress Risk Assessment Methodology was developed:

> **Heat Stress Risk Assessment Methodology:** "*A self-contained, systematic procedure which in part, or full, achieves the goals of thespecified heat stress risk assessment*."

HSE Five Steps to Risk Assessment

The Health and Safety Executive (HSE) has produced a "Five Steps to Risk Assessment" procedure that provides an easy to use, practical approach to risk assessment. The five steps are:

STEP 1: Look for the hazards;

STEP 2: Decide who might be harmed and how;

STEP 3: Evaluate the risks and decide whether the existing precautions are adequate or whether more should be done;

STEP 4: Record your findings;

STEP 5: Review your assessment and revise it if necessary.

Therefore the methodology developed for this project must meet the overall strategy of the "five steps" approach.

Decision Making Sequence

According to Glendon (1987) there are three main areas in human error that may lead to a system failure (when health and safety is viewed as a system):

- **Cognition**: This includes areas such as the perception of hazard and of risk, the ability tolabel hazards and risks, the development and learning processes involved and ascribing responsibility, cause and blame;
- **Behaviour**: How people respond to hazards, cause accidents, make errors and correct their behaviour as a result of those errors. This author however would add "the macho factor" where the worker is not willing to admit that they may be experiencing discomfort or stress;
- **Environment**: Valid indicators of the risk associated to hazard exposure, the culture ofsafety, training and education and communication.

The training objectives for both the individual and the organisation should follow a specific decision making sequence according to Glendon (1995). This is an important consideration for this project as it may dictate how any practical methodology may be implemented. His approach has been adapted specifically for application in environments where workers may be at risk to heat stress, and is discussed in further detail in **Section 4.3.5** on **Page 163**

1.3.6 Health Surveillance in the UK – Specific to the Thermal Stress

Honey *et al* (1996) conducted an HSE sponsored research project to investigate health surveillance by employers in the United Kingdom. Their study consisted of a postal questionnaire of 5000 employers (35% response rate) and over 30 interviews. One of the areas that they considered was hot and cold working environments. Although there was no separation of this category into hot environments and cold environments, their results are discussed in the section as they provide some insight into the risk assessment and control of health surveillance for employees working in extreme thermal environments. It is recognised that many of the respondents may have been from companies with cold working environments, however since the philosophies for the assessment of both types of environment are similar, their findings may be relevant to both. All data reported were weighted according to the base percentages of responses that could have been given. If the responses were below the 50% base they were presented in brackets to indicate that the data should be treated with caution, and below 25% base response "(no data)" will be shown. Some findings of the survey by Honey *et al* are presented below:

- 13.7% of respondents identified hot and cold environments as a hazard from which their employees were at risk. The following are industry sectors that identified thermal hazards (theproportion of each is also presented): Agriculture (no data); Energy/Water 30.3%; Metals/Minerals 16.3%; Engineering 11.3%; Other manufacturing 8.7%; Construction 30.6%; Distribution/Hotels 1.5%; Transport/Comms 23.6%; Business Services (3.4%); Other Services23.4%; All Establishments 13.7%. The sector with the highest percentages was construction, followed by Energy/Water;
- Of these, 5.9% of respondents classified thermal stress as being the most serious hazard in the workplace of which only (34.1%) conducted risk assessments

specific to the thermal environment. (Note: the bracket shows that this was for less than 50% base of respondents who

reported thermal issues.) (65.4%) did not conduct thermal risk assessments and (0.6%) did not know if thermal assessments were conducted. The (34.1%) was the lowest percentage of risk assessment for any category, with all the other categories having risk assessments by at least two thirds of respondents;

- Another finding of concern was that only (13.7%) of respondents reported pre-employment assessments (such as medical examinations and self completion questionnaires) for workers working in environment where hot/cold conditions were found. The rest, (86.3%), conducted no pre-employment assessments. This is a concern because the health status of the worker is critical in hot working environments. Unfortunately, Honey et al also found that (81.1%) reported that health surveillance was not undertaken for hot and cold conditions. From the (18.9%) where it was conducted, insufficient data (i.e. less than 25% base of respondents) were available for different health surveillance strategies. The strategies they categorised were; "*inspection of readily detectable conditions, enquiries about symptoms, medical surveillance by a qualified doctor, biological effects monitoring, biological monitoring.*" One high-risk population is pregnant women. The study reported that (52.3%) of respondents did not make provisions for pregnant women, while (47.2%) stated that they were not at risk. Only (0.3%) did make provisions;
- Considering the importance of health status and other factors such as experience, skill etc. whenworking in thermal extremes, it was concerning to find that the lowest percentages for any of the hazards were reported in the areas of employee (37.9%) and management (47.2%) training in hot/cold environments. Record keeping was another area where hot and cold hazards were not being adequately addressed, with (93.1%) of respondents stating that no records were maintained.

Although no direct conclusions with regard to hot/cold environments were drawn from the postal survey, a number of thermal environment conclusions (for hot/cold) can be drawn:

1.) Of the respondents that listed hot/cold environments as a hazard, less than 50% answered many of the questions, as was evident by the percentages given in brackets. This may be for two reasons:
   i.) Thermal stress is not high on their list of high-risk hazards and as such is considered secondary to the other risks to which their workers may be exposed;
   ii.) Respondents may not have had sufficient knowledge of thermal stress risk assessment and/or the consequences of exposure to thermal hazards;
2.) Health surveillance, risk assessment and pre-employment screening of thermal stress were inadequately performed in those industries where heat stress was considered a risk;
3.) Record keeping needs to be improved so that the effectiveness of controls, health status of workers and the accuracy of thermal risk assessments can be monitored.

1.3.7 Heat Stress Indices

Introduction

Many attempts have been made over the years to develop an index which, through a single figure, is able to provide an indication of the risk of heat stress (Kerslake, 1972). However, a thermal index has yet to be developed which can accurately predict a person's physiological strain to all

environments (NIOSH, 1986). Goldman (1988) and Morris (1994) say that there is a growing body of opinion that computer modelling provides the best solution to the prevention of heat stress.

Belding provides the following recommendations to anyone who is "*so bold as to improve onexisting standards*":

- One of the major problems seems to be the establishment of criteria which arerepresentative of physiological stress and strain;
- To accurately predict the level of strain in such a way as to provide a practical application;
- The "*ultimate index should provide a means for rating time-limited exposures*";
- The use of sweat rate is only really justified in terms of dehydration levels and saltdepletion;
- Mean skin temperature is the result of the effects of environment and metabolic heat loadson the circulatory efficiency of the blood and the evaporative cooling effectiveness.

A heat stress index is a model of human thermoregulation. Models (and indices) are, by their very nature, limited in their functionality and as such the model (whether it be graphical or numeric representation, mathematical equations) will never be a perfect representation. Therefore, when investigating models, errors or deviations from the observed are expected but the performance criteria is not so much how accurate it is, but rather whether or not these inaccuracies are significant in terms of the application or situation to which it is intended to be applied. This is very much the case in Human Modelling because there is such a wide variation between individuals in their physiological responses. This is still further complicated by the fact that much of our knowledge of human responses to thermal environments is incomplete. This however, by no means negates the potential that human modelling has in the development of research methods and practical applications to address human responses to thermal environments.

Types of heat stress indices

There are generally three types of methods used for the assessment of hot environments:

- Empirical: Data from laboratory studies provided data that makes it possible to predict the likely effects an environment will have on a human, (i.e. Physiological responses);
- Direct: Standardised measuring instruments are used to measure environmental parameters such as globe temperature;
- Rational: Calculations of the heat exchanges between the human and the environment provide a method to predict the human responses.

These methods all have the same criteria in common, in that their purpose is to define or establish the physiological responses of humans to their environment. Figure 1 shows a simplification of the method of calculating climatic indices, which results in a simplified value or combined measure which can represent the large possible combinations of the parameters that make up the human thermal environment. According to Eissing (1995), this simple index-value allows for a simple comparison between environments, different working situations and different clothing ensembles to be made.

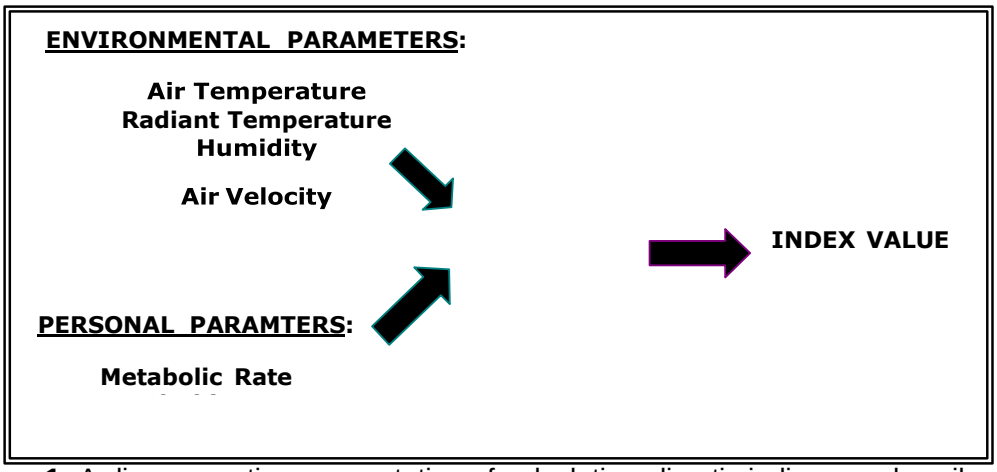


Figure 1: A diagrammatic representation of calculating climatic indices as described by Eissing (1995)

*Effective temperature (*ET*) and corrected effective temperature (*CET*)*

The Effective Temperature (*ET*) scales were originally devised by Hougton and Yaglogou in 1923 as comfort indices and, in 1927, Yaglou realised that it would be a good physiological index of stress (Leithead and Lind, 1964). *ET* takes wet bulb temperature, dry bulb temperature and air velocity into account but does not take into account radiant heat. Bedford in 1946 proposed the replacement of an air temperature measure with the use of globe temperature to provide a measure of radiant heat. This produced the Corrected Effective Temperature (*CET*). The *CET* has been used extensively within the coal mines in the UK.

The Heat Stress Index (HSI)

The Heat Stress Index (*HSI*), was developed by Belding and Hatch (1955) as an analytical index that provides an expression on a scale of 0 to 100 that represents heat stress and hence heat strain and thereby the amount of time a worker can be exposed to a hot environment. Table 2 provides the equations used in the calculation of *HSI* and the resultant Allowable Exposure Times (AET), while Table 3 provides an interpretation of the *HSI* values.

Table 2. Equations used in the calculation of the (*HSI*) and Allowable Exposure Times (*AET*), (from Parsons, 1993)

		CLOTHED	UNCLOTHED
Radiation Loss (W.m^{-2})	$R = k_1 (35 - t_r)$	for k_1 = 4.4	7.3
Convection Loss (W.m^{-2})	$C = k_2 v^{0.6} (35 - t_a)$	for k_2 = 4.6	7.6
E_{max} (W.m^{-2}) W.m^{-2})	$E_{max} = k_3 v^{0.6} (56 - P_a)$ (upper limit of 390	for k_3 = 7.0	11.7
E_{req} (W.m^{-2})	E_{req} = M-R-C		

Heat Stress Index $HSI = (E_{req} / E_{max}) \times 100$

Allowable Exposure Time $AET = 2440/(E_{req} - E_{max})$ mins

Table 2 shows the equations for the Heat Stress Index, which is based on a comparison of E_{req} and E_{max}. Although it is derived independently, the *HSI* value is related to the required skin wettedness (w_{req}) value (which is derived from E_{req}/E_{max}). As such, it describes strain in terms of sweating, and because it multiplies the w_{req} value by a 100, it describes a prescriptive zone between 0 and 100 (see **Table 3**). When a value is obtained that is greater than 100, an AET is produced because it effectively means that a skin wettedness value greater than that capable of being produced (remember it is related to w_{req}) is required.

Table 3: Effects of environments at different HIS values to an eight hour exposure

HSI VALUE	EFFECT OF EIGHT HOUR EXPOSURE
-20	Mild cold strain (e.g. recovery from heat exposure)
0	No thermal strain
10-30	Mild to moderate heat strain – Little effect on physical work but possible effect onskill.
40-60	Severe heat strain, involving threat to health unless physically fit – Acclimationrequired
70-90	Very severe heat strain – Personnel should be selected by medical examination,adequate water and salt intake must be ensured.
100	Maximum strain tolerated daily by fit acclimatised young men.
OVER 100	Exposure time limited by rise in deep body temperature.

Table 3 describes the prescriptive zone as calculated by HSI. Note how as the HSI value increases so the strain imposed on the worker increases.

Due to it's reliance on E_{max}, HSI cannot be applied if temperature and humidity are high (BOHS, 1996).

The American Conference of Governmental Industrial Hygienists (ACGIH)

The ACGIH provide an annual book for practical use by trained industrial hygienists called "Threshold Limit Values and Biological Exposure Limits." These include Threshold Limits Values (TLVs) for heat stress. NIOSH state that "*these Threshold Limit Values (TLVs) refer to the levels ofphysical agents and represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effect*." Further practical information and advice regarding working practices in hot environments supplement the TLVs. The TLVs however, provide a method of determining heat stress in terms of WBGT values that are based on physically fit, acclimatised workers wearing summer clothing. Recently the ACGIH TLVs have included corrective values based on different types of PPE which are subtracted from the reference value so as to take into account the effects the PPE may have on the wearer.

Recommended Exposure Limits (REL) and Recommended Alert Limits (RAL)

These are two methods developed by NIOSH (1986) to provide Recommended Exposure Limits (REL) and Recommended Alert Limits (RAL) for workers exposed to a combination of environmental heat (WBGT) and metabolic heat. They are represented by limiting curves of one hour, time weighted averages for both environment and metabolic heat. Both are based on a standard worker who is healthy, acclimatised, normally clothed and limited to a deep body temperature of 38°C. The REL is based on an acclimatised worker while the RAL is based on an

unacclimatised worker. It is again evident that these methods are also based on normally clothed workers, and no account has been made for the "non-normal" nature of PPE.

1.3.8 British, European and International Standards: *Ergonomics of the thermal environment*

Introduction

As part of the standardisation of information produced by the International Standards Organisation (ISO), Ergonomics standards have been developed to provide information to people concerned with the design, development and assessment of products, systems, equipment and workplaces. According to Nachreiner (1991) the purpose of these Ergonomics standards is to promote health and safety, wellbeing and worker efficiency both in terms of the performance of the worker as well as the performance of the system as a whole. As part of the Ergonomics standards, a series of documents intended for the assessment, control and management of the risk in of hot working environments. These heat stress documents are part of a larger scope of documents developed for the assessment of human thermal environments as a whole.

Aims of the ISO Standards - Ergonomics of the thermal environment

Parsons (1995) stated that the combined experiences and knowledge of those people who are experts/experienced in human thermal environments (e.g. environmental ergonomists and engineers, occupational hygienists and medics, thermal physiologists etc.) enhance and enable the evolution and development of these standards. ISO Standards for Ergonomics of the Thermal Environment list a number of aims, which for this series of Standards in particular are (see Figure 2, for a diagrammatic representation of standards for thermal environments):

- To provide a definition of terms that are to be used in the measurement, testing and interpretation methodologies, taking into account existing standards and those which are being drafted;
- The "drafting of specifications relating to the method of the measurement for physicalparameters characterising thermal environments";
- To provide the reader with a selection of methods of interpretation of the parameters;
- In instances where exposure to thermal environments in areas such as comfort and extremeenvironments, the standards establish recommended or maximum levels of exposure;
- The "drafting specifications relating to the method of the measurement of the efficiency ofdevices or procedures for individual or collective protection against heat and cold".

The purpose and methodologies of the Standards concerned with heat stress are briefly explained below.

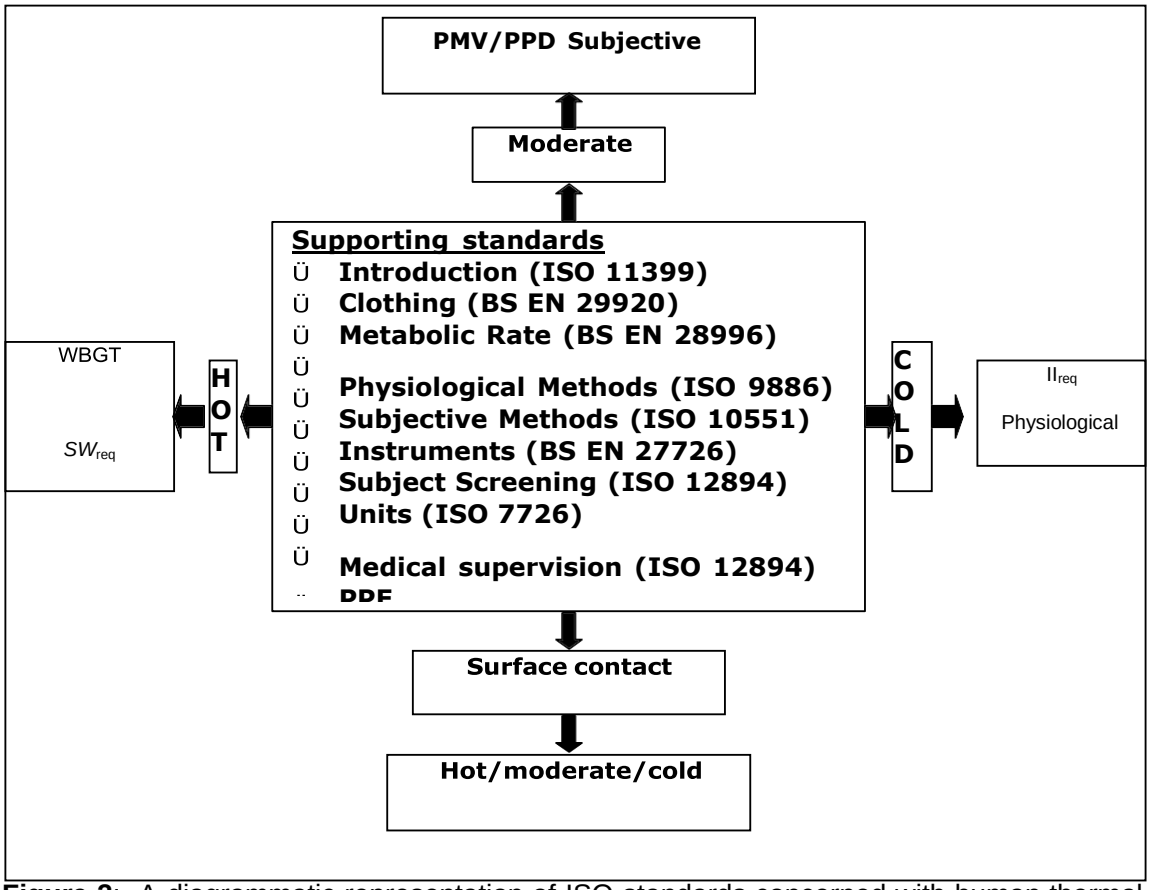


Figure 2: A diagrammatic representation of ISO standards concerned with human thermal environments (updated from Parsons 1993, p. 253)

1.3.9 Supporting standards

ISO 11399, Ergonomics of the thermal environment - Principles and application of relevant International Standards

This standard provides the user with information for the "*correct, effective and practical use of International Standards concerned with the ergonomics of the thermal environment*". This is achieved by describing the relevant standards and how they complement each other when assessing the thermal environment. Brief descriptions of the underlying principles of each standard and also the underlying principles of ergonomics of the thermal environment are provided. This, therefore, should allow the users to decide upon, and develop an appropriate strategy that would be suitable for the environment, the clothing the worker is wearing and nature of the work that they are to assess. This standard covers those standards that should be used when assessing hot, moderate and cold environments, human contact with solid surfaces, and those complimentary standards that include the measurement of physiological responses, the use of subjective responses, the estimation of the clothing insulation etc. Only those standards that are applicable to the assessment of heat stress will be discussed further in this document.

At the time of writing (December 2000), this standard has been recommended for revision to bring it up-to-date, as a number of the standards are currently under revision.

ISO 7726, Thermal environments - Instruments and methods for measuring physical quantities (BS EN 27726)

ISO 7726 specifies the minimum characteristics of instruments for the measurement of the physical quantities that characterise the human thermal environment. Its aim is to standardise the recording of information in order to ensure that these measurements follow recognised procedures, thereby enabling the user to use the other standards in the series to obtain an overall index of thermal comfort or strain. It is also meant as a source of reference for both the manufacturers and users of measuring equipment and instruments used in the measurement of the physical parameters of the environment. It applies to all human thermal environments, whether hot, comfortable or cold.

ISO 8996, Ergonomics of the thermal environment – Estimation of metabolic heat production (BS EN 28996)

This standard provides fundamental support to the other standards in this series, by providing information and data for estimating and calculating metabolic heat production. The standard describes three types of methods for obtaining values for metabolic heat production:

1. Tables for estimating metabolic rate – Different Tables are presented:
   - General description (Low, Medium, High);
   - Specific descriptions of occupations (bricklayer etc);
   - Summing components of tasks (basal metabolic rate + posture component + movement component).
2. Heart rate –Total heart rate is considered as the sum of several components. Heart rate (atgreater than 120 beats per minute) is linearly related to metabolic rate;
3. Calculation of metabolic rate from oxygen consumption and carbon dioxide productionduring both activity and rest.

The estimation of metabolic heat production from activity is an influential part of heat stress assessment. It is difficult to provide an accurate estimate; however, a revision of the standard is underway.

ISO 9920, Estimation of the thermal characteristics of a clothing ensemble (BS EN 9920)

This standard provides a comprehensive database of clothing items and ensembles, materials, insulation values etc. It enables the user to choose a garment or clothing item, then to obtain a measure of the insulation based on the material of the clothing. The purpose of this is to provide the user with an estimate of Intrinsic Clothing Insulation (I_{cl}). One problem with the database however, is that it is actually quite difficult to use.

Recent studies have provided a more detailed understanding of the thermal properties of clothing. The use of thermal manikins, vapour resistance properties of clothing and the pumping or bellows effects of clothing are all topics to be included in a revision of the standard.

ISO 9886, Evaluation of thermal strain by physiological measurements

This standard describes methods for measuring and interpreting different physiological measures such as heart rate, core temperature, skin temperature and body mass loss. It covers a number of aspects to their application, such as technical complexity, accuracy and risks, applicability as heat stress measures, etc. Its main purpose is to provide a reference for the monitoring of physiological responses to extreme environments. This enables the user to make an informed decision on what measurements may be required, how to measure them and then to interpret them.

ISO 9886 has been revised to consider diary methods of assessments. It is at present under international voting and will eventually become a revised British, European and International Standard. The British Standards Institution committee PH9/1 'Ergonomics of the Thermal Environment' has sponsored the development of a draft standard through the Department of Trade and Industry (DTI) that is concerned with the specification of physiological measuring instruments. The work is being contracted by the Defence Evaluation Research Association (DERA) and a draft standard and report will be produced by Summer 2001.

1.3.10 ISO 7243. Hot Environments – Estimation of heat stress on a working man, based on the WBGT –Index (wet bulb globe temperature). (BS EN 27243)

The *WBGT* index is an empirical index which represents the heat stress to which an individual is exposed. It was developed during the 1950s by US military as part of a applied programme to reduce heat stress casualties in the US Marine Corps and was evaluated by Yaglou and Minard (1957) as a climatic index to replace the Corrective Effective Temperature (*CET*). The purpose of the *WBGT* was to provide a method that could be easily used in an industrial setting allowing a fast diagnosis. It is widely recognised that this has been done as a compromise between the need for an precise index and the need to be able to easily control measurements in an industrial setting (Parsons, 1994). This need for an easy to use method meant that the adoption of the WBGT as an International Standard was heavily influenced by the Threshold Limit Values (TLVs) set out by the ACGIH. A consequence of this compromise between ease of use and accuracy is that it applies to the evaluation of the mean effect of the heat during the period of the worker's activity. It does not however apply to those occasions when the worker may be exposed only for short periods, nor where the heat stress limits are close to the zone of comfort. It also makes no provisions for estimating the effect of PPE. Therefore, the *WBGT* index is to be used to estimate whether or not a problem exists, by identifying whether the reference values are exceeded. If this occurs, the more advanced Standard (ISO 7933) is to be used to provide a more accurate estimation of stress.

The *WBGT*-index combines the measurement of two derived parameters; natural wet-bulb temperature (t_{nw}) and globe temperature (t_g), and a direct parameter air temperature (t_a). These measures are applied using the Equations 4 and 5.

Inside buildings and outside buildings without solar load:

$$WBGT = 0.7t_{nw} - 0.3t_g \quad (4)$$

Outside buildings with solar load:

$$WBGT = 0.7t_{nw} + 0.2t_g + 0.1t_a \quad (5)$$

The measurements are inputted into the equations above to obtain a *WBGT* value. The *WBGT* value is then compared to the reference values provided in the standard for the appropriate metabolic rate and state of acclimation of the worker. These reference values are provided in Table 4 of the standard. They refer to conditions where 95% of the working population can be repeatedly exposed to heat stress with no adverse health effects (ACGIH, 1989; Dukes-Dobos and Henschel, 1973). It is important to note that these reference values correspond to a given situation where the worker is physically fit, and in good health. The workers are also "normally clothed, with adequate salt and water intake and, if conditions stay within limits, are able to work effectively without exceeding a body core temperature of 38°C" (WHO, 1969; ACGIH, 1989).

Table 4. Reference values of *WBGT* heat stress index from ISO 7243. The values given relate to a maximum rectal temperature of 38°C

METABOLIC Rate class	**METABOLIC RATE, M**		**REFERENCE VALUE OF WBGT**			
	Related to a unit skin surface area	**Total (for a mean skin surface area of 1.8m^2)**	**Person acclimatised to heat**		**Person not acclimatised to heat**	
	W/m^{-2}	**W**	**°C**		**°C**	
0 (RESTING)	$M \leq 65$	$M \leq 117$	33		32	
1	$65 < M \leq 130$	$117 < M \leq 234$	30		29	
2	$130 < M \leq 200$	$234 < M \leq 360$	28		26	
3	$200 < M \leq 260$	$360 < M \leq 468$	No sensible air movement	Sensible Air movement	No sensible air movement	Sensible air movement
			25	26	22	23
4	M>260	M>468	23	25	18	20

Griefahn (1994; 1997) reported finding that under conditions of thermally induced heat stress the *WBGT* provided a suitable predictor of heat stress. A number of limitations have been reported:

- The estimation of metabolic rate causes a high variability in reference values (Hill, 1985;Ramsey and Chai, 1983) which may be compounded by the difficulty of interpreting the results when small deviations in the reference values are observed;
- Pulket *et al* (1980) reported that under conditions of light work in humid environments, the *WBGT* correlates well with the skin temperature, but poorly with other physiological variables of heart rate, rectal temperature, and sweat loss;
- Another limitation is that the reference values are representative of the mean effect of heat, over a long period of work. It therefore does not provide a reference for those instances where workers are exposed to peak values of heat for very short periods of time (e.g. a few minutes). These exposures could be a result of either exposure to a very hot environment ora short period of intense physical activity. In these cases the reference values may not be exceeded even though the heat stress may exceed the permissible value. The highest metabolic rate value is used as the reference value, where there is uncertainty about the metabolic rate that is to be adopted;
- BS EN ISO 27423 does not provide corrections to *WBGT* values for different types of PPE,although the ACGIH TLVs (which are based on the *WBGT* index)

do provide corrections for PPE.

ISO 7243 has been confirmed as a useful standard since 1984. Recently there has been a suggestion that it could be brought into line with the ACGIH developments. The limitations of the *WBGT* index are recognised where evaporation of sweat is restricted by impermeable clothing or high humidity. Here the rationale for the WBGT index (heavy weighting to t_{nw}) falls down.

I.3.10.1 ISO 7933, Hot Environments – Analytical determination and interpretation of thermal stress using calculation of Required Sweat Rate (SW_{req}) (BS EN 12515)

When *WBGT* values are exceeded, the user is directed to the required sweat rate model for a more detailed analysis of the work environment. As ISO 7933 is a major topic of this report, a detailed description is provided below.

Required Sweat Rate (SW_{req}) Explained

Required Sweat Rate (SW_{req}) is a rational/analytical index that is based on the heat balance equation. It was developed at laboratories in Strasbourg by Vogt *et al* (1981), evaluated by an ECSC project in industrial contexts and was finally published in 1989. For a full description of the methods (and computer program listing), the reader is referred to the Standard.

The parameters used to measure and define the thermal environment are air temperature, mean radiant temperature, humidity (in the form of partial vapour pressure) and air velocity. These are inputted into the model along with the clothing insulation value, metabolic rate and posture. The model then calculates the heat exchange between a standard person and the environment through convection and radiation, as well as respiratory heat loss. Other processes, such as sensible heat loss for cotton clothing, convection and radiation coefficients, are also modelled. Since the evaporation of sweat is the main driving force for heat loss, the model predicts the sweat rate required to facilitate the evaporation required to maintain zero heat storage. One of the main calculations therefore is the calculation of mean skin temperature. The model then interprets these calculations to provide a Duration Limited Exposure (DLE) in minutes. If the required sweat rate can be achieved, without unacceptable dehydration, heat storage or wettedness, then an eight hour exposure is acceptable. If not, then an acceptable work period (DLE) is calculated.

If heat balance is not maintained then core temperature will rise as a result of heat storage. If the required sweat rate can be achieved and does not exceed the maximum allowable water loss, then there will not be a time limit due to heat exposure in a working day. If the maximum allowable water loss value is exceeded, then a Duration Limited Exposure (DLE) is imposed, based either on the amount of water lost or the rise in core temperature. The index will then provide limiting values based on the maximum amount of allowable water loss without dehydration occurring, or the time for core temperature to reach 38°C (estimated from heat storage). These limiting values are known as Duration Limited Exposures (DLE). SW_{req} provides a method for identifying the relative importance of the different parameters that make up human thermal environments, thereby allowing for the assessment of control measures that may be employed (see Figure 3). However, the BOHS (1996) states that the standard is "complex and difficult to use, and does not lend itself to occasional or casual use."

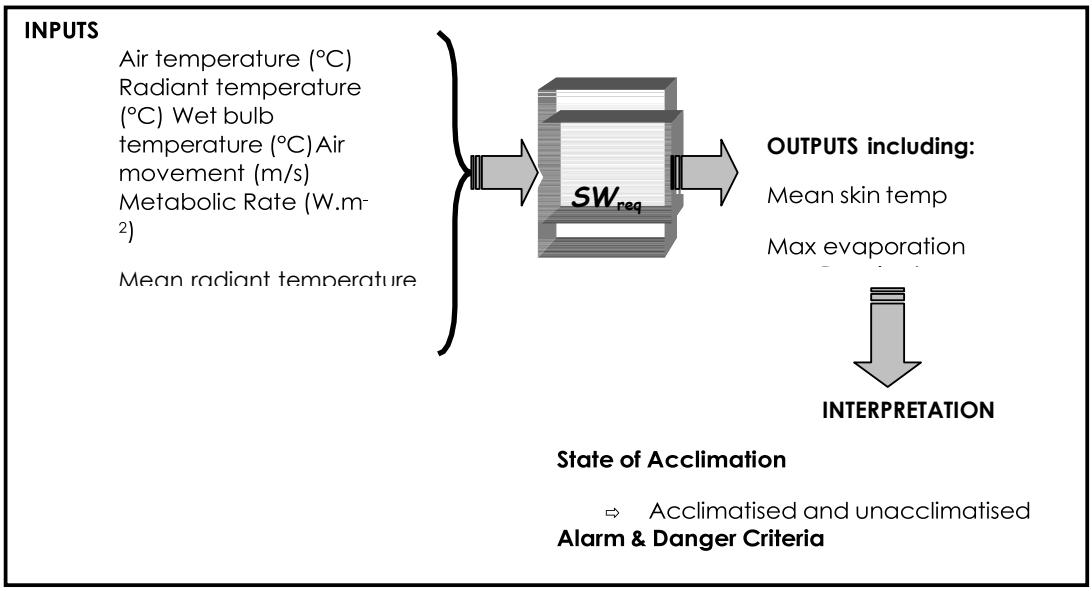


Figure 3: Diagrammatic representation of the inputs, outputs and interpretation of the SW_{req} model

ISO 7933 Equations

Required Evaporation (E_{req})

Therefore, with K=0, the general heat balance equation can be written as

$$E + S = M - W - C_{res} + E_{res} - C - R \quad (6)$$

However if S = 0, then the $E = E_{req}$ and therefore the equation for the evaporative rate required to keep the body in thermal equilibrium is

$$E_{req} = M - W - C_{res} - E_{res} - C - R \quad (7)$$

Require skin Wettedness (w_{req})

The required skin wettedness (w_{req}, dimensionless) is defined as the ratio between the required evaporation rate, (E_{req}) and the maximum evaporative rate (E_{max}). E_{max} is the maximum evaporation that can be achieved under hypothetical conditions when the skin is completely wet.

$$w_{req} = E_{req} / E_{max} \quad (8)$$

Required Sweat Rate (SW_{req})

$$SW_{req} = E_{req} / r_{req} \quad (9)$$

Where:

r_{req} is evaporative efficiency of sweating (dimensionless), which corresponds to the

required skin wettedness.

The SW_{req} equation, through the use of r_{req}, takes into account the dripping of sweat from skin which does not contribute to heat loss.

***NOTE**: The sweat rate in watts per square metre represents the equivalent in heat of the sweat rateexpressed in grams of sweat per square metre of skin surface per hour. 1W/m² corresponds to a flow of 1.47 g/(m².h) [for standard subject (1.8 m² of body surface) a flow of 2.6 g/h].*

Interpretation of Required Sweat Rate

Two criteria of stress and two criteria of strain form the basis for the interpretation of the values calculated by the index. These interpretations are presented for acclimatised and non-acclimatised subjects, and according to the degree of protection which is desired (warning and danger levels).

Stress criteria:

a) max skin wettedness (w_{max});
b) max sweat rate (SW_{max}).

Strain criteria:

a) max heat storage (Q_{max}, in watts hours per square metre);
b) max water loss (D_{max}, in grams).

Abbreviated from standard:

SW_{req} cannot exceed SW_{max} ;
w_{req} cannot exceed w_{max}

SW_{max} and w_{max} are both functions of the acclimatisation of the subject.

When the model predicts non-equilibrium of thermal balance, any heat storage or water loss is limited by the maximum values for each.

Analysis of the work situation

Predicted values are determined for the analysis of the work situation where:

w_p - predicted skin wettedness
E_p - predicted evaporating rate
SW_p - predicted sweat rate

taking into account the required values ($_{req}$) and the limit values ($_{max}$).

If w_{max} exceeds w_{req} and SW_{max} exceeds SW_p , the body is in thermal equilibrium and the predicted values are.

$$w_p = w_{req} \quad (10)$$

$$E_p = E_{req} \quad (11)$$

$$SW_p = SW_{req} \quad (12)$$

The theory here is that since the predicted values do not exceed the maximum values that they are achievable and as such sufficient sweat can be evaporated to maintain thermal equilibrium. The following calculations are made when the required values exceed the maximum values and thermo-equilibrium is not possible:

$$w_p = w_{max} \quad (13)$$

and therefore:

$$E_p = w_p E_{max} \quad (14)$$

$$SW_p = E_p/r_p \quad (15)$$

where r_p is the evaporative efficiency of sweating corresponding to w_p.

When the SW_{req} or the SW_p at the preceding step exceeds the SW_{max}, it is necessary to determine the w_p and the evaporative efficiency (r_p) such that by substitution:

$$w_p E_{max} = SW_{max} r_p \quad (16)$$

taking into account the relationship between w_p and r_p

therefore;

$$E_p = w_p E_{max} \quad (17)$$

and

$$SW_p = SW_{max} \quad (18)$$

Determination of allowable exposure time (DLE, min)

The allowable exposure times is calculated as a function of the maximum values for body heat storage (Q_{max}) and water loss (D_{max}). No time limit is placed on an 8 hour working day if $E_p = E_{req}$ [i.e. E_{max} value not exceed and if $SW_p < D_{max}/8$ (SW_p is less than SW_{max} per hour over 8 hours)]. It is necessary to calculate allowable exposure times based on either heat storage or water loss if these conditions above are not met. Heat storage (Q_{max}) is calculated as the difference between E_{req} and E_p resulting in an increase in body temperature and the following expressions are used to predict the DLEs based on an increase in core temperature.

$$DLE_1 = 60\ Q_{max} / (E_{req} - E_p) \quad (19)$$

When excessive water loss is predicted, the DLE calculation is

$$DLE_2 = 60\ D_{max} / SW_p \quad (20)$$

The shortest DLE shall be used for limiting the duration of work.

Reference Values

Table 5: ISO reference values for the different criteria of thermal stress and strain.

Criteria	NON ACCLIMATISED		ACCLIMATISED	
	Warning	Danger	Warning	Danger
Max Skin Wettedness				
W_{max}	0.85	0.85	1	1
Max Sweat rate				
Rest:				
M<65 W/m² SW_{max} W/M²	100	150	200	300
g/h	260	390	520	780
Work:				
M>=65 W/m² SW_{max} W/m²	200	250	300	400
g/h	520	650	780	1040
Maximum Heat Storage				
Q_{max} h/m²	50	60	50	60
Maximum Water Loss				
D_{max}.h/m²	1000	1250	1500	2000
g	2600	3250	3900	5200

1.3.11 Literature review of the Validity of the ISO 7933 SW_{req} index

The complexity of intra- and inter-individual physiological responses means that it is very difficult to predict, with accuracy, an individual's responses. The SW_{req} aims to reduce this uncertainty by predicting for acclimatised and unacclimatised workers, by providing the alarm and danger criteria, and by limiting the exposure based on either sweat loss or core temperature increases. As such therefore, any evaluation of the SW_{req} index should aim to investigate as many of these criteria as possible.

Practical Applications of SW_{req}

For many years the importance of the body's ability to maintain heat balance has been understood, with Haines *et al* (1952) stating that "*body heat balance is a physiological requirement for comfort and health.*" Belding and Hatch (1955) first proposed an additive index (HSI) based on the calculation of energy balance where all the environmental and personal parameters are taken into consideration in this calculation.

The practical application of this theory is difficult since there is a conflict between the engineering application of a heat stress standard and its application by human physiologists. This conflict arises as a result of the precision of the relationships between the physical stress factors of the environment and the human's physiological responses to heat. As such they identified the need for a practical engineering application, where the assumption is that a worker who maintains thermal balance with the environment does not "*find the accompanying stress of serious consequence*." The philosophy being that the index would provide a benchmark that allows the calculation of the required evaporative capacity over the maximal evaporative capacity, allowing the comparison of one heat exposure with another over a variety of conditions. This provides the capacity to express

heat stress in terms of evaporative requirements as an engineering, design and control tool, whereby the proposed changes to the conditions can be assessed in relation to the predicted physiological responses. This is a fundamental point, and one which seems to have been lost over the proceeding years, where the identification of heat stress was the issue and not as much the evaluation of the proposed solutions as perhaps could have been. The use of algorithms to model human thermoregulation in terms of the heat balance equation requires that suitable coefficients (such as those for evaporation and convection) need to be considered so as to describe the environmental parameters. ISO 7933 is not valid for all thermal environments; for example, the standard describes the boundary limits of its performance envelope for predicting mean skin temperature (Table 6).

Table 6: The range and unit of measure for each parameter to determine mean skin temperature

Parameter	UNIT	RANGE
t_a	°C	22.9 to 50.6
t_r	°C	24.1 to 49.5
P_a	kPa	0.8 to 4.8
V_a	$m.s^{-1}$	0.2 to 0.9
M	$W.m^{-2}$	44.6 to 272
I_{cl}	clo	0.1 to 0.6
t_{sk}	°C	32.7 to 38.4

One of the major criticisms is that much of the data that led to the development of the equations were from laboratory studies that may only partly represent industrial situations. Kampmann and Pierkarski (1999) cite examples of the problems that they have identified:

- Skin temperature is described as a linear function rather than being calculated in a "*self- consistent manner*". Therefore, comparisons with other studies need to be made to ascertain whether the assumptions that are made are adequate;
- Two variables are suitable for such a comparison:
  1. The *SW*p can be compared with those values actually observed;
  2. Those core temp rises that are determined in experimentation (Dt_{re}) can be comparedwith the limit value .0.8°C (for Alarm Criteria) and 1°C (for Danger Criteria).
- Furthermore, they query whether the limit values are explained in such a way that they aremeaningful to the reader (w_{max}, SW_{max}, Q_{max}, D_{max}.);
- There are errors in prediction of SW rate and predicting the rise in core temperatureespecially in humid or warm conditions.

These points provide some criteria whereby the validity of SW_{req} can be investigated.

Kähkönen *et al* (1992) in their study of the applicability of ISO 7933 in Tanzania, found that even when *WBGT* index did not limit the work (i.e. permitted continuous heat exposure), ISO 7933 provided DLE time limits. Peters (1991) also reported this, with some 90% of cases providing the same result. Kähkönen (1993) also stated that the use of indices as a predictive tool to estimate the effects of introducing controls in advance was a useful practical application in industry. It was decided therefore to use this principle as part of both the usability and validity study of ISO 7933.

One area where the usability could be a problem was provided by Kähkönen who stated that the model should provide information to the user when a parameter outside the operating envelope of

the model is inputted. The relative advantage of using a heat balance equation index over the use of

an index such as the effective temperature scale is that it combines the four environmental parameters and therefore does not obscure their respective contributions to the problem. It also allows the user to apply solution engineering and/or administrative controls to the situation and to assess what impact these individual or combined changes will have on the worker.

Cooke *et al* (1961) provide an important example of the necessity of being able to identify the effects of individual parameters when assessing the problems encountered in mines. They state that of the four environmental parameters, the two that can most easily be controlled by mine ventilation engineers are air velocity and air temperature. Air velocity is controlled either by the amount of air fed into the tunnels or the distribution of the air in the tunnels. Air temperature changes usually arise as a result of changes in air velocity, however they can also be changed independently. Mean radiant temperature in mines is dependent on the surface temperature of the rock, which in turn is a function of the virgin rock temperature, and the time the surface has been exposed to ventilating air. However, mean radiant temperature is not of much concern in mines because there is much evidence that the physiological responses at a mean radiant temperature of a couple of degrees above air temperature are relatively much less than those experienced when there is a 1°C increase in wet bulb temperature.

Kampmann *et al* (1995) who have also used coal mines as an area for applying ISO 7933 have identified what they call "*considerable*" problems in the practical application of the standard, when comparing those studies performed under climatic chamber conditions and those in the field. Specifically they mentioned practical difficulties with establishing limit values for those measures described by Belding as being essential:

- Maximal degree of skin wettedness - w_{max}
- Maximal sweat rate - SW_{max}
- Maximal permissible heat storage - Q_{max}
- Maximal permissible degree of dehydration – D_{max}
- and the evaluation of the thermal environment in situations where the worker was clothedwas also a problem. This is especially the case where clothing is saturated with sweat.

Although they state that ISO 7933 (1989) was an improvement on the earlier 1985 version. Kampman *et al (*1995), identified two main areas that they felt needed to be addressed:

1. They questioned the results as being "misleading" when evaluating the combined exposureof climatic stress at a combination of climatic conditions. Specifically warm and humid environments.
2. They raise the issue that the "alarm" and "danger" limiting criteria have not beensufficiently defined.

Clothing

Since the model is based on the heat balance equation, its ability to predict the heat lost due to evaporation of sweat is critical and as such, so are the effects of clothing. Parsons (1995) states that the "*description and quantification of the effects of clothing, by the standard are overly-simplistic*". The effects of air velocity, the pumping effect, clothing insulation etc should be considered to provide a resultant insulation and evaporative resistance of the clothing rather than using the standard basic data. Another problem is that there is no consideration for evaporative heat loss when clothing is worn, such as the wicking effect where water is evaporated from the clothing surface. Also evident from the equation is the omission of quantifying the pumping effects of air

movement within the garment when the wearer moves. Only the intrinsic clothing insulation of garments and ensembles worn are considered, with no consideration given for other material properties such as vapour impermeability (i_m). This is a recognised weakness and as such was to be addressed by the European research project BIOMED HEAT in the development of the new Predicted Heat Strain (PHS) model.

Skin Temperature

ISO 7933, estimates mean skin temperature as a function of the environment al and personal parameters (ISO 7933). An alternative for mean skin temperature is provided in the Annex C for I_{cl} values greater than 0.6 clo, whereby the program is altered to make an approximation of t_{sk} equal to 36°C. Parsons (1995) suggests that although this method is "crude", it may provide a sensible alternative. The validation stage of the present research project will investigate this.

In a series of studies conducted by Kähkönen *et al* (1992), the mean skin temperature was adapted in the model to equal 34.5°C when the environmental conditions exceeded those for which the SW_{req} model is applicable. However, the standard recommends adapting the mean skin temperature to 36°C. This was acknowledged in their work but provided a practical example of the modification of ISO 7933 mean skin temperature parameter in the assessment of field conditions. The use of this 36°C fixed skin temperature value was originally used in the SW_{req} model and was criticised by Mairiaux *et al* (1986) and by both Malchaire (1986) and Hettinger *et al* (1987) in the final report of the ECSC project. However, the acceptance of an appropriate equation was complicated when the different data sets of different authors were compared with respect to their proposed equations. Mairiaux and Malchaire discussed the differences between the following equations proposed by Mairiaux *et al* (1987) and Hettinger *et al* respectively (both references cited by Mairiaux and Malchaire and not referenced here).

$$t_{sk} = 30 + 0.138ta + 0.254Pa – 0.57Va + 0.00128M – 0.553I_{cl} \quad (21)$$

$$t_{sk} = 30.67 + 0.10t_a + 0.46Pa - 0.0099M + 0.48I_{cl}. \quad (22)$$

A main difference between these equations is the coefficient for the clothing insulation owing to the differences in clothing worn during the studies that developed the equations. For the first equation subjects were wearing light clothing (0.5 to 0.6 clo) and in the second they wore heavy clothing (0.7 to 1.0 clo). This shows the difficulty of modelling for skin temperature where one coefficient needs to be valid for all possible clothing ensembles. Work by Candas (1987) referred to by Mairiaux and Malchaire showed that when the t_{sk} predictions were compared to measured t_{sk} data that the equations underestimated by a mean of 1 and 2.4°C respectively. These differences were significant above 30°C air temperature. The equation provided in the SW_{req} model is an adapted version of Mairiaux's equation where the air temperature coefficient has been divided by three and reallocated into two coefficients, one for air and one for radiant temperature. This author questions whether the mathematical allocation of the coefficients by two thirds of 0.138 (=0.093) air temperature and one third (0.045) to radiant temperature is a valid process. No literature could be found to support this allocation, although a review of the coefficients presented in the *WBGT* index shows that two thirds are allocated to globe temperature and one third to air temperature. Although a direct comparison between the two models cannot be made, it provides for an interesting analysis and questions the science behind the SW_{req} skin temperature coefficients.

$$t_{sk} = 30.0 + 0.093t_a + 0.045t_r - 0.57Va + 0.254Pa + 0.00128M - 3.57I_{cl} \quad (23)$$

A knowledge of thermal physiology would indicate that a simple linear regression equation could not accurately predict skin temperature nor could such an equation be a causal model. An example of this is the term involving clothing insulation (I_{cl}). It can be seen that if clothing insulation increases, then skin temperature falls. This is contrary to what would be expected.

This point not withstanding, if air temperature equals radiant temperature, then the expected error would be between 1°C and 2.4°C (from Candas above). This error seems to be beyond what should ordinarily accepted considering the interdependence of the parameters in the SW_{req} model and the fact that small variations in skin temperature can actually severely restrict the worker's ability to cope with heat (Goldman, 1988). Underestimating mean skin temperature results in errors in other areas of the heat balance equation (Mairiaux and Malchaire, 1988). This is illustrated by Wadsworth and Parsons (1986) who reported observed mean skin temperatures of between 37 and 38°C, which, according to Goldman (1988), is within the range in which people are at risk to heat induced collapse.

Evaporation

Another area of concern is the validity and applicability of the relationship between the evaporative efficiency of sweating to skin wettedness. The original equation was developed from work by Candas *et al* (1979) on supine subjects at rest, however work by Alber-Wallerstom and Holmer (1985) showed that there was less evaporative efficiency for subjects who were exercising upright than those in Candas' work.

This evaporation will be dependent on the ambient humidity of the environment. The evaporative capacity (E_{max}) is higher in a dry environment than in an environment where the humidity is high. The ratio between E_{req} and E_{max} will determine how much evaporation is possible and is described as required wettedness (w_{req}), first proposed by Gagge (1937) and adopted independently into the Heat Stress Index (HSI) (Belding and Hatch, 1955).

Sweat Rate

In their assessment of the validity of predicted sweat rates compared to observed sweat rate, Mairiaux and Malchaire (date) reported strong correlations. This seems at odds with other research. Kampmann *et al* (1992), reported from studies in coal mines that the model underestimated the predicted sweat rate in experiments where low I_{cl} values were observed and significantly overestimated the predicted sweat rate with high I_{cl} values. Hanson and Graveling (1997), referring to the work by Voss *et al* (date, described above), reported that if the model were used to evaluate a warm humid environment, the observed sweat rates may be considerably higher than the maximal sweat rate (SW_{max}) limit of 1000 g/h. The limitation imposed by the low SW_{max} value will predict that less sweat is produced than is observed and as such the model will predict that less heat is lost than is observed. The result of this under prediction of heat loss will be that the predicted DLEs will be lower than the observed DLEs. This was illustrated by Alder-Wallerström and Holmér (date), who found sweat rates of 1152 ±462 g/h and 1206 ± 330g/h which were greater than the SW_{max} values described in Table C.2 of the Standard of 520 g/h (alarm) and 650 g/h (danger). This is further complicated by the assumed maximal degree of skin wetting (w_{max}), where w_{max} may not be exceeded (as described in Section 5.2 of the standard). This causes the SW_p to be reduced. This

is not necessarily an issue under hot dry conditions where SW_{max} will limit the SW_p. However in warm humid environments where skin wettedness exceeds the w_{max} limit value for the criteria under which it is being applied, the limit value will result in a lower SW_{max} and as such a lower SW_p, which in turn will result in a lower predicted DLE.

Kampmann (date) referred to Voss *et al* (1991) stating that there were "considerable errors" when the observed data were compared to the predicted values, in both the prediction of sweat rate in humid and warm situations and the rise of core temperature. Kampmann and Pierkarski (1995) stated that a comparison between the predictive capacity of the standard with observed data from laboratory and field studies can be made by comparing the predicted sweat rate (SW_p) with the observed values for sweat loss. Mairiaux and Malchaire (date) questioned the use of a maximum skin wettedness (w_{max}) value of 0.85 for unacclimatised subjects. Candas (date) quotes work by Belding and Kamon (1973) which mirrored his own findings that, where skin wettedness is greater than 50%, unacclimatised workers exhibited a constant increase in core temperature and as such that exposure times should be limited or should restricted to acclimatised workers. A problem with the work reported by Mairiaux and Malchaire (*ibid*) is that although the slope values and corresponding correlation coefficients were presented, no analysis of the residuals were provided. This would show the magnitude of the error in the prediction of observed data. The practice of only providing correlation coefficients as a measure of validity is flawed as it only provides an indication that there is a relationship but not how accurate that relationship is. Their main finding was that an exponential model of sweat rate would improve the accuracy of the predictions. As a result of this, and work by Hettinger *et al* (date) the BIOMED HEAT project tried to develop such an equation.

A conservative approach is adopted by the standard to the problem of rehydration as it assumes that no fluid replacement to the tissues is available to replace that fluid lost as a result of sweating.

Core Temperature

Alder-Wallerström and Holmér (date) reported that their studies showed that ISO 7933 predicted a danger DLE at 29 minutes based on an excessive rise in body temperature (rise to 38°C), while an observed alarm category rise (to 37.8°C) in temperature was not observed within the experiment lasting 60 minutes. There has also been research that has shown that the index provides a conservative prediction of the physiological responses of workers due to an over prediction of the effects of the thermal environment (McNeill and Parsons 1999; Peters, 1995). Wadsworth and Parsons (1986) on the other hand, found that the SW_{req} model under-predicted the effects of the thermal environment when comparing the DLE with observed core temperature. One explanation may be that the model that Wadsworth and Parsons (1986) and Mairiaux and Malchaire (1986) studied was the original ISO DIS 7933 (1983) which had a fixed mean skin temperature of 36°C. Therefore any direct comparisons between this earlier work and later work investigating ISO 7933 (1989) would not be possible. Although Wadsworth and Parsons (1986) did alter the skin temperature by ±1°C and they reported that this did not have an effect on the predictive accuracy of the model. There were also other changes to the 1983 version (ISO DIS 7733). These included a significant change to the qualification of the vapour permeability properties of clothing.

Limit Values

Kampmann and Pierkarski (date) highlight the importance of the effects of the limiting values on the permissible exposure times. The fact that the ISO 7933 SW_{req} is based upon a rational model of human heat balance means that any limiting reference values that may be used to calculate the predicted values are not independent of each other and, as such, if they are incorrect they may influence predictions other than those which they are limiting. This they state, may "confuse" the results of the predictions. The interdependence of the limit values means that if the predicted values are not accurate, then inaccurate results may be achieved. However this is not a result of the interdependence of the limit values, but rather a result of the reference values such as the D_{max} being inaccurate. Kampmann *et al* (1995) cite as an example that, during chamber trials, the observed sweat rate was higher than the predicted SW_{max}. The result, due to the equation, is that the heat storage is unrealistically high, due to the dependence of the core temperature heat loss on the sweat rate. However, the problem is not with the interdependence of the limit values but rather with the accuracy and validity of the predictions. If an index is to provide limiting values which are representative of the input values of an equation, then there is no alternative for the values to be but dependent. Perhaps what should be questioned is the validity of the interdependence the index models (i.e. do small variations in metabolic rate have a representative effect on DLEs etc.).

Parsons (1995) quotes Kampmann *et al* (1992) to provide possible reasons for the poor performance of ISO 7933 under warm humid conditions:

a) The interdependence between core temperature and sweat rate in the model is not a validrepresentation of the thermo-physiological effects.
b) Both the predicted sweat rates and the maximum sweat rates on which they are based areexceeded by observed sweat rates in field and laboratory studies.
c) The previous point leads to a poor prediction of heat storage and therefore an over prediction of the core temperature increases, thereby under-predicting the DLE time limit.
d) The effects of drinking are not taken into account and they should be.
e) Effects of clothing on thermoregulation are not representative of observed effects.
f) Calculation of the mean skin temperature is over simplistic.
g) W_{max} should not be a limiting criteria under warm-humid conditions.

This poor performance of ISO 7933 and the resultant uncertainty is in itself a risk and therefore, it seems, has not been extensively used.

1.3.12 BIOMED HEAT and the Predicted Heat Strain (PHS) Model

Introduction to the BIOMED HEAT project

Eight European laboratories collaborated on a project concerned with the assessment of hot working environments and the improvement of the predictive capabilities of ISO 7933. The laboratories were located in Belgium (1), Germany (3), Italy (1), Netherlands (1), Sweden (1) and Loughborough in the UK. The projects were led by the following scientists: Malchaire (Co-ordinator), Griefahn, Gebhardt, Kampmann, Alfano, Havenith, Holmér and Parsons respectively. The three year programme (1996-99) involved two phases. Phase I was concerned with the development and collation of knowledge in areas required to improve the method described in ISO 7933. These included heat exchange through clothing, prediction of mean skin temperature, conditions with high humidity, the evaporative efficiency of sweating, criteria for estimating exposure times, and a measuring strategy. Phase II provided a validation stage and the development of a new model along with a philosophy of application. The results have been published in a series of eight papers (Malchaire *et al*, 1999 – 2000).

Malchaire (1999) provided the following list of the criticisms of ISO 7933:

1. Skin temperature prediction;
2. The effect of clothing on convection, radiation and evaporation;
3. The combined effects of clothing and movement (the pumping effect);
4. The link of metabolic rate and the increase in core temperature;
5. The accuracy of the prediction of sweat rate in very humid conditions;
6. The limiting criteria (i.e. the SW_{max}, E_{max}, Q_{max}, D_{max}), and specifically the Alarm and theDanger criteria level;
7. The maximum water loss allowed to predict dehydration levels.

As a result of the BIOMED HEAT collaboration and past research into the validity of ISO 7933, a number of changes were to be made to the predictive algorithms. Additionally a major shift in philosophy was observed, whereby the DLE would no longer predict for “alarm” and “danger” criteria but for the mean subject (Kampmann, Malchaire and Piette, 1999). Figure 4 uses the same process as used in Figure 3 (SW_{req}) to describe visually some of the aspects of the new PHS model.

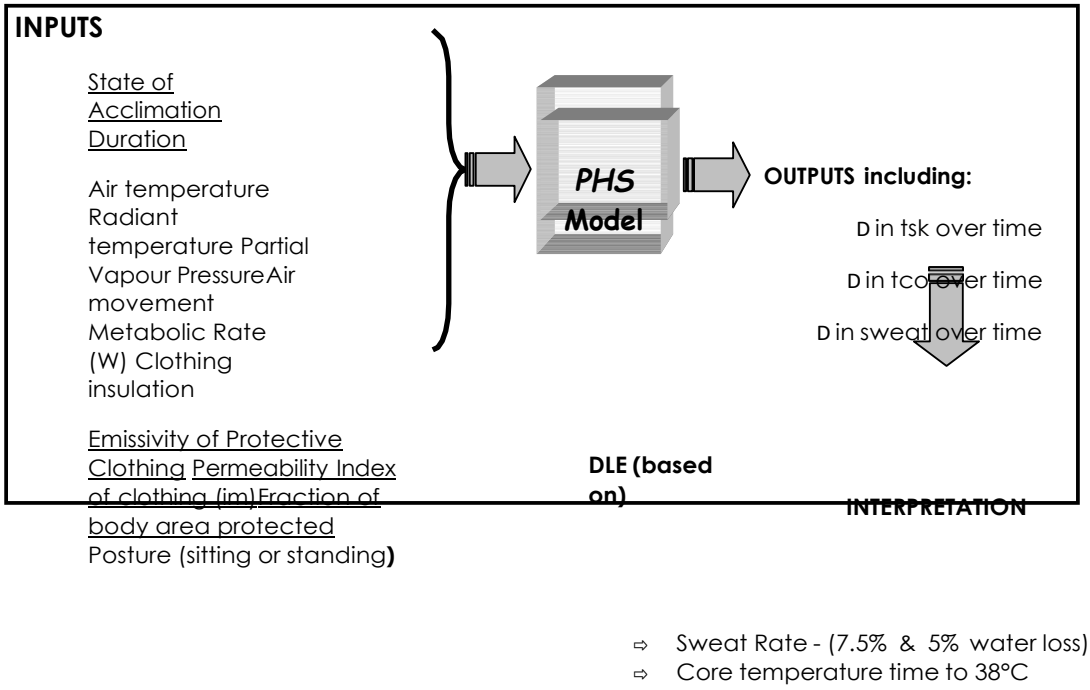


Figure 4: Diagrammatic representation of how the *PHS* model may be used to evaluate possible control options

(Note: The underlined input values are new to the PHS model and were not inputted into the ISOSW$_{req}$ model

The Predicted Heat Strain (PHS) model

Through the collaboration of the eight partners, a database was generated of 1113 experiments (one subject per experiment) with minute by minute data of environmental conditions and physiological responses. It consisted of 747 laboratory and 366 field experiments. The laboratory experiments were divided into 2 subsets with 369 (subset 1) and 378 (subset 2) experiments. Subset 1 was used to generate the PHS model and subset 2 to validate it. Male subjects made up 1020 of the experiments and 452 of the subjects were acclimatised. More than 50% of the laboratory data consisted of experiments on nude or semi-nude subjects (clo<0.5) and 95% of the field experiments had clothed subjects. From the data used, the following ranges for each parameter were generated for which the model would be validated.

Table 7: Range of data for each input parameter for which the PHS model has been validated (from Piette and Malchaire, 1999)

RANGES OF VALIDITY OF THE PHS MODEL		
	Min	**Max**
t_a (°C)	15	50
Pa (kPa)	0	4.5
t_r-t_a (°C)	0	60
va ($m.s^{-1}$)	0	3
M (W)	100	450

I_{cl} (clo)	0.1	1

One of the major criticisms of the SW_{req} was that it was only validated for clo<0.6 and did not take PPE into account. This table shows that PHS will only be valid for clo<1, which again seems to not

be valid for most of the PPE that may be worn. NIOSH (1986) stated that most PPE worn in industry had an insulation value of about 2 clo.

BIOMED HEAT Validation of PHS

Data considerations

The BIOMED HEAT project evaluated the validity of the PHS model when compared to observed data. Statistical weight was afforded to each experiment dependent on duration, thereby negating the effects that time may have had. The following criteria were used to produce the Table below:

1. Mean sweat rate over the whole experiment was used.
2. One rectal temperature per hour (randomly selected) was used.

Some of the results of the BIOMED HEAT analysis (from both the statistics and the scatter plots) are presented below.

Table 8: Regression between observed and predicted temperatures and sweat rates (Piette and Malchaire, 1999)

	LAB			FIELD
	1	**2**	**SUBSET 1&2**	
Sweat Rate (*g/h*)				
N	327	345	672	237
Observed (mean±sd)	415 ±159	432±183	424±172	317±187
Predicted (mean±sd)	448±151	454±157	451±154	344±132
Slope	0.768	0.900	0.848	1.056
Intersection	63	23	48	-46
r	0.7461	0.7730	0.7601	0.7448
Alpha	0.911	0.924	0.918	0.851
Alpha (CI95%)	0.537-1.506	0.543-1.539	0.540-1.523	0.328-1.936
Observed – Predicted (mean±sd)	-33.2±110.4	-22.1±117.4	-27.5±114.1	-26.7±125.1
Rectal Temperature				
N	938	999	1937	1028
Observed (mean±sd)	37.44±0.47	37.46–0.48	34.45±0.47	37.40±0.44
Predicted (mean±sd)	37.46±0.47	37.48–0.48	37.46±0.47	37.40±0.34
Slope	0.639	0.668	0.664	0.770
Intersection	13.49	12.43	12.57	8.6
r	0.644	0.6712	0.6585	0.5940
Alpha	1.000	1.000	1.000	1.000
Alpha (CI95%)	0.979±1.020	0.980-1.020	0.980-1.020	0.981-1.019
Observed – Predicted (mean±sd)	-0.01±0.40	-0.01±0.38	-0.01±0.38	-0.01±0.36

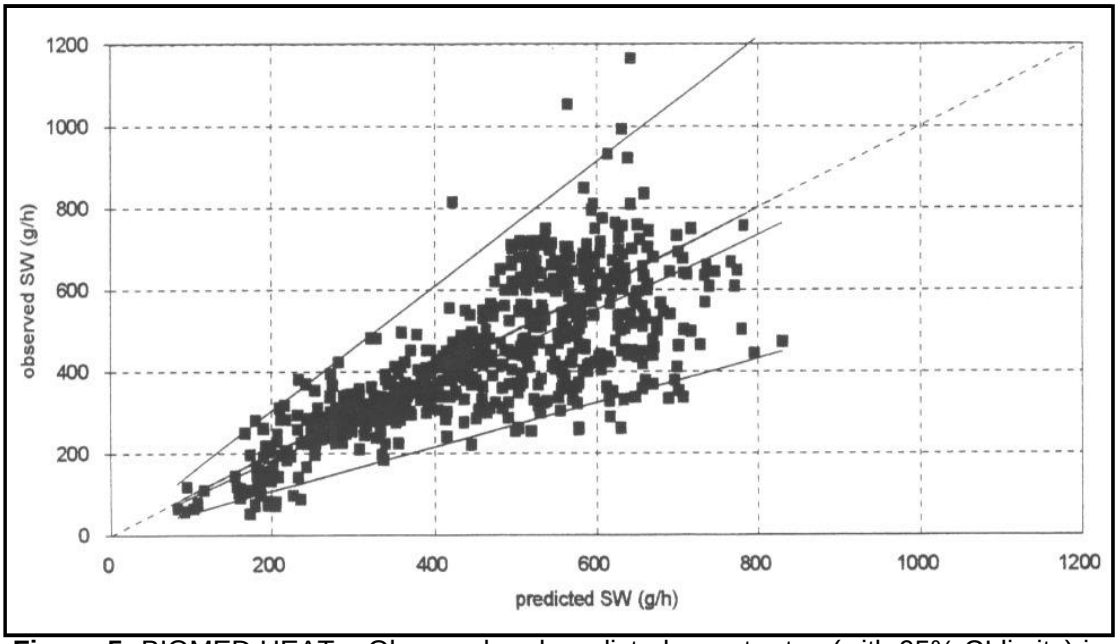


Figure 5: BIOMED HEAT – Observed and predicted sweat rates (with 95% CI limits) in the 672 laboratory experiments (taken from Piette and Malchaire, 1999)

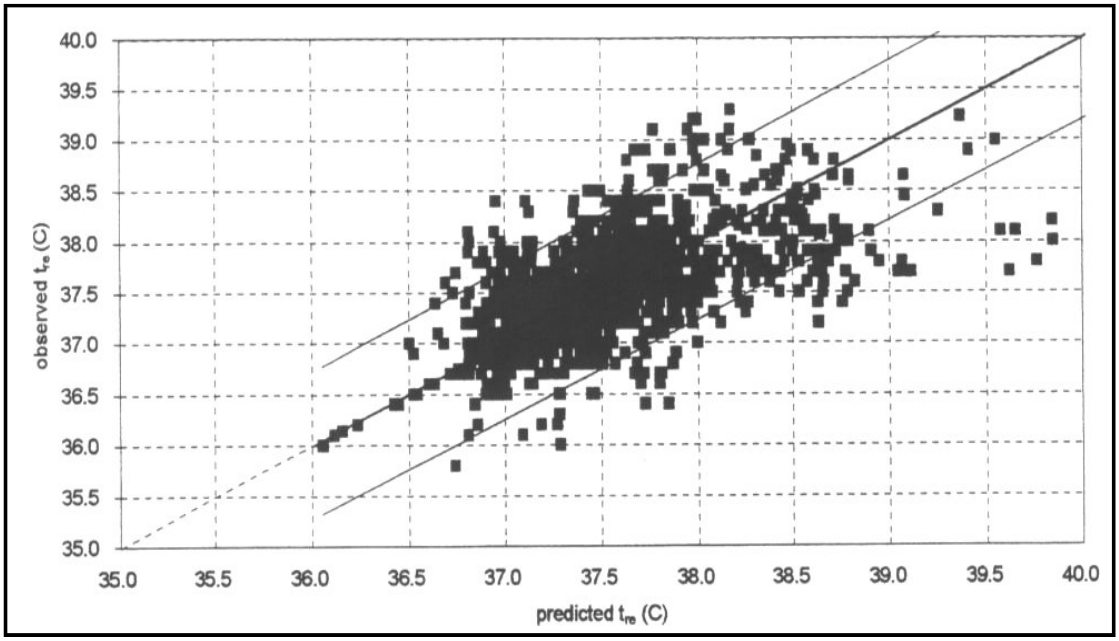


Figure 6: BIOMED HEAT – Observed and predicted rectal temperatures (with 95% CI limits) in the 672 laboratory experiments (taken from Piette and Malchaire, 1999)

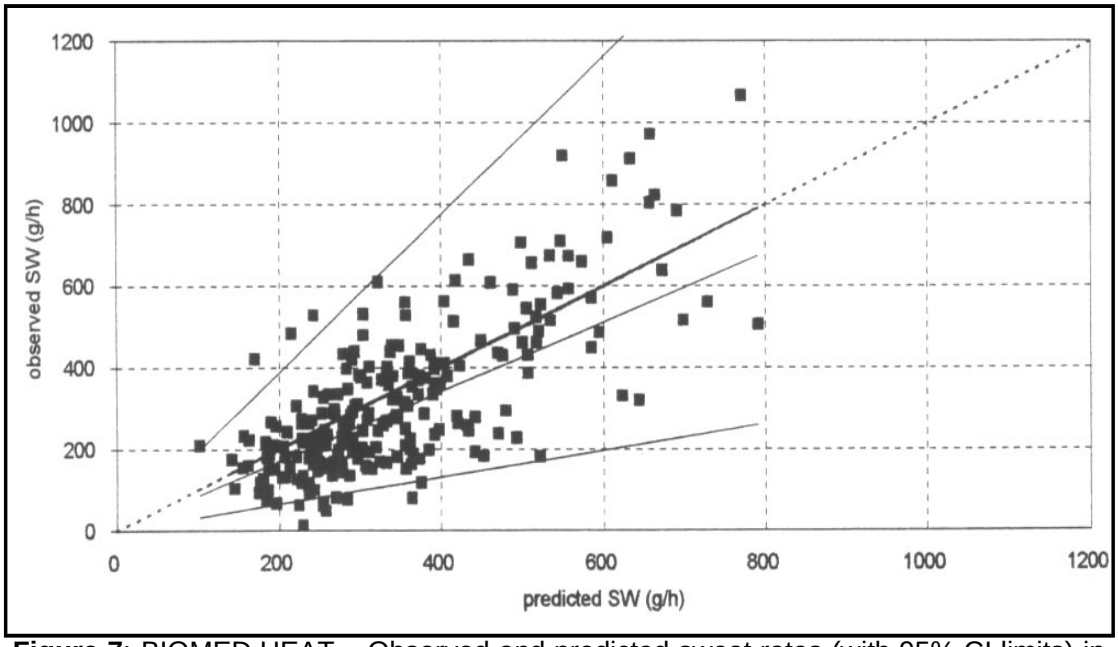


Figure 7: BIOMED HEAT – Observed and predicted sweat rates (with 95% CI limits) in the 237 field experiments (taken from Piette and Malchaire, 1999)

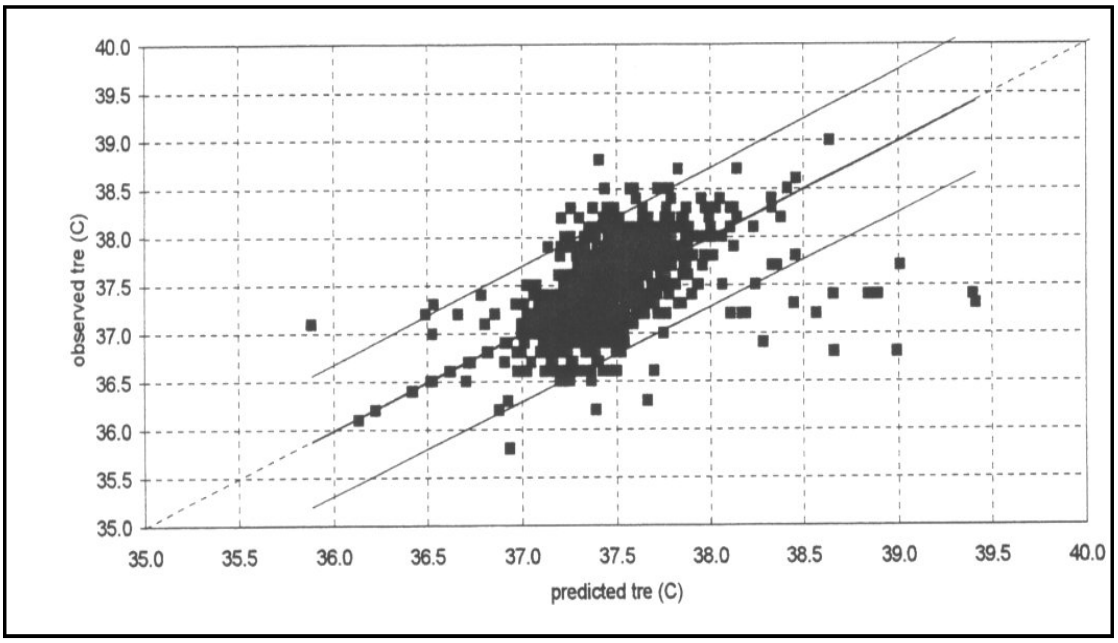


Figure 8: BIOMED HEAT – Observed and predicted rectal temperatures (with 95%CI limits) in the 237 field experiments (taken from Piette and Malchaire, 1999)

Piette and Malchaire (1999) attribute the difference in the appearance of the scatter plots between the laboratory and field trials to the "*precision of the climatic and physiological measurements*"

being lower in the field resulting in their observation that "*the correlations between observed and predicted values are lower and the 95% confidence intervals are larger*." However, if the statisticsin Table 8 are viewed, this difference is actually quite small and could be attributed to the larger sample size in the laboratory set (subset 1 & 2). A further comparison of the **mean ± standard deviation** of the difference between the observed and predicted values shows that here too, the two data sets perform similarly.

The mean sweat rate over the whole experiment is a reasonable criterion to use as it allows for the estimation of sweat rate in grams per hour. The difference between the 95% CI for the sweat rates from both sets of data however is relatively small since the units are in grams per hour.

The validity study is based on the accuracy with which the PHS model can predict random rectal temperatures to within 95% CI that are considered safe. This equation was developed by extrapolating predictions from a selection of one rectal temperature per hour. This seems to be an inappropriate validation criterion as it raises a number of issues for which the validity of the model will not only be dependent but which users would judge its success; the model predicts safe exposure duration (min). The use of a random rectal temperature that is neither time-dependent nor limit criteria dependent (i.e. t_{re}=38°C) does not allow for the comparison of the most critical output from the user's point of view: TIME. How the t_{re} deviations around the regression line of the relationship between randomly, non-time-dependent selected data, will translate into deviations of time is not quantified.

Another inaccuracy may be that the validators have established 95% CI (see scatter plots), for individual data points and not the mean. Since the purpose of the PHS model is to predict the mean DLE and therefore the duration to a mean Δt_{re} to 38°C, any CI limits should be established for the scatter around the mean value and not around individual values? Although the data sets had been weighted to negate the effects of time, the actual time for Δt_{re} to 38°C should have been investigated and compared to predicted data.

The fact that the t_{re} slope does not have a time coefficient means that there is no way of establishing what this effect would be in terms of time when points at or near the CI limits are observed. Kampmann *et al* (1999) and Piette and Malchaire (1999) presented graphs showing how the DLEs for each model changed with different input values (two parameters while all the others are held constant), from which they concluded that the PHS model provided more "*realistic results*" than the ISO model. Yet no direct statistical comparison of the ISO and PHS DLEs was made. No statistical analysis was performed by BIOMED HEAT to compare the predicted and observed DLEs for the increase in core temperature. This, combined with the inappropriate use of the Δt_{re} and not the DLEs as the validation criterion, means that the validity of the PHS model to predict safe work times has not yet been established.

Conclusions

The following conclusions can be drawn from this literature review:

1. There has been extensive research into providing a valid heat stress index and a number ofindices have been produced and are used;
2. There is a system of international standards that can contribute to the assessment of hotenvironments;
3. ISO 7933 (1989) provides a comprehensive heat stress index (SW_{req}) and method of assessment of hot environments. However, there is growing evidence that it has limited validity and is not usable;
4. A BIOMED European research project has updated the methods used in ISO 7933 andintegrated the results into a new index – the Predicted Heat Strain (PHS);
5. The PHS index has been validated by those who developed it but further validation is required;
6. The validity and usability of both ISO 7933 (SW_{req}) and PHS models need to be established aspart of a systematic approach to developing a heat stress assessment method for British industry.

CHAPTER 2
LABORATORY EVALUATIONS OF THE VALIDITY OF THE ISO 7933 AND PHS MODELS

2.1 SUMMARY

Chapter 2 is concerned with the validity of the existing and proposed standards for heat stress assessment (SWreq and PHS respectively) and contains Sections 2.2 to 2.12 of the report. The validity is determined by comparing the thermal strain of people exposed to a range of hot conditions in a climatic chamber with the thermal strain predicted by the standards.

Sections 2.2 to 2.6 describe the experimental design, rationale and aims of the studies. Sections 2.7 to 2.9 describe the three studies that were involved. They covered 10 experiments and 77 subject exposures. Study 1 (Experiments 1 to 6) involved subjects in boiler suits performing stepping tasks in hot conditions, Study 2 (Experiments 7 and 8) involved subjects wearing relatively impermeable clothing and performing stepping tasks. Study 3 was not designed directly for this project but allowed a validity assessment as full data were available and it was performed in the same laboratory as Studies 1 and 2. It was an investigation into simulated Indian tea picking for which subjects wore traditional ethnic dress. Over all 10 experiments, air temperatures ranged from 35 to 45 ^{o}C, radiant temperature was similar to air temperature, there was low air velocity and humidity ranged from 3.3 to 4.5 kPa ? To ? % rh). Exposure times ranged from 45 to 90 minutes.

During the experiments, internal body temperature (aural), skin temperatures, sweat rates and metabolic rates were measured. Section 2.10 describes the results. An important finding is that both models are highly sensitive to metabolic heat production. This was either measured (by indirect calorimetry) or estimated using a number of models. A comparison is made of measured and estimated values for the same conditions. Subsequent analysis of validity is conducted for both values of metabolic rate (estimated and measured). Comparisons were made between predicted and observed values for Duration Limited Exposures (allowable exposure times based upon physiological criteria) and sweat rates. Section 2.11 discusses the outcomes and consequences of the validity study. Section 2.12 concludes that neither the SW_{req} nor PHS models were valid predictors when protective clothing is worn. It was found that subjects generally produced more sweat than that predicted by the PHS and especially ISO models.

2.2 INTRODUCTION TO THE VALIDITY STUDY

To assess the validity of a measure it must be correlated against test criteria. If there is a strong correlation, the measure is valid, while if there is no relationship, it is not. Another type of validity is face validity where a model is tested to evaluate whether it does what it says it will do. This section describes ten laboratory experiments conducted as part of three separate studies to evaluate the validity of the ISO 7933 SW_{req} model and the proposed BIOMED PHS model. The studies were conducted in the thermal chamber at the Human Thermal Environments Laboratory (HTEL) in the James France Building at Loughborough University.

- **Study 1**: Experiments 1 to 6: by D. Bethea;
- **Study 2**: Experiments 7 and 8: by K. Davis and D. Bethea;
- **Study 3**: Experiments 9 and 10: by M. McNeill.

The validity of the models was evaluated by comparing the predictions of the models with the observed physiological responses of subjects in hot environments for the following parameters:

1. Sweat Rate;
2. Duration Limit Exposure (time for core temperature to reach 38°C).

The SW_{req} model will be referred to as ISO in this section to reduce the confusion between the sweat rate variables being investigated (SW_o and SW_p). Evaporation rate w be not be evaluated as no measures of dripping sweat was made. As previously discussed, ISO 7933 defines the Alarm and Danger criteria limits as being a result of an increase of 0.8°C and 1°C to the core temperature (37.8°C and 38°C) respectively, while the PHS model predicts a mean response time to 38°C core temperature. Therefore, in order to make a direct comparison between predicted DLEs only the Danger criterion has been evaluated.

2.3 AIMS OF STUDIES

The series of studies presented in this chapter compared the physiological responses of human subjects with predictions made by the ISO and PHS models. The studies involved a range of hot environments as determined by the environmental factors (air temperature, radiant temperature, humidity and air velocity) and personal factors (activity level, clothing). The aim of the studies was to establish the validity of the models on the assumption that the more accurate the predictions are, the more valid are the models. The studies therefore also allowed a comparison of models. The aims of the studies can be represented by the following specific aims and associated null (H_o) and alternative hypotheses:

1. To assess the validity of ISO 7933 predictions by comparison with the observed physiological responses of clothed subjects while exercising in a hot environment (one-tailed prediction basedon literature survey).
   - **H_1**: ISO 7933 is not a valid predictor of the physiological responses of clothed subjects inwarm humid environments;
   - **$H_{0(1)}$**: ISO 7933 is a valid predictor of the physiological responses of clothed subjects inwarm humid environments.
2. To assess the validity of PHS predictions by comparison with the observed physiologicalresponses of clothed subjects while exercising in a hot environment.
   - **H_2**: PHS is not a valid predictor of the physiological responses of clothed subjects in warmhumid environments;
   - **$H_{0(2)}$**: PHS is a valid predictor of the physiological responses of clothed subjects in warmhumid environments.
3. To compare the predictions of the ISO 7933 and the PHS models for clothed subjects whileexercising in hot environments.
   - **H_3**: PHS is a better predictor of the physiological responses of clothed subjects in warmhumid environments than ISO 7933;
   - **$H_{0(3)}$**: PHS is not a better predictor of the physiological responses of clothed subjects inwarm humid environments than ISO 7933.

2.4 ISO SW_{REQ} AND PHS INDICES USED IN VALIDATION

2.4.1 ISO 7933 SW_{req} index

The SW_{req} computer program as described in Annex D.2 of ISO 7933, 1989 was used. The code was compared with that provided in the standard and the Outputs and Interpretations were validated against the two example scenarios provided in Tables D.1 and D.2 in the standard. For Studies 1 and 2, the expected environmental data, the clo values and the estimated metabolic rates were inputted into the model prior to any of the experiments so that estimated DLEs could be obtained. The results of these DLE predictions were used to design the experimental protocols for each study. These data were not used in the analysis. Upon completion of the experiments, the measured data and the appropriate metabolic rates (estimated and measured) were inputted, and it was the results of these inputs that the validity studies were based. The SW_{req} model will be referred to as ISO in this report.

2.4.2 ISO 7933 SW_{req} (modified) index

The standard recommends that for conditions where the clo value exceeds 0.6 clo, that the mean skin temperature algorithm is to provide a fixed value of 36°C. To this end, the program as described in the standard was altered to provide a mean skin temperature of 36°C. This modified model will be referred to as ISO(mod) in this report.

2.4.3 PHS index

A number of PHS programs were released by the BIOMED project team between January and July 2000. The final program called SIMULJUL.EXE was submitted as the final PHS model for the BIOMED HEAT project. A copy of this model was sent to D. Bethea by Jacques Malchaire who headed the BIOMED HEAT project and was used as the model for the validation study. No comparative code was provided to ensure validity of the code in the SIMULJUL.EXE program. An important point to note, was that although there was code in the model for corrections to clothing insulation and resultant air velocity based on air velocity, direction of worker movement and vapour permeability of the clothing, the model did not use this code and as such the validity study of the PHS model is based on the model without the clothing corrections developed by Parsons, Havenith and Holmér. Since this was the only model that was made available and that it was proposed as the BIOMED HEAT's final program, this program will be evaluated. The PHS index will be referred to as PHS in this report.

2.5 DATA CONSIDERATIONS

The same input values for each experiment were inputted into the three programs. Where alternative information was required (as in the case of the PHS model) this was inputted as required.

2.5.1 ISO and ISO(mod)

All ISO and ISO(mod) results were obtained using the BASIC version described in the standard. The data were then inputted into Microsoft Excel™ versions (created by D. Bethea) of each ISO index and the results validated by the author and an independent researcher to ensure that the Excel models provided the same results as the BASIC versions. The data from the Excel models were then used as these provided greater flexibility for the analysis.

2.5.2 PHS model

The PHS model was also in BASIC format with the results saved as ASCII file. Although the model provided a breakdown of the interpretation data, the ASCII file for each subject was saved as an Excel file and the data inspected to validate the predictions. This also allowed for obtaining other predictions such as mean skin temperature, changes in core temperature over time, etc.

2.6 ANALYSIS OF RESULTS

The table below explains how the observed and predicted measures were arrived at so that they could be compared. Predicted values were obtained for both estimated metabolic rate and measured metabolic rate.

Table 9: Description of how observed and predicted DLEs and sweat rates were obtained

	OBSERVED	PREDICTED	
		ISO 7933	**PHS**
SWEAT RATE	· Total sweat rate calculated from the difference between pre & post semi-nude weight -corrected for H_2O intake · Total sweat loss was divided by the total time in experiment to obtain a value for g/min. This was then multiplied by 60 to getSweat Loss in g/h.	· Provided as an Interpretation predicts Total Sweat Loss (TSW) for each minute. in g/h and is not time dependent.	· Model by the ISO Model predicts Sweat Rate · This was divided by the PHS predicted time for core temperature to reach 38°C. Thereby providing g/min, corrected to g/h.
DURATION LIMIT EXPOSURE	· Time for aural temperature predicts the Durationto reach 38°C. Limit Exposure based on	· Provided as an Interpretation · Model predicts a Duration Limit Exposure (mins) basedon heat storage or water loss (which ever occurs first). · Danger criteria DLEs for unacclimatised subjects wereanalysed.	· Model by the ISO Model minute by minute increases in core temperature and minute by minute changes insweat rate. · DLEs were based on increases in core temperature to 38°C (rounded to 3 decimal places).

2.6.1 Statistical Analysis to be used

Descriptive Statistics and Standard Deviation

Standard deviation (SD) is an average measure of the dispersion or deviation around the mean. 68% of cases fall within one SD of the mean in a normal distribution and 95% of cases fall within 2 SD. For example, if the mean age were 30, with a standard deviation of 5, 95% (2 SD) of the cases would be between 20 and 40 in a normal distribution. The standard deviation will provide a rough measure of the similarity within and between models and between the models and the observed data. This will be supplemented by a statistical evaluation of these relationships using correlations and paired sample *t* tests. Where data are missing, descriptive statistics will be provided for the whole data set, and then only for those paired data sets that both have data.

Correlations

Pearson correlations will be used to measure how the variables are related. Before calculating a correlation coefficient, data have to be screened for outliers that may cause misleading results and possibly lead to type one errors. Cases with missing values for one or both of a pair of variables for a correlation coefficient are excluded from the analysis. Since each coefficient is based on all cases that have valid data on that particular pair of variables, the maximum information available is used in every calculation. This will result in a set of coefficients based on a varying number of cases for

each variable when one or more data sets are missing. Pearson's correlation coefficient is a measure of linear association; however, although it provides a measure of their relationship it does not provide information about how accurate this relationship is. To do this a pair sample t test will be performed. Scatter plots will be provided with regression lines to show whether the relationship is linear.

Paired-Samples t Test

A paired sample *t* test will be used as a test of the null hypothesis that two population means are equal. A number of assumptions should be made for the *t*-test:

1. Observations for each pair should be made under the same conditions.
2. The mean differences should be normally distributed.
3. Variances of each variable can be equal or unequal.

One of the benefits of this test is that it is robust and the data do not have to be normally distributed; because the data are interval in nature for paired samples the difference in the variance of the two samples is not an issue (Coolican, 1992). It was selected instead of ANOVA for this reason. Additional calculations for the correlation, average difference in means, t test, and 95% confidence interval (CI) for mean difference will be computed. Any missing data will be excluded from the pair-wise analysis. Therefore sample sizes may vary from test to test dependent on whether data were available for each variable pair.

2.7 STUDY 1 (EXPERIMENTS 1 TO 6): VALIDITY OF ISO AND PHS MODELS FOR PEOPLE WEARING BOILER SUITS IN A RANGE OF HOT CONDITIONS

2.7.1 Method – Study 1

Experimental Design

The experimental design was formalised following a pilot study. A number of decisions were made *a priori* that dictated the experimental procedure. Eight healthy male volunteers would take part in each experiment, with each experiment consisting of four sessions, each with two subjects. Two morning exposure sessions and two afternoon exposure sessions produced a balanced design. To ensure that consistency was maintained throughout the experiment, across all exposures a number of procedural methodologies were adopted before each session. The environmental conditions for each of the six experiments in Study One were selected using the following decision process, which then decided the conditions for the following experiments:

· The six experiments would be conducted as three pairs of conditions, where:

Pair 1 = Experiments 1 and 2

Pair 2 = Experiments 3 and 4

Pair 3 = Experiments 5 and 6

- Each experiment would be analysed individually. Each of the pairs was separated by a minimum of seven days to eliminate any acclimation. This allowed for a between subjectanalysis of the data and for each experiment to be treated independently of the other;
- For Experiment 1, a number of combinations of environmental parameters were entered into ISO 7933 to gain a Duration Limited Exposure (DLE) for unacclimatised subjects ofaround 30 minutes for the Alarm Criteria and 45 minutes for the Danger criteria;
- To reduce the stress on the subjects in Experiment 2, their metabolic rate was reduced. Thiswas kept the same for Experiment 3, but the environmental conditions were more severe;
- Metabolic rate was then reduced for Experiment 4, keeping the environment conditions thesame as Experiment 3;
- Experiment 5, again increased the severity of the environmental conditions, while keepingthe metabolic rate the same as Experiment 4;
- In Experiment 6, the process was repeated by keeping the environment conditions the sameas Experiment 5, but reducing the metabolic rate.

This was done to provide a variety of environment and metabolic rate conditions and to meet the experimental requirements of the usability study (see Section **3.2.5**).

Withdrawal Criteria

Limiting criteria were established *a priori* to safeguard the subjects and to satisfy the requirements of Department of Human Sciences generic ethical protocol for the exposure of human subjects to the heat in the thermal environment chamber at HTEL. Subjects were withdrawn if:

- Core (aural) temperature reached 38.5°C (mean);
- Heart rate reached 200 minus Age;
- The subject was showing signs of reduced mental capacity, e.g. confusion, loss of co-ordination, verbal communication skills decrease, etc;
- Subject requested to be removed from the chamber;
- The time limit of 75 minutes was reached, even if none of the limiting criteria had beenmet.

Subjects

Eight health male volunteers took part in each experiment, with three different groups of subjects taking part in each pair of experiments. They represented a stratified sample as they had volunteered after responding to notices placed around Loughborough University Campus. Not all the subjects were students. Descriptive statistics are provided in **Table 10**.

Table 10: Descriptive statistics of subject age, height and weight for each experiment in Study 1

		N	MEAN	ST DEV	MIN	MAX
EXPERIMENTS 1 AND 2	**Age**	8	25.4	4.03	17	31
	Height (m)	8	1.7	0.05	1.69	1.86
	Semi-nude Weight (Kg)	8	71.3	3.97	64.20	77.45
EXPERIMENTS 3 AND 4	**Age**	8	25.4	1.60	23	28
	Height (m)	8	1.8	0.05	1.7	1.86
	Semi-nude Weight (Kg)	8	75.6	7.44	68.35	87.33
EXPERIMENTS 5 AND 6	**Age**	8	27.0	3.02	25	34
	Height (m)	8	1.8	0.03	1.72	1.82
	Semi-nude Weight (Kg)	8	76.7	7.94	67.89	89.62

Apparatus

Dry bulb air temperature, humidity, air velocity and globe temperature were recorded at chest height using two 12bit ELTEK 1000 series squirrel data loggers inside the chamber. VAISALA VH-G-Z3-0 capacitive humidity and temperature probes fitted with Vaisala HUMICAP™ sensor and a Grant U Type temperature sensor were used to measure shielded air temperature and humidity respectively (this air temperature was only to be used as backup). Air temperature was measured using Grant UU type thermistors encased in a steel cover, providing shielded air temperature. *WBGT* parameters were measured using a *WBGT* unit developed at HTEL in accordance with ISO 7226 and data were recorded on a Grant 8bit Squirrels™ data logger. Air temperature and humidity were also monitored externally on a 10bit Squirrel that was attached to the central control panel.

Aural temperature was measured with bead thermistors placed through a rubberised ear plug to allow about 4 mm of the thermistor to rest within the auditory canal once the ear plug was put in place. Aural thermistors were further insulated from the external environment with taped down cotton wool and a pair of ear defenders with a soft foam sponge lining. Skin temperature was measured using surface temperature sensors Type EU, with copper base, also made by Grant Instruments. All subject temperature data were recorded on Grant 8 bit Squirrels™ data loggers. Calibration of all squirrels and thermistors were evaluated using a Grant heated water bath prior to each session. Heart rate was measured using Polar Sport Tester® hear rate monitors. All data were recorded at one-minute intervals.

Reebok ® steps provided the step for the exercise activity. 1.8 cm thick wooden boards were also used to provide varied step height dependent on subject's weight. Douglas bags with 2-way valves were used to collect the subject's exhaled air while exercising. They were analysed using a Sybron Taylor Servomex O_2 Analyser, an ADC carbon dioxide analyser and a Harvard dry gas meter. The analysers were calibrated each morning of an experiment. Dynamic weight (mean of three measures) was measured using a Metler ID1 Multi-range scales, which were calibrated before each experiment.

Eight 100% cotton drill, one-piece boiler suits with front poppers, open sleeve and leg cuffs were worn. Subjects also wore their own underwear (cotton boxer shorts and cotton rich, short ankle socks), trainers and cotton T-shirts. The clothing insulation value of each ensemble was estimated as 0.8 clo using the Tables in ISO 9920. As a manual backup, manual recording data sheets were also used with readings taken at fixed intervals throughout each experiment.

2.7.2 Procedure

Pre Experiment.

The step height for each subject was calculated based on an equation by Wadsworth and Parsons (date) to provide a ratio of between each subject's weight and their required estimated metabolic rate. Once this step height had been obtained, it was inputted into the ACSM equation to obtain the estimated metabolic rate. This provided an adjusted step height in an attempt to equalise the metabolic rates by providing step height ratios based on subject weight.

$$VO_2\ (ml \cdot kg^{-1} \cdot min^{-1}) = \left(\frac{steps}{min} \times 0.35\ ml \cdot kg^{-1} \cdot min^{-1} \right) + \left(\frac{m}{steps} \times \frac{steps}{min} \times 1.33 \times 1.8\ ml \cdot kg^{-1} \cdot min^{-1} \right) \quad 24)$$

Preparation

All the procedures followed had been passed by Loughborough University's Ethical Committee as HTEL's generic protocol for heat stress exposure in the thermal chamber.

After completion of a consent form, subjects drank a 250 ml glass of water before entering their preparation room, where they stripped to their underwear and were weighed semi-nude. An aural thermistor was placed in each ear canal and insulated with cotton wool and a pair of industrial ear defenders. The 5 skin thermistors were then placed on the subject using, 3M Transpore™ tape. The Ramanathan 4 point mean skin temperature sites were used (the chest, the upper arm, the thigh and the calf) along with an upper back site situated at the sub-clavicle. The heart rate monitor was attached and they dressed in a T-shirt, boiler suit, socks and trainers and sat in the preparation room for 20 minutes. Oral temperature was taken with a mercury glass thermometer to provide a reference value with the aural temperature and to identify when the environment within the auditory canal had stabilised. When both subjects had been prepared and were ready to enter the thermal chamber, they completed a subjective thermal comfort questionnaire. Data recordings on the squirrel data loggers and the polar sports tester heart rate monitors were started and objective measures were manually recorded on the data sheets by the experimenter.

The Experiment

A three minutes staggered start was observed, with subjects entering the chamber accompanied by an experimenter. Subjects were weighed clothed and started stepping in time to an audio metronome beating once every second, thereby providing for a total of 15 complete steps per minute. A complete step was where the subject stepped up onto the step and then back onto the floor with both feet. At 25 minutes subjects provided a VO_2 sample by breathing into a Douglas Bag which were then analysed immediately by the second experimenter. When a withdrawal criteria was met, all physiological measures and completion time were recorded manually, all physiological data recordings were stopped and the subject was weighed clothed and semi-nude before leaving the chamber. Water intake was calculated and weight loss was corrected for water intake. Subjects were removed from the chamber and were laid down on a string-mesh bed and cooled by fans. All subjects were monitored upon completion of the exposure and were not allowed to leave the laboratory until they had recovered from the exposure. Oral temperatures were taken

after 30 minutes to ensure no post heat stress re-heating had occurred.

Inputs

Table 11: Data inputted into models

	INPUT VARIABLES	N	MEAN	ST DEV	MIN	MAX
EXP 1	Air Temperature (°C)	8	34.9	0.27	34.6	35.2
	Globe Temperature (°C)	8	35.0	0.20	34.7	35.2
	Air Velocity (m/s)	8	0.22	0.07	0.10	0.28
	Mean Radiant Temperature (°C)	8	35.1	0.14	34.9	35.2
	Partial Vapour Pressure (kPa)	8	3.4	0.13	3.3	3.6
	Estimated Metabolic Rate (W/m²)	8	193	7	187	207
EXP 2	Air Temperature (°C)	8	35.0	0.07	34.9	35.1
	Globe Temperature (°C)Air Velocity (m/s)	8	34.7	0.04	34.7	34.8
	Mean Radiant Temperature (°C)	8	0.28	0.04	0.20	0.32
	Partial Vapour Pressure (kPa)	8	34.4	0.09	34.3	34.6
	Estimated Metabolic Rate (W/m²))	8	3.3	0.07	3.2	3.5
		8	177	6	166	187
	Measured Metabolic Rate (W/m²)	8	158	18	126	186
EXP 3	Air Temperature (°C)	8	39.5	0.09	39.4	39.6
	Globe Temperature (°C)	8	39.3	0.12	39.1	39.4
	Air Velocity (m/s)	8	0.07	0.01	0.07	0.08
	Mean Radiant Temperature (°C)	8	39.2	0.16	39.0	39.3
	Partial Vapour Pressure (kPa)	8	4.5	0.24	4.3	4.8
	Estimated Metabolic Rate (W/m²)	8	173	6	166	177
	Measured Metabolic Rate (W/m²)	8	161	20	137	194
EXP 4	Air Temperature (°C)	8	39.7	0.11	39.6	39.9
	Globe Temperature (°C)	8	39.5	0.07	39.4	39.6
	Air Velocity (m/s)	8	0.08	0.01	0.06	0.11
	Mean Radiant Temperature (°C)	8	39.3	0.08	39.2	39.4
	Partial Vapour Pressure (kPa)	8	4.5	0.15	4.3	4.7
	Estimated Metabolic Rate (W/m²)	8	153	5	145	155

	Measured Metabolic Rate (W/m^2)	8	142	17	122	169
EXP 5	**Air Temperature (°C)**	8	45.0	0.19	44.7	45.2
	Globe Temperature (°C)	8	45.0	0.11	44.9	45.1
	Air Velocity (m/s)	8	0.08	0.00	0.08	0.09
	Mean Radiant Temperature (°C)	8	44.9	0.17	44.7	45.1
	Partial Vapour Pressure (kPa)	8	3.8	0.04	3.8	3.9
	Estimated Metabolic Rate (W/m^2)	8	153	5	145	155
	Measured Metabolic Rate (W/m^2)	8	134	14	116	162
EXP 6	**Air Temperature (°C)**	7	44.7	0.04	44.7	44.8
	Globe Temperature (°C)	7	44.2	0.09	44.1	44.3
	Air Velocity (m/s)	7	0.09	0.00	0.09	0.09
	Mean Radiant Temperature (°C)	7	43.8	0.16	43.5	44.0
	Partial Vapour Pressure (kPa)	7	3.9	0.04	3.8	3.9
	Estimated Metabolic Rate (W/m^2)	7	87	0	87	87
	Measured Metabolic Rate (W/m^2)	6	101	7	93	111

2.8 STUDY 2 (EXPERIMENTS 7 AND 8): VALIDITY OF ISO AND PHS MODELS FOR PEOPLE WEARING CLOTHING WITH DIFFERENT VAPOUR PERMEABILITY PROPERTIES.

2.8.1 Method – Study 2

Experimental Design

K. Davis conducted this project as part fulfilment of her BSc (Hons) in Human Biology in the Department of Human Sciences, Loughborough University. D. Bethea supervised the project.

The purpose of this study was to follow on the experimental protocol established for Study 1, and to investigate the validity of ISO 7933 for conditions where subjects were wearing clothing ensembles of the same design but with different vapour permeabilities but similar clothing insulation values (clo). Four ensembles were selected from the clothing database at HTEL. All ensembles were of similar cut, fit, shape, etc. Following a biophysical study to determine the vapour permeability of the four ensembles, two were selected; the PU coated nylon ensembles and the cyclone coated nylon ensembles. The biophysical study showed that the Cyclone ensemble was more vapour permeable that the PU coated ensemble (for further information see Davis, 1998).

The experimental design was formalised following a pilot study.

The experiment consisted of two exposures separated by at least seven days to eliminate any acclimation. This allowed for a between subject analysis of the data and for the experiments to be treated independently of each other. A Latin Square design was adopted to the allocation of ensembles to randomise the order and to reduce any order effects of clothing worn. Subjects were not informed of the nature of the suits so as not to influence their subjective responses. Each experiment consisted of four sessions, with two subjects in each.

Withdrawal Criteria

Limiting criteria were established *a priori* to safe guard the subjects and to satisfy the requirements of Department of Human Sciences generic ethical protocol for the exposure of human subjects to the heat in the thermal environment chamber at HTEL. Subjects were withdrawn if:

- Core (aural) temperature reached 38.5°C (mean);
- Heart rate reached 200 minus Age;
- The subject was showing signs of reduced mental capacity e.g. confusion, loss of co-ordination, verbal communication skills decrease, etc;
- Subject requested to be removed from the chamber;
- The time limit of 60 minutes was reached, even if none of the limiting criteria had beenmet.

Subjects

Eight health male volunteers took part in each experiment. They represented a stratified sample as they had volunteered after responding to notices placed around Loughborough University Campus.

All subjects were undergraduate students at Loughborough University. Descriptive statistics are provided in Table 12.

Table 12: Descriptive statistics of subject age, height and weight for each experiment in Study 3

		N	MEAN	ST DEV	MIN	MAX
EXPERIMENTS 7 AND 8	**Age**	8	20.6	1.85	18	24
	Height (m)	8	1.8	0.04	1.75	1.86
	Semi-nude Weight (Kg)	8	76.7	8.04	65.93	91.05

Apparatus

The same apparatus to measure the environmental and physiological parameters were used as in Experiment 1. The same procedure for step height ratios to subject weight was not used. All subjects stepped at the same height.

The ensembles consisted of a jacket and trousers. ISO 9920 did not provide sufficient information for the estimation of clo values. As a result, the ensembles (all sizes) were sent to the Defence Evaluation Research Agency (DERA) in Farnborough, Hampshire, where Dr. W. R. Withey and Dr. P. Redman evaluated the suits on a thermal manikin. These tests provided the following clo values:

Table 13: Clo values obtained from thermal manikin trials held at DERA

ENSEMBLE TYPE	Size	CLO VALUE FROM MANIKIN TRIALS
PU	**Large**	0.761
	Medium	0.674
CYCLONE	**Large**	0.741
	Medium	0.716

Allocation of ensemble sizes was dependent on the subject's size and the appropriate clo value for each subject's ensemble was inputted into ISO, ISO(mod) and PHS models (corrected to include underwear, T-shirt and trainers).

2.8.2 Procedure

The experimental procedure was based on the protocol developed for Study 1.

Inputs

Table 14: Data inputted into models for Study 2

		N	MEAN	ST DEV	MIN	MAX
EXP 7	**Air Temperature (°C)**	8	40.10	0.32	39.70	40.50
	Globe Temperature (°C)	8	39.25	0.32	38.90	39.70
	Air Velocity (m/s)	8	0.15	0.00	0.15	0.15
	Mean Radiant Temperature (°C)	8	38.69	0.34	38.24	39.17
	Partial Vapour Pressure (kPa)	8	3.721	0.092	3.533	3.865
	Estimated Metabolic Rate (W/m²)	8		0.0	177	177
		177		0		
	Measured Metabolic Rate (W/m²)	8	190	17.83	166	218
	Intrinsic Clothing Insulation (Clo)	8	0.82	0.04	0.75	0.84
EXP 8	**Air Temperature (°C)**	8	40.04	0.27	39.70	40.50
	Globe Temperature (°C)	8	39.25	0.32	38.90	39.70
	Air Velocity (m/s)	8	0.15	0.00	0.15	0.15
	Mean Radiant Temperature (°C)	8	38.73	0.42	38.24	39.50
	Partial Vapour Pressure (kPa)	8	3.725	0.095	3.533	3.865
	Estimated Metabolic Rate (W/m²)	8	177	0.00	177	177
	Measured Metabolic Rate (W/m²)	8	190	8.44	176	199
	Intrinsic Clothing Insulation (Clo)	8	0.81	0.01	0.80	0.82

2.9 STUDY 3 (EXPERIMENTS 9 AND 10): VALIDITY OF ISO AND PHS MODELS FOR TEA LEAF PICKERS IN A SIMULATED HOT ENVIRONMENT

2.9.1 Introduction

Dr. M. McNeill conducted this project as part fulfilment of his PhD in Ergonomics in the Department of Human Sciences, Loughborough University. The purpose of this study was to evaluate the validity of ISO 7933 for assessing the thermal stress in industrially developing countries. Tea leaf picking was used as a representative agricultural task. (For a more detailed description see McNeill and Parsons, 1999.)

2.9.2 Method – Study 3

Experimental Design

The experimental design was formalised following a pilot study. Limiting criteria were established *a priori* to safe guard the subjects and to satisfy the requirements of Department of Human Sciences generic ethical protocol for the exposure of human subjects to the heat in the thermal environment chamber at HTEL. Subjects were withdrawn if:

- Core (aural) temperature reached 38.5°C (mean);
- Heart rate reached 200 minus Age;
- The subject was showing signs of reduced mental capacity e.g. confusion, loss of co-ordination, verbal communication skills decrease, etc;
- Subject requested to be removed from the chamber;
- The time limit of 60 minutes was reached, even if none of the limiting criteria had beenmet.

Subjects

Eight healthy male and eight healthy female volunteers took part in each experiment. They represented a stratified sample as they had volunteered after responding to notices placed around Loughborough University Campus. The males took part in Experiment 9, while the females were in Experiment 10. Subjects carried out the simulated agricultural task of tea picking while in the thermal environment chamber at HTEL. The environment, the tasks and the clothing worn were selected to simulate conditions described by Sen *et al* (1983) (as referenced by McNeill).

The experimental protocol was formalised following a pilot study.

Table 15: Descriptive statistics of subject age, height and weight for each experiment in Study 3

		N	MEAN	SD	MIN	MAX
EXPERIMENT 9 (MALES)	**Age**	8	21.5	1.93	19	25
	Height (m)	8	1.8	0.06	1.65	1.85
	Semi-nude Weight (Kg)	8	75.9	5.82	68.62	83.14
EXPERIMENT 10 (FEMALES)	**Age**	6	19.8	1.72	18	23
	Height (m)	6	1.7	0.04	1.66	1.78
	Semi-nude Weight (Kg)	6	66.5	7.74	58.57	77.26

Apparatus

The same apparatus to measure the environmental and physiological parameters were used as in Experiments 1 and 2.

Clothing

Subjects wore a clothing ensemble that was representative of that worn by Indian agricultural workers. The males wore a *punjabi* (a long sleeved, thing length shirt of 65% cotton and 35% polyester composition) and a *lungi* (a 100% cotton ankle length wrap-around). The females wore a *shalwar kamize* (65% cotton and 35% polyester long sleeved, thing length blouse and tight fitting pyjama style trousers). The clothing was supplied by HTEL but they wore their own cotton underwear. No footwear was worn. From ISO 9920, the male and female ensembles were estimated as 0.5 and 0.46 clo respectively.

Tea bushes

To simulate the conditions found in an Indian tea plantation, rhododendron bushes were placed on tables in aisles. These represented tea bushes, as tea bushes were not available.

Procedure

The Experiment

All the procedures followed had been passed by Loughborough University's Ethical Committee as HTEL's generic protocol for heat stress exposure in the thermal chamber. All subjects provided informed consent upon completion of the HTEL consent and medical questionnaire.

One male and one female subject participated in each session. Prior to entering the chamber, subjects were weighed and the average of two dynamic measures was used as their semi-nude weight. Their clothing ensembles were weighed separately. Subjects were then instrumented in the same way as in Experiments 1 and 2. Once instrumented, subjects remained in the neutral room for a further 10 minutes or until the aural thermistors reached equilibrium.

Upon entering the thermal chamber, subjects were instructed in how to carry the tea basket either over their head or shoulder. The subjects then walked around the thermal chamber randomly picking leaves from the "tea bushes", placing the leaves in their basket. To simulate the terrain in a tea plantation, steps were placed at intervals around the chamber. Metabolic rate was measured

using Douglas Bags at 30, 60 and 90 minutes into the experiment. A controlled amount of water was provided upon request to ensure that subjects drank during each session.

Upon completion of the session, subjects were removed from the chamber and weighed semi-nude. Their clothing was again weighed separately.

Inputs

Table 16: Data inputted into models

		N	MEAN	ST DEV	MIN	MAX
EXP 9	**Air Temperature (°C)**	8	37.18	0.28	36.86	37.56
	Globe Temperature (°C)	8	36.86	0.30	36.48	37.30
	Air Velocity (m/s)	8	0.17	0.04	0.11	0.24
	Mean Radiant Temperature (°C)	8	36.63	0.39	35.92	37.14
	Partial Vapour Pressure (kPa)	8	4.447	0.179	4.107	4.604
	Measured Metabolic Rate (W/m^2)	8	138	15.36	116	161
	Intrinsic Clothing Insulation (W/m^2)	8	0.50	0.00	0.50	0.50
EXP 10	**Air Temperature (°C)**	6	37.19	0.31	36.86	37.56
	Globe Temperature (°C)	6	36.87	0.34	36.48	37.30
	Air Velocity (m/s)	6	0.17	0.05	0.11	0.24
	Mean Radiant Temperature (°C)	6	36.62	0.45	35.92	37.14
	Partial Vapour Pressure (kPa)	6	4.451	0.182	4.107	4.576
	Measured Metabolic Rate (W/m2)	6	115	17.20	91	134
	Intrinsic Clothing Insulation (Clo)	6	0.60	0.00	0.60	0.60

2.10 RESULTS OF THE 3 STUDIES - COMPARISON OF ISO 7933, ISO(MOD), PHS AND OBSERVED PHYSIOLOGICAL DATA

The results are presented in the following format:

1. Comparison of Estimated and Measured Metabolic Rates
2. Comparison of within model predictions between estimated and measured metabolicrate inputs
3. Comparison between ISO and PHS model predictions and Observed Data
4. Comparison of between ISO and PHS model predictions

2.10.1 Comparison of Estimated and Measured Metabolic Rates

The ISO and PHS models present heat stress indices and interpretation (in terms of allowable exposure, for example) that depend upon a rational interaction of inputs which include air temperature, radiant temperature, humidity, air velocity, clothing insulation and metabolic rate. The prediction of the models is therefore sensitive to all of the inputs and will be affected by the accuracy of measurement or estimation of their values. Of particular importance is the estimation or measurement of metabolic rate. For an active worker the sweat required to cool the body by evaporation is often closely related to the heat produced by activity and hence metabolic rate. It is important therefore, that consideration should be given to the estimation of metabolic rate. In the present studies, metabolic rate was estimated using Tables (ISO 8996), empirical equations specifically designed to predict metabolic rate from a stepping activity (Wadsworth, American College of Sports Medicine, date). Metabolic rate was 'measured' using the technique of indirect calorimetry (ISO 8996).

One of the problems with estimating metabolic rate is that there can be an error as great as 60% (NIOSH, date; Parsons and Hamley, 1989). It is clear that, since ISO 7933 is based on the heat balance equation, the heat gained through physical activity is a critical factor that will determine whether or not heat storage will occur. The accuracy therefore of the prediction will largely be dependent on the accuracy of the metabolic rate value entered into the equation. However when estimating metabolic rate from equations, the prediction will be dependent on the empirical data from which that equation has been derived. It is highly likely therefore that the validity of the method employed to estimate metabolic rate may be questioned. Therefore, under heat stress conditions, when physiological responses are stressed and alterations in the cardiovascular output are observed, it is necessary to compare the metabolic rates that were derived from estimation with those that were measured directly. Attempts were made therefore, by using the Wadsworth equation, to obtain a step height to body weight ratio for each subject. Estimated and measured metabolic rate inputs were only used in Studies 1 and 2, while only measured metabolic rate was used in Study 3. However, due to equipment failure no measured metabolic rate data is available for Experiment 1 (in Study 1).

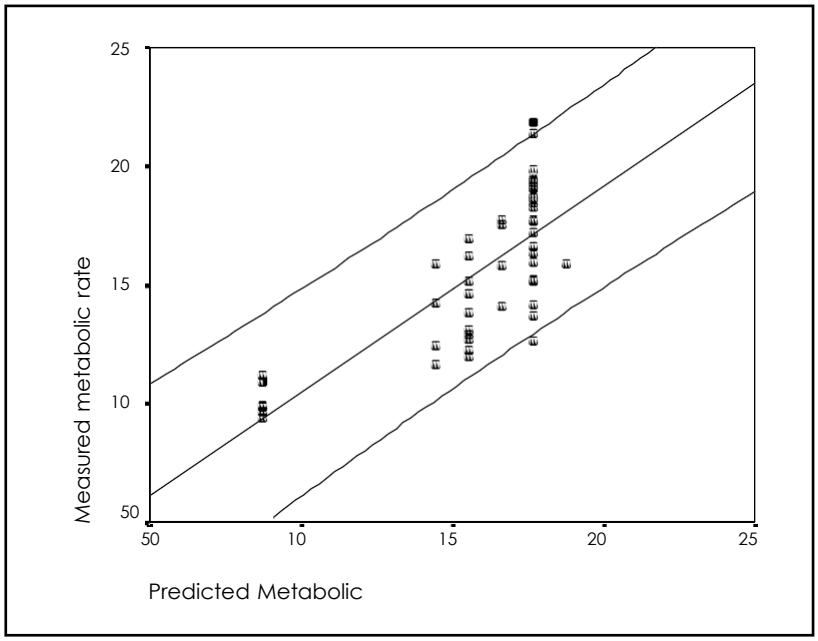


Figure 9: Scatter plot of estimated and measured metabolic rates for all experimental data, showing the regression line and the 95th percentile CI limits.

The scatter plots of metabolic inputs shows that although there was an expected narrow range in the estimated figures, that all but two of the data points were within the confidence intervals. The ISO and PHS predicted data obtained from these two outliers were removed from the data set and were not included in the validity analysis.

Table 17: Descriptive statistics of all Estimated and Measured Metabolic Rates for all experimental data.

	N	MEAN	SD
Estimated Metabolic Rate	63	162	29.9
Measured Metabolic Rate	68	150	31.6
Valid N (Listwise Cases)	54		

Table 18: Descriptive statistics of Estimated and Measured Metabolic Rates for all experimental data with outliers removed.

	N	MEAN	SD
Estimated Metabolic Rate	63	162	29.9
Measured Metabolic Rate	67	150	31.7
Valid N (Listwise Cases)	53		

Only 53 cases are valid (i.e. have both measured and estimated metabolic rate values) and as such any analyses of the relationship between the predicted and measured metabolic rate values will be carried out on these 53 cases. The descriptive statistics in Table 18 show that the mean values are

similar with the estimated metabolic rate value less than 10% higher than the measured value. This is well below the possible overestimation of between 20 to 50% normally associated with estimating metabolic rate. This suggests therefore, that the use of the ACSM equation when data across all exposures are compared was successful in limiting the differences between the two inputs. The following table describes the pair-wise data (i.e. pairs where both estimated and measured data were available).

Table 19: Pair-wise descriptive statistics of Estimated and Measured Metabolic Rates for all experimental data with outliers removed

	N	MEAN	SD
Estimated Metabolic Rate	53	159	28.1
Measured Metabolic Rate	53	156	31.8
Valid N (Listwise Cases)	53		

Table 20: Results of Pearson Correlation and Paired Analysis Comparisons of Estimated and Measured Metabolic Rate ($W.m^{-2}$) for all experimental data

PAIRED SAMPLES CORRELATIONS				PAIRED DIFFERENCES					
	N	r^2	P	Mean	SD	SEM	95% CI of the Difference		Sig. (2-tailed)
Metabolic rate							**Lower**	**Upper**	
Estimated vs Measured	53	0.79	0.00	2.25	19.93	2.74	-3.25	7.74	0.42

Table 20 shows a significant correlation (r^2=0.79, p<0.001) between estimation and measured metabolic rates with no significant differences observed between the two (p<0.42). Although there was no significant difference between the two input variables, a comparison of the interpretations from both input variables is necessary as it has been shown that even small variations in metabolic rate inputs may have significant effects on the accuracy of the ISO model.

2.10.2 Comparison of within model predictions for estimated and measured metabolic rate inputs

For each set of results, all the data will be described. Then only the pair-wise data will be analysed. This was done because not all the experiments had data for both estimated and measured metabolic rate inputs. Additionally, any metabolic rate inputs identified as outliers were removed from the analysis.

Comparison of Sweat Rate predictions for estimated and measured metabolic rate inputs

The relationship between predicted sweat rates from the two metabolic input variables is investigated. All three models are included. Abbreviations have been used to indicate estimated metabolic input (Est Met) and measured metabolic (Meas Met) rate input data.

Table 21: Descriptive statistics of all SW_p data (gh^{-1}) for all three models and both metabolic inputs for all experimental data

	N	MEAN	SD
ISO SW_p (Est Met)	63	318.6	60.4
ISO SW_p (Meas Met)	66	299.4	59.0
ISO_{mod} SW_p (Est Met)	63	313.1	76.3
ISO_{mod} SW_p (Meas Met)	52	295.4	71.6
PHS SW_p (Est Met)	63	560.6	51.2
PHS SW_p (Meas Met)	64	560.9	39.9
Valid N (listwise)	52		

There was a large difference between the ISO models and the PHS model when all experiments were included. The lower N values for the ISO_{mod} condition are due to the ISO_{mod} not being used to evaluate Experiments 9 and 10 in Study 3 as the clothing worn did not exceed 0.6 clo. The table below provides the descriptive statistics for the pair-wise (i.e. where both input variables are available).

Table 22: Pair-wise descriptive statistics of SW_p (gh^{-1}) for all three models and both metabolic inputs for all experimental data

	N	MEAN	SD
ISO SW_p (Est Met)	52	308.4	60.7
ISO SW_p (Meas Met)	52	306.9	61.6
ISO_{mod} SW_p (Est Met)	52	296.6	71.3
ISO_{mod} SW_p (Meas Met)	52	295.4	71.6
PHS SW_p (Est Met)	50	543.2	37.8
PHS SW_p (Meas Met)	50	558.5	43.2

An interesting point to note from the standard deviation of the sweat rate from the PHS model is that it seems to be more susceptible to variations in metabolic rate input. Although the ISO_{mod} had the largest standard deviation (±71.6) for both metabolic rate input variables, it showed the smallest deviation between variables. This is probably due to the skin temperature remaining at 36°C.

Table 23: Pearson Correlation Coefficients and Paired Analysis Comparisons of Predicted Sweat Rates from both metabolic rate inputs for all experimental data

Paired Samples Correlations				Paired Differences					
Comparisons of SW_p	N the	r^2	P	Mean	SD	SEM	95% CI of Difference Lower	Upper	Sig. (2-tailed)
ISO SW_p	52	0.99	0.00	1.45	9.07	1.26	-1.08	3.98	0.25
ISO_{mod} SW_p	52	0.99	0.00	1.22	7.39	1.02	-0.84	3.27	0.24
PHS SW_p	50	0.77	0.00	-15.3	28.23	3.99	-23.34	-7.29	0.00

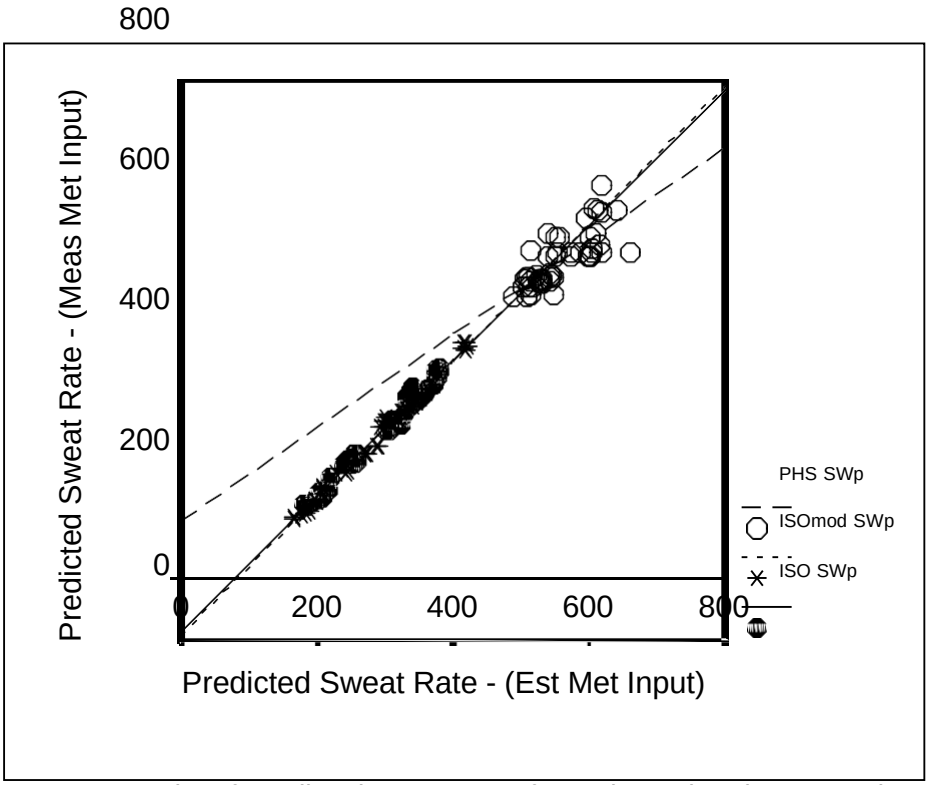


Figure 10: Scatter plot of Predicted Sweat Loss for Estimated and Measured Metabolic rate input values

There is a highly significant correlation ($p<0.001$) between each of the model's SW_p for both metabolic inputs with the ISO and ISO_{mod} producing r^2 values of 0.99. The PHS model shows a significant intra-SW_p difference between the two input results ($p<0.001$) and the mean difference is negative (-15.31) compared to that of the ISO models (1.45 and 1.22). This means that the PHS SW_p values from measured metabolic inputs are higher than those for estimated inputs. This is a shift from the ISO models where the estimated input produced higher SW_p values. Since the estimated metabolic rate inputs were greater than measured rates, this is an unexpected occurrence and suggests that the model is more sensitive to metabolic rate variations because the data is from paired experiments where the only difference in each pair was the metabolic rate input value. This can be seen in **Figure 10** where the PHS regression is not as steep as that for the ISO models, which have a regression equation that is almost on the line of origin. By observing the values of the

differences, it can be seen that they are in tens of grams per hour, and although statistically

significant, the actual differences are not important. Both input variable outputs however, will be compared with the observed data because both inputs were not available for all experiments.

Comparison of Duration Limited Exposure (DLE) predictions for estimated and measured metabolic rate inputs

The DLE predictions for both metabolic inputs for all three models are presented and evaluated. Only the Danger DLEs (t_{re}=38°C) are analysed. No comparisons between the PHS model and the ISO ALARM DLEs would be possible due to the PHS model only predicting for t_{re}=38°C, and the Alarm criteria (t_{re}=37.8°C) is not provided for.

Table 24: Descriptive statistics of predicted DLEs for both metabolic inputs for all experimental data

	N	MEAN	SD
ISO DLEs (Est Met)	63	40	13.7
ISO DLEs (Meas Met)	65	44	14.9
ISO_{mod} DLEs (Est Met)	63	40	12.8
ISO_{mod} DLEs (Meas Met)	51	39	14.5
PHS DLE (Est Met)	63	36	9.2
PHS DLE (Meas Met)	51	35	9.5
Valid N (listwise)	51		

Table 24 shows that the means within each model are very similar for both metabolic rate input variables. Interestingly, unlike in the analyses of the sweat rates, the PHS model appears to be less sensitive to variations both within each and between each metabolic rate input variable. The table shows all the data, and for an accurate comparison to be made, the paired data were analysed.

Table 25: Pair-wise descriptive statistics of SW_p for all three models and both metabolic inputs for all experimental data

	N	MEAN	SD
ISO DLEs (Est Met)	52	39	14.1
ISO DLEs (Meas Met)	52	40	13.1
ISO_{mod} DLEs (Est Met)	52	38	13.0
ISO_{mod} DLEs (Meas Met)	52	40	17.8
PHS DLE (Est Met)	51	35	8.8
PHS DLE (Meas Met)	51	35	9.5

The means for each model presented in **Table 25** are almost identical for both of the ISO models and are identical for the PHS models (rounded to the nearest unit). Here too the PHS DLEs are less sensitive to the variations in metabolic rate input variables, with SDs of 8.8 and 9.5 for estimated and measured inputs respectively. This was unexpected because the PHS SW_p were more susceptible to metabolic rate variation than the ISO models were. The ISO_{mod} DLEs however had a greater difference between the SDs for the two variables. This does not appear to be significant. The results were further analysed.

Table 26: Pearson Correlation Coefficients and Paired Analysis Comparisons of predicted DLEs for both metabolic inputs for all experimental data

PAIRED SAMPLES CORRELATIONS				PAIRED DIFFERENCES					
	N	r2	P	Mean	SD	SEM	95% CI of the Difference		Sig. (2-tailed)
							Lower	Upper	
ISO DLEs	52	0.77	0.00	-1.1	9.2	1.3	-3.6	1.5	0.41
ISO_{mod} DLEs	52	0.78	0.00	-2.2	11.1	1.5	-5.3	0.9	0.16
PHS DLE	51	0.89	0.00	-0.4	4.3	0.6	-1.6	0.8	0.52

Here too, as with sweat rate there is a correlation, although the r^2 values are slightly lower for the ISO models and higher for the PHS model. The mean differences are all low and negative with the 95% CI of the difference showing that the DLEs from the estimated input metabolic values tended to be higher than the measured metabolic input DLEs. The difference between the two ISO_{mod} DLEs also showed the greatest standard deviation, with the PHS showing the smallest deviation. The Paired Analysis shows that none of these differences is significant. This can be seen in the scatter plot in **Figure 11** which shows the smaller scatter of PHS predicted DLEs around their regression line than either of the ISO models.

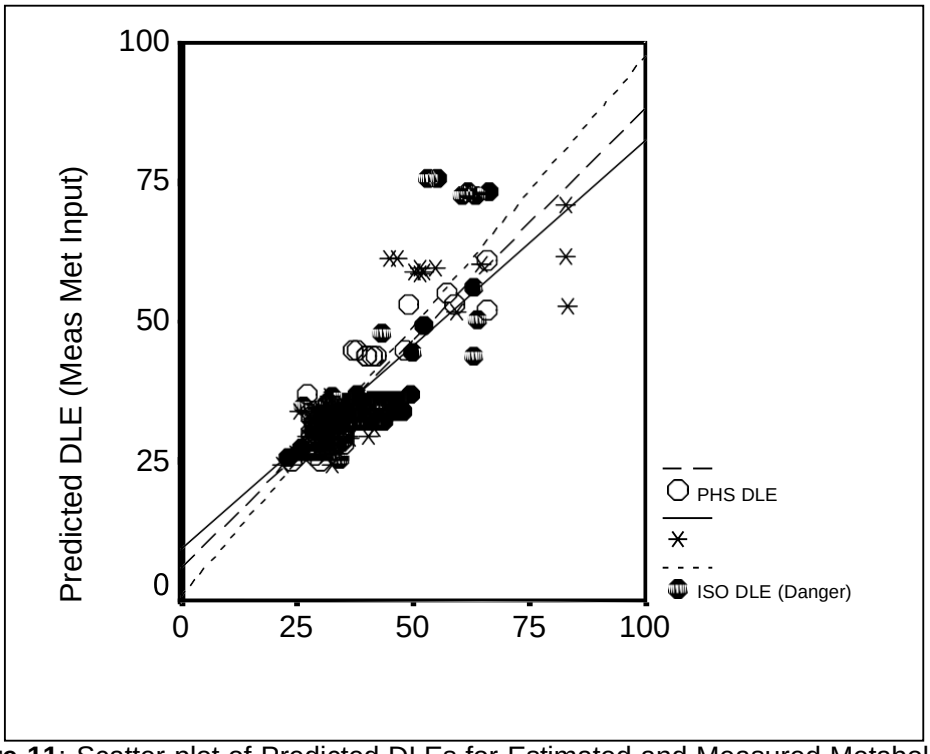


Figure 11: Scatter plot of Predicted DLEs for Estimated and Measured Metabolic rate input values

2.10.3 Comparison between ISO and PHS model sweat rate predictions and observed data

The results from each experiment and for all data combined, are presented in this section. Each experiment was analysed to identify if any of the experimental differences (such as clothing, work rate, partial vapour pressure, etc.) may have had a specific effect on the data. All the data were then combined for analysis so as to evaluate the validity of the models across a range of conditions.

The table cells shaded grey show those experiments where no data were available.

- **Experiment 1:** No measured metabolic rate data available.
- **Experiments 9 and 10**: No estimated metabolic rate data available. No ISO_{mod} data fromeither as the clo value was less than 0.6clo.

Sweat Rates – Descriptive Statistics for all experiments

Table 27: Table showing descriptive statistics of all predicted and observed sweat rates (gh^{-1}).

		Variable	ESTIMATED MET AS INPUT					MEASURED MET AS INPUT				
			N	Mean	SD	Min	Max	N	Mean	SD	Min	Max
Study 1d	EXP1	**ISO SWp**	8	373	20.5	341	391	N/A	N/A	N/A	N/A	N/A
		ISOmod SWp	8	405	25.4	366	425	N/A	N/A	N/A	N/A	N/A
		PHS SWp	8	651	27.7	615	695	N/A	N/A	N/A	N/A	N/A
		Observed SW	8	832	136.7	626	1024	N/A	N/A	N/A	N/A	N/A
	EXP2	**ISO SWp**	8	377	11.8	351	388	7	370	12.9	346	380
		ISOmod SWp	8	414	13.8	382	426	7	408	14.7	378	418
		PHS SWp	8	617	13.6	602	649	6	614	14.7	596	640
		Observed SW	8	804	196.6	502	1110	7	802	212.3	502	1110
	EXP3	**ISO SWp**	8	229	34.4	191	265	8	225	34.4	181	259
		ISOmod SWp	8	213	36.9	174	251	8	210	36.6	166	247
		PHS SWp	8	507	22.0	489	555	8	516	16.5	488	546
		Observed SW	8	1133	539.6	542	*2265*	8	1133	539.6	542	*2265*
	EXP4	**ISO SWp**	8	225	19.6	197	251	8	221	19.5	194	257
		ISOmod SWp	8	210	21.6	179	238	8	206	21.1	177	243
		PHS SWp	8	512	7.6	503	522	8	520	18.1	502	542
		Observed SW	8	924	237.2	604	1280	8	924	237.2	604	1280
	EXP5	**ISO SWp**	8	355	4.8	348	362	8	344	10.0	333	364
		ISOmod SWp	8	311	4.6	305	318	8	303	8.1	293	319
		PHS SWp	8	516	4.6	509	521	8	529	11.5	511	545
		Observed SW	8	853	255.0	570	1315	8	853	255.0	570	1315
	EXP6	**ISO SWp**	7	302	5.1	298	308	6	311	9.9	303	325
		ISOmod SWp	7	270	5.6	266	278	6	278	9.2	270	290
		PHS SWp	7	578	1.8	576	580	5	570	31.8	538	609
		Observed SW	7	702	148.7	522	895	6	731	138.0	566	895
Study 2	EXP7	**ISO SWp**	8	343	18.0	314	365	7	343	22.0	310	372
		ISOmod SWp	8	337	17.9	310	359	7	337	19.9	306	364
		PHS SWp	8	554	6.2	547	566	7	590	37.2	539	659
		Observed SW	8	1116	220.0	897	1535	7	1123	236.8	897	1535
	EXP8	**ISO SWp**	8	343	13.6	320	366	8	348	15.0	326	372
		ISOmod SWp	8	338	14.8	315	365	8	342	16.0	320	371
		PHS SWp	8	552	6.0	547	566	8	592	26.3	550	618
		Observed SW	8	1081	333.6	694	1588	8	1081	333.6	694	1588
Study 3	EXP9	**ISO SWp**	N/A	N/A	N/A	N/A	N/A	N/A	8	289	32.8	256	357
		ISOmod SWp	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		PHS SWp	N/A	N/A	N/A				8	563	24.6	528	595
		Observed SW	N/A	N/A	N/A	N/A	N/A		8	578	137.8	427	790
	EXP10	**ISO SWp**	N/A	N/A	N/A	N/A	N/A		6	247	32.1	220	307
		ISOmod SWp	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A
		PHS SWp	N/A	N/A	N/A	N/A	N/A		6	577	23.8	546	603
		Observed SW	N/A	N/A	N/A	N/A	N/A		6	327	28.6	290	355

For details of experimental conditions, see **Table 28**.

Table 28: Mean experimental conditions for ten laboratory experiments

EXP	N	t_a °C	t_r °C	v $^{-1}$	Pa KPa	M Est Wm^{-2}	M Meas Wm^{-2}	Icl clo
1	8	34.9	35.1	0.22	3.40	193	-	0.8
2	8	35.0	34.4	0.28	3.30	177	158	0.8
3	8	39.5	39.2	0.07	4.50	173	161	0.8
4	8	39.7	39.3	0.08	4.50	153	142	0.8
5	8	45.0	44.9	0.08	3.80	153	134	0.8
6	7	44.7	43.8	0.09	3.90	87	101	0.8
7	8	40.1	38.7	0.15	3.72	177	190	0.82
8	8	40.0	38.7	0.15	3.73	177	190	0.81
9	8	37.2	36.6	0.17	4.45	-	138	0.5
10	6	37.2	36.6	0.17	4.45	-	115	0.6

Note: **Experiments 1 to 6** were a stepping task wearing a boiler suit.

Experiment 7 was a stepping task wearing a vapour impermeable suit. **Experiment 8** was a stepping task wearing a vapour impermeable suit. **Experiments 9** (males) and **10** (females) were a simulated tea leaf picking task.

The Sweat Rate descriptive statistics show that for each experiment, the ISO and ISO_{mod} predicted values were less than the PHS (SW_p) values, which in turn were less than the observed (SW_o) values.

From Experiment 3, the maximum SW_o value of 2265 g/h was identified as an outlier and will be removed from any further statistical analysis. The statistical analysis of data from each experiment and for both metabolic rate input variables is presented below. The experiments are coded into the 10 experiments (E1 to E10) and for both metabolic rates (-E and –M); for example, Experiment 1 with Est Met data is coded as E1-E.

Sweat Rates – Pearson Correlations and Paired Analysis Comparisons

Comparison of the predicted (SW_p) and observed (SW_o) sweat rates for the ISO model

Table 29: Pearson Correlation Coefficients and Paired Analysis Comparisons of ISO SW_p and SW_o for estimated metabolic inputs for all experimental data

PAIRED SAMPLES CORRELATIONS				PAIRED DIFFERENCES					
	N	r^2	p	Mean	SD	SEM	95% CI of the Difference		Sig. (2-tailed)
							Lower	Upper	
E1-E	8	-0.48	0.22	-459.4	147.7	52.2	-582.9	-335.8	0.00
E2-E	8	0.10	0.82	-426.4	195.8	69.2	-590.1	-262.7	0.00
E3-E	7	0.51	0.24	-738.1	293.1	110.8	-1009.2	-467.1	0.00
E4-E	8	-0.69	0.06	-698.9	251.0	88.8	-908.7	-489.0	0.00
E5-E	8	-0.12	0.77	-498.0	255.6	90.4	-711.7	-284.3	0.00
E6-E	7	0.09	0.84	-399.5	148.3	56.1	-536.7	-262.3	0.00
E7-E	8	-0.26	0.53	-773.4	225.4	79.7	-961.9	-584.9	0.00
E8-E	8	-0.44	0.27	-737.9	339.8	120.1	-1022.0	-453.8	0.00
E9-E	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 30: Pearson Correlation Coefficients and Paired Analysis Comparisons of ISO SW_p and SW_o for measured metabolic inputs for all experimental data

PAIRED SAMPLES CORRELATIONS				PAIRED DIFFERENCES					
	N	r^2	thep	Mean	SD	SEM	95% CI of Difference		Sig. (2-tailed)
							Lower	Upper	
E1-M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
E2-M	7	0.33	0.48	-431.7	208.4	78.8	-624.5	-238.9	0.00
E3-M	7	0.55	0.20	-743.5	291.0	110.0	-1012.6	-474.3	0.00
E4-M	8	-0.44	0.28	-703.3	246.3	87.1	-909.2	-497.4	0.00
E5-M	8	0.18	0.67	-509.0	253.4	89.6	-720.9	-297.1	0.00
E6-M	6	0.63	0.18	-419.9	132.0	53.9	-558.4	-281.4	0.00
E7-M	7	-0.21	0.66	-779.3	242.3	91.6	-1003.4	-555.2	0.00
E8-M	8	-0.30	0.47	-732.8	338.4	119.6	-1015.7	-449.9	0.00
E9-M	8	-0.23	0.58	-288.3	148.8	52.6	-412.7	-163.9	0.00
E10-M	6	0.28	0.59	-79.9	36.6	15.0	-118.4	-41.5	0.00

No significant correlations are observed for either metabolic rate input. All paired comparisons show a significant difference between the predicted and observed values ($p<0.001$). All the mean differences are negative showing the observed data were greater than the predicted data. The observed mean values were all greater than the predicted mean values in every experiment except E9 and E10 (see **Table 27**)

Comparison of the predicted (SW_p) and observed (SW_o) sweat rates for the ISO_{mod} model

Table 31: Pearson Correlation Coefficients and Paired Analysis Comparisons of ISO_{mod} SW_p and SW_o for estimated metabolic inputs for all experimental data

PAIRED SAMPLES CORRELATIONS				PAIRED DIFFERENCES					
	N	r^2	p	Mean	SD	SEM	95% CI of the Difference		Sig. (2-tailed)
							Lower	Upper	
E1-E	8	-0.48	0.23	-427.0	150.6	53.3	-552.9	-301.1	0.00
E2-E	8	0.15	0.73	-389.2	195.1	69.0	-552.3	-226.1	0.00
E3-E	7	0.51	0.24	-753.7	291.9	110.3	-1023.7	-483.8	0.00
E4-E	8	-0.69	0.06	-714.1	252.5	89.3	-925.2	-503.0	0.00
E5-E	8	-0.05	0.91	-541.4	255.3	90.2	-754.8	-328.0	0.00
E6-E	7	0.07	0.88	-431.2	148.4	56.1	-568.5	-294.0	0.00
E7-E	8	-0.21	0.62	-778.6	224.5	79.4	-966.2	-590.9	0.00
E8-E	8	-0.41	0.32	-743.0	339.9	120.2	-1027.1	-458.8	0.00
E9-E	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 32: Pearson Correlation Coefficients and Paired Analysis Comparisons of ISO_{mod} SW_p and SW_o for measured metabolic inputs for all experimental data

				PAIRED DIFFERENCES					
	N	r^2	theP	Mean	SD	SEM	95% CI of Difference		Sig. (2-tailed)
							Lower	Upper	
E1-M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
E2-M	7	0.34	0.46	-394.4	207.8	78.5	-586.6	-202.2	0.00
E3-M	7	0.54	0.21	-757.9	290.5	109.8	-1026.6	-489.3	0.00
E4-M	8	-0.51	0.20	-717.7	248.6	87.9	-925.5	-509.8	0.00
E5-M	8	0.20	0.64	-550.1	253.5	89.6	-762.0	-338.1	0.00
E6-M	6	0.64	0.17	-453.7	132.3	54.0	-592.5	-314.8	0.00
E7-M	7	-0.17	0.72	-785.9	241.0	91.1	-1008.7	-563.1	0.00
E8-M	8	-0.31	0.46	-738.9	338.8	119.8	-1022.1	-455.6	0.00
E9-M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
E10-M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Here too, no significant correlations are observed for either input metabolic rates and all paired comparisons show that a significant difference between the predicted and observed values was found ($p<0.001$). All the mean differences are negative showing the observed data were greater than the predicted data. The observed mean values were all greater than the predicted mean values in all experiments. The mean differences between SW_p and SW_o for all but the E8-E estimated metabolic rate input results are lower than the SW_p results from measured metabolic rate inputs; thus reflecting the higher ISO SW_p from higher metabolic rates.

Comparison of the predicted (SW_p) and observed (SW_o) sweat rates for the PHS model

Table 33: Pearson Correlation Coefficients and Paired Analysis Comparisons of PHS SW_p and SW_o for estimated metabolic inputs for all experimental data

PAIRED SAMPLES CORRELATIONS				PAIRED DIFFERENCES					
	N	r^2	P	Mean	SD	SEM	95% CI of the Difference		Sig. (2-tailed)
							Lower	Upper	
E1-E	8	-0.11	0.79	-181.6	142.5	50.4	-300.8	-62.4	0.01
E2-E	8	0.46	0.25	-186.5	190.7	67.4	-345.9	-27.0	0.03
E3-E	7	0.23	0.62	-461.4	304.9	115.2	-743.3	-179.4	0.01
E4-E	8	-0.60	0.11	-412.0	241.8	85.5	-614.2	-209.9	0.00
E5-E	8	0.48	0.23	-336.9	252.9	89.4	-548.3	-125.5	0.01
E6-E	7	0.16	0.74	-123.6	148.4	56.1	-260.9	13.6	0.07
E7-E	8	0.01	0.98	-562.1	220.0	77.8	-746.1	-378.2	0.00
E8-E	8	-0.27	0.52	-528.3	335.3	118.5	-808.6	-248.0	0.00
E9-E	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 34: Pearson Correlation Coefficients and Paired Analysis Comparisons of PHS SW_p and SW_o for measured metabolic inputs for all experimental data

PAIRED SAMPLES CORRELATIONS				PAIRED DIFFERENCES					
	N	r^2	theP	Mean	SD	SEM	95% CI of Difference		Sig. (2-tailed)
							Lower	Upper	
E1-M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
E2-M	6	0.64	0.17	-212.2	212.3	86.7	-434.9	10.6	0.06
E3-M	7	0.26	0.57	-451.3	306.1	115.7	-734.4	-168.1	0.01
E4-M	8	-0.88	0.00	-403.7	253.2	89.5	-615.3	-192.0	0.00
E5-M	8	-0.04	0.93	-323.4	255.7	90.4	-537.2	-109.6	0.01
E6-M	5	0.77	0.13	-168.7	130.2	58.2	-330.4	-7.0	0.04
E7-M	7	-0.07	0.88	-532.7	242.4	91.6	-756.9	-308.5	0.00
E8-M	8	0.47	0.24	-488.8	322.1	113.9	-758.1	-219.5	0.00
E9-M	8	-0.13	0.75	-14.6	143.2	50.6	-134.3	105.1	0.78
E10-M	6	0.12	0.82	249.9	35.0	14.3	213.2	286.7	0.00

The PHS model mean sweat rate was closer to the mean of SW_o than the predictions of the other two models. Although as can be seen from the SD of the mean difference the scatter around the mean was comparable in magnitude to that of both the ISO models. However, the CIs are narrower due to the higher PHS SW_p values. Only one data set, E4-M provided a significant correlation ($p<0.001$) between SW_p and SW_o, but a significant difference between them ($p<0.001$) was found. This suggests that although the relationship was linear the scatter around the mean was too great for the correlation to be valid. In all but 3 experiments [E6-E ($p<0.07$), E2-M ($p<0.06$) and E9-M($p<0.78$)] the differences were significant. Added to this, the mean difference for E9-M (-14.6) was the lowest of any of the SW_p for any of the experiments, although the standard deviation of the

difference was higher than that observed in E10-M, where the SD was only 35.

Comparison of the predicted (SW_p) and observed (SW_o) sweat rates over all experiments and for all models

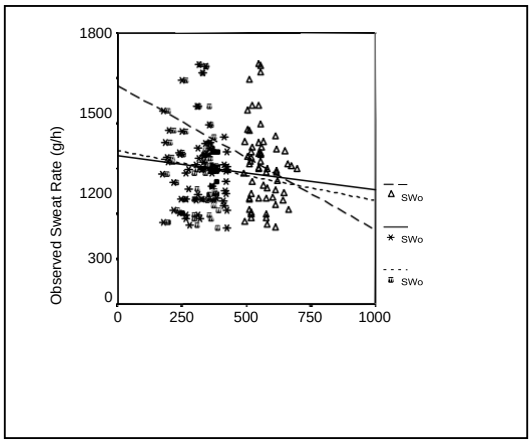
Table 35: Pearson Correlation Coefficients and Paired Analysis Comparisons of all SW_p and SW_o for both measured metabolic inputs

PAIRED SAMPLES CORRELATIONS			PAIRED DIFFERENCES						
Comparison of SW_p vs SW_o	N	r^2	the P	Mean	SD	SEM	95% CI of Difference		Sig. (2-tailed)
							Lower	Upper	
ISO (Est Met)	62	-0.07	0.56	-592.2	271.5	34.5	-661.1	-523.2	0.00
ISO_{mod} (Est Met)	62	-0.06	0.62	-597.4	275.9	35.0	-667.5	-527.4	0.00
PHS (Est Met)	62	-0.19	0.15	-350.9	274.7	34.9	-420.6	-281.1	0.00
ISO (Meas Met)	65	0.20	0.11	-531.5	311.1	38.6	-608.6	-454.4	0.00
ISO_{mod} (Meas Met)	51	0.03	0.85	-634.2	281.2	39.4	-713.3	-555.1	0.00
PHS (Meas Met)	63	0.02	0.90	-275.4	322.9	40.7	-356.7	-194.0	0.00

Any cross comparison between data sets of different sample sizes is difficult as the size of the data set may have a bearing on the results. However, where large differences are observed (such as the ISO_{mod} SW_p (Meas Met) and SW_o (N=51)), possible explanations for the differences will be provided in the discussion section. The differences between data sets may be due to the type of data that were excluded.

No linear relationships, and therefore correlations, were found between any of the predicted sweat rates and the observed sweat rates. It is interesting to note that the estimated metabolic inputs provided negative relationships with the observed data, while the measured metabolic rate inputs resulted in a positive relationship. This can be seen in the scatter plots below (**Figure 12** and **Figure 13**). All sets of data had significant differences between SW_p and SW_o ($p<0.001$). The greater variability in measured metabolic input SW_p suggests that the SW_p in both models was sensitive to changes in metabolic rate. Another consideration is that the lower clothing insulation values in E9 and E10 coupled with the lowest sweat rates provided by the females in experiment 10 probably had an effect on the overall results, hence individual experiments were also analysed.

Neither model allowed for the difference in the vapour permeability between the ensembles in E7 and E8 to be considered.



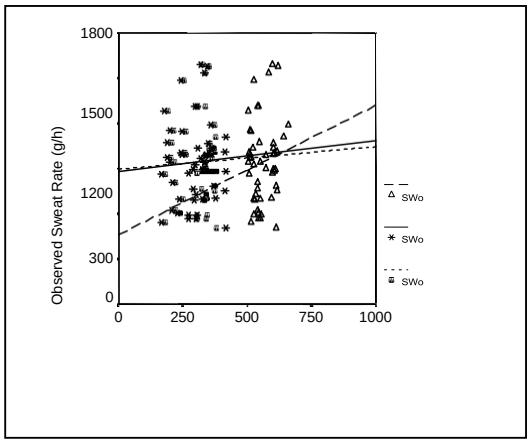


Figure 12 (left): Scatter plots of observed sweat rates with SW_p from estimated metabolic rate inputs

Figure 13 (right): Scatter plots of observed sweat rates with SW_p from measured metabolic rate inputs

2.10.4 Comparison between ISO and PHS model DLE predictions and observed data

The table cells shaded grey show those experiments where no data were available.

It is important to remember that the ISO models predict a Danger DLE to protect most of the workers, while the PHS predicts the mean response. Therefore, although statistical analysis (correlation and paired sample *t*-test) has been conducted on the means of data, this is not appropriate for a direct comparison between observed DLEs and the predicted DLEs from the two ISO models. However the analysis has been conducted on the means to obtain a statistical measure of their relationship because the relationship would be linear (although significantly different) between the parameters if the ISO models were providing valid predictions. A direct comparison between the predictions from the PHS model and the observed data is valid as the PHS is attempting to predict the mean time for core temperature (t_{co}) to reach 38°C.

DLE - Descriptive Statistics for all experiments

Table 36: Table showing descriptive statistics of all predicted and observed DLEs (mins). (Note: Experimental conditions for all experiments are shown in Table 25a.)

			ESTIMATED MET AS INPUT					MEASURED MET AS INPUT				
		Variable	N	MEAN	SD	MIN	MAX	N	MEAN	SD	MIN	MAX
Study 1	EXP1	ISO DLE	8	39	2	36	44	N/A	N/A	N/A	N/A	N/A
		ISO_{mod} DLE	8	45	4	41	52	N/A	N/A	N/A	N/A	N/A
		Observed DLE	2	57	14	47	67	N/A	N/A	N/A	N/A	N/A
		PHS DLE	8	43	4	37	48	N/A	N/A	N/A	N/A	N/A
	EXP2	ISO DLE	8	49	4	44	56	8	49	4	44	56
		ISO_{mod} DLE	8	59	6	52	71	8	59	6	52	71
		Observed DLE	1	73	.	73	73	1	73	.	73	73
		PHS DLE	8	54	5	45	61	8	54	5	45	61
	EXP3	ISO DLE	8	28	2	25	31	8	31	4	23	35
		ISO_{mod} DLE	8	27	2	24	29	8	29	4	22	34
		Observed DLE	8	39	9	29	56	8	39	9	29	56
		PHS DLE	8	28	4	25	37	8	28	3	24	31
	EXP4	ISO DLE	8	32	2	30	35	8	36	6	30	44
		ISO_{mod} DLE	8	31	2	28	34	8	34	6	28	42
		Observed DLE	7	43	9	36	60	7	43	9	36	60
		PHS DLE	8	29	1	28	31	8	32	3	28	35
	EXP5	ISO DLE	8	34	2	33	37	8	41	6	32	50
		ISO_{mod} DLE	8	30	1	29	32	8	35	4	28	42
		Observed DLE	8	42	14	25	68	8	42	14	25	68
		PHS DLE	8	29	1	28	30	8	32	2	28	35
	EXP6	ISO DLE	7	75	2	73	78	6	60	5	53	66
		ISO_{mod} DLE	7	60	2	59	63	6	50	4	45	55
		Observed DLE	6	51	15	31	75	5	46	10	31	59
		PHS DLE	7	44	1	44	45	6	39	2	37	42
Study 2	EXP7	ISO DLE	8	34	1	32	36	8	31	3	26	35
		ISO_{mod} DLE	8	33	1	32	36	8	30	3	25	35
		Observed DLE	8	29	6	23	38	8	29	6	23	38
		PHS DLE	8	33	1	32	35	8	31	2	28	33
	EXP8	ISO DLE	8	34	1	33	37	8	31	2	28	34
		ISO_{mod} DLE	8	33	1	32	36	8	30	2	28	34
		Observed DLE	8	36	8	28	51	8	36	8	28	51
		PHS DLE	8	33	1	32	35	8	31	2	29	33
Study 3	EXP9	ISO DLE	N/A	N/A	N/A	N/A	N/A	8	54	12	37	71
		ISO_{mod} DLE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Observed DLE	N/A	N/A	N/A	N/A	N/A	6	88	21	48	106
		PHS DLE	N/A	N/A	N/A	N/A	N/A	8	41	6	32	49
	EXP10	ISO DLE	N/A	N/A	N/A	N/A	N/A	6	66	18	45	90
		ISO_{mod} DLE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Observed DLE	N/A	N/A	N/A	N/A	N/A	2	85	15	74	95
		PHS DLE	N/A	N/A	N/A	N/A	N/A	6	45	8	36	54

In Experiments 1 and 2, only two and one (respectively) of the eight subjects reached a limiting criteria of t_{co} = 38°C, yet both models predicted DLEs less than the maximum experimental time of 75mins. In Experiments 3 and 5, where the partial vapour pressure was high, the difference between the predicted and observed DLEs decreased. The low metabolic rates (100 ± 7 $W.m^{-2}$) in

Experiment 6 reversed the predictive trend of the previous experiments (1 to 5) by over predicting the time for t_{co} to reach 38°C.

In E7 and E8, there is a polar shift from a mean observed DLE of 29 mins to 36 mins respectively. The reason for this is probably due to the greater vapour permeability of the Cyclone suits worn in Experiment 8. (Data not included in this report showed that the cyclone suit allowed about 25% more sweat to evaporate then the PU suit in Experiment 7.) This is supported by the lower mean and minimum SW_o values in E8 (See **Table 27**on **Page 65**) which suggests that the subjects in E8 were experiencing less thermal stress than the subjects in E7 due to the clothing even though the experimental conditions were almost identical.

In E9 and E10 the observed DLEs are again longer than predicted DLEs, with only two out of six subjects reaching withdrawal criteria in E10. Interestingly, the mean ISO DLEs are for longer than the PHS and are closer to the observed data than the PHS DLEs are. Another point to note is that the combination of a higher clo value (0.6clo) and the lower measured metabolic rate input values (115 $W.m^{-2}$) for the female subjects in E10 does not appear to result in as large a proportional change in the PHS model as in the ISO model when compared to the predictions for the males in E10. This is also reflected in the higher ISO mean SW_p for E9 and conversely the PHS mean SW_p is higher in E10. This confirms that the ISO SW_p is more sensitive to metabolic rate changes (Kähkönen, 1993) than is the PHS SW_p and that the PHS SW_p is more sensitive to clothing insulation changes. Neither model though allowed for the inter-gender differences between males and females in heat stress conditions.

It is here that the difference in philosophy between the two models requires that different statistical analysis be carried out on each. The ISO models' DANGER criteria, predict a level "*at which certain subjects, although physically suited to the activity under consideration and in good heath, could already be at risk.*" This definition is somewhat vague (Kampmann *et al.*, 1995) and the number or percentage of people that are protected by the DANGER criteria is not defined.

Therefore, an estimated limit of 95% of people in a normal distribution has been placed on the accuracy of the ISO danger DLE predictions for the number of people that may be protected. This is based on the presumption that the ISO predicted mean DLE would protect those people who would fall within two observed standard deviations of the observed DLE. This will provide a measure of the face validity of the model (i.e. the model is doing what it says it does).

The PHS model has been included in this analysis, with the expected result showing that around 50% of the population would be protected if the PHS DLE prediction is valid. The analysis performed was a normal cumulative distribution for the specified observed mean and observed standard deviation to obtain the cumulative distribution function (Predicted %tile) of the predicted DLE. This provided the "Protected %tile" by subtracting it from 100%.

Percentile Analysis of ISO and PHS predicted DLEs and Observed DLEs.

Table 37: Validity of ISO and PHS predicted DLEs for population percentile protected, based on a comparison of means (Estimated metabolic rate inputs)

			ESTIMATED MET AS INPUT				
		VARIABLE	**Predicted mean DLE**	**Observed mean DLE**	**Observed SD**	**Predicted %tile**	**Protected %tile**
		ISO DLE	28	39	9	11.1	**88.9**
	EXP3	**ISO_{mod} DLE**	27	39	9	9.1	**90.9**
		PHS DLE	28	39	9	11.1	**88.9**
Study 1		**ISO DLE**	32	43	9	11.1	**88.9**
	EXP4	**ISO_{mod} DLE**	31	43	9	9.1	**90.9**
		PHS DLE	29	43	9	6.0	**94.0**
		ISO DLE	34	42	14	28.4	**71.6**
	EXP5	**ISO_{mod} DLE**	30	42	14	19.6	**80.4**
		PHS DLE	29	42	14	17.7	**82.3**
		ISO DLE	75	51	15	94.5	**5.5**
	EXP6	**ISO_{mod} DLE**	60	51	15	72.6	**27.4**
		PHS DLE	44	51	15	32.0	**68.0**
		ISO DLE	34	29	6	79.8	**20.2**
Study 2	**EXP7**	**ISO_{mod} DLE**	33	29	6	74.8	**25.2**
		PHS DLE	33	29	6	74.8	**25.2**
		ISO DLE	34	36	8	40.1	**59.9**
	EXP8	**ISO_{mod} DLE**	33	36	8	35.4	**64.6**
		PHS DLE	33	36	8	35.4	**64.6**

The analysis presented in **Table 37** shows that there is a wide variation in the population percentile protected by the ISO models' and the PHS model's predictions when estimated metabolic rate is the input. The target for the ISO models is 95%, while that for the PHS is 50%.

The results from Experiments 1 and 2 are not included because only two and one subject respectively reached a core temperature of 38°C. No estimated metabolic rate data were available for Experiments 9 and 10.

Neither of the ISO models reaches the 95% criteria, although the ISO_{mod} provides a better percentile estimate than the ISO model across all experiments. The best results were achieved in E3 and E4 with the ISO_{mod} predicting for an estimated 88.9%, for both inputs. In Experiment 6, the ISO DLEs would only have protected 5.5% of the population, while the ISO_{mod} predicted for 27.4%.

The PHS model however, more closely followed the ISO and ISO_{mod} percentiles than it did the 50% criteria in all experiments apart from E6. Again, this appears to support the theory, developed in the analysis of the sweat rate data, that the PHS model is more sensitive to metabolic rate variations when predicting *SW*p than DLE.

The measured metabolic rate input data was also analysed.

Table 38: Validity of ISO and PHS predicted DLEs for population percentile protected, based on a comparison of means (Measured metabolic rate inputs)

			MEASURED MET AS INPUT				
		VARIABLE	**Predicted mean DLE**	**Observed mean DLE**	**Observed SD**	**Predicted %tile**	**Protected %tile**
	EXP3	**ISO DLE**	31	39	9	18.7	**81.3**
		ISO_{mod} DLE	29	39	9	13.3	**86.7**
		PHS DLE	28	39	9	11.1	**88.9**
Study 1	**EXP4**	**ISO DLE**	36	43	9	21.8	**78.2**
		ISO_{mod} DLE	34	43	9	15.9	**84.1**
		PHS DLE	32	43	9	11.1	**88.9**
	EXP5	**ISO DLE**	41	42	14	47.2	**52.8**
		ISO_{mod} DLE	35	42	14	30.9	**69.1**
		PHS DLE	32	42	14	23.8	**76.2**
	EXP6	**ISO DLE**	60	46	10	91.9	**8.1**
		ISO_{mod} DLE	50	46	10	65.5	**34.5**
		PHS DLE	39	46	10	24.2	**75.8**
Study 2	**EXP7**	**ISO DLE**	31	29	6	63.1	**36.9**
		ISO_{mod} DLE	30	29	6	56.6	**43.4**
		PHS DLE	31	29	6	63.1	**36.9**
	EXP8	**ISO DLE**	31	36	8	26.6	**73.4**
		ISO_{mod} DLE	30	36	8	22.7	**77.3**
		PHS DLE	31	36	8	26.6	**73.4**
Study3	**EXP9**	**ISO DLE**	54	88	21	5.3	**94.7***
		ISO_{mod} DLE	N/A	N/A	N/A	N/A	**N/A**
		PHS DLE	41	88	21	1.3	**98.7***

***only 6 subjects reached tco=38°C in E9. Data must be treated with caution.**

Table 35 presents the data for predicted values when measured metabolic rate was the input. Again, the data for E1 and E2 are not presented. Data for E9 have been included, although these findings must be treated with caution as two subjects reached t_{co}=36°C. The findings of **Table 37** are similar, with the ISO_{mod} protecting the greater population percentile than the ISO model. In all experiments, ISO_{mod} again provided the best percentile protection when compared to the ISO model. Here too the PHS model would have protected more than 50% of the population and provided predictions closer to the ISO models than the 50% target in all experiments, except E6.

DLE - Pearson correlations and Paired Analysis Comparisons

The analysis of the percentile protected by the ISO, ISO_{mod} , and PHS models showed that they were not meeting the requirement of "face validity"; they were not doing what they said they could do. The next stage of analysis was concerned with evaluating the relationship between the observed and predicted values. This analysis is specifically for the PHS model because it is supposed to be predicting the mean t_{co}=38°C and therefore the mean DLE. The ISO models have been included in this analysis to allow for their relationship with observed DLEs to be further investigated. The analysis for each model is presented in turn.

ISO DLEs and Observed DLEs

Table 39: Pearson Correlation Coefficients and Paired Analysis Comparisons of ISO DLEs and observed DLEs for estimated metabolic inputs for all experimental data

PAIRED SAMPLES CORRELATIONS			PAIRED DIFFERENCES					
	N	r^2	thep	Mean	SD	SEM	95% CI of Difference Lower	Upper	Sig. (2-tailed)
E1-E	2	-	-	-	-	-	-	-	-
E2-E	1	-	-	-	-	-	-	-	-
E3-E	8	-0.14	0.75	-12	9.8	3.5	-19.8	-3.4	0.01
E4-E	7	-0.32	0.48	-11	9.5	3.6	-20.1	-2.5	0.02
E5-E	8	0.51	0.19	-7	13.4	4.8	-18.4	4.0	0.17
E6-E	6	0.70	0.12	24	13.4	5.5	10.0	38.2	0.01
E7-E	8	0.25	0.55	5	5.7	2.0	0.3	9.8	0.04
E8-E	8	0.47	0.24	-1	7.1	2.5	-7.4	4.5	0.58
E9-E	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
E10-E	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 40: Pearson Correlation Coefficients and Paired Analysis Comparisons of ISO DLEs and observed DLEs for measured metabolic inputs for all experimental data

PAIRED SAMPLES CORRELATIONS			PAIRED DIFFERENCES						
	N	r^2	p	Mean	SD	SEM	95% CI of the Difference Lower	Upper	SIG. (2-TAILED)
E1-M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
E2-M	1	-	-	-	-	-	-	-	-
E3-M	8	0.44	0.28	-9	8.5	3.0	-15.8	-1.6	0.02
E4-M	7	0.60	0.16	-8	7.1	2.7	-14.7	-1.5	0.02
E5-M	8	0.59	0.12	-1	11.8	4.2	-10.5	9.3	0.89
E6-M	5	0.02	0.98	13	10.8	4.8	-0.5	26.4	0.06
E7-M	7	0.01	0.99	3	6.5	2.5	-2.8	9.2	0.24
E8-M	8	0.63	0.09	-5	6.5	2.3	-10.2	0.7	0.08
E9-M	6	0.28	0.59	-39	20.3	8.3	-60.1	-17.5	0.01
E10-M	2	-	-	-	-	-	-	-	-

No linear relationships were observed between the means of the data with significant differences between the means being observed for all but five conditions; E5-E and E5-M, E6-M, E7-M, E8-E and E8-M.

ISO_{mod} DLE: Observed DLE

Table 41: Pearson Correlation Coefficients and Paired Analysis Comparisons of ISO_{mod} DLEs and observed DLEs for estimated metabolic inputs for all experimental data

PAIRED SAMPLES CORRELATIONS				PAIRED DIFFERENCES					
	N	r^2	p	Mean	SD	SEM	95% CI of the Difference		SIG. (2-TAILED)
							Lower	Upper	
E1-E	2	-	-	-	-	-	-	-	-
E2-E	1	-	-	-	-	-	-	-	-
E3-E	8	-0.14	0.75	-12	9.8	3.5	-19.8	-3.4	0.01
E4-E	7	-0.30	0.51	-13	9.5	3.6	-21.5	-4.0	0.01
E5-E	8	0.51	0.19	-12	13.6	4.8	-23.0	-0.2	0.05
E6-E	6	0.73	0.10	10	13.7	5.6	-4.5	24.2	0.14
E7-E	8	0.38	0.35	4	5.5	1.9	-0.1	9.0	0.05
E8-E	8	0.53	0.17	-2	7.0	2.5	-7.8	3.8	0.44
E9-E	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
E10-E	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 42: Pearson Correlation Coefficients and Paired Analysis Comparisons of ISO_{mod} DLEs and observed DLEs for measured metabolic inputs for all experimental data

PAIRED SAMPLES CORRELATIONS				PAIRED DIFFERENCES					
	N	r^2	p	Mean	SD	SEM	95% CI of the Difference		SIG. (2-TAILED)
							Lower	Upper	
E1-M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
E2-M	1	-	-	-	-	-	-	-	-
E3-M	8	0.43	0.29	-10	8.5	3.0	-17.1	-2.9	0.01
E4-M	7	0.58	0.17	-10	7.2	2.7	-16.4	-3.1	0.01
E5-M	8	0.58	0.13	-6	12.2	4.3	-16.6	3.8	0.18
E6-M	5	0.04	0.95	3	10.3	4.6	-9.6	16.1	0.52
E7-M	7	0.05	0.91	3	6.4	2.4	-3.4	8.6	0.33
E8-M	8	0.68	0.07	-5	6.4	2.3	-10.6	0.0	0.05
E9-M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
E10-M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

The ISO_{mod} results were similar to the ISO results with no linear relationships observed between the means of the data. Significant differences between the observed mean and ISO_{mod} means were observed in fewer conditions. This is not important to these findings as the ISO_{mod} and the ISO are predicting mean values.

PHS DLE Observed DLE

Table 43: Pearson Correlation Coefficients and Paired Analysis Comparisons of PHS SWp and SWo for measured metabolic inputs for all experimental data

PAIRED SAMPLES CORRELATIONS			PAIRED DIFFERENCES						
	N	r^2	thep	Mean	SD	SEM	95% CI of Difference		Sig. (2-tailed)
							Lower	Upper	
E1-E	2	-	-	-	-	-	-	-	-
E2-E	1	-	-	-	-	-	-	-	-
E3-E	8	-0.33	0.42	-12	11.3	4.0	-21.3	-2.4	0.02
E4-E	7	-0.30	0.51	-14	9.2	3.5	-22.6	-5.6	0.01
E5-E	8	0.62	0.10	-13	13.8	4.9	-24.1	-1.1	0.04
E6-E	6	0.42	0.41	-6	14.7	6.0	-21.6	9.2	0.35
E7-E	8	0.46	0.26	4	5.5	1.9	-0.6	8.6	0.08
E8-E	8	0.58	0.13	-3	7.1	2.5	-8.7	3.2	0.31
E9-E	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
E10-E	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 44: Pearson Correlation Coefficients and Paired Analysis Comparisons of PHS SWp and SWo for measured metabolic inputs for all experimental data

PAIRED SAMPLES CORRELATIONS			PAIRED DIFFERENCES						
	N	r^2	(2-p tailed)	Mean	SD	SEM	95% CI of the Difference		Sig.
							Lower	Upper	
E1-M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
E2-M	1	-	-	-	-	-	-	-	-
E3-M	8	0.36	0.38	-11	8.8	3.1	-18.5	-3.8	0.01
E4-M	7	0.23	0.62	-12	8.7	3.3	-19.8	-3.7	0.01
E5-M	8	0.55	0.16	-10	13.1	4.6	-20.8	1.0	0.07
E6-M	5	-0.10	0.87	-7	10.3	4.6	-19.3	6.1	0.22
E7-M	7	0.12	0.81	3	6.0	2.3	-3.0	8.1	0.30
E8-M	8	0.66	0.08	-5	6.7	2.4	-10.1	1.1	0.10
E9-M	6	0.38	0.46	-50	19.6	8.0	-70.4	-29.3	0.00
E10-M	2	-	-	-	-	-	-	-	-

No significant correlations were found between the PHS predicted DLEs and the observed DLEs in any of the experiments for both metabolic rate input values. Negative linear relationships were reported in E3-E, E4-E and E6-M.

All predicted DLEs and observed DLEs data combined

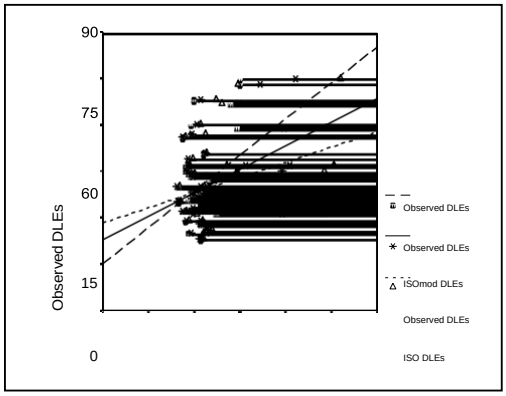
All data were combined and analysed using Pearson correlation and the paired sample *t*-test on pairwise data.

Table 45: Pearson Correlation Coefficients and Paired Analysis Comparisons of all predicted DLEs and observed DLEs for both measured metabolic inputs

PAIRED SAMPLES CORRELATIONS				PAIRED DIFFERENCES					
	N	r^2	P	Mean	SD	SEM	95% CI of the Difference		Sig. (2-tailed)
							Lower	Upper	
ISO DLEs (Est Met) & Observed DLEs	48	0.36	0.01	-2.5	15.6	2.2	-7.0	2.0	0.3
ISOmod DLEs (Est Met) & Observed DLEs	48	0.42	0.00	-5.2	13.0	1.9	-9.0	-1.4	0.0
PHS DLE (Est Met) & Observed DLEs	48	0.36	0.01	-7.9	12.2	1.8	-11.4	-4.3	0.0
ISO DLEs (Meas Met) & Observed DLEs	52	0.57	0.00	-7.9	17.8	2.5	-12.9	-3.0	0.0
ISOmod DLEs (Meas Met) & Observed DLEs)	44	0.58	0.00	-5.0	9.7	1.5	-8.0	-2.1	0.0
PHS DLE (Meas Met) & Observed DLEs	52	0.61	0.00	-13.8	19.0	2.6	-19.1	-8.5	0.0

Table 45 shows that when all data were combined, that the Pearson correlation provided a significant correlation for all combinations of predicted data with the observed data. The correlations for the predicted data obtained from measured metabolic rate inputs were stronger than those from the estimated metabolic rate inputs. Since the data from the individual experiments showed no correlations, this result is probably due to the power of the sample size (as seen by the low correlation coefficients). All the comparisons also provided significant differences between the means. Due to the larger SD in the measured metabolic rate predictions (due to the larger SD in measured metabolic rates) there is a greater mean difference between measured metabolic input predictions than those from estimated metabolic inputs for the ISO and the PHS models. This is not reflected in the ISO_{mod} results, which provides for a similar mean difference between the input variables.

The nature of these linear relationships can be seen in the scatter plots in **Figure 14** and **Figure 15** below.



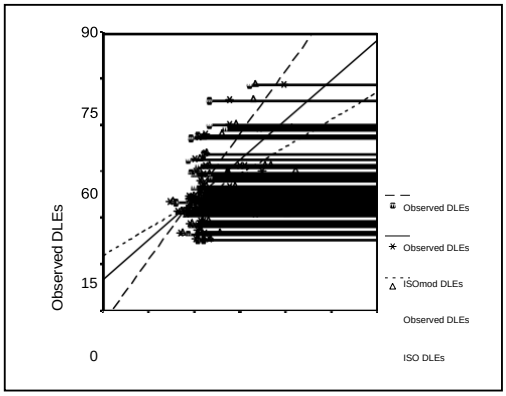


Figure 14 (left): Scatter plots of observed DLEs with predicted DLEs from estimated metabolic rate inputs

Figure 15 (right): Scatter plots of observed DLEs with predicted DLEs from measured metabolic rate inputs

2.10.5 Comparison between models

Since the predictions from the models have been shown to be similar, a comparison of model predictions was made. Although they are essentially predicting different percentile criteria, it was decided to compare the means of both the *SW*p and the DLEs.

Results of Sweat Rates – Predicted vs Predicted

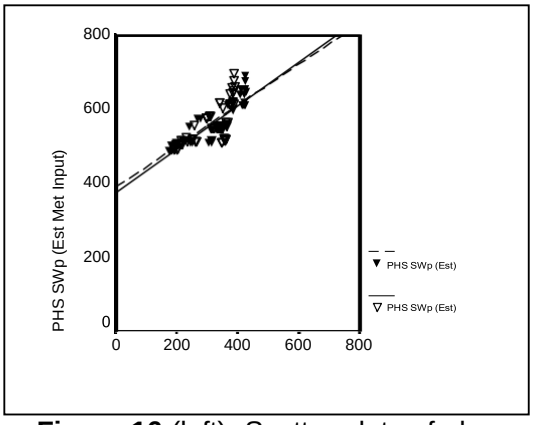
Pearson Correlations and Paired Analysis Comparisons

ISO SWp and PHS SWp

Table 46: Pearson Correlation Coefficients and Paired Analysis Comparisons of all predicted *SW*p for both measured metabolic inputs

Paired Samples Correlations			Paired Differences					
	N	r^2	P	Mean	SD	SEM	95% CI of the Difference	Sig. (2-tailed)
							Lower Upper	
ISO *SW*p (E) & PHS *SW*p (E)	63	0.69	0.00	-242.1	44.6	5.6	-253.3 -230.8	0.00
ISO_{mod} *SW*p (E) & PHS *SW*p	63	0.82	0.00	-247.5	44.9	5.7	-258.8 -236.2	0.00
ISO *SW*p (M) & PHS *SW*p (M)	64	0.61	0.00	-262.5	47.0	5.9	-274.3 -250.8	0.00
ISO_{mod} *SW*p (M) & PHS *SW*p	50	0.80	0.00	-264.7	45.2	6.4	-277.6 -251.9	0.00

The ISO_{mod} *SW*p had a stronger linear relationship with the PHS model than the ISO *SW*p did, although both ISO models showed significant correlations ($p < 0.001$) for both metabolic rate inputs. Interestingly, all paired differences were significant, although the mean differences were almost identical. This difference between the ISO and ISO_{mod} when compared to the PHS *SW*p, is a matter of grams and therefore it can be argued that there was no significant difference between the predictions of the ISO and ISO_{mod} models. The PHS *SW*p values were always higher than the corresponding ISO and ISO_{mod} *SW*p. **Figure 16** and **Figure 17** show the scatter plots of these relationships.



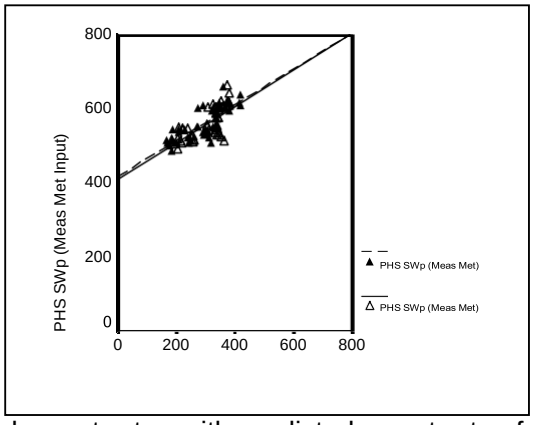


Figure 16 (left): Scatter plots of observed sweat rates with predicted sweat rates from estimated met inputs

Figure 17 (right): Scatter plots of observed sweat rates with predicted sweat rates from measured met inputs

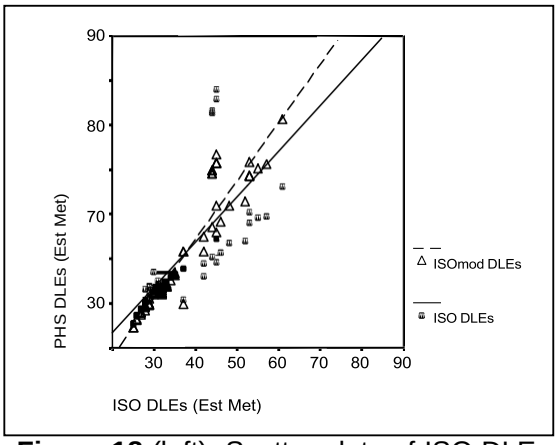
ISO DLE and PHS DLE

Table 47: Pearson Correlation Coefficients and Paired Analysis Comparisons of all predicted DLEs for both measured metabolic inputs

PAIRED SAMPLES CORRELATIONS				**PAIRED DIFFERENCES**					
	N	**r2**	**P**	**Mean**	**SD**	**SEM**	**95% CI of the Difference**		**Sig. (2-tailed)**
							Lower	**Upper**	
ISO DLE (E) & PHS DLE (E)	63	0.68	0.00	3.7	10.0	1.3	1.2	6.2	0.00
ISO_{mod} DLE (E)& PHS DLE (E)	63	0.94	0.00	3.2	5.1	0.6	1.9	4.5	0.00
ISO DLE (M)& PHS DLE (M)	65	0.83	0.00	7.2	8.9	1.1	5.0	9.4	0.00
ISO_{mod} DLE (M) & PHS DLE (M)	51	0.97	0.00	3.7	5.7	0.8	2.1	5.3	0.00

Here too both ISO models provide significant correlations with the PHS model, with the ISO_{mod} DLE providing the strongest linear relationship. All pairs however are significantly different, with the SD of the difference being greater than the mean of the difference. This shows a large scatter around the mean difference, which is not surprising considering that data from a number of environment conditions, metabolic rate rates and clothing ensembles were investigated. Again,

considering the difference in philosophy of the two models, the mean difference would be expected to be larger than it is. This is illustrated in the scatter plots in **Figure 18**and **Figure 19** below.



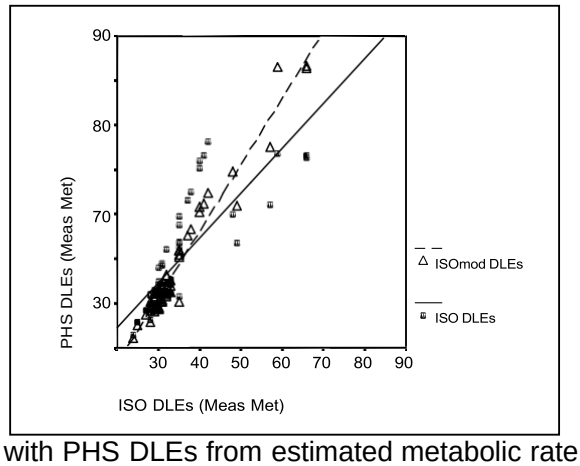


Figure 18 (left): Scatter plots of ISO DLEs with PHS DLEs from estimated metabolic rate inputs

Figure 19 (right): Scatter plots of ISO DLEs with PHS DLEs from measured metabolic rate inputs

2.11 DISCUSSION

As described in the literature survey, concern has been expressed that ISO 7933 in its current state is not a valid heat stress index for predicting human responses in warm, humid environments or when clothing is worn. The purpose of this experiment was to investigate these claims by validating two of the interpretations made by the model in ISO 7933: Duration Limit Exposures (DLEs) and the predicted sweat rate (SW_p). The findings showed that there was little or no correlation between the predicted measured *something?* (irrespective of whether the metabolic rate input was estimated or predicted).

The following hypotheses are rejected:

ISO and ISO$_{mod}$

- **$H_{0(1)}$**: ISO 7933 is a valid predictor of the physiological responses of clothed subjects inwarm humid environments.

PHS

- **$H_{0\ (2)}$**: PHS is a valid predictor of the physiological responses of clothed subjects in warmhumid environments.

PHS and ISO models

- **SWEAT RATE** We can reject the null hypothesis **$H_{0(3)}$**: PHS is not a better predictor of thephysiological responses of clothed subjects in warm humid environments than ISO 7933.
- **DLES –** We cannot reject the above null hypothesis. PHS is not a better predictor of DLEswhen compared to the ISO models.

The SW_{req} index's calculations are based on the assumption that the whole population may be exposed to the environment, and as such it is claimed that it protects the person who is most heat intolerant. Therefore, a weakness of any study may be that subjects are not representative of the overall worker population. However, since only subjects that reached the limiting criteria were included in the statistical analysis of the DLEs, it could be argued that they were more susceptible to heat than those that did not reach the limiting criteria and as such would meet the assumptions of the model. The basis for this argument is taken from Piette and Malchaire (1999) who used the same criteria in their validation study of the PHS model.

It would seem from these results, that Kampmann's (1999) original criticism of ISO 7933 being developed from laboratory data and the resultant incorporation of field data to the development of the PHS model has not improved its validity.

These findings will now be discussed in further detail.

Sweat rates

From

, the average volume of sweat loss in each pair of experiments was similar. The only variations found were in E9 and E10, where the females in E10 showed a lower sweat rate (probably due to their smaller body surface area). This suggests that when clothing is worn, in hot humid

environments that there is little change in the observed sweat rate when metabolic rate is decreased

by less than 20%. This would need to be investigated further using clothing of different vapour and air permeability. However, of more importance is that the mean values are higher than all the maximum sweat rate values presented in Table C of Annex C in the ISO standard except for the Danger criteria of acclimatised subjects. This would suggest therefore that the reference values for the maximum sweat loss as presented in the ISO standard are not suitable for situations where clothing is worn. The observed sweat rates were also higher than the PHS *SW*p, although improvements to the model's prediction mean that the PHS *SW*p was higher than the ISO and ISO_{mod} *SW*p's in all experiments.

Both the ISO and the PHS models provide a value for the predicted sweat rate in W/m^2 ,which is converted to grams per hour. This assumes that all people of all sizes sweat in equal amounts and the conversion to grams per hour is based on an "average" body surface area. An example of how body size and weight should be taken into account in any calculation of sweat loss is provided in E9 and E10. In E9 the males lost a mean sweat rate of 578 g/h, while the females in E10 lost a mean of 327 g/h. Although the female metabolic rate was measured as lower than the males, the variation was less than 20% and if the observations above were correct, then there should have been little difference between the male and female sweat rates. Perhaps sweat loss should be calculated as a ratio of sweat loss to body weight, from which a volume sweat loss could be extrapolated to provide a sweat loss specific to that person.

Significant differences may be attributable to the differences in the metabolic rate input values, although these differences are relatively small when the sweat rates are compared visually between the measured and estimated predicted values than the differences of the observed sweat rate. Therefore, the fact that the method of obtaining a metabolic rate value may result in significant differences between the resultant values, it seemed to have little effect on the SW_p by the ISO models while the differences were much greater in the PHS model.

What effect the clothing had on this SW_p is unknown, and perhaps had subjects been subjected to the same conditions and work rates while semi-nude this effect would have been quantifiable. One interesting finding was that in E10 where light cotton clothing was worn, the mean SW_p were almost identical to the observed sweat rate (E9: PHS SW_p = 563 g/h, SWo = 578 g/h.)

DLEs and Observed Time

DLE is probably that factor which the end users would most likely use as a reference value for their estimations of work schedules. This value when combined with the SW_p would be of great importance to the practitioner, since it would provide them with not only a measure of time but a "control" measure whereby they could estimate the amount of fluid intake necessary to minimise dehydration. Unlike the SW_p, the differences between the estimated and predicted metabolic rates had a significant impact on the DLE predicted by the ISO models yet not by the DLEs predicted by the PHS model. **Table 45** shows that there is a higher correlation between the observed time and the DLE obtained from the measured metabolic rate inputs than with the estimated metabolic rate input. This suggests therefore that errors obtained when estimating metabolic rate and using those values as inputs does not have as great an influence on SW as they do on the DLEs from all three models.

The sudden reversal of the prediction, from where the model was making a significant under prediction of DLE on moderate metabolic rates to where it over predicted the DLE for the lowest

metabolic rate seems to suggest that perhaps the ISO model is over sensitive to changes in metabolic rate when predicting DLE. Again this sort of shift was not evident in the SW_p values.

This is an interesting observation, since one would expect that the effect on the SW_p value would be similar to the effect on the DLE, due to the interdependence of the two. It would seem therefore that the SW_p values are being constrained, not by the work rate but by the maximum sweat rate values when using the ISO models.

In terms of Face Validity, neither model performed as it was supposed to.

Based on the data from this set of experiments, neither model provides a valid prediction of the time to reach a core temperature of 38°C.

2.11.1 General Discussion

No literature could be found that quantified the onset of sweat related problems such as hydromeosis and sweat gland fever. Are these a result of gross sweat rate over time, or volume of sweat rate in units such as an hour? Another question would be, "Even with replacing electrolytes, what is the maximum amount of water loss that can be replaced per hour?" Perhaps future limiting-values for the maximum sweat rate could be developed addressing some of these issues too.

Experiments 1 to 6 were not successful in ensuring that the metabolic rates were sufficiently different within pairs so as to exaggerate the effect of decreasing the work load by increasing the time of the predicted DLE significantly. It was important however that where possible, subjects showed physiological responses of heat stress (such as core temperature increase to 38°C) to provide data for the validation of the PHS model. At the time of the experimentation it was not know if the PHS criteria limit would be 38°C or 38.5°C.

Finally, an important aspect of the predictor capacity of the ISO model is that it does not take into account the thermal properties of the clothing sufficiently. For example, the cotton overalls were vapour and air permeable and, as such, would have allowed a greater rate of evaporation and convection than perhaps a different ensemble of the same clo value would. Further cooling of the skin may also have been caused due to the clothing being saturated with sweat which would have had a wicking effect, thereby increasing convection of heat away from the skin surface area. This was addressed by the BIOMED HEAT project team but the clothing corrections were not included on the model that was sent out as the final BIOMED model. The project team had to select a version of the PHS model to validate and it was decided that the final BIOMED HEAT PHS would be used and not any subsequent versions initiated into the CEN or ISO program. Therefore, subsequent inclusion of these clothing corrections factors cannot be accounted for or evaluated, as they were not available at the time.

2.12 CONCLUSIONS

1.) The results showed that the neither the ISO 7933 SW_{req} nor the modified ISO SW_{req} models were valid predictors of Duration Limit Exposures and predicted sweat rate for people wearing protective clothing in warm humid environments.

2.) The PHS model was also not a valid predictor of either DLEs or SW_p when PPE was worn. The PHS model did not predict the mean DLEs for any of the experiments. Although for E9 where light cotton clothing was worn, the mean SW_p was almost identical to the observed sweat rate.

3.) The PHS model predictions were more representative of the ISO predictions that the observed DLEs in all but one experiment.

4.) Furthermore, the limit values for the maximum sweat rates in the ISO models seem to be significantly under estimated, which in turn would have an effect on the DLE prediction. It also may result in a false positive decision being made by the user who will design an exposure time according to what they think is a DLE1 prediction, when in fact the worker may lose excess water before this occurs.

5.) The PHS model predictions of sweat rate were an improvement on the ISO predictions but the model also significantly underestimated the observed sweat rates.

6.) The influence of metabolic rate on the all the models is understandably critical. However, the effects of small changes in metabolic rate input seem to have a greater impact on the predicted DLEs in the ISO models and the SW_p in the PHS model.

7.) Metabolic rate variations have little effect on the ISO SW_p values and on the PHS values.

CHAPTER 3
USABILITY OF ISO 7933

3.1 SUMMARY

Chapter 3 is concerned with the usability of ISO 7933 and uses heuristic (expert) analysis based upon the usability literature. It includes Section 8 of the report. The 'paper' version of the standard and its computer program were evaluated against usability criteria. In addition, a form of usability testing was conducted involving pairs of laboratory experiments (previously described in Chapter 2). The standard/computer program was used to design conditions (identify modified work rate) for which subjects would be able to work without unacceptable thermal strain where previously they had experienced it. The standard was therefore tested for its usability as a design tool and method of providing controls.

The results are presented in tabular form and identify why usability criteria (e.g. language, structure etc.) are not met and suggestions for improvement. It was concluded that ISO 7933 did not meet usability criteria. Problems included that it did not speak the users' language, it was not consistent and the computer program did not afford the user sufficient control.

3.2 HEURISTIC EVALUATION OF ISO 7933

3.2.1 Introduction

The prerequisite of system or product design is to ensure that they suit the jobs to which they are intended. One way of achieving this is by the implementation of a user-centred approach in the design process. User-centred design is a process in which the tools and methods employed are selected and applied in such a way as to appreciate the diversity within a potential user group and is generally known as "usability". Criteria that are used to assess the usability of a product, and therefore the success or otherwise of the user-centred design process, include the product's ability to perform its intended function:

- Effectively;
- Efficiently;
- Safely;
- Comfortably.

Jefferies *et al* (1991) compared the effectiveness of a number of usability testing methods: empirical testing, heuristic (expert) evaluations, cognitive walk-throughs and guidelines. According to a number of authors, (including Jefferies *et al*., 1991; Nielsen and Molich, 1990; Nielsen, 1992 and Smilowitz *et al*, 1994) heuristic evaluation identified more of the serious problems and was the most cost effective. A criticism of heuristic evaluations is that results tend to uncover a large number of low priority problems. Nielsen and Molich (1990) stated that heuristic evaluations tend to be used instead of empirical tests due to a lack of resources, knowledge, time or suitable

representative users. Nielsen and Mack (1994) state that when both empirical and heuristic approaches are optimised, they can be equally effective in improving design.

3.2.2 Heuristic Analysis

Expert evaluation according to Jordan (1998) is an excellent method for providing diagnostic and prescriptive analysis based on any "faults" that are identified within the system. Thus the improvements that can be made to the system are based on the expert's knowledge. A disadvantage of the heuristic evaluation is that no direct empirical evidence is obtained from the users that any of the usability issues will actually affect the use of the system or product. According to Rengger (1990), McClelland (1995), Noyes and Baber (1999) the first requirement is to decide which heuristics to use and whether to base them on the characteristics of the product or on the knowledge of the discipline of the expert. The former was selected as the purpose of the evaluation since the expert's knowledge of ISO 7933 would have no bearing on how the users found the standard. The author qualified for conducting the evaluation both as a researcher in human thermal environments and a graduate in ergonomics. A number of authors, including Nielsen (1992), Lewis (1990) and Noyes and Baber (1999) suggested using a "walk-through" of the product to evaluate how users may use it and this strategy was used here.

The heuristic evaluation of the usability of ISO 7933 was concerned with three areas (codes are provided in brackets):

1.) The usability of the ISO 7933 standard as it appears in the standard (ISO Usability Paper)
2.) The usability of the ISO 7933 program (ISO Usability Program)
3.) The usability of the program for practically evaluating controls (ISO Usability – Practical example).

Data considerations

Two possible approaches can be adopted establishing the type of data that are needed.

1.) If usability performance criteria are established *a priori*, then quantitative data are required to ensure these criteria are met. It also provides a measure of performance.
2.) Qualitative data on the other hand can be used as an indication of what the quantitative data would be and to provide descriptive data for the identification of usability faults and prescribed solutions (Jordan, 1998).

Qualitative data would be used to report the results of the heuristic evaluation of the ISO 7933.

Usability Criteria

The following heuristic usability-criteria taken from Noyes and Baber (1999), Nielsen (1992, 1993) have been adapted from the assessment of interface design:

Simplicity To reduce, and where possible avoid, confusion the interface (paper or computer) or process (risk assessment) should be as simple and as intuitive as possible;

Structure To reduce complexity, aid in decision making and information extraction, the interface/process should follow a logical structure and where possible conform to the user's expectations;

Compatibility The interface/process should meet with the user's expectations, their experience of other heat stress indices and their knowledge of heat stress and its assessment. They should be able to easily apply the standard within the framework of standards in which it has been written. An additional consideration is that any heat stress assessment methodology will be used within the wider context of occupational risk assessment;

Control Here the level of control that the user has over the interface/process is important as humans do not like to lose their locus of control;

Adaptation The interface/model/process should be adaptable to meet the requirements of users (i.e. can it be easily reprogrammed etc.) in the different work environments in which it may be used;

Consistency This is vital to help reduce errors and cognitive load. The structure and the content should be consistent.

Speak User's Language – Language should be of a type that the user understands;

Adequate information – Adequate information should be provided to enable the user to use the standard without having to refer to other sources or other standards.

3.2.3 ISO Usability -Paper

Results of ISO Usability –Paper

This section describes the results of the heuristic evaluation of ISO 7933 Paper. The results are derived from an expert's (the author) assessment of ISO 7933 according to the above usability criteria.

Table 48: Description of Results of Heuristic Evaluation of ISO Usability – Paper

FEATURE OF PAPER BASED STANDARD	HEURISTIC CRITERIA	WHY CRITERIA ARE NOT MET (û) AND RECOMMENDED SOLUTIONS ( )ü
The Introduction states "the method for· not know what analytical estimation and interpretation "rational" mean. of thermal stress allows the predictionof the physiological effects of work inthe heat and the rational determination…"		**Simplicity** 7 Language is complicated. Users would probably · **Speak users' language** "analytical estimation" and 3 Simple language should be used
Clause 3 ("*Principles of the method of evaluation*") briefly describes the format of the standard.	· **Structure** · **Simplicity**	7 The description is wordy and novice users may find it difficult to follow 7 ~~Paragraph (a) does not include wet bulb temperature~~ 3 A flow diagram showing the structure of the standard should be provided 3 All input variables should be listed and described
Clause 4 details the. Equations in the heat balance equation	· **Simplicity** · **Minimise user memory load**	7 The users will be using the computer program and not the equations, the only interest they would have for the equations would be academic 7 ~~It is pointless to provide the equations in anything other than a~~ reference annex because the users would probably not refer to them. More importantly, this provides an overcomplicated "first view" of the standard and may intimidate first time users into thinking that they need to understand the equations in order to accurately use the standard 3 If equations are to be provided, they should be in an Annex

Description of Results of Heuristic Evaluation of ISO Usability – Paper (Cont)

FEATURE OF PAPER BASED STANDARD	HEURISTIC CRITERIA	WHY CRITERIA ARE NOT MET (û) AND RECOMMENDED SOLUTIONS ( )ü
Throughout Clause 4 (heat balance equation) each of the parameters equations are provided, however coefficients used in the equations are presented in Annex A (informative). Although this is explained in Clause 3,paragraph 5, this is not mentioned again in Clause 4.	· **Minimise user memory** · **load** · **Structure** · **Simplicity**	7 Assuming the users are able to understand the equations and want torefer to them, the separation of the equations from the coefficients makes it more difficult 7 Users may not remember that the coefficients are provided in theAnnex 3 Provide equations in their entirety.
The provision of the equations in Clause 4. as such it is Providing	· **Simplicity** · **Speak user's language**	7 Code for computer program is provided in Annex and unlikely that the users will need to refer to equations. equations in the body of the standard is unnecessary 3 Put all equations in an Informative Annex 3 Body of standard should concentrate more on explaining how to applythe index than on the science behind it
Cres and Eres equations in clause 4 alternative (equations 2 and 3) differ from explicitly equations provided in Annex A (equations A.1 and A.2 respectively)	· **Consistency** · **Structure**	7 The Cres and Eres equations in the Annex are provided as equations to those in Clause 4 and this is not explained 3 Reasons for different equations need to be better explained
$P_{s,sk}$ – saturated vapour pressure at the given for Ps,sk.	· **Minimise user memory**	7 No definition or equation are

skin temperature	**load** · **Provide adequate information**	3	If explanations for some equations are given they should be given forall
In Annex A, heat transfer coefficients forced and natural convection for forced convection.	· are provided in A.3 for natural and convection coefficient	**Provide adequate information**	7 No definitions are provided for determining the 3 Provide definitions for forced and natural convection

Description of Results of Heuristic Evaluation of ISO Usability – Paper (Cont)

FEATURE OF PAPER BASED STANDARD	HEURISTIC CRITERIA	WHY CRITERIA ARE NOT MET (û) AND RECOMMENDED SOLUTIONS ( )ü
Equation 10 in Clause 4 describes the required skin wettedness as the ratio between E_{req} and E_{max}. wettedness is provided about the concept of skin wettedness.	· **Consistency** · **Provide adequate information**	7 Insufficient information of skin 3 Provide information
In Annex A.4. the radiative heat transfer coefficient refers to the mean skin temperature *"as defined in equation 4"* equation 4 but doubtful that the ordinary confusion if	· **Consistency**	7 This is a referencing error as the equation for tsk is not is presented in Annex C.1. Although it is user will look for the equations, this error may lead to they did 3 Ensure cross referencing is accurate
At the end of Clause 4, the following language is used to explain something the user would not be interested in anyway *watts per square metre represents the* loss in *equivalent heat of the sweat rate expressed in grams of sweat per squaremetre of skin surface per hour"*	· **Speak user's language** · **Simplicity**	7 Again complicated probably "Note" appears; *"The sweat rate in*. 3 Users would probably only be interested in quantifying sweat terms of volume and not on heat transfer 3 Provide sweat loss as grams per hour only
Clause 5 – Interpretation of required explanation of the interpretation criteria to understand the principles behind	· **Speak user's language** · **Simplicity**	7 Overcomplicated and wordy means that users may not be able sweat rate the interpretation 3 Simple language should be used
5.1 provides the basis of the method of interpretation. Criteria are provided in Annex C	· **Speak user's language** · **Provide adequate information**	· **Structure**

7 Complicated language and insufficient data about the process isprovided	3 Use simple language
7 Data for interpretation is provided in Annex C and not withdescriptions in 5.1	3 Provide data in the same section as the method of interpretation sothat the user does not move between sections

Description of Results of Heuristic Evaluation of ISO Usability – Paper (Cont)

FEATURE OF PAPER BASED STANDARD	HEURISTIC CRITERIA	WHY CRITERIA ARE NOT MET (û) AND RECOMMENDED SOLUTIONS ( )ü
New parameters of w_{max}, SW_{max}, Q_{max} and D_{max} are introduced in 5.1 for these parameters are defined is only referred to at the end of the section. This may lead to confusion	· **Speak user's language** · **Minimise user's memory load**	7 Annex C, where the values 3 Either provide a reference for Table C.1 at the start of the section or include it in the section.
Section 5.2 describes the "*Analysis of the work situation*" and introduces w_p, E_p and SW_p. Here the use of the formulae are dependent whether w_{req} exceeds w_{max}.	· **Speak user's language** · **Minimise user's memory load**	7 The language used is complicated and users may find it difficult to follow. Although a flow chart describing this section is provided in Annex D.3, it is not referred to in this section. 3 Provide D.3 flow chart in this section and use simpler language
Clause 5.3 describes the maximum heat storage (Q_{max}) and maximum water loss (D_{max}) values. These are described here and provided in Table C.2, Annex C.	· **Provide adequate information** · **Minimise user's memory load**	7 The user is required to move between 5.2 and Table C.2 to see what the Qmax and Dmax values are 7 No information is provided to direct the user to Table C.2 3 All information should be supplied together and not separated into different sections
In 5.3 the equations for DLE_1 and DLE_2 are described.	· **Provide adequate information**	7 Insufficient information is provided about the importance of the DLEs since this is the one interpretation that the user would most likely be interested in 3 Provide additional information about the DLEs and how they could be used.
Clause 5.4 describes the "*Organisation of work in the heat*"	· **Speak user' language** · **Provide adequate information**	7 The explanation of the organisation of the work is wordy and not well written 3 Explanation should be written in language the user may understand 3 A scenario or description of multiple shifts should be used help the user understand the concepts

Description of Results of Heuristic Evaluation of ISO Usability – Paper (Cont)

FEATURE OF PAPER BASED STANDARD	HEURISTIC CRITERIA	WHY CRITERIA ARE NOT MET (û) AND RECOMMENDED SOLUTIONS ( )ü
Refers to the computer program in referred to. It Annex D standard	· **Structure** · **Provide adequate information** · **Simplicity**	7 This is the first time that the computer program is appears in the final paragraph of the body of the beginning of the 3 The computer program should be referred to in the standard in the "Scope" Section 3 A description of it and the system requirements should be provided inits own section at the front of the standard
Annex B provides Tables B.1 and B.2 which describe the clothing insulation values of combined garments (B.1) and individual clothing items (B.2)	· **Provide adequate information** · **Consistency** · **Compatability**	7 These tables are taken from BS EN ISO 29920 and yet no reference here or in the "Normative References" section (Clause 2) are provided 7 The description of the estimation of clothing insulation is wordy andcomplicated 3 A reference to BS EN ISO 29920 should be made in both Clause 2and in Annex B 3 The description of using the tables should be easier to understand and examples of clothing ensembles with items not described in Table B.1 should be provided
.Annex C.1 and Table C.1 defines the input value validity range based on the skin temperature equation	· **Structure** · **Provide adequate information** · **Simplicity**	7 Important from a practical perspective as it tells the user whether the index is valid for their environment 7 Annex C is not crossed referenced in Clause 1 "Scope" which states that "this method of assessment is not applicable to cases where special protective clothing is worn, nigh radiant temperature, high airvelocity and saturated clothing" 7 The need to alter the equation for skin temperature to a constant valueof 36°C is not adequately highlighted. The user may not read the one

sentence in which it appears

3 This section should be cross referenced in Clause 1 "Scope"

3 Table C.1 should appear in the front of the standard and not as anannex

3 The need to assume an average of 36°C skin temperature must bemore obvious.

Description of Results of Heuristic Evaluation of ISO Usability – Paper (Cont)

FEATURE OF PAPER BASED STANDARD	HEURISTIC CRITERIA	WHY CRITERIA ARE NOT MET (û) AND RECOMMENDED SOLUTIONS ( )ü
Annex C.2 describes the variations called Alarmbetween individuals	· **Consistency** · **Provide adequate information** · **Speak user's language**	7 C.2 defines "warning level" while in the program it is Level 7 No definitive value for those "certain subjects" that would not be protected by the standard 3 The definitions need to be more specific and in language the userswould understand 3 Additionally consistency should be ensure
Table C.2 provides the reference values and h/m2) are unlikely to mean anything to the	· **Speak user's language**	7 Units used (W/m2 for w_{max}, SW_{max}, Q_{max} and D_{max} users 3 Only Use appropriate language (e.g. g/h and %body weight
Descriptions of program's Interpretation and DLE is provided in D.1.4	· **Provide adequate information** · **Consistenc y**	7 Refers to Flow Chart yet no cross reference is given 3 Where references are made, accurate cross references must be provided 3 It may be easier to understand if the explanation is provided alongside the flow chart
Annex D.4 describes the "*analysis of a situation comprising two work sequences*" were supplied in the	· **Simplicity** · **Minimise user memory load**	**Structure** 7 This section would be of more use to the user if it body of the standard 3 Provide this in the body of the standard

Conclusions ISO Usability -Paper

25 main usability problems were identified through the heuristic evaluation process. For nearly all of the problems more than one usability criterion was not met and a breakdown is provided below:

- **Simplicity**: 10 times
- **Structure**: 7 times
- **Compatibility**: Once
- **Control**: None
- **Adaptation**: None
- **Consistency**: 6 times
- **Speak User's Language**: 9 times
- **Provide adequate information**: 12 times
- **Minimise user memory load**: 7 times

Most of the problems are concerned with simplicity, structure, consistency, speaking the user's language, providing adequate information and minimising user memory load.

Throughout the standard, the user is required to move from one section to the other. The standard appears to be unnecessarily scientific and would not encourage users to use it. Users should not be expected to use the equations presented in the standard and to work through them manually. This standard can only be used as a computer program and as such, much of the information provided in the body of the standard is superfluous to their requirements.

The format and the information provided does not satisfy the requirements of ergonomics standards as set out by Branton (1985) who stated that they are developed for the end user.

Although this format may be useful for understanding the underlying principles on which the model is based, the standard and the users would be better served if the mathematics of the index were provided as an annex at the rear of the standard.

The flow diagram D.3 should be simplified and presented at the front of the standard to explain to the users what their decision process should be. This decision process should then be explained in simple language in a sequential format that follows the required decision process, along with detailed explanations where needed. A checklist that also served as a method of record keeping would aid this.

Scenarios should also present the results of the scenario when using the *WBGT* index so that users can see where the SW_{req} could follow on from the *WBGT* index and how information used in the *WBGT* may be used in SW_{req} (e.g. clothing insulation, metabolic rate estimations, wet bulb temperature etc.)

No scenarios are provided to enable the users to validate the model if they have changed the mean skin temperature to 36°C.

3.2.4 ISO Usability -Program

Results of ISO Usability –Program

This section describes the results of the heuristic evaluation of ISO 7933 program. The programme listing provided in BASIC was implemented into a computer. The results of this heuristic evaluation are derived from an expert's (the author) assessment of ISO 7933 according to the above usability criteria.

Table 49: Description of Results of Heuristic Evaluation of ISO Usability – Program

FEATURE OF PROGRAM IN STANDARD	HEURISTIC CRITERIA	WHY CRITERIA ARE NOT MET (û)AND RECOMMENDED SOLUTIONS ( )ü
Computer program is in BASIC formatwhich must be inputted into the computer by the user	· **Consistency** · **Control** · **Adaptability** · **Simplicity**	7 The computer program is in basic format which when compared tocurrent object-oriented software indicates that the interface is somewhat dated 7 By producing the program in written format for the users to input thecode into their computer, introduces a number of potential problems: **1.** The assumption is that the users would have the know-howto input the code **2.** Errors in the code input are possible, and this places animplicit requirement on the user to check the code to validate the input codes **3.** Another problem may be that the users will not use the standard because of the time it may take to perform thesetwo tasks
For situations where the the clo value exceeds 0.6 clo, the user is required to change the code for estimating mean skin temperature to a constant value of36°C. (Lines 780 and 790)	· **Adaptability** · **Control** · **Simplicity**	3 Provide a computer disk with the standard in an object oriented formatthat allows for the data to be saved into a spreadsheet format 3 Alternatively the software could be downloaded from the BSI website 7 Again the assumption is that the users know how to do this 3 An alternative program should be provided where skin temperatureequals 36°C 3 Alternatively the program should provide a logic argument to automatically allocate either the equation for mean skin temperature or the constant value of 36°C based on the input variables

Description of Results of Heuristic Evaluation of ISO Usability – Program (cont)

FEATURE OF PROGRAM IN STANDARD	HEURISTIC CRITERIA	WHY CRITERIA ARE NOT MET (û)AND RECOMMENDED SOLUTIONS ( )ü
No help facilities are provided in theprogram Users cannot navigate through theprogram	· **Adaptability** · **Control** · **Simplicity**	7 Users may need easy to use help facilities as they may not be able tounderstand the standard. It is unlikely the users would have read the standard before using it 7 Users have little control over the program and must rerun the programif they make an error while inputting data. This is compounded if sequences are being inputted
The program computes the partial vapour pressure from wet bulb and air temperature if the user does not enter apartial vapour pressure value. (line 750)	· **Adaptability** · **Control** · **Simplicity** · **Provide adequate information**	3 Again, an object oriented program with help facilities or navigationaids may help this 3 Alternatively, if a BASIC version is to be provided, it should providehelp and navigation aids 7 This is not indicated in the program to the user, and unless they understood BASIC programming language they would not know this
The program computes mean radianttemperature from air temperature, radiant temperature and air velocity (Lines 710 to 760)	· **Provide adequate information**	3 This is mentioned in Annex D.1.2, but needs to be made clearer 3 Users should be notified that these computations take place
The user is required to input the wetbulb temperature	· **Consistency**	3 An input for humidity should also be provided 7 Wet bulb temperature is a derived parameter which is used in *WBGT*.Although SW_{req} is supposed to be used if the *WBGT* reference values are exceeded, it is not appropriate to assume that the user will have done so. Users will be confused between aspirated wet bulb temperature and natural wet bulb

temperature. It is aspirated wet bulb temperature that is required here	7 Although mentioned in D.1.2, insufficient	information is provided 3 These calculations should be hidden and only provided if the usersrequest it

Description of Results of Heuristic Evaluation of ISO Usability – Program (Cont)

FEATURE OF PROGRAM IN STANDARD	HEURISTIC CRITERIA	WHY CRITERIA ARE NOT MET (û)AND RECOMMENDED SOLUTIONS ( )ü
User is required to enter the body area in equation A.7 of Annex A fraction exposed (A_R/A_{Du}): Seated = **n** 0.7 & Standing = 0.77	· **informatio**	**Provide adequate** 7 A_R/A_{Du} is only referred to in the standard 3 The program should prompt the user to input or ask if the aid A /A person is sitting or standing R Du
The standard describes the ranges of they have inputted are input values for which the model is valid	· **Consistency** · **Adaptability** · **Simplicity** · **Provide adequate information**	**Control** 7 The program does not tell the user if the values outside the range of validity and as such unless the user refers back tothe standard they will not know the standard is not valid for their inputs 3 The program should "flag" inputs that are outside of the validity
The calculations from the inputs are unnecessary and only provided if the users	· **Minimise user memory load** · **Structure** · **Simplicity**	7 This information is not required by users and therefore is provided once the user has inputted all the data 3 These calculations should be hidden request them
The interpretations for alarm and cluttered anddanger criteria for both acclimatised and unacclimatised workers are provided from the calculations	· **Structure** · **Simplicity**	7 The format of the screen that shows the interpretations is difficult to interpret
The standard suggests using the model identify how control measures are	· **Consistency**to · **Control** used · **Adaptability**	

	• **Simplicity** • **Provide adequate information** • **Minimise memory load**	3 The structure and layout of the screen should be easy to read 7 The program does not allow this to be performed easily. The user isrequired to run the program a number of times and to record the interpretations and to then make the comparisons themselves 3 The program should allow for inputs to changed and to simultaneously (or through forward navigation) to see how the interpretations have changed 3 Program should allow the user to compare runs

Description of Results of Heuristic Evaluation of ISO Usability – Program (Cont)

FEATURE OF PROGRAM IN STANDARD	HEURISTIC CRITERIA	WHY CRITERIA ARE NOT MET (û)AND RECOMMENDED SOLUTIONS ( )ü
The program outputs and interpretations are shown on the screen.	· **Control** · **Adaptability**	7 This means that the user is required to make manual recordings of theresults. This may introduce errors when transferring the results to another medium such as spreadsheets
This is not saved to a retrievable data file	· **Minimise user memory load**	7 The data cannot be saved and the only record is either from PRINTSCREEN or from manual records. This is also time consuming 3 The program should save results to a data file which could be viewedthrough other programs such as spreadsheets
Layout and Presentation of the interface	· **Simplicity** · **Provide adequate information** · **Speak the user's language**	7 The layout of the interpretation is cluttered and has poor spatialstructure. This makes the results difficult to interpret 3 Results should be tabulated and saved to an text based format file (such as ASCII) to enable simple retrieval and storage of results

Conclusions ISO Usability –Program

- Eleven main usability problems were identified through the heuristic evaluation of the program. For nearly all of the problems, more than one usability criteria were not met. Abreakdown is provided below:
  - **Simplicity**: 8 times
  - **Structure**: Twice
  - **Compatibility**: None
  - **Control**: 7 times
  - **Adaptability**: 7 times
  - **Consistency**: 4 times
  - **Speak User's Language**: None
  - **Provide adequate information**: 5 times
  - **Minimise user memory load**: 3 times

From this breakdown it can be seen that most of the problems are concerned with simplicity, consistency, providing adequate information, adaptability, control and minimising user memoryload.

It is imperative that any risk assessment method, whether it be for the assessment of heats stressor any other risk, should be designed and developed with the assumption that the users may have little or no training and knowledge in both the area that they are assessing and the methodsused to assess these risks. As such therefore, it would be inconceivable that users of ISO 7933 would be able to apply the methodology with the amount of information provided unless they had training and/or experience of conducting heat stress assessments.

This is further complicated by the need for users to input the program themselves and, for situations where clothing insulation is greater than 0.6clo, to alter mean skin temperature to a constant 36°C. This, added to the validity problems associated with the model in warm-humidenvironments, may explain the apparent lack of usage of the standard in industry. This is echoed by Meyer and Rapp (1995) who feel that the development of an easy to use methodology is a "*major duty*" for those people involved in the development of heat stress assessment methods. They also feel that the users of such a methodology need much more information.

3.2.5 ISO Usability – Practical Example

Method of ISO Usability – Practical Example

Parallel to the protocol for the validity study in Study 1, the usability of the index as a reverse engineering tool to help users evaluate and introduce control measures was investigated. The experimental protocol of Study 1 (Chapter 2) was dependent on the requirements of the validitystudy while also meeting the requirements for evaluating the usability of the standard.

The process by which this usability study protocol was established is described below:

- The usability experiments were evaluated in pairs, where the environmental and clothing conditions remained the same but in the second of each pair the subject's workrate was reduced to provide a DLE that was longer than the DLE of the first. The pairswere:

  Pair A Experiments 1 and 2;

  Pair B Experiments 3 and 4;

  Pair C Experiments 5 and 6 (See Table below).

Table 50: Data means inputted into ISO and PHS models

Exp	N	t_a °C	t_r °C	V ms^{-1}	Pa kPa	M (Est) Wm^{-2}	M (Meas) Wm^{-2}	Icl clo
1	8	34.9	35.1	0.22	3.40	193	-	0.8
2	8	35.0	34.4	0.28	3.30	177	158	0.8
3	8	39.5	39.2	0.07	4.50	173	161	0.8
4	8	39.7	39.3	0.08	4.50	153	142	0.8
5	8	45.0	44.9	0.08	3.80	153	134	0.8
6	7	44.7	43.8	0.09	3.90	87	101	0.8

***Note*: Experiments 1 to 6 were a stepping task wearing a boiler suit.**

- This provided the following scenario for each pair of experiments:
- The environment in the chamber represents a working environment with the workerwearing coveralls and working at a particular work rate.
- A potential user needs to investigate how much longer the worker can remain in thatenvironment if they work at a slower rate (lower metabolic rate) while all other parameters are kept constant.
- The user therefore reduces the work rate input (this was selected *a priori* arbitrarily) andobtains a new DLE for that work rate input.
- Therefore the second experiment in each pair investigates not only whether the newDLE is valid, but also provides for the evaluation of the usability of using the ISO model for implementing controls.

Results – ISO Practical Example

- A computer is needed to use the SW_{req} index which may limit its use.
- The model does not allow for the comparison of data from different input sequences. Theresults need to be recorded manually in order for a comparison to be made. This supportsthe findings of Hanson and Graveling (1997) who state that this may limit its use in evaluating control measures.
- The user needs to estimate metabolic rate which for users with little or no training in heatstress may be a difficult task to perform.
- Using the danger criteria, it was not possible to estimate the number of subjects who wouldnot be protected by the index. This also supports the findings of Kampmann and Pierkarski (1995) who also questioned the

meaningfulness of the alarm and danger criteria to users.

- In all conditions the clothing insulation values exceeded 0.6 clo and the mean skin temperature had to be changed to 36°C. It is unlikely that most users would have been ableto do this unless they had a basic knowledge of BASIC programming.

3.2.6 Conclusions of Heuristic Evaluation of ISO 7933

ISO 7933 does not meet the usability criteria described in this evaluation. The followingproblems were identified:

1. The standard does not **speak the users' language** and is not **simple to use**.
   - The standard should use words, phrases, and concepts familiar to the user.
   - Scientific "jargon" should be in the Appendices and not in the body of the standard.

2. The standard is not **consistent**.
   - It should present information in a natural and logical order and should indicate similarconcepts through identical terminology and graphics.
   - Ergonomic conventions for layout, formatting, structure etc. should be adhered to.

3. The standard does not **minimize the users' memory load.**
   - Efforts should be taken to maximise recognition rather than recall.
   - Users should not be required to remember key information across the different sectionsof the standard.

4. The computer program does not afford the user sufficient **control.**
   - Flexibility and efficient navigation and help systems should be maximised toaccommodate a range of user ability, knowledge and diverse user goals.
   - Navigation aids would also make it easy for the user to return to different stages of thecalculation (such as inputs or interpretations). Instructions should be provided where useful.
   - The interface layout should be arranged so that spatial differences and presentation enable rapid and frequently accessed information to be easily found and interpreted.
   - Information (such as the calculations) which is irrelevant and distracting and should beeliminated.

5. **Adaptability** and **compatibility** would be improved if data could be saved to a format suchas ASCII files which users could access using different types of spreadsheet software.

6. **Flexibility** and **adaptability** of the program would be enhanced by additional code to beautomatically used when clo > 0.6 for t_{sk} = 36°C.

7. The **ease of use** of the standard would also be improved by providing all the relevant data inthe standard so that users are not required to access multiple standards to complete a single assessment.

CHAPTER 4
DESIGN, DEVELOPMENT AND EVALUATION OF A PRACTICAL HEAT STRESS ASSESSMENT METHODOLOGY

4.1 SUMMARY

The results of the validity study and heuristic evaluation led to the need to produce a practical heat stress assessment methodology. This was produced in three stages: an exploratory stage (Stage 1, Section 4.2); a design and development stage (Stage 2, Section 4.3); and an evaluation stage (Stage 3, Section 4.4). The exploratory stage identified requirements and methods for achieving those requirements. A literature review identified ergonomics techniques for data collection and user centred design and usability testing. The importance of identifying the usersand users' characteristics was stressed. Methods adopted included informal interviews and questionnaires with participants at Occupational Hygiene conferences, Hierarchical Task Analysis (HTA) of the heat stress standards and heat stress assessment in a paper mill. A poster presentation at the BOHS annual conference attracted 38 participants who were subsequently interviewed. It was found that most participants were aware of the HSI and WBGT indices but few knew of ISO 7933. There was interest in information concerning heat stress assessment andall interviewees found the process complicated.

An HTA identified areas where the current standards do not support tasks that would ordinarilybe performed in heat stress assessment. This led to a process diagram showing the stages of assessment and the relationships between them. Finally, a field trial was conducted in a paper mill, where assessment methods were used to assess a worker in a hot area. It was concluded that present methods are complex and inconsistent. Current heat stress assessment methodologies and standards do not follow established risk assessment formats. For example, there is no hazard identification stage in current strategies and it is suggested that this should beincluded.

Section 4.3 presents the design and development (Stage 2) of the practical methodology. Theuse of rating and ranking methods and checklists for risk assessment are reviewed. Group discussions were used to obtain information that could be used to design a generic heat stressstrategy. Six experts from industry and academia were involved in structured group discussions. The discussions were recorded and transcripts made.

Expert opinion was also provided on a heat stress risk assessment strategy developed from the BIOMED II research project by Malchaire and others. To complement the experts' discussion group, user discussion groups were

conducted among BOHS conference and special interest group members. A ten point generic assessment strategy was developed from the results of the expert discussion group. This was evaluated by the user group.

An outcome from both the experts and the user groups was the emphasis placed upon the role ofhealth and safety managers. Expert opinion was obtained on the definition and characteristics of users, heat stress standards, user perception and information required.

To enhance information collected from the group discussions and questionnaires (for which there was a poor response after the discussion groups) a postal questionnaire was conducted. Questionnaires were sent to 270 health and safety departments of companies selected from the

Kompass Company Directory. Fifty-six were returned, 29 not completed but explaining that heat stress was not an issue. The 27 completed questionnaires were analysed in detail. An important finding was the low level of assessment and use of international and British standards.Conclusions of Stage 2 included the adoption of a ten point strategy for Management, Assessment and Control (MA&C) of heat stress. This is shown in a flow diagram.

Section 4.4 presents Stage 3 – the evaluation stage. This concentrated on the 'observation' part of the MA&C. User trials were conducted in field trials. One was conducted in a paper mill and another in a steel mill. (Seven health and safety personnel in each setting conducted the assessments.) The aim of the user trials was to compare the 'observation' assessment methods described in this project with that proposed as an ISO standard method by Malchaire and others from the BIOMED II project. A blind balanced order repeated measures design involved using the methods to assess industrial workplaces. After the assessments, a discussion group was heldto discuss the results. The results showed that the proposed ISO method was easier to use.

However, the ISO method was considered too simplistic, with little information of practical use.The method developed in the present project was preferred. The discussion groups provided advice on how the method could be improved.

4.2 STAGE 1 – EXPLORATORY STAGE

4.2.1 Aims

The main aim of the Exploratory Stage was to provide the background knowledge for the development of the practical heat stress assessment methodology. To this end the followingspecific aims were established:

1.) To establish the rationale for user input and to identify the research methodologies thatwill be used;

2.) To promote the project amongst potential users to obtain their possible participation inlater stages;

3.) To investigate and describe the task of assessing the risk of heat stress using the currentheat stress standards;

4.) To provide a practical example of a heat stress assessment in industry.

The Exploratory Stage was concerned with all aspects of heat stress assessment and not withany particular aspect (such as ISO 7933) to ensure that the practical heat stress assessment methodology would be based on the user's requirements within the framework of heat stressrisk assessment.

4.2.2 Methods

Corresponding to the aims above, the following methods were used:1.) Literature Review;

2.) Informal interviews and questionnaires with participants at occupational hygieneconferences;

3.) Hierarchical Task Analysis of the relevant heat stress standards;4.) Heat Stress Assessment in a Paper Mill.

4.2.3 Ergonomics techniques for data collection

Matching Methodology to Theory

Breakwell (1995) suggests that research projects may often require a number of research tools toachieve their goals. The success of using multiple research tools, argues Breakwell, is simply the result of the conclusions yielded by each method being compatible with the theory being tested. This point is particularly relevant to this project because a number of ergonomic methods were required to gather information.

The users of any practical risk assessment methodology may be those people who are responsible for the health and safety of the work force in a company and those people who are expected to enforce the health and safety legislation. The participation of these people would besought for this project. As with all applied ergonomic research, when the input of people from industry is required, there is a general concern that to engage potential users in the research process may impose additional time and commitment burdens upon them, on top of their work commitments. A consequence may be that user participation may be lacking, not due to the user's unwillingness to take part but that they do not have the time to do so. Therefore, differentmethods of investigation were reviewed to obtain a justifiable balance between "what was ideal" in terms of scientific research requirements and "what was possible" within the real- world time and expected sample participation constraints.

It was recognised early on that for formal one to one interviews, participants would be expectedto travel to, or receive a visit from the researchers. This would be time consuming and could beovercome by gaining access to participants when they were attending conferences, one-day- workshops etc. These were then targeted for access to participants. BOHS conferences, one day Special Interest Group (SIG) meetings of BOHS members and one day meetings held at Loughborough and elsewhere were used as data collection and "networking" opportunities. It was hoped that the "networking" would encourage participants to take part in other aspects of the research such as the usability trials, field trips etc. The nature of conferences and one-day meetings meant that data collection methods such as formal interviews or questionnaires wouldyield few results, but informal interviews and groups discussions run as workshops would provide the best methods for data collection. The following ergonomic techniques for data collection were identified.

Table 51: Ergonomic techniques in the system life cycle.

EXPLORATORY STAC E	DESIGN & DEVELOPME T	EVALUATION
Literature Review	Literature Review	User Trials (in the Field)
HTA	Group Discussions	Group Discussions
Interviews	Questionnaires	

Ergonomic methods for informal interviews, task analysis and questionnaire design are well published and therefore will not be discussed here, although a literature survey was conductedon these areas. Instead, usability testing and the use of structured discussion groups will be discussed as neither has been used previously in the development of heat stress assessment methods.

User Centred Design and Usability Testing

User Centred Design

The process requires the designer and/or engineer to establish who the users will be and to ensure that the product meets their requirements. This puts the user at the centre of the designprocess. According to Poulson *et al* (1996), three basic factors need to be established in analysing the user.

1. Identifying the stakeholders who will use the product;
2. Identifying the characteristics of these individuals or groups;
3. Identifying the requirements that these stakeholders have.

Importance of the User

The need to "know the user" according to Nielsen (1993) is the basic requirement of all usability guidelines. Suttcliffe (1988) and Hockos (1994) provided descriptions of users based upon criteria that categorised them in terms of their experience of technology. These categorieshave been adapted for this project to provide the following:

Table 52: Table showing categories and descriptions of potential users

USER CATEGORY	DESCRIPTION IN TERMS OF HEAT STRESS RISK ASSESSMENT
· **Novice**	Beginners to risk assessment, who do not have knowledge specific to heat stress risk assessment.
· **Occasional**	People who occasionally conduct risk assessments and who may or may not have a limited knowledge of heat stress risk assessment methods.
· **Transfer**	People who have extensive knowledge of risk assessments, but who may be new to heat stress risk assessments.
· **Skilled**	People who are both experienced and knowledgeable in risk assessments and heat stress risk assessments.
· **Expert**	People who have a detailed knowledge of heat stress, but who may not have a detailed knowledge of other risk assessment procedures. These people may be academics or health and safety or occupational hygiene professionals who have been involved in the development of British, European and /or International Standards.

Individual User Characteristics

It is necessary to define the user population so that their knowledge, work experience, educationetc of the users can be understood. This enables the anticipation of what their performance expectations when using the product are, and what difficulties they may have so that appropriatelimits of the complexity of the product can be set (Nielsen, 1993). Although this information may be available in some form in the literature, Nielsen recommends that direct communications and observations of the users be conducted to gain new insights that may be specific to the product being developed.

It is recognised that the boundaries between the categories listed may be somewhat blurred, withdistinctions between categories being difficult to allocate. It is appropriate however, to assume that users should have at least a modicum of training and as such, it would probably be best to aim the

methodology at the "Occasional" user than the Novice. The logic for this is supported by the literature review that showed that heat stress risk assessments are occasional rather than frequent occurrences. Another example is provided by The Health and Safety Executive's regulations that provide a formal definition of users for display screen equipment (DSE) where users are defined in terms of their usage of display screens. This does not provide a definition

based on competence or knowledge but on frequency of use and while this has come about due to the risk being proportional to the usage for DSE, it none the less provides a comparative example. Here, the ability to actually perform a risk assessment is inversely proportional to the frequency with which the user conducts risk assessments and as such the risk of error increases the less frequent the assessment is done. Although it may be argued that any methodology should be designed for the "lowest common denominator", in this case beginners, the complexity of heat stress assessment means that it is reasonable to assume that people at least have some training in the area. The ACGIH TLVs, for example, are explicitly aimed at "*trainedindividuals*". However, it is recognised that training levels (competence) are varied and as such by making the lowest common denominator the "Occasional" user it is hoped that most users would be catered for. As with design decisions this is a compromise between the ideal and the reasonable. This description of competence, or knowledge, was at this stage of the project theoretical and as user input is obtained, it may be revised.

Usability Methods

Nielsen (1993) stated that each project may require a different combination of usability methodsdependent upon the needs of the research and the time and financial constraints within which it is being conducted. The table below indicates that the methods used may often be reliant on theavailability of representative users to be participants.

Table 53: Breakdown of the disadvantages and advantages of different usability assessment methods

USABILITY METHOD	NUMBER OF PARTICIPANTS	MAIN ADVANTAGES	MAIN DISADVANTAGES
Heuristic Evaluation	None	· Finds individual usability. · Can address expert user issues.	· Does not use real users. · May not find "surprises" relating to their needs.
Performance Measures	10	· Hard numbers. · Results easy to compare.	· Does not find individual usability problems.
Observation	3 or more	· Ecological Validity. · Reveals users real tasks. · Suggests functions and features.	· Appointments hard to set up. · No experimental control.
Interviews	5	· Flexible and in-depth probing.	· Time consuming. · Difficult to analyse and compare data.
Discussion Groups	6 to 12 per group	· Spontaneous reactions and group dynamics.	· Difficult and time consuming to analyse.
Questionnaires	At least 30	· Find subjective user preferences. · Easy to repeat.	· Pilot work needed (to prevent misunderstandings).

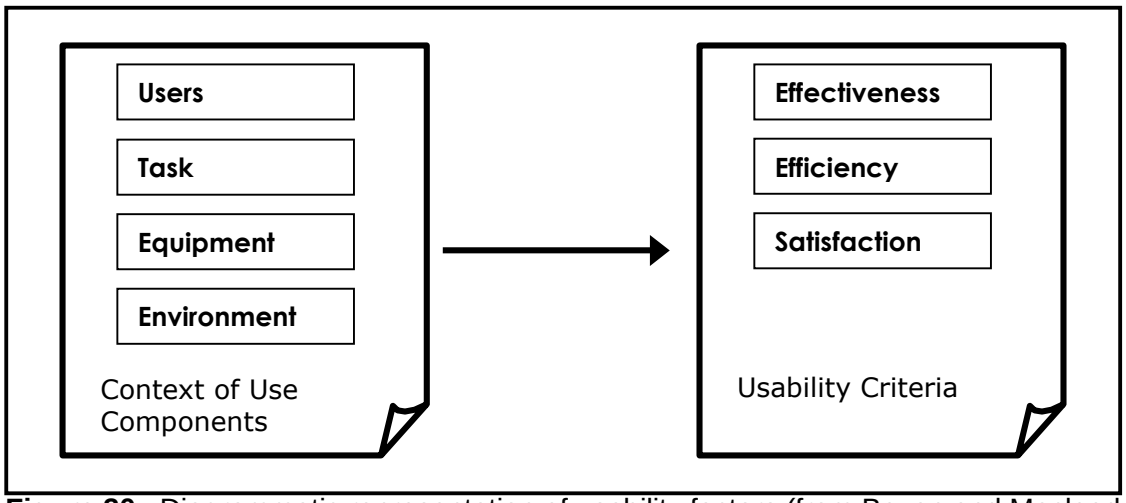


Figure 20: Diagrammatic representation of usability factors (from Bevan and Macleod, 1994)

The above diagram illustrates that the context within which the methodology will be used needsto be considered. Potential users will have as one part of their job the assessment of heat stress and the methodology should therefore be as easy to use while still providing the information that they need. Therefore the usability assessment of the methodology should be carried out in real world situations so that the "context of use components" are met.

Comparative Analysis.

Comparing prototypes with other competing products often provides for the sort of results that provide for the best improvements to the prototype. This enables the assessor to compare user preference and product performance. Nielsen (1993) recommends the use of heuristic evaluations based on established usability guidelines and then to conduct usability trials with the prototypes.

Setting of Evaluation Criteria

Since usability is not one-dimensional, it is may be possible to identify and describe those criteria by which it is to be evaluated before any evaluation process takes place (Chapanis andBudurka, 1990). This ensures that all criteria are not given the same weighting and that the criteria are based upon what is important to the users and their tasks. However, this is somewhat more difficult to achieve than it sounds, and therefore the primary requirement may be to establish which criteria the product is required to out perform the comparative product (Nielsen, 1992).

Task Analysis.

Poulson *et al* (1996) suggests the use of task analysis (TA) techniques to establish the user's requirements both for and from a product. It provides a breakdown of the tasks from high and low level activities enabling the organisation of the information into a structured sequence. Thisis supported by Nielsen, who quotes work from a number of authors (including Diaper, 1989; Fath and Bias, 1992; Garber and Grunes, 1992) who states that TA is extremely important for early input into the design process. TA provides a basis from which to explain processes to users and to identify those processes where users are not achieving the required goals. It is

these weaknesses, in both the high and low level activities which themselves point to therequired improvements.

Discussions Groups (DGs)

Groups of six to twelve people discuss topics of common interest in detail, with the view of developing solutions using the individual and common experiences of the group (Krueger, 1997). This is done through structured discussion, or brainstorming (Morgan, 1988) and this important interaction is dependent on the moderation of the researcher around the topic that he or she has introduced into the discussion (Stewart and Shandansani, 1990). It is this interactionthat differentiates discussion groups from other interview strategies and that provides it with what Millward (1995) calls a "*controversial flavour*". The data produced is usually in the formof transcripts of the group discussions and is qualitative.

The literature on the use of discussion groups in research concentrates on their application as a primary research tool in Applied Psychology and Social Sciences. Secondary research, such thedecision-making intervention and, specifically for this project, identifying user requirements, are not covered. Therefore, the applications of discussion groups in Psychology were investigated and, where appropriate, adapted to the application of the applied ergonomic requirements of this project.

As with the other research stages in any project the first stage is to define a goal based upon theproblem. According to Morgan (1995) and Krueger (1995), DGs are extremely useful for the gathering of data, the identification of problems and the setting of goals as the participants will conduct their conversations in an open ended manner thus enabling research teams (even if theyhave a limited knowledge of the subject area) to establish what their priorities are. DGs are not only a powerful technique for enhancing the researchers ability to answer questions, but they also enable the researcher to generate questions from "new angles and perspectives" (Millward,1995). As such, planning is fundamental to the success of the DGs. Random sampling of the population to obtain participants is not necessary because their purpose is not to obtain "*generalisable*" data (Krueger). What can be done to make a practical methodology that will improve their ability to assess and control heat stress problems within their workplace.

Table 54: Four areas of research and the stages and methods that support each

(Morgan, 1995)

	FOUR BASIC AREAS OF RESEARCH		
ACADEMIC RESEARCH	**PRODUCT PLANNING**	**EVALUATION RESEARCH**	**QUALITY IMPROVEMENT**

Problem Identification	Generating Research Questions	Generating New Product Ideas	Needs Assessment	Identifying Opportunities
Planning	Research Designs	Developing New Products	Program Development	Planning Intervention
Implementation	Data Collection	Monitoring Customer Response	Process Evaluation	Implementing Interventions
Assessment	Data Analysis	Refining Product or Marketing	Outcome Evaluation	Assessment Redesign

One of the main aspects that define DGs is that formal hypothesis testing is not the aim (Millward 1995, Stewart and Shandasani, 1990). Rather, DGs are used as a self-contained method of collecting data and/or as a supplement to other methods. It is important to note that

the application of DGs as a supplementary research tools is as dependent on the validity of it's application as it is to the place it is given in the overall research design. It is here that the application of the DG within the research project needs to be carefully planned so that the results yielded by the other data collection methods can be compatible with the theories being tested or the goals being sought. This is an important point because, as Stewart and Shandasanipoint out, since DGs are an exercise in group dynamics, both the interaction of participants and the interpretation of the results must be understood within the context of the group's interaction.This definition therefore provides for the need to understand that a DGs consist of two interrelated parameters:

1. **The Group Process** – The interaction and communication between the members of thegroup;
2. **The content of the discussion** – The focal stimuli and issues arising from it.

This means that the group can be analysed on 2 levels:

1. **Interpersonal** – Thoughts and attitudes to the topics being discussed;
2. **Intragroup** – How people communicate within the group.

It is anticipated that the Interpersonal Level will be the level analysed as the purpose of the DGswill be the development of the User Requirements and the Usability of the prototypes. How people communicate within the group will not provide additional information. This is the advantage of the DG over individual interviews (Millward, 1995) because they provide additional information as opinions are formed through the structured discussion process. The outcome of DG is that issues may be raised that may otherwise not have been considered duringthe design of the DG.

According to Jordan (1998), there may be instances where the setting of *a priori* usability criteria may not be either possible or practical and as such it may be beneficial to enquire fromthe users what criteria they would accept.

Advantages of Discussion Groups

DG's can be used at any time of the design process. According to Jordan they are not particularly good methods for obtaining quantitative data. Therefore it was decided that wherepossible, and without affecting the groups dynamics, additional methods of data collection would be used to obtain quantitative data that may be of interest to the study (e.g.

Questionnaire, role play etc).

Although DG's are excellent for establishing user requirements, they may not necessarily involve the users in a hand's on way (Jordan, 1998). Therefore, the use of workshops was investigated. Workshops provide a direct method for enabling user participation. Jordan seemsto distinguish the two methods from each other it was felt that for this project an amalgamation of practical investigation methods within the framework of a structured group discussion

could be used. To this end, although the overall philosophy of discussion groups and workshops wereadopted, the format of the structured discussion groups was decided by;

a.) The participants;

b.) The Life cycle stage;

c.) The information requirements;

d.) The need to involve the participants and not allow them to get bored; e.) To obtain as much information as possible from the participants in one

session/sitting/group.

The final point was extremely important because due to the lack of user responses to the questionnaires, the discussion groups would need to cover more areas than may be covered in a

typical discussion group session. An example of this was that three of the discussion groups sessions lasted for between four and six hours, whereas DGs usually only last for 1 to 1½ hours.

When preparing for the DGs there are several considerations, including who will participate, what questions will be asked, where will the discussions be held, and who will conduct the sessions? Once this has been established it was necessary to develop a discussion guide. The discussion guide should contain the questions that will be asked to participants during the discussion sessions and approximately 10 to 15 questions should be used. There were two elements to be considered when drafting the guide (Krueger, 1995). Firstly, identifying who toobtain information from and secondly, what type of information was to be obtained. The information is normally derived from transcripts of the discussions held during each session.

However this will be complemented for this research with questionnaires, record sheets and usertrials of the methodology prototype.

It is generally recognised that when developing the questions that all discussion groups should follow the same discussion guide. A question such as "Who benefits the most from the methodology?" could receive different responses depending on whether the participants are users, or non-users. By using a general format for each question, it allows the analyst to make comparisons between the responses of the various groups. However, in this study the information requirements from each participant category may be different and as a result the structure and questions for each group category may vary. The structure therefore, of each discussion group category may need to undergo iterative changes following the previous DG. Itis envisaged that the DGs will provide a suitable research method for the Design and Development Stages of the Life Cycle.

Table 55: Adaptation of Research Methods and Areas from Morgan (1998)

STAGE OF DISCUSSION GROUP RESEARCH	LIFECYCLE STAGE	ADAPTED DISCUSSION GROUP METHODS
Problem Identification	**2**	· Generating Research Questions · Needs Assessment of users · Generating ideas for assessment method
	3	· Identify changes that need to be made to methodology
Planning	**2**	· Research Designs · Developing new methodology · Develop Usability Matrices
Implementation	**2**	· Data Collection of subject's requirements and functional specification · Data collection about process requirements
	3	· Data Collection

		· Implementing methodology · Monitoring User Responses
Assessment	**2**	· Analysis of Requirement's Data · Analysis of Usability Data
	3	· Methodology assessment Usability and Performance · Analysis of User recommendations

During this study, a series of DGs will be conducted to obtain information regarding:

- The characteristics of those representative users that would apply a heat stressmethodology as part of their risk assessment strategy,
- The problems they may currently face when assessing heat stress.

4.2.4 Informal exploratory interviews.

A poster presentation entitled "**Heat Stress in British Industry: A usable and practical assessment methodology**" was presented at the BOHS Annual Conference 1998, at the Instituteof Education, Russell Square, London. The author conducted informal interviews with attendees of the conference who stopped to read the poster. 38 attendees stopped to view the poster presentation. The following is a breakdown of the brief notes that the author made following talking to attendees (interviewee).

Results - Informal Interviews

Heat Stress Risk Assessment and Indices

- 18 people reported previous or recent experience of heat stress in their workplace. Not allthe interviewees were from the United Kingdom, (four from Australia, one from Iran, twofrom the Gulf, one from Japan)
- They were all aware of Bedlings and Hatch's Heat Stress Index (HSI).
- All had experience of the *WBGT* index or the ACGIH TLVs.
- Only 4 knew about the $SW_{req}$and only 1 of the 4 had used the SW_{req} index, with the otherthree not using it as they felt it was too complicated.
- All 4 however, knew that SW_{req} should be applied if *WBGT* values are exceeded.
- Confidence in the *WBGT* standard was expressed by all the interviewees although thelimitations of the *WBGT* index were acknowledged.

SW_{req} as a control tool of heat stress conditions.

- None of the 4 interviewees who knew of the SW_{req} index knew that it could be applied toinvestigate if changes to the environmental, clothing and/or working parameters as part oftheir control strategy could be suitable.
- All the interviewees expressed an interest in an index that could be used in such a manner.
- None had used the WBGT in this way either.

Heat stress experiences.

- The interviewees did not feel that there was a high incidence of heat stress in industry,although they did qualify this by stating that this was based upon their own individualexperiences.
- Some of the interviewees who had assessed hot working environments

had had somedifficulties assessing the risk of heat stress.

- All interviewees said that additional information was needed.
- From their descriptions of anecdotal stories of their experiences assessing heat stress, thefollowing points have been established:

Measurement of body temperature

- Eleven of the interviewees expressed confusion over the use of 38°C as a limiting criteria for core temperature. They had experienced aural temperatures in excess of 38°C (with 3 interviewees obtaining measures above 45°C) with workers showing signs of thermal discomfort, but not thermal strain or stress. After a brief conversation about the techniquesthey had employed the author identified that they had been measuring body temperature incorrectly.
    - **Aural Temperature**: Four of the interviewees had not insulated the auditory canalfrom the external environment and as such the environment had contaminated theirmeasure. The method that they had adopted had been as a result of following the instructions from the manufacturers of aural temperature measuring devices. None had read ISO 9886 (1992) *Evaluation of thermal strain by physiological measurements*.
    - **Tympanic Temperature**: Six of the interviewees had used commercially boughtinfrared thermistors to measure tympanic temperature without identifying its environmental operating range.
    - **Oral Temperature**: Six of the interviewees had used mercury in glass oral thermometers to measure oral temperature during and post exposure. None were aware of the limitations associated with the use of this as a technique in warm or hot environments, or where workers have been breathing through their mouths. Allof the interviewees had taken the standard 4 minute measure of oral temperature and had not allowed for a longer stabilisation time of oral temperature when the mouth is closed as recommended by Candas.
    - **Rectal and Oesophageal**: None of the interviewees had used either rectal or oesophageal temperature as they felt it was too invasive. A couple of the interviewees said that in certain cultures the use of rectal temperature would not beacceptable.
- None of the interviewees had used radio pills to obtain body temperature.

Measurement of skin temperature

- Only 2 of the interviewees had measured skin temperature. Here it was generally felt that the equipment needed would be too complicated to use and they were unfamiliar with how to interpret the information they would receive. Those interviewees that had measured bodytemperature had done so because they felt it was more important than skin temperature because it gave them a measure of they could associate with risk.

Measurement of metabolic rate

- None of the interviewees had ever measured metabolic rate as part of a risk assessment;
- One interviewee had, on occasion, called in an expert to measure the metabolic rate of the workers. The results, the interviewee said, were discarded because there was a large variation in the measures, both between measurements of different workers doing the samework and between different measures of the same worker.

Estimation of metabolic rate

- Only 12 of the interviewees questioned had estimated metabolic rate. They had all used thetable presented in the *WBGT* or ACGIH TLVs.
- All the interviewees also expressed a view that they had found the process very difficult andthat they did not have confidence in the figures that they had arrived at.

Discussion - Informal Interviews

Very few of the interviewees have experience or knowledge of the SW_{req} index, yet they all wereaware of the HSI index. This would suggest that the training of occupational hygienists does not incorporate the SW_{req} index as an accepted approach to the assessment of heat stress in industry. This may be due to the fact that the standard is relatively new (published in 1989), compared with the *WBGT* or ACGIH TLVs which are well established. There is obviously a need for an index that can be used to investigate possible control approaches to aid occupationalhygienists in the task of control strategy identification and implementation. It would seem therefore that if the validity of the standard can be improved and the envelope of its application clearly established to improve the confidence in its predictive capabilities in those people of influence within the BOHS, it may be more widely used and accepted as a heat stress index.

The benefit of using an index in this way would obviously provide the occupational hygienists with a valuable tool which not only tells them whether or not they have a problem, but how different solutions may help control the risk of heat stress if it is identified. There is a poor levelof understanding of how to correctly and accurately measure and interpret the physiological responses of workers in hot environments. This is clearly indicated in the magnitude of errors that were made when measuring body temperature. Furthermore it brings into question the setting of limits that have been established scientifically when those people who are meant to interpret these limits do not query their techniques when these limits are exceeded by such high levels as those recorded (e.g. 45 °C).

Conclusions - Informal Interviews

- Few of the interviewees had experience of ISO 7933 and those that had found it difficult touse.
- All the interviewees were aware of the *HSI* and *WBGT* indices.
- There is both a need and an interest in a methodology that allows for control options to beidentified, evaluated and implemented.
- There is also a need to either better promote the standard (such as ISO 9886) or to provide aguidance document which includes all the relevant information.
- All interviewees said that additional information was needed as they found the heat stressassessment process complicated.

4.2.5 Hierarchical Task Analysis (HTA) of Heat Stress Standards.

The HTA was conducted to identify if there were any areas where the current heat stress standards do not support the tasks that would ordinarily be performed as part of a heat stress riskassessment. This would also provide for a comparison of how the process differs from the 5 Step Risk Assessment strategy prescribed by the HSE. A detailed HTA of all processes described in each standard was conducted. The HTA has been simplified for this report to provide

the following process diagram of how the standards may be applied and is presented in Figure 9.2.

HTA Findings

The format and sequence of the standards is such that the user is required to go directly into the measurement of the physical environment. None of the standards require of the user to conductthe first stage of requirement of all other risk assessments: **Identifying the Hazard**. This introduces a number of problems in that it does not follow the sequence or "steps" that users are

familiar with from using other established risk assessment approaches. Thus, the risk assessmentprocess as described in the standards does not conform to user expectation, user knowledge of risk assessment, transfer of knowledge from one risk assessment to another, and probably most importantly to the tried and tested sequence of appropriate risk assessment strategies.

Furthermore, the standards appear somewhat complicated and where flow diagrams are used, they explain a theoretical process and not the actual practical process that the user is expected tofollow. The underlying structure however is there, with the umbrella document (ISO 11399) providing a overview of the different thermal standards.

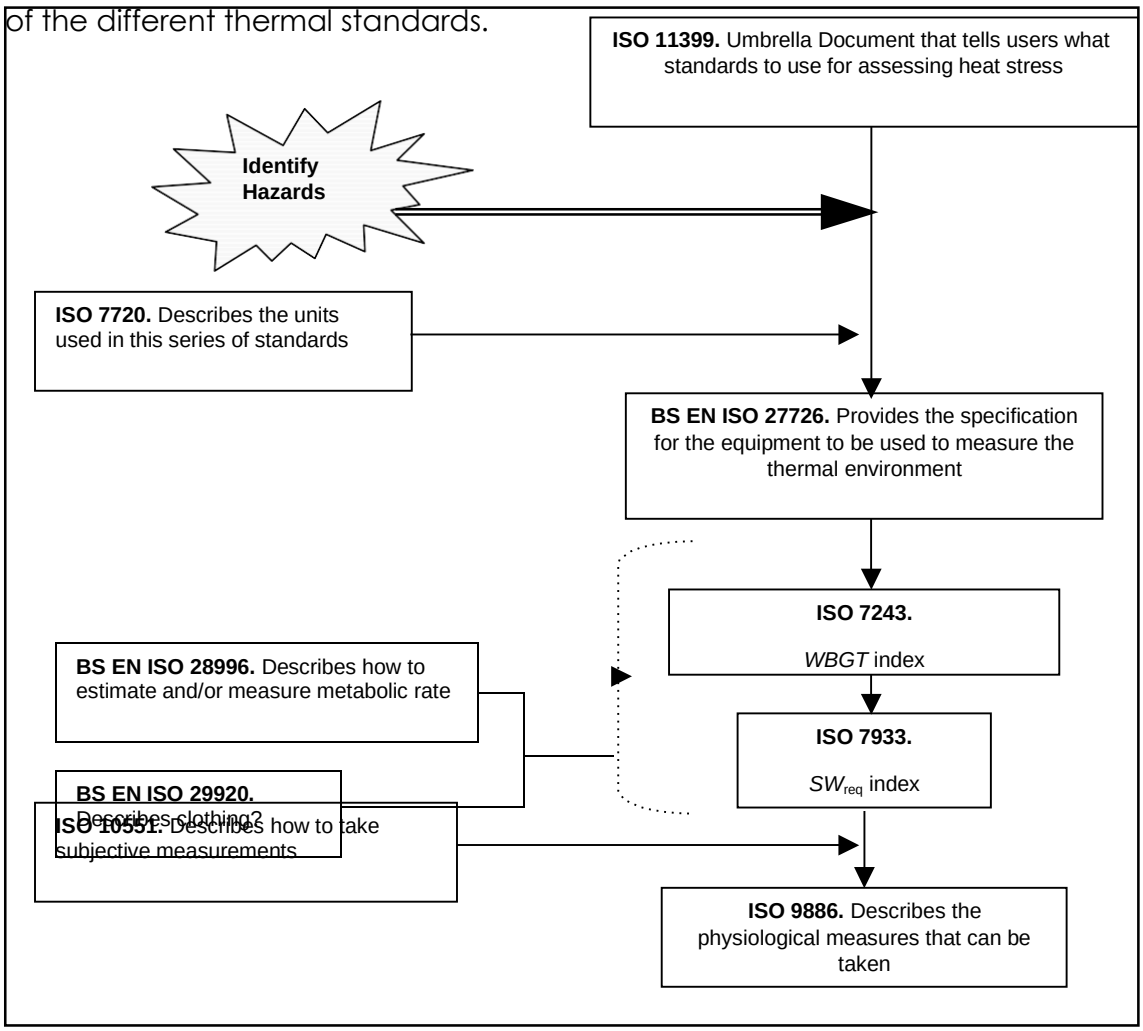


Figure 21: A simplified process diagram of using current heat stress standards to conduct a heat stress risk assessment. The "burst" shape shows where an observation method to identify the hazards may be introduced

4.2.6 Field Trials – Heat Stress Assessment in a Paper Mill

This section describes an example of how the WBGT and the SW_{req} index may be used in anindustrial setting. The results of the assessment are

provided following a description of the experimental protocol and results of physiological measures.

Introduction

The Health and Safety Executive (HSE) approached the Human Thermal Environments Laboratory (HTEL) to conduct a heat stress risk assessment in a Paper Mill. The study team was Professor K. Parsons and D. Bethea. The Paper Federation and the HSE Paper mill National Interest Group endorsed the assessment. The study was conducted in response to complaints of thermal discomfort while working in the basement of Paper Machine number 3(PM3) and not as a result of any incidents in the mill relating to reported heat stress illness oraccidents.

Method

Subject

One male volunteer took part in the study. He was an experienced paper mill worker, having worked at the plant for 21 years. He was 59 years old and he estimated his weight as being 70Kgs and his height as being 167 cm. The subject was notified that he could withdraw from thestudy at any time, and following a description of the experiment and the measures to be taken, he provided informed consent and completed a medical questionnaire.

Apparatus

Environmental Measurements

Wet bulb globe temperature (*WBGT*), air velocity and humidity were measured on equipment conforming to the specifications as described in ISO 7726 and ISO 7243. All data was measured and stored on an Eltek 1000 Series Squirrel Data Meter/Logger at one minute interval.

Physiological Measurements

To record the subject's responses to the thermal environment a number of physiological measurements were taken at one-minute intervals. All measures conformed to the requirementsstipulated in ISO 9886. The measures taken were aural and skin temperature and heart rate.

Calibration of measuring equipment

All equipment was calibrated pre and post study in the facilities at HTEL.

Procedure

The purpose of the study and the methods involved were explained to the line manager, the Union representative and the volunteer. All parties agreed to the procedures and once the subject had provided informed consent he was

instrumented for taking physiological measures. Environmental measurements were taken at abdomen height within 2 metres of the area where the worker conducted most of his tasks within the basement. No measures were taken on the forklift truck or the area outside of the basement area of PM3. The physiological measures weretaken for the duration of the study and recorded at 1-minute intervals throughout the assessment.Additional recordings were taken of the time it took the worker to conduct his tasks, along with any incidents that occurred, such as paper breaks etc. Visual recordings of the workplace and the nature of the work were made using a digital camera and video camera. The study team did not involve themselves in any way with the work the subject was performing and the worker didnot perform any tasks other than those expected as part of his every day duties. The

physiological measures continued during the subject's lunch break. The study was terminated atthe subject's request.

Results

The results of the environmental and the physiological measurements are presented. Theassessment of the basement is then presented using the *WBGT* index.

Environmental Measures

WBGT Measures

All data presented is for the periods once the black globe thermometer had reach equilibrium(after 30 minutes).

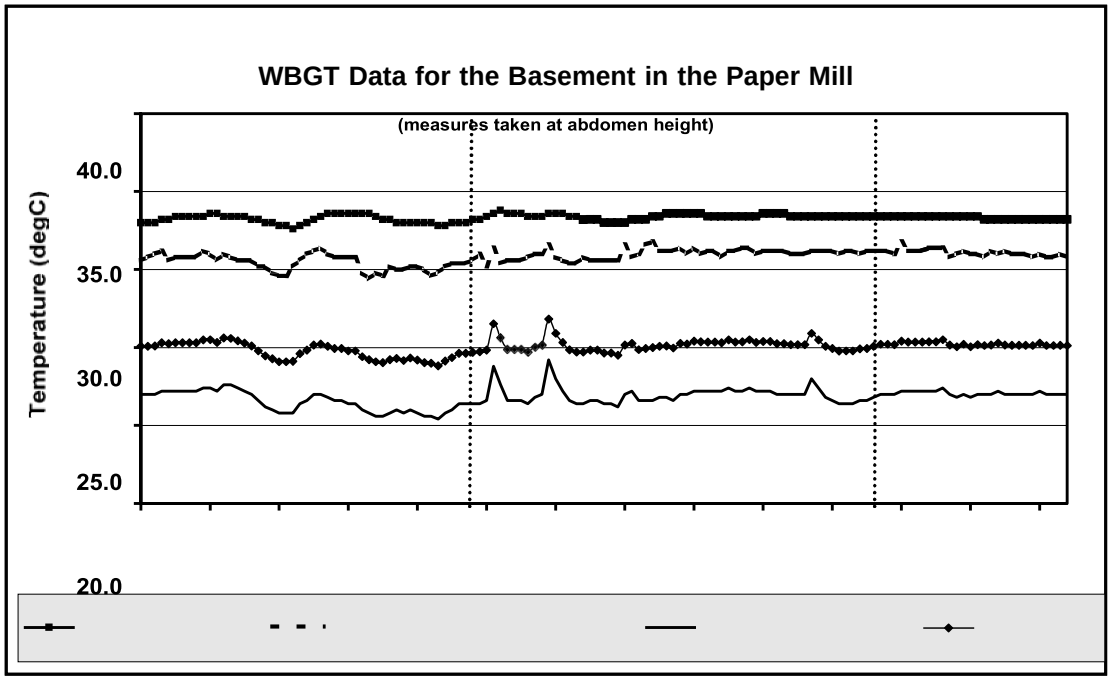


Figure 22. Line graph showing the WBGT values measured at abdomen height in the basement at the Paper Mill. The dotted lines show the hour that provided the highest WGBT value for the duration of the measurements.

Table 56: The descriptive statistics for the *WBGT* values measured at abdomen height in the basement at the Paper Mill**.**

	GLOBE TEMPERATURE	DRY BULB TEMPERATURE (SHIELDED)	WET BULB TEMPERATURE	WBGT VALUE
	°C	°C	°C	°C
Mean	33.3	30.8	21.8	25.0
SD	0.23	0.48	0.58	0.47
Minimum Value	32.6	29.4	20.4	23.8
Maximum Value	33.8	31.8	24.2	26.8

Figure 22shows the *WBGT* measures in the basement at abdomen height. The three small peaksobserved in the wet bulb temperature and the resultant peaks in the *WBGT* value correspond with moments when large amounts of hot wet paper fell into the basement as a result of significant paper breaks. The descriptive statistics described in Table 1, show that the mean *WBGT* value at abdomen height in the basement as being 25°C. However the mean value for the period between the dotted lines in Figure 2 is 25.2 °C. According to the *WBGT* methodology it is this figure that should be used when assessing an environment.

Physiological Measurements

Heart rate, aural temperature and skin temperature were measured. From the temperaturemeasures, the mean of each was calculated.

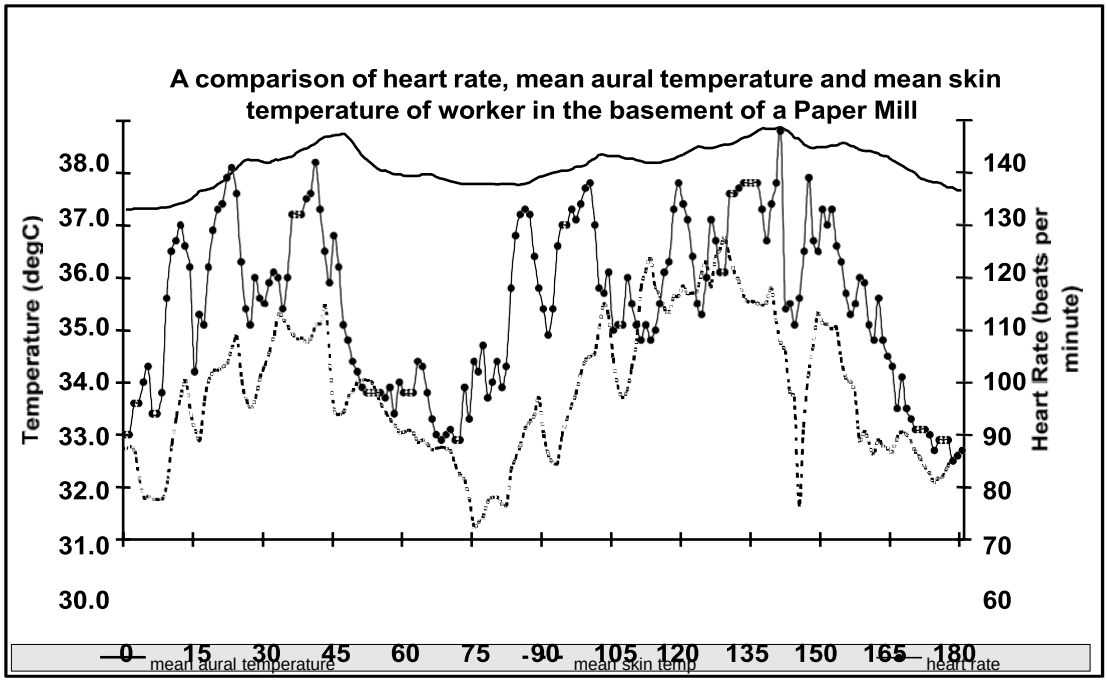


Figure 23. Line graph showing the relationship between mean aural temperature, mean skin temperature and heart rate over time.

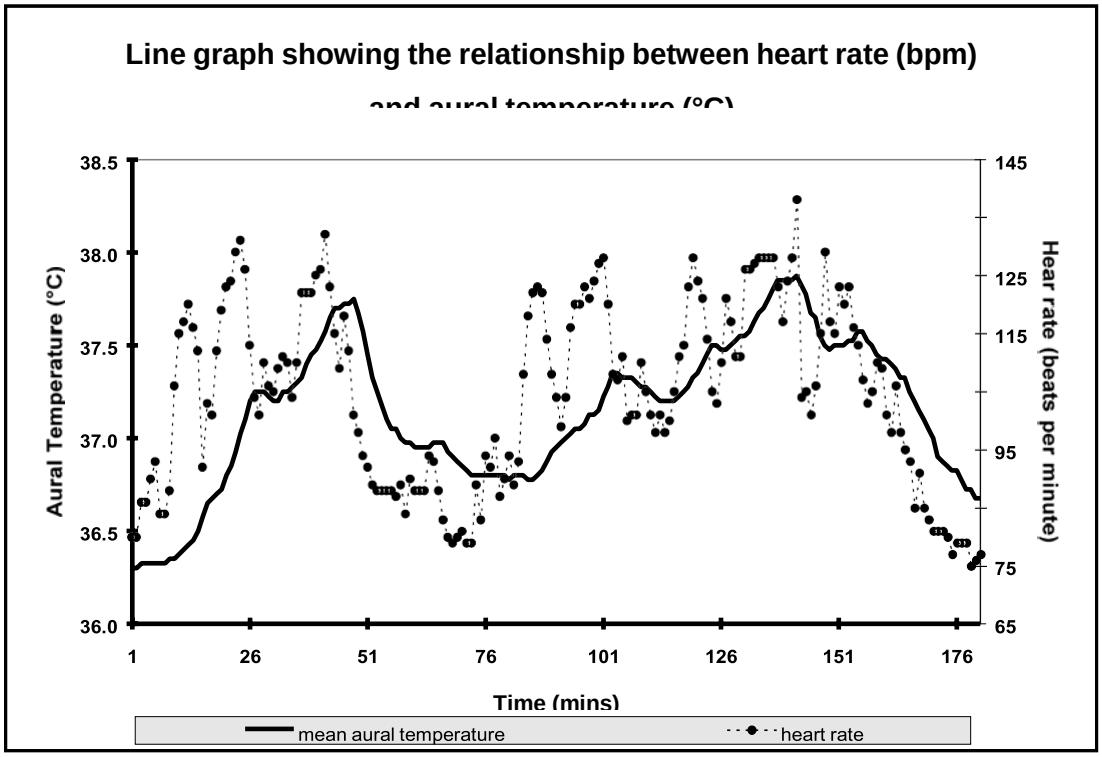


Figure 24. Line graph showing the relationship between mean aural temperature and heart rate over time.

From **Figure 23**, it can be seen that under the conditions studied, heart rate closely mirrored thechanges in both mean skin temperature and mean aural temperature. In **Figure 24**the relationship between mean aural and heart rate over time can be seen more clearly. The peaks inboth heart rate and the mean skin temperature profiles are at the same times as the two observed peaks in mean aural temperature. Mean skin temperature is also approaching 36°C at around 130 minutes.

Estimating the work rate by observing the worker.

From the heart rate profile above and from timings taken during the study the following graphhas been produced. The work rate was separated into 2 main categories:

- L = Loading the skip with paper in the basement.
- U = Unloading the skip.

(For further information, see the Table presented in the Annex that describes the timings and thebreakdown of tasks that make up the categories.)

The categories are presented in the graph below as blocks. The blocks show breaks that the subject took during the study. The first was a lunch break, while the second was at the end ofthe study.

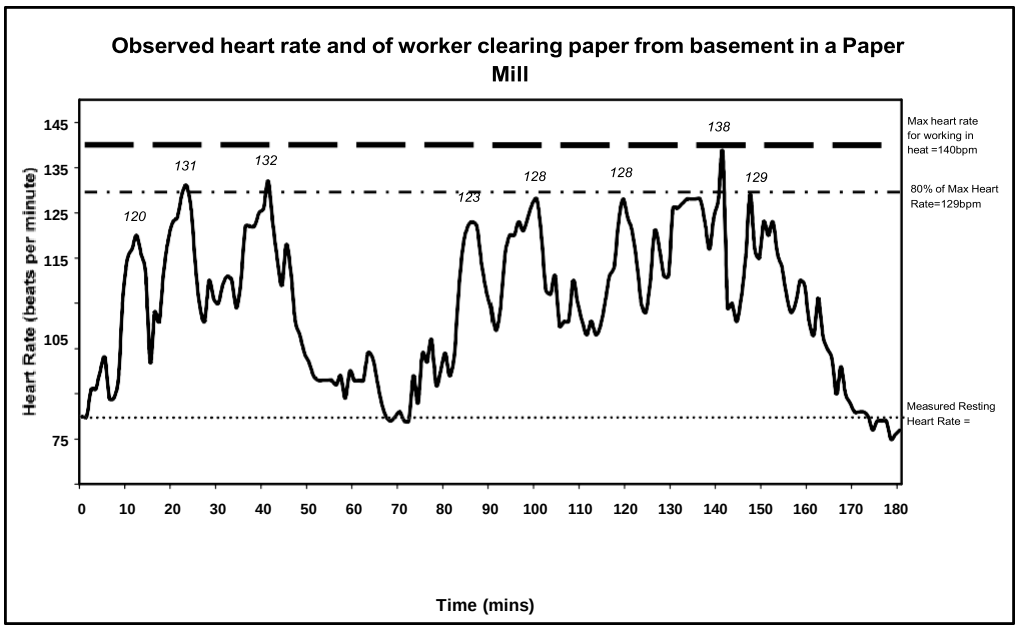


Figure 25. Line graph of heart rate measures taken overlaid by observed work sequences (L=Loading, U=Unloading.)

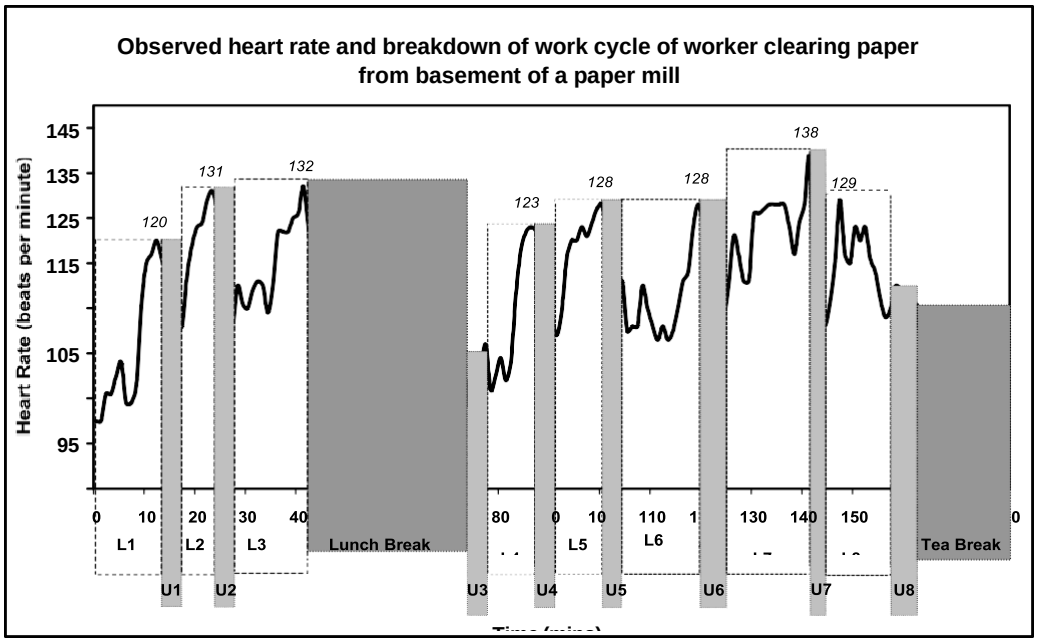


Figure 26. Line graph of heart rate measures

Reference lines for resting heart rate, 80% of the workers maximum heart rate under normal exercise conditions(80% of MAX = 129bpm, where MAX = 220-AGE) and the recommended maximum of 140 beats per minute for workers over 35 years old working in the heat.

A mean metabolic rate was estimated using ISO 8996 (1994). By breaking the work into thefollowing components, an overall estimate of metabolic rate was achieved. (For further information see workings described in the standard.)

Table 57: Breakdown of the calculation of mean metabolic rate by calculating metabolic rate for the different component tasks (as described in ISO 8996)

ESTIMATION OF METABOLIC RATE DURING LOADING OF SKIP			
From observations: Mean time spent LOADING skip: 11.5mins			
DESCRIPTION OF ACTIVITY	**DURATION (sec)**	**METABOLIC RATE W.m^{-2}**	**TOTAL ENERGY J.m^{-2}**
Walking in the factory interior at about 2km/k	120	110	13200
Bending to pick up paper	180	160	28800
Carrying paper	210	235	49350
Lifting paper into skip	180	235	42300
Total	69		13365
		19	

ESTIMATION OF METABOLIC RATE DURING UNLOADING OF SKIP			
From observations: Mean time spent LOADING skip 5.5mins			
DESCRIPTION OF ACTIVITY	**DURATION (sec)**	**METABOLIC RATE W.m-2**	**TOTAL ENERGY J.m-2**
Dragging the skip to the door	30	260	7800
Driving the forklift truck	240	120	28800
Walking in factory at about 2km/h	30	110	3300
Pushing skip back into the basement	30	195	5850
Total	330		45750
Average metabolic rate		139	

OVERALL ESTIMATION OF METABOLIC RATE DUIRING THE WHOLE WORK CYCLE			
From observations: Mean time spent during each L and U cycle: 17 mins			
DESCRIPTION OF ACTIVITY	**DURATION (sec)**	**METABOLIC RATE W.m-2**	**TOTAL ENERGY J.m-2**
Loading Skip	690	194	133650
Unloading Skip	330	139	45750
Total	1020		179400
Average metabolic rate		176	

- Mean Metabolic Rate = 179 W.m^{-2}

Intrinsic insulation of clothing values (Icl).

ISO 9920 was used to estimate the intrinsic clothing insulation values of the clothing worn by the worker. The result was a clo value of 0.56 clo which was rounded up to provide a value of

0.6 clo.

WBGT index

From the *WBGT* reference table (see Table 4) the reference values for a metabolic rate of 179W.m^{-2} are:

- Acclimatised worker = 28°C
- Unacclimatised worker = 26°C

The mean of the measured *WBGT* value was 25°C, however as discussed above the mean of thehour that gives the highest value should be used. Therefore the value to be used should be 25.2°C.

Required Sweat Rate index

The following data was entered into the SW_{req} program which is described at the back of thestandard.

Air temperature (°C)	= 30.8
Globe temperature (°C)	= 33.1
Wet Bulb temperature (°C)	= 21.8
Air velocity ($m.s^{-1}$)	= 0.4
Metabolic rate ($W.m^{-2}$)	= 179
External Work ($W.m^{-2}$) =	= 0
Body fraction area exposed	= 0.77
Clothing insulation (clo)	= 0.6

Program calculated the following environmental parameters: Mean radiant temperature = 36.4

Partial vapour pressure = 2.011

From this input data, the program predicted the following DLEs and predicted sweat rates(SWp).

Table 58: ISO 7933 SW_{req} predictions of DLE and SWp for the basement area in the paper mill

		DLE (MINS)	SWP (G/H)	REASON FOR DLE
UNACCLIMATISED	**Alarm**	300	520	Excessive water loss
	Danger	339	575	Excessive water loss
ACCLIMATISED	**Alarm**	406	575	Excessive water loss
	Danger	No limit	575	None

Discussion

The results as presented in the previous section are discussed in detail below.

Environmental Measures

The basement, under the environmental and personal conditions that were measured andestimated during this study does not exceed the recommended *WBGT* reference values.

Physiological Measurements

It is evident from the graphs of the physiological data that there was an accumulation of stress on the subject during the periods before and after lunch. At the lunch-break the worker commented that he was feeling hot and therefore was stopping for work, which was mirrored inhis heart rate and aural

temperature at that time. This is a typical behaviour that may be observed in experienced workers who adapt their work to subjective self-monitoring.

Inexperienced workers may not have developed these patterns. A further point to consider is that if a worker is under pressure due to "down-time", he may not be able to behave in this self-regulatory way. It is therefore important that workers are made aware of the need for frequent breaks from hot environments.

When increases in temperature in the body are observed, blood flow to the skin increases through the dilation of the blood vessels beneath the skin. This encourages the movement of

heat from the blood, through the skin to the environment, thereby reducing the temperature ofthe blood returning to the heart, lungs muscles etc., where it is re-heated and the process continued in order to maintain core temperature. As skin temperature increases so the amountof heat that can be transferred per unit of blood will reduce linearly. As a result of this, heart rate increases in an attempt to maintain cardiac output while the volume of blood pumped during each beat decreases.

The worker's heart rate was close to, or over, what would ordinarily be considered his aerobic threshold value and at the end of the final session that he was approaching the maximum of 140 bpm for working in the heat. Under these conditions and at these heart rates, a conflict between the thermoregulatory system and the cardiovascular system may arise. This complication associated with the increase in heart rate arises because the capacity for exercise (or work rate inan occupational setting) decreases as the thermorgulatory response overrides any cardiovascularneed to provide blood and oxygen to the muscles for exercise at sub maximal work rates. This is exacerbated by the loss of water through sweating because large sweat losses reduce the body's water content (hypohydration).

Again, during hotter months, the worker may well exceed these values and it may be necessaryto introduce regular rest breaks. Additionally, the employment of lifting aids, correct lifting techniques and the introduction of a buddy system may help to further reduce the worker's metabolic heat production. Reducing the worker's metabolic rate would decrease their metabolic heat production that in turn would provide a lower deep body temperature.

Estimating the work rate by observing the worker

The method used to estimate the metabolic rate of about 15% could be expected. This errorwould still keep the worker in a work class that would be considered "**moderate**".

Intrinsic insulation of clothing values (Icl).

The clo value of 0.6 clo estimated as worn by the worker does not exceed the clo values that lead to the development of the *WBGT*. Therefore no reductions to the *WBGT* reference valueare required.

Heat Stress Indices

WBGT Index

The basement, under those environmental and personal conditions that were measured and estimated during this study, does not exceed the recommended *WBGT* values. The observed mean value for the hottest hour

was 25.2°C. The *WBGT* method requires the user to make a distinction between acclimatised and unacclimatised workers. However, best practice in industry suggests that it is safest to assume that all workers are unacclimatised. Therefore, it is recommended that the *WBGT* value be adopted as 26°C. Since the observed mean value and thelimit value suggested by the standard are with 1°C of each other, it may be necessary for furthermeasurements to be taken during hotter months when it is anticipated that this value will be exceeded.

SW_{req} index

Although the *WBGT* reference values were not exceeded they were sufficiently close to the observed values that it was decided to use the SW_{req} index to evaluate the risk of the worker suffering from heat stress. The interpretation of the input values gave DLEs greater than 300mins which is less time than time between breaks observed on the day even though the WBGT reference values were not exceeded. This supports the findings of Kähkönen *et al* (1992) and Peters (1991). One problem though with the SW_{req} model is that it is very sensitive to the metabolic rate input value and the DLE may vary greatly depending on the value obtainedfor the estimation of metabolic rate. However, an important point here was the fact that excessive water loss was the limiting factor and not an excessive increase in deep body temperature. This suggests that workers must be encouraged to drink water regularly throughout their shift with a minimum suggested amount of 500 ml (about a pint) per hour during the shift. Care should also be taken to make the workers aware of the dangers of diuretics such as caffeine based products (tea and coffee) and alcohol when working in an environment that may cause excessive water loss through sweating. The DLEs and SW_p should only be used as guidelines and common sense should prevail. (If a worker is feeling hot, they should be able to rest.)

Other observations

The worker was sweating profusely during the observation period. Although drinking facilitiesare provided on the main factory floor, the worker did not take a drink break during either workperiod. Dehydration may be a problem under these conditions and the worker should be encouraged to take regular breaks during his shift. Introducing water stations at or near the basement area could facilitate this.

Conclusions

- The mean *WBGT* value measured at the front of the basement for the hottest hour was25.2°C.
- The intrinsic clothing insulation of the clothing was estimated as 0.6clo.
- The estimated metabolic rate for a worker clearing paper from the basement was179W.m^{-2}
- The *WBGT* references value for a metabolic rate for unacclimatised worker working at a work rate of 179W.m^{-2} as described in the standard ISO 7243 is 26°C. This reference valuewas not exceeded under the conditions studied. However the study was conducted during October and therefore during hotter summer months this reference value will almost certainly be exceeded. Therefore a more detailed assessment using the Required Sweat Rate index is recommended.
- The SW_{req} index suggested that the workers might be prone to excessive fluid loss. Fluidreplacement strategies are therefore recommended that encourage the worker to drink a minimum of a pint of water pre hour spent in the basement area.

- The worker was working at or above their normal anaerobic threshold heart rate and just below the absolute maximum for working in the heat. This would provide unnecessary additional stress and the worker should be monitored. Two possible solutions are recommended: 1) Heart rate should not exceed 120bpm, thus allowing for a possible 20bpmvariation between individuals at the 140bpm threshold. 2) Further monitoring of the worker performing the task in a neutral environment would enable the establishment of how much the thermal strain is causing heart rate to increase (usually an increase of 1°C = a 30bpm increase). The threshold could therefore be set at heart rate at neutral plus 30bpm (if this is lower than 120bpm).

- It is recommended that a buddy system or improved lifting techniques and the use of liftingaids should be introduced to reduce the overall stress experienced by the worker.

The overall findings are that although the worker was not showing any direct signs of heat stress, that the interpretation of the combined physiological responses suggests that he was onthe threshold of suffering from mild heat stress.

4.2.7 CONCLUSIONS OF STAGE 1 – Exploratory Stage

The exploratory stage provided the necessary background and practical knowledge of theprocess of conducting heat stress risk assessments based on the information and structure provided by the relevant international standards.

1.) The process of conducting a heat stress risk assessment is complicated because of the needto consider the 6 basic parameters. Discrepancies may occur between the *WBGT* and the SW_{req} predictions.

2.) The complexity of current standards (specifically ISO 7933) seems to negate its use in industry. This was shown by the interest of the interviewees in an index that aided the investigation, evaluation and implementation of controls, which ISO 7933 allows throughthe entering of input different environmental and personal values.

3.) Current heat stress risk assessment methodologies and standards do not follow the well established format of risk assessment. No HAZARD Identification stage is provided in thestandards. There appears to be a need for such a method so as to be consistent with other hazard risk assessments.

4.3 STAGE 2: DESIGN AND DEVELOPMENT STAGE

4.3.1 Introduction

It has already been shown that there are a number of appropriate heat stress indices and standards which, theoretically, have established a mechanism for best working practises in the assessment of heat stress in industry. Occupational Hygienists are expected to use these methods to assess hot working environments and then to implement the appropriate control strategies to reduce the risk of heat stress to the worker. An overall strategy for the assessmentof heat stress has been developed from these standards and from the existing requirements for generic risk assessment procedures. This section will discuss the design and development of apractical heat stress assessment methodology.

4.3.2 Rating and Ranking Methods for Risk Assessment

> "*Determining the relative importance of risks is an important element in risk assessment that identifies high risk areas which will demand a greater proportion of resources, both in the level of maintenance and control measures. Rating or ranking risks in relative importance can contribute to establishing risk control priorities*" (HSE, 1991)

Traditional methods of estimating risk, using exposure, consequence etc may not be possibledue to the interaction of the thermal environment parameters. Added to the need for a visual methodology so that hazard identification and qualitative risk assessment can be done, a literature review of subjective rating and ranking methods in risk assessment was conducted. The aim of the review was to investigate what types of subjective assessment methodologies were currently being used elsewhere in risk assessment and whether any precedents had beenset. This would provide the rationale behind any design decisions that may be made.

Risk assessment methods differ significantly dependent on whether quantitative or qualitative criteria have been set. It is this choice of perspective (quantitative vs. qualitative) that determines both the meaning of the probability/scores values and the interpretation of them. Therefore the establishment of qualitative values needed to be justified to ensure that where possible they accurately reflected the probability of risk. These ratings or ranks also needed tobe in a format that the users would be able to understand and interpret.

Since it is the interaction of the six basic parameters, as well as our health status and state of acclimation, that determine our physiological responses to our

environment, it would be extremely difficult to develop a qualitative methodology that would be both robust across any number of possible occupational situations while providing a valid indication without the use of objective data.

When estimating risk based on exposure-response analyses, epidemiologists use "*cut-points*" (statistical criteria such as quartiles, means etc) to categorise exposure-response analyses. Thisusually relies on an exponential relationship between the cause and the consequence, which according to Sullivan *et al* (1996) is an incorrect assumption to make. They cite work by various authors to explain the use of "*categorical exposure indices*", which have the advantage of assuming there is no specific or quantifiable relationship between the exposure and the

response. Although this categorical strategy is statistical, it provides a possible philosophy whereby each of the thermal parameters are categorised and rated according to how differing levels/values of each may contribute to heat stress without providing a quantitative "*cut-point*"for this.

By describing the environment, the clothing, the work rate, the worker's state of acclimation and their health status as sequential categories with increasing magnitude of effect on heat stress, the user may be able to provide a risk-based measure. An example of an observation based risk assessment technique is found in the nuclear industry. "*Inservice Inspection*" (ISI) strategies which rely on visual inspections and condition monitoring to obtain a risk-based estimation of equipment failure enable the user to identify failure risks in terms of failure probabilities and rates (Balkey *et al*, 1998). A fundamental requirement of this strategy is that the user is required to make judgements of probabilities of failure occurring on plant equipment through the observation of component parts such as welds, pipes etc. Here too, the ISI strategy employed is not directly transferable to the assessment of heat stress, but there are processes that, if adapted, may provide foundations for the heat stress observation-checklist. It may be possible to provide an overall score for the risk of heat stress based on the contribution that eachparameter may provide through the rating score it is given. It may also allow the user to identify where reductions in the risk can be made. This may be done for each individual parameter and thus for the overall risk score. Additionally, a conceptual decision, such as that described by Balkey *et al* may also be adapted to aid the user's decision making process. Threeissues are raised by this:

1. How can the user's decision-making process be aided?
2. What scores are applied to each category and each parameter and how are theyarrived at?
3. Will the scores be representative of the contribution to the risk that each parameter,and the combination of all parameters, may provide?

The decision-making processes and the scores attributed to each category are not independent ofeach other. Any score obtained will be directly dependent on the decisions the user has made and conversely the decisions made by the user may be influenced by the scores. Analysis of thedecision making process shows that it involves the user evaluating the "*evidence*" (the thermal environment) and then determining what the successful way of achieving the set objective is (to identify if there is a risk of heat stress) (Chicken and Hayns, 1989). The success of this though is reliant on sufficient and valid information being presented to the user. Additionally, it is important that as much information as possible is provided to limit the possibility that even when subjective views are required that the same or similar results are achieved. (This argument can also be supported mathematically, although the probabilities (ratings) are based on expert opinion and not on empirical heat stress data as the probability data are not available.)

A number of authors, including Pate (1983), Spencer *et al* (1985) and Covello (1994), describe the need to consider the mathematical foundations of subjective scores. The theory described iscalled *Bayesian* or *judgmental view*, which states that when using subjective views, the probability (of risk) is no longer purely a function of the situation but also of the state of the information. This is understandable, since judgements can only be made based on the information provided. Since the information provided is independent of the user, it should be presented in such a way as to ensure that two people with the same background knowledge would assign the same probabilities (ratings). Insufficient information may not allow for sufficient choice, while too much information may only serve to confuse the user. Interestinglythough, the literature also shows that most rating scores are allocated arbitrarily based on expertopinions. The Bayesian theory also seems to allow for this, as the theory is based on health andsafety experts being ideally suited to providing subjective opinions. This can be done without the need to consider what Covello calls the "*classical" theories of probabilities*." This point is

particularly important because no data are available about the risk probabilities that may exist under different combinations of thermal environment parameters. Therefore, any ranks or ratingscore, would be based on the opinion of an expert.

The ranking (rating) of hazards also allows the user to identify areas of concern where possiblecontrol options may be implemented as well as presenting the user with an order of the level ofconcern they may represent. HSE (1991) reported that in addition to the establishment of risk control priorities, systems that assess relative risk could also aid in:

- Deciding Health & Safety Objectives and Goals;
- Prioritising and improving levels of competence and training;
- Identifying high risk areas that require more detailed monitoring;
- Identifying areas that may require immediate control intervention;
- Deciding what levels of controls are required, the extent of resources etc;
- The review of control and intervention strategies.

However, this process is usually done using the risk estimation equation.

Types of Rating and Ranking methods in the literature

Everley (1994) reported that St John Holt and Andrews (no date) (Table 10.1) and the Croner Health and Safety at Work Bulletin Issue (Table 10.2) provided simplified scoring systems. Thesystem by St. John and Andrews was based on rankings awarded according to severity and probability, while that by Croner, multiplied the ratings for frequencies and severity to obtain a risk rating. The risk ratings with the highest score indicated the highest risk rating.

Table 59: Hazard Ranking as cited by Everley (1994) (after St John Holt and Andrews, nd)

SCOR E	SEVERITY	SCOR E	PROBABILITY
1	Catastrophic	**1**	Probable
2	Critical	**2**	Reasonably probable
3	Marginal	**3**	Remote
4	Negligible	**4**	Extremely remote

Table 60: Risk rating as cited by Everley (1994) (after Croner Health and Safety at Work Bulletin Issue 3)

SCOR E	FREQUENCY	SCOR E	SEVERITY
1	Improbable	**1**	Trivial
2	Possible	**2**	Minor
3	Occasional	**3**	Major injury to one
4	Frequent	**4**	Major injury to plus one
5	Regular	**5**	Death of one
6	Common	**6**	Death of plus one

The resulting score ranges between 1 and 36 and there are a number of potential problems withthe Croner method, as highlighted by Everley, including:

1.) It becomes difficult to distinguish between high frequency low consequence events andlow frequency high consequence events (i.e. different combinations give the same result e.g. 1 x 6 and 6 x 1);

2.) There is no distinguishing between short term and long term risks;

3.) Most assessments may fall in the middle of the range of resulting scores.

The problem with considering these sorts of criteria for a qualitative heat stress assessment methodology is that there may not necessarily be the same classification of consequences in theheat as there are for other hazards such as chemicals, noise etc.

- **Severity**: One area where data are available is in the area of the pathological effects of thermal radiation exposure doses. One such data set are the cause and consequence tablesof the effects of thermal radiation on humans (Hymes *et al.*, 1996) which provides probabilities of lethality based on thermal radiation exposure doses and time. However, these are quantifiable because of the pathological nature of the consequences. This is not the case with exposure to non skin-burning levels of radiation, or the other parameters. Severity does not appear to be applicable to the qualitative assessment of heat;
- **Consequence***:* Here too the consequences are not as clear-cut as "*minor*", "*major injury to one*" etc. Added to this is the lack of evidence that there are long term health effects from working in the heat. Therefore if consequence is to be used, it may be better to consider it in terms of how likely is heat stress to occur and/or what magnitude the different parametersmay have relative to other parameters in it's category (e.g. clothing). Again this is difficult due to interpersonal differences between people. Harm (strain and stress) from heat is not an easily quantifiable consequence.

This interaction between what Chicken and Hayns (1989) call "technical factors" is not unusual,with these interactions often being "*non-linear*" and "*multi-directional*". The development of the judgements about each interaction or series of interactions often need to be refined during the development stage of the risk assessment process. To do this, justification has to be provided to explain the rationale behind the development of the rational arguments. Where rankings are provided for the different categories and parameters of heat stress, each ranking will reflect the judgement of the author as to the role and place that that category or parameter has in the interaction of the 6 basic parameters. For these rankings to have meaning, an overall philosophy needs to be adopted to describe the magnitude of the individual ranks both as stand alone criteria and when compared to other ranks. To this end, Chicken and Hayns provided an acceptability criterion for technical risks. Their criteria have been adopted for this project: (***Note****: the probability of death criteria heat stress not been included for heat stress*).

Table 61: Technical risk acceptability criteria for Heat Stress (adapted from Chicken and Hayns, 1989)

RISK RANK SCORE	ACCEPTABILITY	COMMENTS
3+	· Unacceptable level of risk from heat stress	· The risk would have to be significantly reduced for it to become acceptable
2-3	· Only acceptable under certain circumstances	· High risk of heat stress. · The risk would have to be reduced to make it acceptable · Further assessment using WBGT and/or SW_{req} required. · Physiological monitoring may also be required.
1-2	· Would require detailed evaluation to justify acceptability	· Moderate risk of heat stress · Further assessment using WBGT and/or SW_{req} required.
0-1	· May require additional evaluation to justify acceptability	· Worker may be experiencing thermal discomfort. · There may also be little risk of heat stress. · Further assessment using WBGT and/or SW_{req} required.
LESS THAN 0	· Little or no risk of heat stress. Acceptable without restriction	· No risk of heat stress therefore no further assessment required.

These ranks are the same as those in the ASHRAE thermal comfort scales and the PMV Scales(although they are polar around a neutral score of zero.)

4.3.3 Structured Group Discussions

There were two main aims of this part of the research.

1.) To provide the information for the specification of a proposed generic heat stressstrategy.

2.) To provide the information necessary for the design and the development a practicalheat stress assessment methodology which would be part of the proposed generic strategy.

(NOTE: A generic heat stress strategy is not being developed as part of this project. Rather, it will bedescribed as a process which, following further development, would meet current user requirements.)

Two categories of participants were involved in the discussion groups:

1.) Representative users: The representative users were current or past occupationalhygienists, occupational medics, health and safety professionals etc.

2.) Experts: These participants were those that are considered to be experts in the field ofhuman thermal environments and consisted of 2 areas of expertise:

- Academia / Research (***A/R***)
- Industry (***I***)

All of the experts had experience in the development of heat

stress standards.All discussions would be moderated by D.

Bethea.

Expert group discussion

Participants

- Mr. Geoff Crockford GC Occupational Hygiene Consultants (***I***)
- Dr. George Havenith Loughborough University (***A/R***)
- Mr. Robin Howie – Occupational Hygiene Consultant (***I***)
- Professor Rainer Goldsmith, Retired ex Loughborough University (***A/R***)
- Mr. Len Morris HSE, Bootle (***I***)
- Professor Ken Parsons Loughborough University (***A/R***)

Format and Procedure

Each member of the group was telephoned prior to the meeting and a brief telephone questionnaire was conducted to aid in the assigning participants to sub group and to ascertain arrival times etc nearer the date. A week before the session each participant received a Participant's Pack which contained a description of Discussion Groups. This was provided in order to aid the participants to prepare for the Discussion Group and to ensure that their points of view were well formulated. To provide an interesting and varied forum within which the members would interact, certain aspects of each session required the participants to break-up into smaller groups (or subgroups) to discuss specific areas of each topic. (Tables are presentedbelow that show the topics where this occurred.)

The following topics were discussed at the discussion group.

- Current Heat Stress Standards.
- The information levels required
- User Requirements and the Functional Requirements
- Proposed strategy by Malchaire: 3
  STEPS 1.) Observation
  2.) Analysis
  3.) Expertise

Discussion Topics

Current Heat Stress Standards and their effectiveness in industry

The first Topic to be discussed was the role of three current heat stress standards and whetherthey are effective in assessing, monitoring and controlling heat stress in the industry:

- ISO 7933 (1989), Hot environments Analytical determination and interpretation ofthermal stress using calculation of required sweat rate (SWreq).
- ISO 7342 (1989), Hot environments Estimation of the heat stress on working man,based on the WBGT-index (wet bulb globe temperature)

- ISO 8996 (1990), Ergonomics of the thermal environment: Estimation of metabolic heatproduction.

Each participant was given record sheets upon which they recorded their own views. In addition to these individual sheets, a subgroup sheet was provided upon which the person chosen to be the speaker of each subgroup recorded the subgroup's views and this sheet wasused to present the subgroup's views to the rest of the participants. All record sheets were collected at the end of each session and new record sheets for the following session were provided.

Levels of Information Required

This session was specifically interested in the levels of information that the users may require toconduct a heat stress assessment. The participants were asked to decided whether a parameter was of primary importance (absolute requirement), secondary (not an absolute requirement but may prove useful for a more detailed analysis) or Not Required (of no use) for the assessment ofheat stress. Upon completion of this part of the discussion, subgroups were again asked to report back to the rest of the group. This time the subgroups were allocated according to their area of employment, with Group A being from Industry, while Group B from the Academic/Research background.

Added to this, participants were asked whether they thought the **user** would have the knowledgeto obtain the measures, whether an **expert system** would be able to guide them through the process or whether they needed to call in an **expert**. This would decide what sort of informationwould be required.

Three Step Strategy for Risk Assessment

This part of the session discussed a strategy proposed by Professor Jacques Malchaire as part ofthe European funded BIOMED HEAT project to rewrite the ISO 7933 SW_{req} model. The strategy as described by Malchaire consists of the 3 categories:

1. **Observation**: "To be performed by people who may not necessarily have a training inthermal physiology but who have a knowledge of the working conditions being assessed."
2. **Analysis** "To be performed, when necessary, by the same people as above, but with the assistance of people more able to make environmental and physiological measurementsand to use these data to compute thermal indices."
3. **Expertise** "To be performed, in exceptional conditions, by the same people with theadditional assistance of experts".

This discussion was conducted without breaking the group into subgroups. Participants wereasked to provide their views on this strategy and to provide any alternative or complementarystrategies that they felt would benefit the user.

Results

Current Heat Stress Standards and their effectiveness in industry

The following comments have been copied from the transcripts of the discussions of both thesub-group and the main group.

ISO 7243

- Generally considered by the experts to be the most widely used and understood of thestandards, although this was attributed in part to the

widespread use of the ACGIH TLVs.

- Introduce diagrams to explain the thermal environment and the relationships between the person and the environment. This would provide the **basic knowledge required** tothen go into the document.
- Place all the technical information, such as equations etc in an Annex.
- Provide a "*Glossary of Terms*" at the front of the document.
- It needs to be emphasised that the document is also intended for management as well asthose who may be doing the assessment.
- Then going back to the main part of the document, we would go through the Scope, emphasising that it is intended for management level as well as other levels and that it

is going to cover the measurement, assessment, control and applicability. After that wemoved onto the actual measurement and assessment and we thought that that was probably what people wanted to read in it.

- Language must be as non-scientific as possible as it was felt that if a user was "lost" atthe start of the document, they would "*not read any further*."

ISO 7933

- Here too the structure of the document was criticised, with the participants feeling that the structure needed to be changed so that the Table of Contents was in more user friendly language. They recommended the avoidance of terms such as "*principles of the method*", which they replaced that with "*how does the method work and what is it based on*". Another example was that "*Scope*" could be replaced with "*Who should useit and when should it apply*",
- They also recommended the placing of the Normative References to an Annex andcalled it "Further Information".
- They thought there should be much more explanation throughout the standard of what actually happened at the different stages in the flow of the calculation. One of the areaswhere they identified the need for more information was how to interpret the index value and how to use it in drawing up schemes of control. They stated that the standardtalks mainly about work organisation with DLEs and that it needed to lead into other types of control. One way in which that might be facilitated was by looking at the avenues of heat exchange in more detail and they recommending that this would enablethe users to consider each parameter individually. This may guide them into the considerations they would need for the implementation of controls.
- Flow diagram and checklists would also need to be provided to further improve theusability of the standard.

ISO 8996

- The main finding here was that the provision of a decision tree may aid the usage of theindex. Again the language used was simple, with the recommendation being to use something along the lines of answering the question: "*here is somebody at work, now what am I going to do about it*", and the decision tree then aids them in their decision making.

Levels of Information Required and Knowledge Requirements

Environmental Parameters

- One area where the two groups of experts would agree was expected to be in the area ofenvironmental measurement. This was not necessarily the case, with the Industrial sub-group considering only plane radiant temperature and relative humidity as secondary information levels, while the academic group also considered MRT, Va and the *WBGT* value as secondary.
- It became apparent from the ensuing discussion that the Industrial experts were observing the "*whole process from start to finish*", while the Academics were only considering the process in terms of the *WBGT* and

SW_{req} model, which only has input values for t_a, t_{wb}, t_g, Va. This, argued the Industrial experts, ignored the need for data that was of importance. The A/R group said that since *WBGT* used t_a, t_{wb} and t_g, the allocation of fewer environmental parameters as primary information levels would meetboth the SW_{req} and the *WBGT* index requirements.

- Both groups agreed that RH was not used in any index and that RH meters were difficult to calibrate meant it only warranted a secondary information level allocation even though users could probably better identify with RH than partial vapour pressure.

- The sub-group had also discussed the knowledge requirements, and when these were reported back, there was again disagreement. This disagreement centred around the meaning of the phrase "Expert System". It was decided that for this project an ExpertSystem meant any index or measurement-specific information (such as equations etc) that the user would need to perform a risk assessment. The following table shows the agreed Information Levels and the Knowledge Requirements from which any Expert System would be developed.

Table 62: Final allocations of information levels and knowledge requirements for environment parameters

	POST-DISCUSSIO Information Level	**ALLOCATIONS Knowledge Requirement**
Air Temperature	Primary	**User**
Wet bulb temperature (natural)	Primary	**User**
Radiant Temperature (globe).	Primary	**User**
Radiant Temperature (MRT).	Secondary	**Expert System** – How to obtain mean radiant temperature from t_g
Plane Radiant Temperature	Secondary	**Expert** – Difficult to measure and interpret.
Air Velocity	Primary	**User**
Relative Humidity	Secondary	**Expert System** – How to obtain relative humidity from partial vapour pressure
Partial Vapour Pressure	Primary	**Expert System** – How to obtain partial vapour pressure from t_{wb} and t_a
WBGT Value	Primary	**Expert System** – How to obtain WBGT from t_a, t_g and t_{wb}

Clothing parameters.

Here too the different types of information that may be importance provided some disagreementbetween the two groups. The A/R group considered the parameters in terms of input values, while the industrial group considered the parameters in terms of how they would be used by theusers to obtain clo values. After further discussion, the allocations presented below were agreed.

Table 63: Final allocations of information levels and knowledge requirements for clothing parameters

	POST-DISCUSSIOI Information Level	ALLOCATIONS Knowledge Requirement
Clothing insulation (clo)	Primary	**Expert System** – How to calculate clo values
Moisture permeability (im)	Primary	**Expert System** – How to obtain i_m values
Purpose of clothing (PPE)	Secondary	**Expert System** – ACGIH and now WBGT provide correction values for different types of clothing. Users need to know what they are to obtain new correction values.
Body parts covered by PPE	Secondary	**Expert System** –New PHS index will require body part covered to be entered into model
Air Permeability permeability	Primary	**Expert System** – Importance of air

Levels of Physiological Information Required.

Again there were differences, and again they were based on the process by which the users would get to the Estimated metabolic rate. The industrial group viewed description of work as aprimary requirement because it would provide the information that the users would need to perform a task analysis of the work as the basis for estimating metabolic rate. Following discussions, it was decided that this would be a primary information requirement. Both groups agreed that the measurement of metabolic rate and physiological monitoring were both secondary requirements requiring expert input. The following allocations were agreed upon.

Table 64: Final allocations of information levels and knowledge requirements for physiological parameters

	POST-DISCUSSION ALLOCATIONS	
	INFORMATIO N LEVEL	**KNOWLEDGE REQUIREMENT**
Metabolic rate User **(measured)** metabolic rate	Secondary	**Expert** is required to measure metabolic rate. cannot be expected to have skills for measurement
Metabolic rate (estimated)	Primary	**Expert System**- Tabular Data and worked examples as in ACGIH TLVs and (AC) Estimate from description of work
Description of work	Primar y	**Expert System** Task Analysis needed to estimateMetabolic Rate. Observations will build up background data which will

Assist Control.	O nl	y needed for estimated metabolic rate estimation
Physiological monitoring (during exposure)	Secondary	**Expert** – Physiological monitoring may be required when environmental and clothing parameters are outside the envelopes of application of *WBGT* & SW_{req}
Physiological monitoring (after exposure)	Seconda ry	**Expert** – As above. May be needed in extreme environments.

Levels of Personal Information Required.

Here both groups agreed on most allocations apart from dehydration/rehydration levels of workers. The only differences were whether knowledge requirements were allocated to expertsystem and/or experts. The following was agreed.

Table 65: Final allocations of information levels and knowledge requirements for personal parameters

	POST-DISCUSSION ALLOCATIONS	
	INFORMATION LEVEL	**KNOWLEDGE REQUIREMENT**
Worker's state of acclimation	Primary	**Expert System** – Importance of state of acclimation should be explained.
Worker's experience	Primary	**Expert system** – Importance of worker experience and skill required t
Duration of exposure	Primary	**User**
Number of exposures per day	Primary	**User**
Dehydration/re-hydration levels of workers	Primary	**Expert system** – To provide guidance on fluid intake requirements to reduce risk of dehydration. Provide percentage body weight loss guidance so that risk of dehydration can be identified. **Expert** – Medical surveillance may also provide additional information
Subjective responses of workers	Secondary	**Expert System** – How to take subjective measures and to interpret them.
Age	Secondary	Groups were concerned that it may introduce age bias. Decided health status of worker was adequate to identify physiological issues (such as fitness etc) that due to ageing may reduce worker's ability to work in the heat
Gender pregnancy	Primary	**Expert** – As part of Health Status e.g.
Health Status health **(MEASURED BY A MEDIC).**	Primary	**Expert** – Fundamental requirement to assess status of workers prior to working in the heat.

Malchaire's Three Step Strategy for Risk Assessment

The three-step strategy as described by Malchaire was discussed in detail. Below are a numberof relevant quotes taken from the transcript. Main points are highlighted in bold, and some resultant points are listed below that. If a question asked by the moderator is quoted below, (**DB**) appears after it. This is to indicate that the questions asked by the moderator did not biasthe discussion.

Coming back to the Malchaire method of Observation, Analysis and Expertise. The method divides the world up into those three apparently progressive systems. Are we sure that is correct? Would an expert be involved in observation or would you need an expert to do observation or would you need the expert to do the observation?

- The need for an expert may actually be replaced by an expert system that tells you whatyou need to do and why.
- You would need expertise, but you do it with an Expert System to help you. Calling inan expert may not be possible or viable.

- Now in a way we have already been through some of the issues by deciding on whetherthe task would be completed by the User, the User and an Expert System, because if it was a user and an Expert System it could be the Analysis Stage and they therefore maynot need more help from someone else assuming that the Expert System provided the viable assistance.
- There are very few experts around in this field and so what you have got to do istransfer the expertise as far as possible into Expert Systems.

What does Malchaire mean about Observation

- That would be the Analysis (**DB**).
- Analysis or Expertise?
- I think that there is a hierarchy of Expert System. I think you start off as a checklist, that is an Expert System on a very simple level and you know that could be terribly useful. If only people occasionally used checklists for all sorts of things there would befar fewer mistakes.
- One thing that we could do is enable people to follow the rules and come up with somesort of risk assessment. And when that is done, the next level up is a sort of case worktype of role where you are using a much higher level of professional expertise, lookingat new situations and applying the knowledge in more flexible ways. One thing I wondered is that perhaps one thing that we need to do is find the competence levels forthe tasks to be done rather than say who should be doing the task. JM is fairly close toit here.
  - Þ I agree with that. You need a bit more in this than that.

Is there a need for an earlier step or stage, before the Observation Stage, where it is decided that the work needs to be carried out so that a management decision is made (DB).

- Yes, we need to provide some information to management.
- There are 5 steps to risk assessment. To me observation goes a little bit beyond that because there is knowledge of the working conditions there. SO that they have a levelof judgement.
- Observation doesn't even include measurement of the environment. It's anobservation/checklist.

The next stage should be "Measurement" or "Investigation" as opposed to "Analysis" because the word "Analysis" seems to imply that the next stage would be getting to an answer, when it is not.

- I think the term "Analysis" here means measurement doesn't it?
- Quoting from the document is says "*to make environmental and physiological measurements and to use this data to compute thermal indices*".
- Actually it is a "Technical Assessment" where someone competent in implementing themethod would interpret them without being an expert in the sense that they could not design a job or understand the unusual, but they could routinely go through and run the measurements.

There appears to be more steps required than the number of steps described in the Malchaire method (DB).

- We seem to have five point system now don't we? Hazard Observation, Measurement,Analysis and Expert; we haven't explained what the expert would do but he would probably picks it all up in the end; job design and all that.
- I think that after the Observation, at that level, they could make simple control measuresand indeed should. Then after the Analysis stage they could implement more detailed controls based on the measurements they have taken.
- Yes, I think that in between each of the nodes if you like, in between Observation and Technical Assessment there should be "if there is a Problem can you Control it?" fromthe Check List.

- Simple Controls.
- That is in all legislation, but I agree with Malchaire's definition of the Expertise level, because where you really need your experts is where there are quite unusual situations.The kind of things that come through to my office are the out of the ordinary situationswhere the indices don't seem to apply in a straight forward sense where people are

maybe wearing special PPC, such as to clean out ovens where the *WBGT* temperaturesare well above the threshold values. You need that higher level of judgement.

- I think that as soon as you go over to, what you might call, the heat balance equationyou need to go over to experts

Do you agree with the use of a checklist or are there other methods you think would be better from a user's perspective (DB)?

- Check Lists seem to work quite well in other areas.
- They are quite powerful. They just look quite simple.
- If you just give them a sort of a steer it helps them and as they go through the process offilling in the Check List, ideas form in their mind as how to control the problem or situation. That's what we want.

Discussion

Many of the allocations for levels of information and knowledge requirements made by the experts were based on the fact that workers are supposed to obtain training for working in hot environments. Yet Honey *et al*. (1996) (see **Section 2.3.3**) found that only 37.9% of less than50% base rate of respondents with thermal hazard reported that employees underwent trainingspecific to the environment in which they worked. This raises the issue of introducing a "*training*" stage into the methodology and further increasing the number of steps in the risk assessment strategy. For this to be successful, it was decided that a top-down approach that focused on the management, assessment and control of heat stress.

The experts agreed that the Malchaire approach was too narrow in its definition of it's application. Furthermore, they agreed that any strategy for the assessment of heat stress would probably contain more stages than those described in the 3 Stage Strategy. The reason for this isthat when stages are presented and need to be followed, each stage should be autonomous from the previous following stages. Therefore, the "Analysis" stage (as defined) contains two decision nodal points:

1.) Take measurements

2.) Compute thermal indices.

Furthermore, the limited consideration in the Malchaire method regarding Experts does not take into account the use of "expert systems" or job aids. The expert discussion group felt that wherepossible, and in unusual situations, experts should only be called upon. Wherever possible therefore expert systems or job aids should be sufficiently comprehensive to enable the users to be as self-sufficient as possible. There are two main reasons for this they said:

1.) There are not many experts in the area of heat stress available,2.) Some companies may be reluctant to bring experts in.

These findings were discussed with representative users in the User Discussion Groups.

User Discussion Groups

Introduction

Two focus group sessions were run with representative users. Due to difficulties in obtaining user participation, potential participants were targeted through British Occupational Hygiene Society (BOHS) conferences and Special Interest Groups (SIG). Although it is recognised that this provided a narrow base from which participants would be obtained, the users were nonetheless representative of potential users of this methodology. Another consideration is that

the number of potential users with thermal risks in the UK may be as few 6% (Bunt, 1993). Thefirst discussion group was held as a work shop at a BOHS PPE SIG meeting held in London in February 1999. The second was held also as a participatory workshop at the BOHS annual conference in London in April 1999. D. Bethea was the moderator in both.

Format and Procedure

An abstract was prepared and presented in the proceedings of each conference in order to provide information to the users about the purpose of the discussion group session and the format that it would take. Twelve (PPE SIG) and eleven (BOHS Conference) participants with an interest in heat stress took part in the discussion. They volunteered to take part in the workshop based on the information provided in the abstract. Following a brief introduction, the participants were informed that the discussion would be taped and transcripts of the tapes made.They were then given the opportunity to withdraw from the group if they wished. The discussion group was scheduled to last one hour for the PPE SIG and two hours for the BOHS conference workshop.

Discussion Topics

Participant information and their heat stress experiences

Users were asked to discuss their experiences, knowledge and any problems they experienced ofheat stress risk assessment.

Management of Heat Stress?

Discussion of the top down approach management, assessment and control of heat stress asrecommended by the expert discussion group focused on the inclusion of managers in the process and what the implication this may have for Small and Medium sized Enterprises (SMEs).

10 Point Approach

A flow diagram of a 10-point generic strategy for the Management, Assessment and Control ofHeat Stress was developed following the expert discussion group. This was shown to the users and their opinions sought.

1. Managing Health and Safety of Workers
2. Training and Education of Workers
3. Hazard Identification
4. Observation
5. Simple Controls
6. Measurement/Evaluation
7. Analysis and Interpretation of Results
8. More detailed Analysis and Interpretation
9. Implementation of Controls
10. Obtain Expert Help

A Basic Assessment Observation

The concept of an Observation methodology as part of a generic strategy was discussed. Twoexamples, the one by Malchaire and a prototype developed following the expert group were shown to the users. The main questions were:

1.) How practical would this be

2.) Will managers accept Control recommendations if a simplistic approach has been used?3.) What can be done to facilitate this to aid the Occupational Hygienist?

What Expert Systems are required for a generic strategy?

The following parameters were discussed:

- WBGT
- SW_{req} index
- Clothing Insulation (Clo)
- How to Estimate Metabolic Rate
- Physiological Monitoring.

Presentation of Information

Users were asked which of the following methods of presenting information they thought bestsuited their needs:

- Record sheets
- Checklists of measures to be taken
- Checklists of estimates to be obtained
- Incident Reports.

Results and Discussion

Participant information and their heat stress experiences

One participant was from company that manufactures PPE. The other eleven were responsible for, or involved in, occupational health and safety. Four of the participants had no formal training in occupational hygiene and had been promoted into their jobs from other areas such as factory floor, engineering etc. They had however been short courses. Only seven of the participants had experience of heat stress. All had used the *WBGT* as described in the ACGIH TLVs (none had used ISO 7243) and none had used ISO 7933. Another two had recently started working in industries that had heat stress problems and therefore expected to be involvedin heat stress risk assessment. All the participants were aware of heat stress and unanimously agreed that the assessment of heat stress was something they were not adequately trained in.

All of the participants complained of a lack of information and that what information that is available tends to be too technical. The need to conduct

heat stress risk assessments was infrequent for all the participants. The general consensus was that heat stress situations often occur sporadically, for example during the hotter summer months. Heat stress associated with PPE was a concern for all the participants but they were not aware of how different types of PPE could affect thermoregulation (i.e. none were aware of the PPE correction values by the ACGIH for their TLVs (*WBGT*) reference values). All of the participants agreed that manufacturers of PPE do not provide adequate information about the thermal properties of PPE.They all felt that more information should be provided by the manufacturers.

Management of Heat Stress?

All the participants thought that any method that included information for management would be beneficial. Management aids such as record sheets and information on heat stress and productivity, heat stress control options etc. were all considered necessary. The users seemed tothink that the management needed more information that the experts had. This would be of particular benefit to SMEs, where resources were often low and/or line managers, product managers etc. were responsible for heat stress. Information though should not be technical in nature.

10 Point Approach

The 10 point plan was very well received. A structured approach where all the necessary information was provided was needed as they currently need to look for information from a number of sources which can be time consuming. A number of participants said they knew there was information "out there" but they didn't know where to find it. Since the 10 Point approach was an expansion of the current HSE 5 Step approach, they felt that it would fairly easy for someone with little experience of risk assessment to follow. One of the main points was that it would standardise the way heat stress was managed, assessed and controlled.. This would enable companies to standardise their heat stress strategies, where currently (in large companies) different sites within the same company may have different procedures in place. Itmay also provide them with a benchmark from which they could evaluate their own training programs and intervention successes. The only criticisms were in the use of the phrase "Thermal Audit". They recommended that this be changed to Quantitative Assessment as this was standard wording for describing the process of taking objective measurements. It was recommended that the Observation method, include Qualitative Assessment in its title.

A Basic Assessment – Observation

Only the observation technique developed by D. Bethea was shown as Malchaire's Observation checklist had yet to be ratified by the BIOMED HEAT project. All the participants regarded theconcept of a qualitative assessment as being an improvement on the current requirement of needing to take quantitative measures as the first process.

What Expert Systems that are required for a generic strategy

WBGT

- All the participants knew of the *WBGT* index, although most of them had used theACGIH TLVs and not BS EN 27243.
- They tended to know that the *WBGT* index was limited but had used it because it was arelatively easy method to use.

SW_{req} index

- None of the participants had used ISO 7933.

- 5 participants knew the standard and three had considered using it. None had used itbecause they felt it was too complicated and scientific.

Clothing Insulation (Clo) and other clothing information

- One of the participants knew what the i_m (vapour permeability) of an ensemble is, butthey were not sure how to find out what it is.
- All of the participants knew what the clo value was but only four knew of BS EN 9920.

How to Estimate Metabolic Rate

- Nine participants knew that metabolic rate was required for a heat stress assessment.Three had used BS EN 28996 and the other used the ACGIH or NIOSH tables.

Physiological Monitoring
Nearly all of the participants were interested in taking physiological measurements.

Presentation of Information

- All the participants agreed that a practical, easy to use methodology was required. One of the participants stated "*what we need is an idiot's guide to heat stress*". Another said"*I need something that takes me by the hand and tells me exactly what I need to do and why*."

Conclusions from Expert and User Discussion Groups

DEFINITION OF USERS

Formal definition of the users included a wider range of users than expected;

- Person who is responsible for Health & Safety of workers
- Occupational hygiene specialists, health and safety professionals
- Also non-specialists such as those in SME's where one person "wears many hats"
- Managers (both middle and higher) as they may ultimately be responsible for health andsafety policy.

CHARACTERISTICS OF USERS

- Not all users may have formal training of heat stress
- Not all users will have formal training in health and safety and/or risk assessment
- There will be a diverse perception of the risk of heat stress
- Poor level of knowledge in Standards/methods.

HEAT STRESS STANDARDS

- There is currently a low level of use of current heat stress standards, specifically ISO 7933.which is probably attributable to its poor usability. Nine of the SIG user group and eight of the BOHS user group considered current standards too be complicated anddifficult to use.
  - ⇨ There is an overemphasis on scientific content in ISO 7933 and to a lesser extentin the other standards.
  - ⇨ Poor level of understanding is due to complicated procedures and complicatedlanguage in the standards.
- Participants knew how to estimate metabolic rate but not where to find the informationin the heat stress standard.
- A minority of attendees knew how to estimate clo value but not where to find theinformation.

USER PERCEPTION

- Unless there is a complaint, risk of heat stress is not considered or assessed and in manycases it is an infrequent occurrence to assess heat

stress. Heat stress may be influenced greatly by the seasons, by the task or be a consequence of wearing PPE.

- Heat stress is a secondary concern as it is not considered to be a life-threateningcondition.
- PPE and heat stress may always be a problem because workers can "*never have toomuch protection*".

INFORMATION REQUIRED

- More information is required including information on:
  - ⇨ Effects of heat on humans
  - ⇨ Effects of PPE on human thermoregulation
  - ⇨ Estimating metabolic rate, clothing insulation etc
  - ⇨ Interpreting result and control strategies
  - ⇨ Management and cost benefits
- Methods of presenting information that would be useful would include:
  - ⇨ Flow diagrams, diagrams, computer programs
- "Idiot's guide to heat stress"
- Problem is self perpetuating too complicated.

The methodology should **not** be developed as a purely "technical document", rather as a methodology for the overall **management of heat stress**. It should therefore, aid not only the assessment and control of heat stress but the decision process associated with conducting a risk assessment. This would seem to benefit both large companies, as well as small and medium sized ones where the occupational hygiene infrastructure may not be so well developed. **Heat stress is not only associated with hot environments**. A major area of concern is that of where**PPE** or **PPC** is worn, as such more information should be supplied to aid the user to better understand, evaluate and interpret the risk of heat stress associated with PPE and PPC. "**ExpertSystems**" should be provided to enable the user to make a more detailed analysis of the environment and to better interpret and understand their results. More information about the possible **control strategies** should be provided. Information about the **Health Status** of workers should be included to help the user identify those people who may be at particular risk from heat stress.

4.3.4 Postal Questionnaire Survey

Aims and Objectives

There were five main aims of the questionnaire survey:

1. **General Information**: To identify and receive information about the responders andthe companies in industry sectors that conducted heat stress risk assessments
2. **International Standards**: To establish user knowledge and use of current heat stressstandards
3. **Heat Stress Indices**: To establish which heat stress industries potential users of thepractical methodology may have used or are currently using
4. **Assessment** of **Hot Working Environments**: To identify which measurementmethods and instruments users may use to conduct heat stress assessment
5. **Other Issues**: To identify if there are any particular reasons why heat stress controlsmay or may not be implemented.

Introduction

Due to the poor return of questionnaires from the informal interviews and the discussion groupsit was decided to obtain information about practical issues that may currently be found in UK industry. It was hoped that the questionnaire would provide a large amount information at relatively low cost and relatively quickly. This may also enable the research team to obtain input from potential users who may not have attended the BOHS conferences.

Method

According to Sinclair (1995), one of the most important aspects of developing the questionnaireis the establishment of formal objectives and to decide early on what the format of the questionnaire will be. Therefore, the design of the questionnaire was approached with the specific research objective of obtaining information both complementary to and in addition to the findings of the structured discussion groups.

Sampling of Respondents

A prerequisite of conducting HSE sponsored research is that if the questionnaire is to be sent to more than 24 companies, that Survey Control Clearance from the HSE and the UK government is required. The basis of obtaining this clearance is that the burden placed on the companies by participating in the study would not be excessive. Clearance was obtained for a maximum of 300 questionnaires. Since the extent of occupational heat stress in the UK is not currently known and that a limit of 300 questionnaires was placed on the survey it was not possible to establish the number of responses required to meet a power calculation. Ordinarily though a response rate of 30% is expected for postal questionnaires, but it is recognised that the low levelof control associated with postal questionnaires may well result in a much lower response rate. Therefore additional measures such as reminder letters would be used in an attempt to maximisethe response rate.

Rationale for Questionnaire Design

The rationale used for each of the aims is described below.

General Information

As described in **Section 2.2.8** there are a number of industries that traditionally have heat stressenvironments. Added to the information about the industry sector each respondent was in, additional information would be sought, such as:

- The job title of the responder and their time in health and safety
- The number of people employed by the company
- How they rate their own competence as a health and safety professional, their knowledge of heat stress, PPE and heat stress and their ability to perform a heat stressassessment.

The purpose of obtaining this information was twofold:

1.) To provide a non-heat stress specific introduction to the questionnaire.

2.) Background information on company sizes, industry sectors and the responder's experience and knowledge would provide a basis for evaluating the sample response tothe questionnaires.

International Standards

Current heat stress standard are considered by some authors to be widely used in the assessmentof heat stress in industry, however the informal interviews and discussion groups suggested thiswas not the case. Therefore, information about international standard in the assessment of heat stress was needed from a wider sample base to investigate whether standards are used or not, and if they are used, to what extent they are applied.

Heat Stress Indices

As discussed in **Section 2.4** there are a number of heat stress indices, standards and supportingdocuments, however no information is available about which of these indices are used, and to what extent.

Assessment of Hot Working Environments

The standards and other guidance documentation such as the BOHS Guidance (1996) all provide descriptions of equipment that could be used in the assessment of the hot working environments. This section would investigate which of the instruments and methods are usedand their ease of use.

Other Issues

From the Risk Assessment literature survey (**Section 2.3)** a number of possible issues for the effective management and control of risks were identified. This section was designed to provide data that may identify areas where particular attention may need to be paid by the practical methodology so as to meet the needs of the users within the framework of their currentrisk assessment strategies and policies.

Questionnaire Design

The questionnaire was designed to take about 20 minutes to complete. It consisted of a numberof fixed questions with a fixed range of alternative answers, which were complemented by open-ended questions (Gray, 1975). Detailed instructions were also provided. Simple rating scales (as described by Sinclair, 1995) were used to obtain ratings from subjects. Each scale was 100mm long with anchor points and labels at each end. No interval points or labels were provided. General recommendations were followed.

Procedure

As it could not be sent to industrial respondents until survey control clearance had been received, the questionnaire and its instructions was piloted with three postgraduate researchers at HTEL. Additional input was received from Mr. Len Morris and Mr. Chris Quarrie from Health Division, HSE in Bootle. Over a three-month period, 270 companies were selected randomly as having possible heat stress conditions from the Kompass Company Directory. The questionnaires, with self-addressed envelopes enclosed, were sent to these companies, addressed to the "Health and Safety Department" of each. Two reminder letters were sent to all the recipients at two and four weeks after the questionnaires had been sent.

Results

Returns

A total of 56 questionnaires were returned, but only 27 of these were completed. The rest (29) were returned with letters explaining that heat stress was not an issue for the recipient company.

Analyses

This section will describe the results of the analysis of the 27 completed questionnaires. The completed questionnaires constituted a return of only 10%, which is below the 30% required forstatistical analysis. Therefore, although statistical analysis was not possible it was hoped that an

analysis of the questionnaires would provide sufficient information for identifying issues andtrends using descriptive statistics and, for subjective rating scales, medians. The rating scales were converted to numerical values by measuring to the nearest centimetre.

All data was inputted in a spreadsheet, and was then analysed using Microsoft Excel 97© and SPSS© Version 9 for Windows. Ratings are presented as box-plots; the plot is based on the median, quartiles, and extreme values. The box represents the interquartile range (25^{th} to 75^{th} percentiles) which contains 50% of values. A line across the box indicates the median for the plotted data. Whiskers are lines that extend from the box to the highest and lowest values, excluding outliers and extreme values. The outliers (indicated by circles) are those values thatare values between 1.5 and 3 box lengths from the upper or lower edge of the box. Extremes (shown by the stars) are those values more than 3 box lengths from the upper or lower edge ofthe box. The question to which the results refer are provided in brackets e.g. (**Q1**).

General Information

*Job title and time involved in Health and Safety. (**Q1** and **Q2**)*

Table 56 shows that a wide range health and safety professionals with a mean time in job of 11 years replied to the questionnaire. One point to note however, is that from the discussion groupsit was ascertained that many of the people responsible for health and safety in industry are promoted from within and are not necessarily trained hygienists etc. but line managers, product managers etc. None of these sorts of job descriptions were amongst the responders.

Table 66: A breakdown of each respondent's job description and number of years in health and safety.

RESPONDENT	JOB TITLE		YEARS IN HEALTH & SAFETY
R1	Health and Safety Officer		5
R2	Principle Safety and Environmental Advisor Integrated management system co-ordinator		7
R3	Senior Occupational Hygienist		23
R4	Group Safety Manager		15
R5	Health and Safety Advisor		11
R6	Industrial Hygiene Advisor		15
R7	Head of Nursing		21
R8	Occupational Hygienist		7
R9	Health and Safety Manager		18
R10	Industrial Hygienist		4
R11	Health and Safety Co-ordinator		7
R12	Corporate Health and Safety Manager		24
R13	Senior Hygienist		12
R14	Occupational Hygiene Advisor		2
R15	Occupational Medic		22
R16	Hygienist		5
R17	Health and Safety Officer		10
R18	Factory Health and Safety Officer		3
R19	Production Manager		3
R20	Site Safety Manager		15
R21	Senior Occupational Hygienist		12
R22	Health and Safety Supervisor		8
R23	Site Health and Safety Advisor		4
R24	Health and Safety Officer		2
R25	Environmental Safety Manager		21
R26	Union Safety Representative		11
R27	Hygienist		17
		MEAN	11
		SD	7
		MIN	2
		MAX	24

Industry Sector (Q3 and Q4)

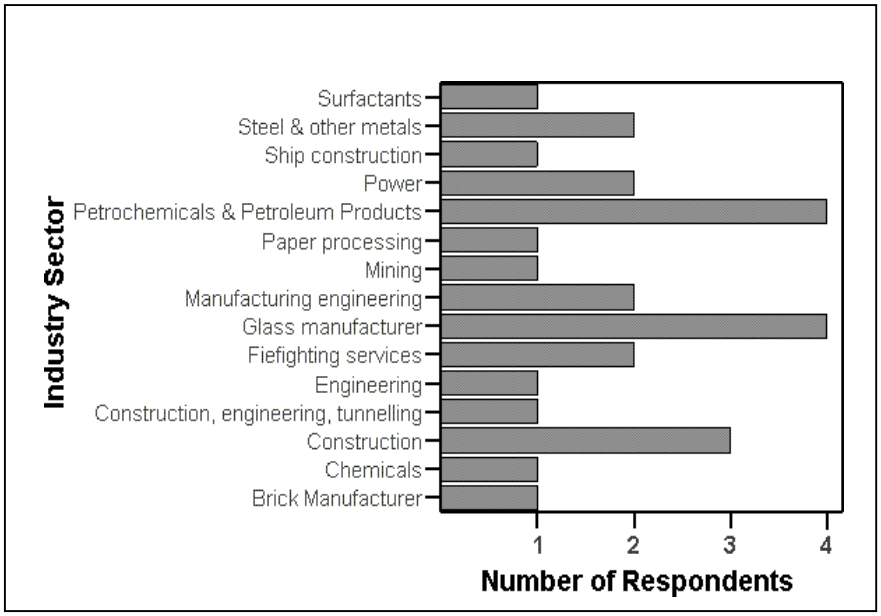


Figure 27: Bar chart showing the number of respondents per industry sector.

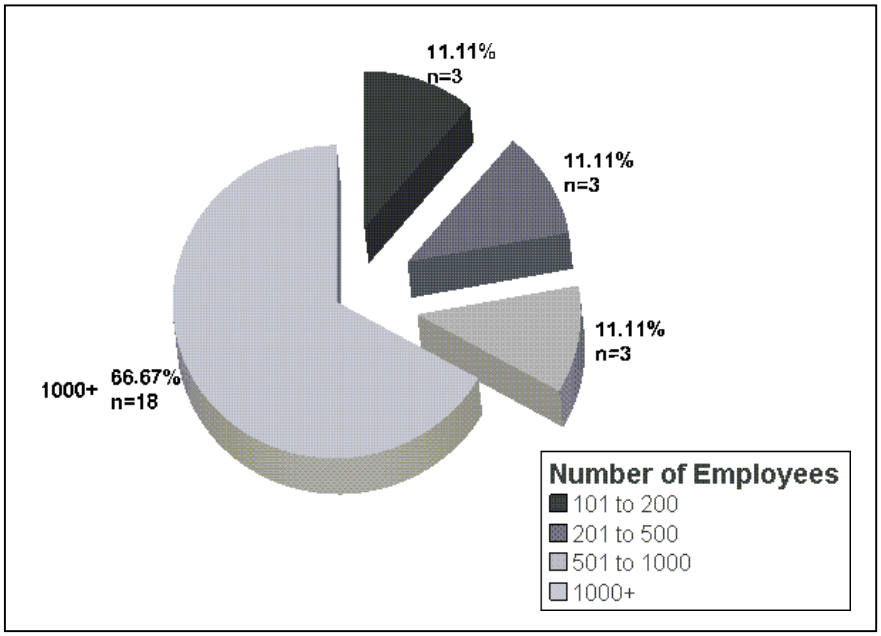


Figure 28 (right) A pie chart showing the breakdown of Number of Employees from respondent companies.

Figure 27 shows that the most responses were obtained from the Petrochemical and Petroleum Products (four) and Glass manufacturing industries (four). **Figure 28** shows that the majority ofresponses were from companies with more than one thousand employees (66.7%), while 11.11% of respondents were from companies employing in the ranges between 101 to 1000 employees. The ranges, 0 to 15, 16 to 50 and 51 to 100 had no respondents.

Ratings of competence and knowledge (Q 6 to 10)

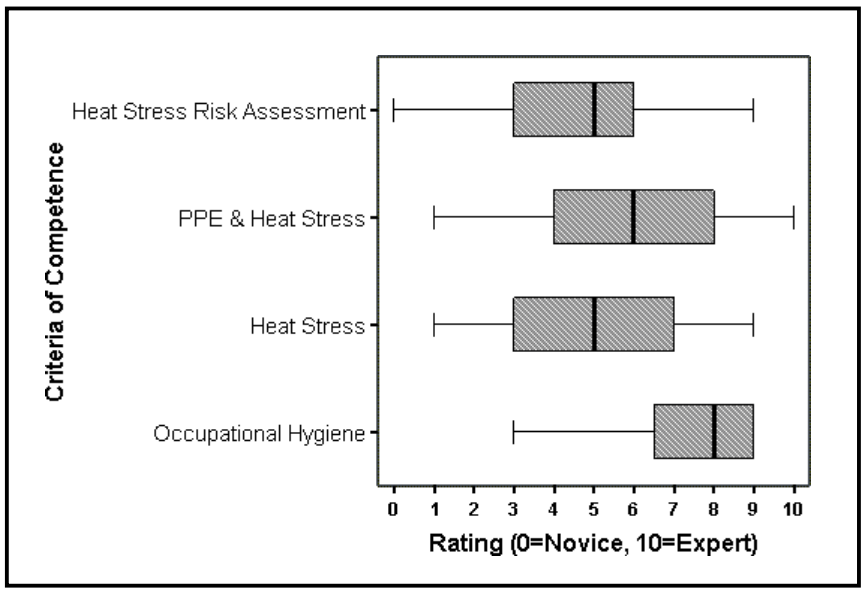


Figure 29: Box-plots of responder ratings of the competence and knowledge of occupational hygiene and heat stress issues (Medians are shown as thicker black vertical bars in each box)

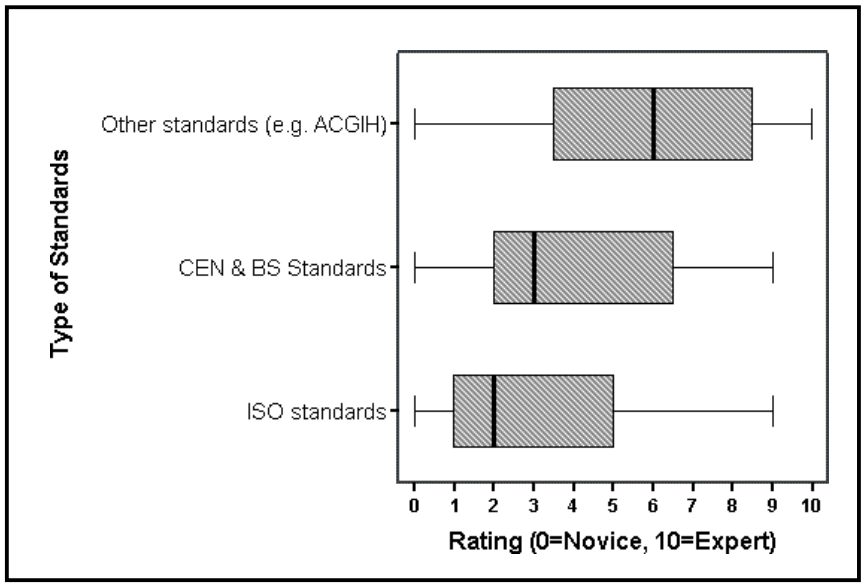


Figure 30: Box-plots with medians showing responder ratings of the level of knowledge of heat stress standards

Figure 29 shows that the median score was higher for competence rating of occupational hygiene than the areas of heat stress. Interesting though the median for "PPE and heat stress" ishigher than for general "heat stress" issues. The ranges for all the heat stress issues were similar, although the median for occupational hygiene was higher than all the inter-percentile ranges for each of the other criteria. **Figure 30** shows that respondents gave a higher rating for other standards (specifically ACGIH) than they did for CEN or BS or ISO

standards. ISO standards obtained the lowest ratings of level of knowledge although the ranges for all three

types of standards were similar. Fifty percent of the ratings provided for other standards werehigher than the medians for both CEN and BS and ISO standards.

Heat Stress Standards

Use and knowledge of current heat stress standards.

Four standards were identified as being critical to the assessment of heat stress, namely:

1. ISO 7432 (1989), Hot environments Estimation of the heat stress on working man,based on *WBGT*-index (wet bulb globe temperature)
2. ISO 7933 (1989), Hot environments Analytical determination and interpretation ofthermal using calculations of required sweat rate (SWreq)
3. ISO 8996 (1990), Ergonomics of the thermal environment: Estimation of metabolic heatproduction.
4. ISO 9886 (1992), Evaluation of thermal strain by physiological measurements.

ISO 7243 and 7933 are the two indices for heat stress assessment. ISO 8996 is required for theestimation of metabolic rate (small variations in estimated metabolic rate may have significant results on the predictions of ISO 7933). ISO 9886 is recommended for the assessment of physiological responses when ISO 7933 limits are exceeded.

*Respondent knowledge of and confidence in the standards (**Q11** and **Q12**)*

Figure 31 provides a breakdown of the four standards showing the number of respondents whoknew of each standard and the number that had used them. ISO 7243 (WBGT) has both the highest number of respondents who know and who use the standard (96.3% and 81.48% respectively). ISO 7933 on the other hand has the lowest scores for both the number who knowand the number that have used the standard (48.15% and 14.81%). Both ISO 9886 and ISO 8996 have similar results.

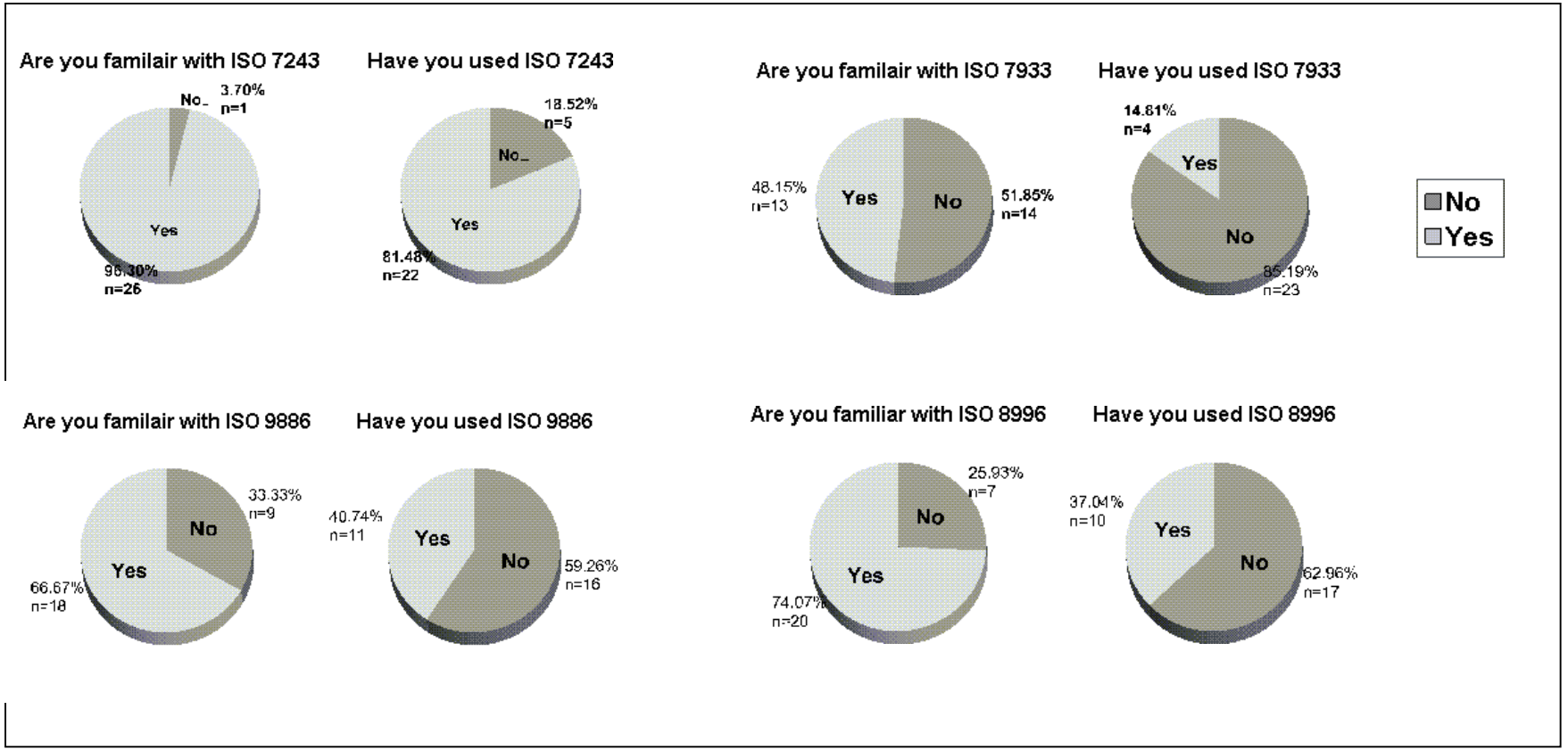


Figure 31: Pie charts showing the number of respondents who knew of the heat stress standards and that had used them

*Rating of knowledge of and confidence in the standards. (**Q11** and **Q12**)*

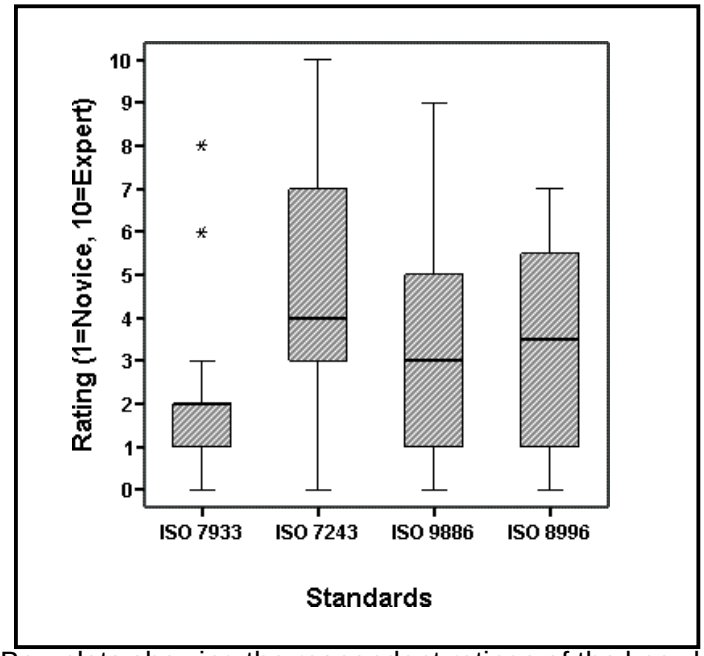


Figure 32: Box-plots showing the respondent ratings of the knowledge of current international heat stress standards

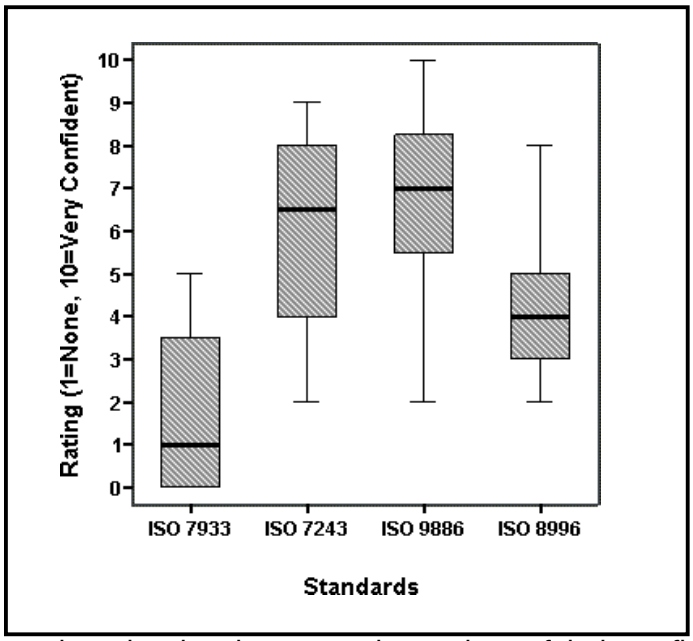


Figure 33: Box-plots showing the respondent ratings of their confidence in current international heat stress standards

Figure 32 shows that those respondents who knew of ISO 7933 rated their knowledge of it as worse than those who know the other standards. The inter-percentile range and the whiskers show that all but two respondents (extremes shown) rated their knowledge as less than a rating equal to 3. ISO 7243 had a median rating higher than the other standards. It also showed the greatest

range of ratings. Here too ISO 9886 and 8996 provided similar median values. **Figure33** shows those users who had used ISO 7933 had the lowest confidence rating in it than the

ratings given to the other standards. The standard with the highest median rating was ISO 9886.Although ISO 9886's median was similar to that for ISO 7243, its inter-quartile range was narrower.

Heat Stress Indices (Q20)

Respondents were presented with a number of heat stress indices and standards and were askedwhich of these they had Never Used, had Previously Used, or were Currently Using.

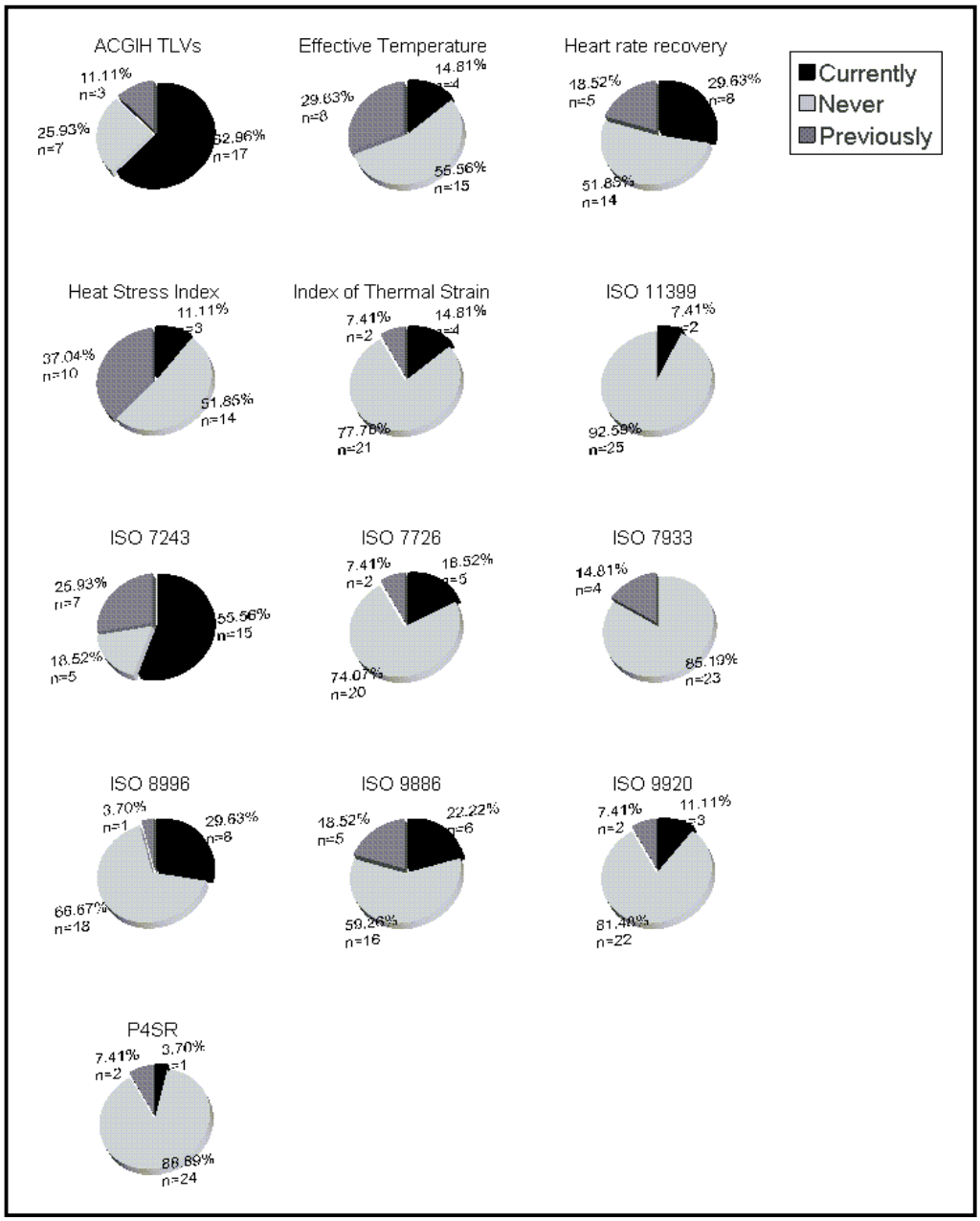


Figure 34: Pie charts showing the number of respondents who either currently, previously or never used heat stress indices and standards.

Figure 34, shows that of all the indices and standards listed ISO 7933 is the only standard that is not currently being used although 14.81% of the respondents have used it in the past. The only other standards with two categories obtaining responses was ISO 11399 with 7.41% Currently using it and 92.59% having never used it. At the other end of spectrum, ISO 7243 (55.56%) and the ACGIH TLVs (62.96%) had the second highest and highest Currently Used responses respectively. The Heat Stress Index (HSI) has the highest number of Previously Usedresponses (37.04%). ISO 8996 and Heart Rate recovery responses both recorded 29.63% for Currently Used as the third most used indices/standards after the TLVs and WBGT.

Assessment of hot working environments

Respondents were asked to indicate which of the follow methods they either currently, previously or never used and to provide Ease of Use ratings for those they had used. Theratings were based on the following asymmetrical scale: 1=Impossible, 2=Very Difficult,3=Difficult, 4=Easy, 5=Very Easy.

Physical Measures of the Environment

Table 67: Methods used and Ease of Use Ratings for measuring the physical environment

		WHEN USED			EASE OF USE RATING
		Currently	Previously	Never	Median
Air Temp	**Mercury in glass**	21	2	4	**5**
	Thermocouple	10	3	14	**5**
	Thermistor	4	1	22	**5**
	Platinum resistance thermometer	3	2	22	**5**
Radiant Temp	**Semiconductor junction**	None	None	27	**-**
	Two sphere radiometer	1	1	25	**3**
	Black globe thermometer Large (150mm)	1	5	21	**5**
	Black globe thermometer Small (±40mm)	16	6	5	**4**
	Plane Radiant Temperature.	4	4	19	**2**
	Whirling Hygrometer	7	7	13	**4**
	Electronic Hygrometer	4	5	18	**4**
	Dew point technique	1	2	24	**3**
	Hygrograph				

1	3	23	**3**			
Humidit	**Humidity Probes (resistance or capacitance)**	6	3	18	**4**	
	Psychrometer (eg Assman) – natural	Non	4	23	**2**	
	e		4	23	**2**	
	Psychrometer (eg Assman) –forced		2	25	**2**	
		Non				
	e					
	Lithium Chloride Cell					
		Non				
	e					
Air Velocit	**Hot Sphere**	1	2	24	**3**	
	Hot wire anemometer	20	1	6	**5**	
	Kata-thermometer	2	8	17	**3**	

Most of the respondents (21) currently used the mercury in glass thermometer for measuring airtemperature, followed by the hot wire anemometer (20) for air velocity, and the 40mm black globe thermometer (16) for radiant temperature. There was no clear preference for measuring humidity, with the whirling hygrometer and the humidity probes currently used by 7 and 6 respondents respectively. Medians for these methods showed that four highest currently used methods were either 5 (for mercury in glass and hot wire anemometer) or 4 (small black globe and whirling hygrometer).

Table 68: Methods used and Ease of Use Ratings for derived measures of the physical environment

	WHEN USED			EASE OF USE RATING
	Currently	Previously	Never	Median
Indoor climate analyser	3	2	22	**5**
Wet Bulb Globe Temperature (WBGT) Meter	14	10	3	**4**

The dedicated *WBGT* meters are commonly used; with 14 respondents currently using them, and10 respondents having used them in the past. It obtained a median of 4, which corresponds to Easy on the scale.

Personal Measures of the Environment

Table 69: Methods used and Ease of Use Ratings for estimating the effects of clothing on thermoregulation

		WHEN USED			EASE OF USE RATING
		Currently	Previously	Never	Median
CLOTH-ING	**Thermal Insulation (clo)**	9	2	16	**3**
	Weight of clothing (e.g. light,medium, etc.)	6	None	21	**3**
	Body part covered	9	None	18	**3**
	Emissivity	4	1	22	**3**
	Air Permeability	5	1	21	**2**
	Vapour Permeability	4	1	22	**2**
RATE	**Estimation (e.g. light, medium,WORK etc.)**	**18**	4	5	**3**
	Measurement (Physiologicaltesting)	**3**	6	18	**2**

The two most commonly used methods for estimating the effects of clothing on thermoregulation are estimating the clo value and body part covered (9 respondents each). The body part criteria corresponded with comments made by the respondents with respect specifically to the use of PPE such as helmets, breathing apparatus etc. Estimation of metabolicrate was currently used by 18 of the participants. All the criteria scored a median score of eitherdifficult or very difficult.

Table 70: Methods used and Ease of Use Ratings for measuring physiological responses to hot environments

		WHEN USED			EASE OF USE RATING
		Currently	Previously	Never	Median
PHYSIOLOGICAL	**Pulse rate**	11	7	9	**4**
	Sweat loss	4	2	19	**4**
	Fluid intake	None	2	25	**4**
	Dehydration measures	None	2	25	**1**
	Hydration state of worker before work		None	2	25 **2**
	Body Temperature measures: Aural (inner ear)	7	4	16	**4**
	Body Temperature measures: Oral	2	8	17	**5**
	Body Temperature measures: Rectal	1	4	22	**2**
	Body Temperature measures: Other	None	2	25	**2**
WEIGHT		3	None	24	***5***
HEIGHT		3	None	24	***5***

Heart rate is currently used by 11 of the respondents with an Ease of Use rating of 4. The second most used physiological measure was aural temperature with 7 respondents currentlyusing it. Only respondents had tried previously used measures of hydration, fluid intake anddehydration.

Table 71: Methods used and Ease of Use Ratings for identifying workers at risk from heat stress.

	WHEN USE			EASE OF USE RATING
	Currently	Previously	Never	Median
State of acclimation	2	16	8	**3**
Age	1	9	16	**5**
Gender	12	None	14	**5**
Health Status of the Worker	16	None	10	**4**
Subjective Scales such as Thermal comfort scales (e.g. Bedford)	1	8	17	**3**

The most commonly method currently used to identify workers at risk was Health Status of the Worker with 16 respondents, with no previous responses. It also had a rating of Easy. State of acclimation only had two respondents currently using it, while 16 had previously used it. It hada median score of 3, corresponding to difficult.

Other Issues

*Why heat stress controls **MAY NOT** be implemented*

In order to identify areas where users may require additional information to aid communicationof the risks and their risk assessment findings with management a number of questions were asked concerning the following topics:

- Perception of Risk of Heat Stress;
- Competence;
- Working procedures;
- Cost of Controls and Resources available;
- Communication;
- Employee involvement in process;
- Management taking initiative.

The results are presented in the box plots below.

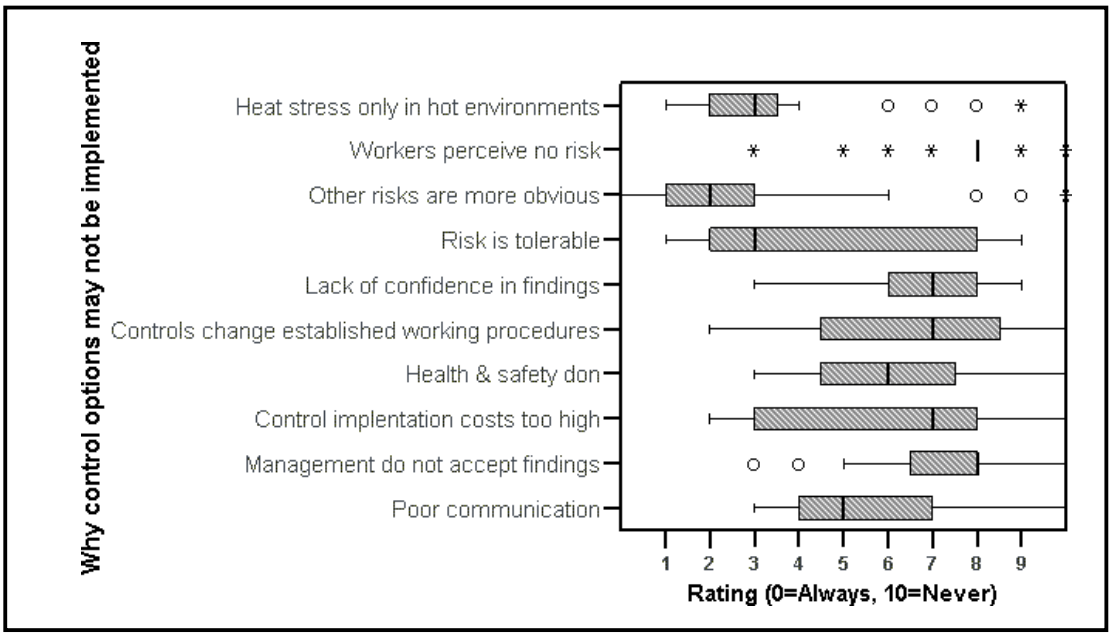


Figure 35: Box-plots of respondent ratings why heat stress controls may not be implemented.

*Why heat stress controls **MAY** be implemented*

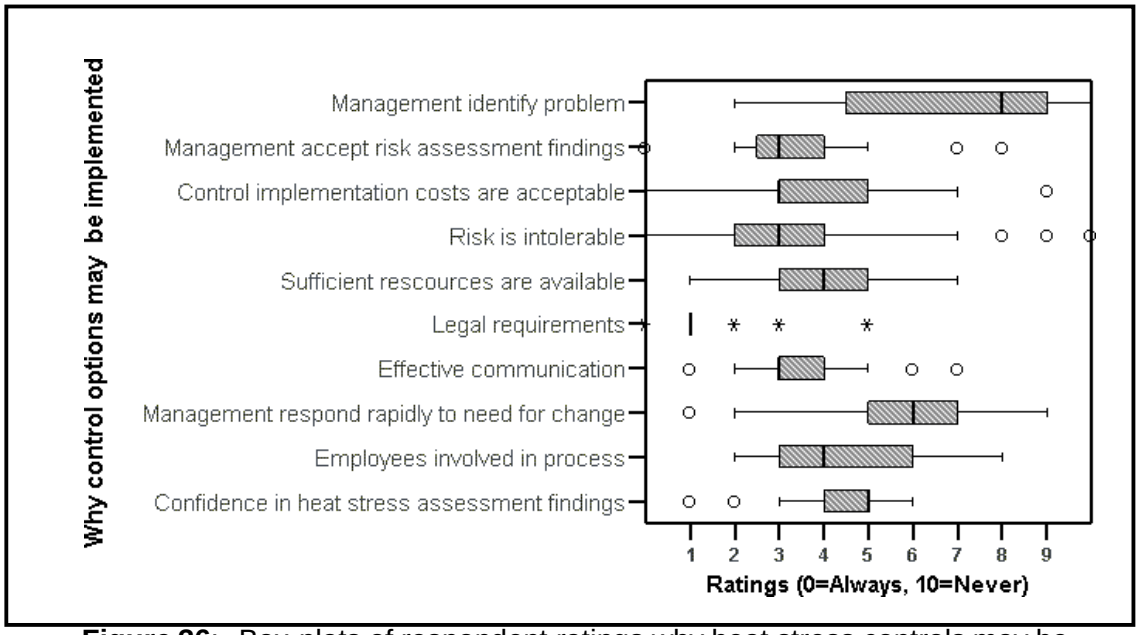


Figure 36: Box-plots of respondent ratings why heat stress controls may be implemented.

There doesn't appear to be any noticeable trends. One area of encouragement is that the boxplotshows that overall management accept the findings of heat stress risk assessments. This is mirrored in the responses to "management do not accept findings of risk assessment" and "management accept risk assessment findings". The legal requirement, as expected, was one of the main reasons why control options are implemented, with a median score of 1. The narrowness of the box shows that all but three respondents gave this a rating of 1. Interestingly,effective communication was also cited as a positive reason for the implementation of controls.

The literature breaks risks into two categories, tolerable and intolerable. Although the intolerable risk is generally considered as being a reason for the implementation of controls, theperception of "intolerable risk" does not appear to negate the implementation of controls. This was not expected, and perhaps shows that what the distinction between tolerable and intolerableheat stress risk is an issue when implementing controls.

However that said, management do not appear to play a part in the identifying heat stress problems. This suggests that further information is required, such as reviewing accident reports,productivity levels etc. so that management also plays a proactive role in the Management, Assessment and Control of heat stress. After all management are legally obliged to ensure that health and safety policies are observed.

Discussion

Parsons (1995) identified the need for better integration of methods of assessing heat stress, including those described in the standards, by combining them with sensible working practicesof accounting for individual characteristics of both the worker and the workplace. The results from this questionnaire would seem to suggest that this has yet to be done in practice.

The low response rate means that insufficient data were obtained for a statistical analysis. The respondents were all from companies with more than 100 employees, although all the sectors targeted obtained a response. These findings therefore can only show possible trends and may highlight a number of issues that are specific to larger companies. Since no responses were obtained from smaller companies (<100 employees), two possible explanations can be provided:

1.) The sample techniques of obtaining company information from the Kompass Company Directory were unsuccessful, as it may not have allowed sufficient small companies to be targeted. However, since the samples were randomly selected it would be a safe assumptionto make that the reasons for the lack of responses from these small companies may be due tothe next reason.

2.) The larger companies may be better equipped, both in terms of resources and in terms of personnel, of ensuring that adequate heat stress risk assessments are performed. This latter reason may be more relevant if one considers the responses that claimed they did not have aneed for heat stress risk assessments. All these responses were identified as companies that had process that would create heat. It seems unlikely therefore, that heat stress was not an issue. Rather, it would seem that heat stress was not an issue because it had not been identified as one (this may be a problem if companies rely on RIDDOR reporting as an accident only qualifies as a heat stress accident if the intervention of a third party is required).

Whatever the reason, the weaknesses of the study are recognised, but they may also be anindication of the confusion and/or lack of understanding of heat stress in industry, and specifically in smaller companies.

The respondents that were received had a mean time in health and safety of 11 years from a broad range of health and safety related occupations. An interesting finding was that ISO and BS standards were rated as worse than other guidance (such as ACGIH TLVs). If this is a reflection of what might be found in the general population it would suggest that the expert and user group assertions that current standards are not user friendly may be having an effect on their usage and application in industry. This is something that the standard writers should consider when it is time to redraft the standards. Another reason for the greater knowledge of the ACGIH TLVs may be due to the TLV booklet containing information on a range of hazards(chemicals, noise etc) and as such users have a readily accessible source of information that does not require the assessor to move between information sources as and when the need to conduct risk assessments arise. Although 90% (26) respondents were aware of ISO 7243, with 81.48% having used it. This was supported by the findings that respondents gave significantly different ratings for the knowledge and for their confidence in ISO 7243 when compared to ISO 7933 and ISO 7933 was the only index listed that was not currently being used.

The ACGIH and ISO 7243 were the indices being used the most (63 and 52% respectively). The Heat StressIndex (the predecessor to ISO 7933 was still being used by three respondents (11%).

The following table has been drafted to compare the methods that the respondents currently usein their assessment of risk stress and the allocation of "Information Level" as decided by the expert discussion group. To allow for the large variation of the rated levels of knowledge of heat stress observed in **Figure 29**, a criteria limit of 75% (>20) has been placed on meeting the Primary Level recommendation and a limit of 50% (>14%) for Secondary Level. It is appreciated that these percentages are low, but have been set to obtain a measure representativeof current usage and not what would be expected. It is also restricted by the small number of respondents. The resultant comparison shows that users are only performing six of the possibleseventeen tasks investigated. This suggests that users need to be made aware of the importanceof those methods that they are currently not employing.

Table 72: Comparison between what methods users report using and the allocated Information Levels from Expert Discussion Group.

DESCRIPTION OF MOST COMMON METHOD	CURRENTLY USE	PREVIOUSLY USED	TOTAL	EXPERT DISCUSSION GROUP - LEVEL OF INFORMATION ALLOCATION	DOES IT MEET EXPERT KNOWLEDGE ALLOCATION?
Air temperature	21	2	23	**PRIMARY**	4
mercury in glass thermometerRadiant temperature	16	6	22	**PRIMARY**	4
black globe thermometer (±40mm)					
Humidity – whirling hygrometer	7	7	14	**SECONDARY**	4
Air velocity- hot wire anemometer	20	1	21	**PRIMARY**	4
Wbgt – wbgt meter	14	10	24	**PRIMARY**	4
Clothing insulation – clo value	9	2	11	**PRIMARY**	8
Moisture permeability	4	1	5	**PRIMARY**	8
Body parts covered	9	None	9	**SECONDARY**	8
Air permeability	5	1	6	**PRIMARY**	8
Metabolic rate (measured)	3	6	9	**SECONDARY (BY EXPERT)**	
Metabolic rate (estimated)	18	4	22	**PRIMARY**	4
Worker's state of acclimation	2	16	18	**PRIMARY**	8
Dehydration/re-hydration	None	2	2	**PRIMARY**	8
Subjective responses of workers	1	8	9	**PRIMARY**	8
Age	1	9	10	**SECONDARY**	8
Gender	12	None	12	**PRIMARY**	8
Health status (measured by medic)	16	None	16	**PRIMARY**	8

4.3.5 CONCLUSIONS OF STAGE 2 – DESIGN Stage

Proposed Generic Strategy for the Management, Assessment and Control (MA&C) of Heat Stress

The Risk Analysis Approach

Glendon's model of the decision flow training objectives for an individual and an organisationwas introduced. From data gathered in the Exploratory Stage and in the Literature Survey thusfar, Glendon's model has been adapted to meet the requirements of an overall approach to the Management, Assessment and Control of Heat Stress (MA&C) in industry. It is from this generic requirement and the need for a holistic risk analysis approach that the process flow diagram has been developed. Both the model and the process diagram have been developed with the following functional specification in mind.

10 Point Approach MA&C of Heat Stress

The following 10 point strategy is recommended as the approach for the MA&C of heat stress.A process diagram to show the decision making sequence that should be taken is provided as Figure 10.10.

1. Managing Health and Safety of Workers
2. Training and Education of Workers
3. Hazard Identification
4. Observation
5. Simple Controls
6. Measurement/Evaluation
7. Analysis & Interpretation of Results
8. More detailed Analysis and Interpretation
9. Implementation of Controls
10. Obtain Expert Help.

Functional Specification of a MA&C of Heat Stress Strategy

The main function of the MA&C of Heat Stress Strategy will be to provide the necessary information, tools and user job aids to aid in the systematic identification, evaluation and prevention or control of heat stress in industry. A number of sub-functions will combine tomeet this requirement, they include:

- Provide an effective and usable method for the management of heat stress
- Provide an effective and usable method for the assessment of heat stress
- Provide an effective and usable method for the control of heat stress
- Provide an effective and usable method for the communication of heat stress betweenall levels of a company.
- Provide a systematic approach to all aspects of the MA&C of heat stress
- Provide information that could help assign responsibility to managers, supervisors, andemployees
- Provide information for the training of all employees

1.) Training guidelines for workers working in the heat (e.g. emergencywithdrawal procedures, rehydration requirements etc.)

2.) Training guidelines for those responsible with the assessment and control ofheat stress

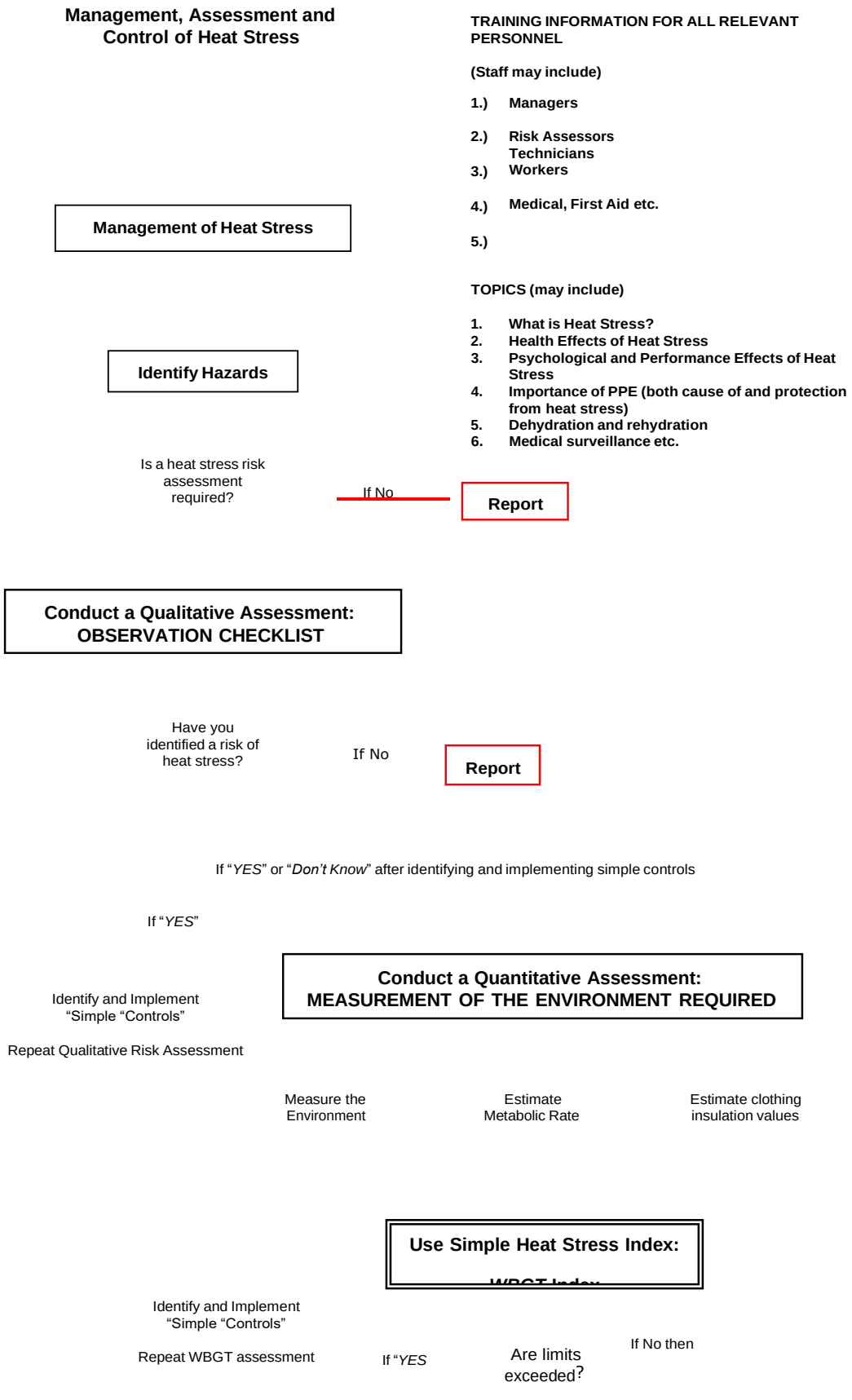
- Provide guidelines based on current heat stress standards, best practice and publishedinformation.
- Provide clear statements on the recommended physiological limits for working in theheat
- Provide mechanisms whereby recording keeping can be ensured (e.g. record sheets etc)
- Provide information on control procedures for the different hazards that are associatedwith heat stress including, high radiation, high humidity, high metabolic rate, health status etc. Controls would include engineering, administrative and others.

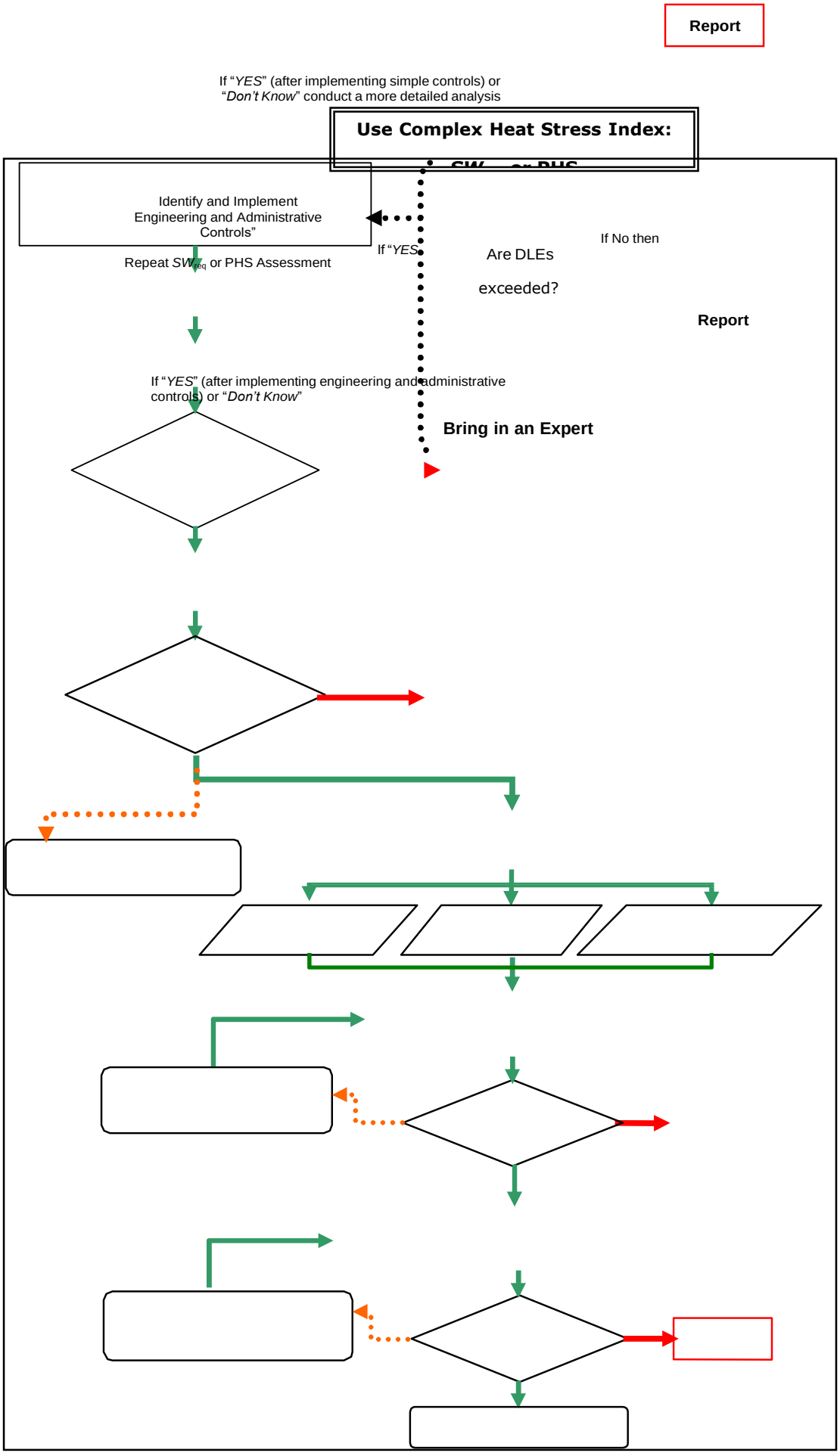
Table 73: Adapted model of Glendon's decision making requirements for risk assessments

IDENTIFY HAZARDS environment.	· Visual inspection of the work place to spot hazards that could pose a risk of heat stress. · This is done through visual observation (e.g. looking for a heat source) or physical measurements of the · Reporting of accidents attributed to heat stress (e.g. fainting) and analysis of reports into accident. (Use of RIDDOR) · Management can also play a part, by investigating material other than accidents reports. The material could include: · Productivity reports to identify any possible reduction in productivity, · Human Resource Department – absentee rate, worker complaints, Medical Records Illness reported · Worker Representatives (Unions) worker complaints.
EVALUATE RISKS	· Formal heat stress risk assessment policy must be introduced into risk assessment procedures. · Development of technical skills and knowledge of both health and safety personnel and other employees may be required. · Ensure that whoever is to measure the environmental parameters knows how to do so. · Ensure whoever is to interpret the heat stress index used, knows how to use the index and what the results mean. · Ensure that whoever is to estimate metabolic rate and clothing insulation knows how to do so. · Ensure who ever is responsible for PPE policy knows how PPE may interfere with thermoregulation. · Specific legislation and relevant standards will dictate methods and indices to be used. Standards and methods may include: · ~~WBGT, TLVs, Required Sweat Rate Model – ISO 7933~~
DEVELOP AND IMPLEMENT CONTROLS	· Risk perception of those responsible for health and safety policy, employees and employers. · **Here an observation technique could be used. Such techniques are used elsewhere but not in heat stress risk assessments.** · Development of technical skills and knowledge of both health and safety personnel and other employees. (as above). · Development of procedural skills and ensure that other procedures are catered for · Formalise and rehearse drills and procedures for the evacuation of worker suffering from heat stress. · Ensure adequate fluid is available to prevent/reduce dehydration and aid rehydration of worker suffering from dehydration. · Formalise resuscitation and other first aid procedures etc. · Individual skills · Worker, manager and hygienist's attitudes towards heat stress are critical. · Additional information such as the affects of PPC and Work Rate on the worker must also be understood. · Behaviour and Motivation · Workers must be aware of the some causes and consequences of heat induced illnesses such as dehydration (e.g. the consumption of a large amount of alcohol the night before may pose a risk to dehydration.)

• Worker's motivation to perform in hot	environments will decrease as the strain increases. Moral should also be monitored. • Organisational skills (e.g. learning from mistakes (near misses), accidents and incidents) will help reduce the risk of heat stress.
MONITORING AND FEEDBACK	• Development and implementation of adequate risk assessment procedure to reduce heat stress. • Development and implementation of valid performance measures whereby workers can be monitored by those responsible for health and safety policy as well as by themselves to identify possible heat stress induced performance decrements. • Implementation of an organisation wide policy of training and education that encourages safety culture that is aware of the risks of heat stress.

Figure 37: Process flow diagram of the Management, Assessment and Control of Heat Stress in Industry




Report
If "YES" (after implementing simple controls) or "Don't Know" conduct a more detailed analysis
Use Complex Heat Stress Index:
Identify and Implement Engineering and Administrative Controls"
Repeat SWreq or PHS Assessment
If "YES
Are DLEs
exceeded?
If No then
Report
If "YES" (after implementing engineering and administrative controls) or "Don't Know"
Bring in an Expert

4.3.6 The proposed Observation Checklist for the Assessment of Heat Stress

Based on the findings of the research thus far, it was decided to concentrate the remainder of this project on the Observation Checklist as the practical heat stress assessment tool. The MA&C guidance will not be developed further, but have provided the basis for the role that the Observation Checklist will play in the overall strategy of heat stress risk assessment. The following tables show the design decisions that have been made for the Observation Checklist:

General Format of Observation Checklist

FEATURE	DESIGN AND DEVELOPMENT STAGE	
	DESIGN DECISION	**RATIONALE**
Basic a Parameters	· Separate the parameters into Environmental, Clothing and Work rate Group.	· Follows the method of conducting quantitative heat stress assessment categories. Each becoming a Parameter where the user would need to measure the environment, estimate the clothing insulation and estimate the metabolic rate (making corrections for any PPE).
	· Provide a parameter group for Health Status of the worker	· Health status of the worker is crucial.
Instructions	· To provide simple, easy to read understand instructions based on standard ergonomic guidelines.	· Inaccurate or difficult to instructions would render the observation method useless.
Example how the Scenario the	· Provide an example scenario with worked example of checklist.	· This would show the user checklist may be used, and how information may be interpreted.
Layout	· To provide a logical and easy to follow layout with colour coded sections to aid easily navigate their way navigation. to minimise · Keep instruction to one page. · Keep checklist to 3 to 4 pages to the minimise user memory load. · To provide a Scenario (with completed sample answer) to illustrate how checklist may be completed	· The layout was designed to enable the users to through the process and their memory load. · Additional information such as Instructions, Scenario etc will add to the method's length. Therefore the method needs to be as concise as possible.
Decision each	· To provide a step by step process for	· To further simplify the task

Process	observing the work place environment observed in turnand the worker to that · To provide decision aids as and when when needed to aid in the use of the checklist other quantitative risk	parameter would be following a similar approach that might be followed conducting assessments.
Additional Information' providing a different	· To provide detailed breakdowns of the different aspects of the parameters.	· It was hoped that by detailed breakdown of the parameters users would become aware of how the different parameters interact and what aspects of the different parameters needed to be considered.

Ranking of Risks and Resultant Scores

FEATURE	DESIGN AND DEVELOPMENT STAGE	
	DESIGN DECISION	**RATIONALE**
Scoring	· Provide a scoring system for each parameter of each group. · Provide a mechanism for the therefore comparison of scores between techniques were parameters to identify possible heat Most seemed to use an stress causal factors system based on expert · Provide visual feedback about potential levels of risk of each parameter.	· No literature could be found to provide a mathematical basis for the ranking of thermal environment risks, other risk ranking investigated. arbitrary raking knowledge. · It was decided to use a polarised scoring ranking system of –2 to +3, with 0 being the neutral point. This was based on the ranking technique employed in the ASHRAE thermal comfort scale and the PMV index. · It was then discovered that Malchaire had used a similar ranking system.
Score as a measure of	· To provide an easy to understand for a single estimate of risk for the overall working situation.	· Potential users had expressed the desire for a overall estimation of the risk of heat **Overall Risk** stress.
	· To provide this as a SINGLE according to NUMBER representing a position on a possible impact, with the following stress.	· To weight categories qualitative scale of risk of heat weightings; · Environmental Score X One · Work Rate Score X Two · Clothing Score X Three · The Estimate of Risk scores for each parameters were summed and then divided by six (sum of weightings; 1+2+3) to equalise the effects that each of the parameters may have had. · The resultant figure was an overall estimate of risk with the following criteria ranges: · Less that 0 -= NO RISK · 0 to 1 = Low Risk · 1 to 2 = Moderate Risk · 2 to 3 = High Risk · 3+ = Unacceptable Risk

Environmental Parameters

FEATURE	DESIGN AND DEVELOPMENT STAGE	
	DESIGN DECISION	**RATIONALE**
Air Temperature	· To use descriptions or categories of air temperature instead of ranges based on any measures but to simply "observe"	· The idea of a qualitative method must be that users are not required to take measurements. their environment and the worker.
Thermal Radiation	· To adapt the radiation descriptions as used by Malchaire.	· No subjective descriptions of thermal radiation could be found in theliterature. · A point that was raised during the preliminary discussion group sessionswas that bare skin may not be exposedto the radiation. Therefore phrase "if skin were exposed" was used.
Humidity	· To adapt the radiation descriptions as descriptions of thermalused by Malchaire.	· No subjective radiation could be found in the literature.
Air Movement	· To adapt the radiation descriptions as descriptions of airused by Malchaire.	· No subjective movement could be found in the literature. Malchaire's descriptions were adapted to include temperature ofair moving as hot air may increase heattransfer into the human through convection.

Work Rate Parameters

FEATURE	DESIGN AND DEVELOPMENT STAGE	
	DESIGN DECISION	**RATIONALE**
Type of rate **Movement**	· To describe the work rate as components tasks that make up the diggingoverall task.	· It was felt that to describe the work as types of work (e.g. driving, etc.) would be too detailed. · Therefore, the components as describedin ISO 9886 (1994) were used. · Since each task may be made up of different tasks the user would have the capability of ticking more than one boxand as such obtain an overall score for work rate based on the sum of the components. · A ratio was obtained by dividing the sum of scores by the number of ticks.

Clothing Parameters

FEATURE	DESIGN AND DEVELOPMENT STAGE	
	DESIGN DECISION	**RATIONALE**
Materials	· Provide different descriptions of clothing based on the vapour and air permeabilities.	· The permeability of the material of an ensemble may have a great impact on it's suitability in warm, hot environments. Users need to be aware of this. · Additionally, new indices (such as proposed PHS index) require users to input permeability index (i_m).
Hazard Protection	· Describe clothing based on the severity of the hazard from which it is protecting the worker (i.e. exposure could be fatal).	· If workers are working in areas of high risk from hazards such as chemicals, nuclear etc the nature of the clothing will interfere with thermoregulation.
Movement	· Describe clothing in terms of any restrictions it may have on the workers ability to perform tasks.	· Heavy and bulky clothing may inhibit movement thereby increasing the metabolic rate
Weight	· Describe clothing in terms of its weight (i.e. lightweight, heavy etc).	· As above
Reflective qualities of clothing material surface	· Describe reflective properties of clothing (i.e. black/dark clothing with no reflective properties).	· Recommendation from user discussion groups. · If high reflective clothing is worn in high radiation environments, the risk from the radiation may be reduced.

An overall design decision based on the above findings was that the clothing described in BSISO 9920 (1995) and the references provided

needed to be categorised so that the different ensembles could be ranking according their insulative properties.

The first prototype of the observation checklist is in the Appendix (section 17). The prototype(which will be called the Bethea and Parsons method) was then evaluated and compared with the method developed by Malchaire.

4.4 STAGE 3 – EVALUATION STAGE

4.4.1 User Trials

Smilowitz *et al* (1994) reported the successful use of what they call "*beta tests*" late in a product's development. Although this was used to assess software with "*real world users*" in "*real world situations*" it was decided that a similar evaluation process was needed for the Observation Technique. An empirical test, conducted in a thermal chamber in a laboratory using simulated situations (such as that used in the heuristic evaluation) would not be suitable asit did not reflect "real world" heat stress problems. As such, it may be too constrained by the controlled environment and limitations of the laboratory. Additionally, following the difficulty in obtaining user input into other parts of the study, it was recognised that it would be very difficult and time consuming to obtain representative users from industry to participate in laboratory trials. Since structured group discussions had been successful in obtaining representative user input it was decided to use them again for usability testing of the Observation Methodology.

4.4.2 Introduction

It was necessary to evaluate the observation checklist method developed for this project using representative users. Two groups of participants from two different industries volunteered to take part in the experiment. One group was from a large multinational steel company and the other group was from a number of companies in the Paper Industry. Two observation methods were evaluated in situ at a representative plant of each group. The two methods to be evaluatedwere:

1. Malchaire
2. Bethea and Parsons.

A direct comparison between the methods was to be made using the discussion groups to obtainqualitative data. From the results, iterative changes would be made to that method that the userspreferred to provide the recommended observation checklist for this project.

4.4.3 Aims

The aim of the evaluation stage was to compare the usability of the two observation methodswith representative users in real-life situations.

4.4.4 Method

Experimental Design Decisions

- The usability trial was to be run as a controlled experiment and as such a number ofexperimental design decisions were made *a priori*.
- Users would be required to use the two observation techniques to evaluate the risk ofheat stress in an occupational setting.
- The users were not to be made aware of which methodology was which, in other wordsit was a "blind trial". This was done so as not to influence them in anyway. The only

information they had been given was that the two methods had been developed bydifferent research teams.

- The users were asked not to discuss the methodologies, their observations or theiropinions during the trail.
- No comparison of observations during the trial would be permitted.
- Other than the procedural information about the user trial, no information about how touse the methodologies would be provided. The users would be required to follow the provided instructions.

Subjects

Paper Mill Participants

Seven health and safety personnel took part in the study. They were responsible for the healthand safety in their factory. Only two of the participants had any experience of heat stress risk assessment. The rest of the participants were relatively inexperienced in heat stress risk assessment. As such this was be representative of **OCCASIONAL** users.

Steel Mill Participants

Seven health and safety personnel took part in the study, and as in the Paper Mill group were responsible for the health and safety in their factory. All of the participants had experience ofheat stress assessments using a number of methods including HSI, P4SR, *WBGT* and physiological monitoring. These participants were representative of the **SKILLED** users

Apparatus

- As mentioned above, the two methodologies were given to each member. Themethodology by Malchaire was called **Method A**, and the other **Method B**.
- Each methodology had its own instructions specific to each.
- Detailed usability questionnaires were developed for users to complete upon completionof the trials (these were not used on the day because the researcher felt that it would unnecessarily interfere with the way the discussion group was going – i.e. sufficient information was being provided through the discussions).

Descriptions of Sites Evaluated

Paper Mill

Two sites were evaluated:

1.) The basement area beneath a Paper Machine. The environment was warm and humid. Thetasks performed were the same as those described in Chapter 4.

2.) Behind the screen area in front of the rollers above the basement area. This environment was hot with high thermal radiation from the rollers. This environment is usually covered by a protective screen which is raised when paper breaks occur. Workers work in this areain close proximity to the rollers while removing paper jams. Occasionally they may be required to crawl between the rollers to remove and replace the felt-belts on which the paper moves. The *WBGT* value in this area is about 44°C, with a mean globe temperature of 51°C.

Steel Mill

Only one site was observed: a blast furnace was undergoing maintenance.

The end walls had been removed and maintenance crews were working to remove slagg from the floor of the furnace. The dry bulb air temperature was 45°C and the radiant temperature wasabout 80°C at the place of work. The work/rest schedules were 10 min on and 20 min off during which time they left the furnace. Their work rate was very high with them using pitchforks to loosen the slagg and then shovelling it into wheelbarrows. When full, the wheel-barrows where wheeled to the edge of the furnace and the contents tipped into a basement area below. Workers wore fire retardant coveralls, t-shirts, boots with wooden blocks strapped to theunderside of the boot, fire retardant gloves, facemasks and safety goggles.

4.4.5 Procedure

Pre Experiment

- The discussion group sessions and the venue for the observation to be performed were on the same site. The site for each group was volunteered by one member of that groupand was not subject to any restrictions from the research team other than it should be a warm or hot environment in which the participants felt heat stress may be an issue.
- Contact with each participant was made via email and the telephone a couple of weeksbefore the discussion group sessions.
- Each of the participants was sent a postal pack containing information one-week prior the session that included information about the discussion groups, an itinerary, and anexplanation of the project's aims.
- The methodologies were not sent to the participants as their opinions may have been influenced prior to the session. Additionally the research team did not want the participants to talk amongst themselves about the methods so as to prevent any of theparticipants influencing the others.

Experiment

- All the participants arrived at the location and an introductory presentation about theprocedures and aims of the experiment was given by the experimenter. Any queriesregarding the format of the discussion group were dealt with prior to the experimentstarting.
- Each participant was given the two methodologies along with the associated instructions. Each methodology had been coded to identify the participant and the orderof application. This also enabled the experimenter to ensure all methodologies had beenreturned.
- Participants were given time to read through both the instructions and each method.They were asked not to discuss it amongst themselves.
- When they were all ready the participants and the experimenter went to the site of theobservation assessment. Half the participants were

asked to use Method A first and then use Method B and visa versa. This provided a balanced design and ensured that there was no order effect. Therefore, both methods were used at each site.

- In the Paper Mill, where two sites were observed, the participants were given new methodologies and required to reverse the order that they had used for the previoussite.

- To meet the health and safety requirements at the steel mill the participants and theexperimenter were only allowed to remain in the furnace for a maximum of 10 minutes. Therefore the participants were asked by the experimenter to consider thecategories in each methodology and to complete the methodologies upon exit from the furnace.
- All completed methodologies were collected prior to the discussion groupscommencing.

Post Experiment – The Discussion Group

The experimenter acted as the moderator. Usability criteria questions were asked, and the usersdiscussed the merits of each methodology based on these criteria. They were also required to make direct comparisons between the two, based not only on the usability criteria but also on the practicalities of using them, interpreting them and the likelihood that they would be able to introduce controls as a result of each method.

4.4.6 Results

All data was to be transcribed and coded according to usability themes, preferences etc.

It is recognised that the sample size was relatively small and that the representative users onlycame from two industries. It is recommended that the proposed method is tested throughout anumber of industries and with a much larger sample size to ensure it meets all their user and functional requirements.

As a result of the discussion groups the following points were identified:

1. Both discussion groups preferred the Bethea and Parsons method to the Malchaire method.
2. Malchaire's method was considered the easiest to use, but all the participants considered ittoo simplistic and with too little information to be of practical use. They also felt that it would be the least likely method to get results accepted by management.
3. The Bethea and Parsons method was considered more difficult to use, but this was soon overcome after using the scenario and the first assessment. All the participants preferredthis method, however a number of issues were raised:
   - The components of work rate were difficult to interpret. Users would preferdescriptions of the types of work.
   - Participants wanted descriptions of the different parameters in language that they mightunderstand. "What is humidity and how do you know if it is humid?" was one examplegiven. This was a criticism of both methods.
   - The descriptions of the clothing based on material, movement etc was at times confusing. The participants recommended using descriptions of clothing instead.

- All the participants thought the inclusion of worker health status in the Bethea andParsons method was important.
- Scenarios, such as that provided in the Bethea and Parsons method should be included.In the final version, they would like more than one example scenario.
- The longer time taken to complete the assessment using the Bethea and Parsons methodwas not considered problematic. This was considered acceptable as it provided more information than the Malchaire method.

4. The scores for each workplace were very similar for each method, but between workstationsthe Bethea and Parsons method's OVERALL ESTIMATE OF RISK was not sensitive

enough to show the increases in actual risk. The process of obtaining a single risk figurerequires more development.

5. The Bethea and Parsons method was considered to more closely resemble qualitative riskassessment than the Malchaire method.
6. The Bethea and Parsons method was considered to be the better of the two forcommunicating the parameters to be considered to the users.
7. The layout and spatial orientation of the Bethea and Parsons method was preferred, although a couple of the participants found the landscape orientation a little difficult tofollow after the Portrait orientation of the instructions
8. The Bethea and Parsons method was considered to be more flexible to the userrequirements.
9. All the participants expressed more confidence in the Bethea and Parsons method.

Added to this more specific data was obtained. This is detailed in the following tables, which show the original design decision, and the new design decisions along with the rationale whichwas provided by these user trials.

General Format of Observation Checklist

FEATURE	DESIGN AND DEVELOPMENT STAGE ORIGINAL DESIGN DECISION	POST EVALUATION STAGE NEW DESIGN DECISION	RATIONALE
Basic Parameters	· Separate the parameters into Environmental, Clothing & Work rate categories., each becoming a Group. · Provide a parameter group for Health Status of the worker	Not to make any changes to these basic parameters or their order.	· Users stated that by separating the parameters into the categories, it enabled them to identify what the issues were and what measures needed to be considered.
Instructions	· To provide simple, easy to read instructions based on standard ergonomic guidelines.	To provide general descriptions of the parameters as a glossary. Need to be in "non scientific" language and based on scenarios that users may be able to understand.	· Users said that they felt it was difficult to comprehend some of the concepts being described (e.g. radiant heat).
Example Scenario	· Provide an example scenario with worked example of checklist.	To keep scenario and worked example of checklist. When used in general guidance, include worked examples of heat stress indices such as *WBGT* and SW_{req}.	· Although the scenario took time to work through, the users felt that it improved their understanding of the method. · Users wanted the provision of a number of example scenarios with detailed workings of the quantitative methods to be used. Use of scenarios should be continued.
Layout	· To provide a logical and easy to follow layout with colour coded sections to aid navigation. · Keep instruction to one page. · Keep checklist to 4 to 5 pages to minimise user memory load. · To provide a Scenario (with completed sample answer) to illustrate how checklist may be completed	No changes were made to the overall layout, although attempts would be made to keep all the pages in portrait orientation. When added to overall guidance, keep the worked examples and the actual checklist separate so that worked examples appear with indices examples	· The users all expressed their satisfaction with the layout, although some did state that moving from Portrait to Landscape layouts was a little confusing at first. · Users all said that a worked example section in final guidance would be used as a reference section.

FEATURE	DESIGN AND DEVELOPMENT STAGE	POST EVALUATION STAGE	
	ORIGINAL DESIGN DECISION	NEW DESIGN DECISION	RATIONALE
Decision Process	· To provide a step by step process for observing the work place environment and the worker · To provide decision aids as and when needed to aid in the use of the checklist	To keep the step by step approach and to keep the order in which the different parameter groups were presented. To introduce a glossary of all the parameters.	· The users felt that the decision process more closely followed other methods they had used (e.g. for manual handling, noise etc) than Malchaire's method.
Additional Information'	· To provide detailed breakdowns of the different aspects of the parameters.	To simplify the parameters and to reduce the number of possible answers. To include an uncertainty option (based on the definition provided by Covello and Merkhoffer).	· The users felt that there were too many parameters in the Work Rate and Clothing and that this confused them. · The simplicity of Malchaire's method was liked but was considered too simplistic. They all agreed that the simplicity of Malchaire's method would not provide them sufficient information for management to agree to the introduction of controls.

Work Rate Parameters

FEATURE	DESIGN AND DEVELOPMENT STAGE ORIGINAL DESIGN DECISION	POST EVALUATION STAGE NEW DESIGN DECISION	RATIONALE
Type of Movement	· To describe the work rate as To components tasks that make up the overall task.	To describe work rate by tasks and jobs and not in component information.	· User preference was different to that expressed by the experts in the discussion groups. Therefore, a combination of the descriptions in ISO 8996 and Ramsey *et al* (1994) will be used.

Ranking of Risks and Resultant Scores

FEATURE	DESIGN AND DEVELOPMENT STAGE	POST EVALUATION STAGE	
	ORIGINAL DESIGN DECISION	**NEW DESIGN DECISION**	**RATIONALE**
Scoring	· Provide a scoring system for each parameter of each group. · Provide a mechanism for the comparison of scores between parameters to identify possible heat stress causal factors · Provide visual feedback about potential levels of risk of each parameter.	The ranking system needs to be exponential and not linear. This would increase the differences between ranks and thereby increase the difference between environments. Not all ranks need to be included. (*NOTE: For this project however, linear ranks are being used in the prototype. It is recommended that future ranks are agreed by a panel of experts and validated in the field.*)	· The users felt that the use of only 3 scoring "zones" above the neutral ZERO was insufficient as it suggested an equal weighting to all those appearing in each zone. Perhaps additional ratings could be included, with parameters such as high radiation, high humidity, etc having a much higher rating than hot air temperature. · There was significant difference between environments although there was a significant similarity within an environment.
Score as a measure of Overall Risk	· provide an estimate of overall risk at this overall estimation of the risk of heat stress. · To provide this as a SINGLE NUMBER representing a position on a qualitative scale of risk of heat stress.	time.	To provide an easy to understand Not to Further investigation will provide the basis for evaluating possible ways of calculating an overall risk estimate. The only way to ensure that this accurate and valid is to compare qualitative risk data with objective environments and physiological measures.

Environmental Parameters

FEATURE	DESIGN AND DEVELOPMENT STAGE	POST EVALUATION STAGE	
	ORIGINAL DESIGN DECISION	**NEW DESIGN DECISION**	**RATIONALE**
Air Temperature	· To use descriptions or categories of air temperature instead of ranges based on measurements.	To keep the use of categories of air temperatures. Not to adopt Malchaire's use of ranges based on air temperature ranges.	· No air temperature measures were available during the user trials and therefore they could not allocate an answer to Malchaire's method.
Thermal Radiation	· To adapt the radiation descriptions as used by Malchaire.	To discard the descriptions adopted from Malchaire and to introduce more descriptions and examples of types of thermal radiation.	· Occasional users did not understand what was meant by the word "radiation", while the experts considered the descriptions to not go far enough.
Humidity	· To adapt the radiation descriptions as used by Malchaire.	To discard the descriptions adopted from Malchaire and to introduce more descriptions and examples of humidities.	· Users stated that confusion occurred when describing the humidity in terms of skin wetness because sweating may result in erroneous observations. · A paper by McIntyre (1978) showed that people have difficulty in estimating humidity between 20 and 70%, although if humidity changed over time, people could detect it. Therefore it was decided to describe humidity in terms of vapour producing processes and not on subjective estimation of humidity. Fewer options would be given to reduce the risk of confusing the user.
Air Movement	· To adapt the radiation descriptions as used by Malchaire.	To improve on the descriptions given by including examples of different types of air movement.	· Users understood the descriptions provided but it was felt that the task may be made easier by introducing examples. · Several of the users stated that the air velocity categories described by Malchaire were too narrow and did not take into account incidences where high temperature air

	movement was found. This they said was inconsistent with the rest of his method, e.g. intense burning on skin for radiation.

Clothing Parameters

FEATURE	DESIGN AND DEVELOPMENT STAGE	POST EVALUATION STAGE	
	ORIGINAL DESIGN DECISION	**NEW DESIGN DECISION**	**RATIONALE**
Materials	· Provide different descriptions of clothing based on the vapour and air permeabilities.	Do not use a materials category for describing clothing. Describe clothing by it's type (i.e. coverall, PVC, Fire fighting etc).	· The occasional users were confused by the material descriptions as they did not know whether clothing was vapour and or air impermeable/permeable. · All the users thought that general descriptions would be easier to use. · Descriptions of clothing ensembles will be adapted from BS ISO 9920 (1995), Annex A, Table A.1 and from ACGIH, TLV's and from BS 7963 (2000).
Hazard Protection	· Describe clothing based on the severity of the hazard from which it is protecting the worker (i.e. exposure could be fatal).	As above	· As Above
Movement	· Describe clothing in terms of any restrictions it may have on the workers ability to perform tasks.	As above	· As above
Weight	· Describe clothing in terms of its weight (i.e. lightweight, heavy etc).	As above	· As above
Reflective qualities of clothing material surface	· Describe reflective properties of clothing (i.e. black/dark clothing with no reflective properties).	As above	· As above

An overall design decision, based on the above findings was that the clothing described in BS ISO 9920 (1995) and the references provided needed tobe categorised so that the different ensembles could be ranked according their insulative properties.

The "Checklist to identify possible personal risk factors" has been adapted from Goldman (1988), NIOSH (1992), Parsons (1993) and Ramsey *et al.*

(1994)

CHAPTER 5
A PRACTICAL HEAT STRESS ASSESSMENT METHODOLOGY

5.1 PART 1: CHECKLIST TO IDENTIFY POSSIBLE PERSONAL RISK FACTORS.

The checklist below is associated with heat intolerance and heat stress susceptibility. A preliminary observation tool it is intended to aid in the identification of possible "**at added risk**" workers who, due to a personal risk factor, may have an increased susceptibility to heatstress. This checklist is not intended to replace a medical examination.

The indicators listed may be representative of temporary and/or permanent conditions and careful consideration of each individual case following a medical should be applied before restricting work. There may be additional indicators that are not listed that could increase therisk of the worker experiencing heat stress.

If in doubt, seek advice from a physician.

Apply checklist to those workers who are to be exposed to hot working environments. Tickchecklist either YES or NO. Any YES answer may indicate an increased risk heat stress.

If in doubt, seek advice from a physician.

Personal Risk Factor Indicators	YES	NO
History of heat stroke		
History of inability to acclimatise		
Inexperience of working in the heat		
Not skilled at specific job		
Just returned from illness or leave		
Worker is not acclimatised		
Pre-existing or recent illness (e.g. Vomiting, diarrhoea etc.)		
On a restricted or low sodium diet		
Skin trauma such as sunburn, heat rash etc.		
Heat Stroke		
Heat Exhaustion		
Heat Syncope		
Heat Cramps		
Heat Rash		
Anhydrotic Heat Exhaustion		
Hyperventilation		
Heat Fatigue Transient		
Heat Fatigue Chronic		
Beta-blockers		
Antihistamines		
Diuretics		
Cholinergics		
Recreational		
Alcohol		
Other (check with physician for side effect)		
Cardiovascular disease		
Obesity Males >25% overweight		
Obesity Females >30% overweight		
Other (check with physician for effects of heat)		
Low physical fitness		
Inability to sweat		
Skin disease		
Pregnancy (poses potential risk to the unborn baby)		
Impaired mental capacity		
Other (check with physician for effects of heat)		

If in doubt, seek advice from a physician.

5.2 OBSERVATION CHECKLIST FOR HEAT STRESS RISK ASSESSMENT

5.2.1 Environmental Considerations

This section describes the four environmental parameters that make up the thermal environment.They are; radiant temperature, air temperature, humidity and air velocity.

Each table represents one of these parameters, which are described and explained. Each parameter is described according to a number of risk scores; where the higher the score the higher the risk that it may contribute to heat stress. Observe the environment, taking note of thedescriptions provided, and tick the box (on the right) next to the description that best fits the workplace you are observing. This will provide you with a rank score for that parameter.

If you do not see a description that best fits the work situation you are assessing, or are unsure, then tick the "**Don't know**" box at the bottom of that table. This introduces an uncertainty intothe assessment and requires that you conduct a more detailed qualitative assessment.

5.3 THERMAL ENVIRONMENT CONSIDERATIONS

This section describes the four environmental and two personal parameters that make up the thermal environment. They are;

- **Environmental Parameters** – Air Temperature, Radiant Temperature, Humidity and Air Velocity.
- **Personal Parameters** – Metabolic rate and Clothing

Each table represents one of these parameters, which are described and explained. Each parameter is described according to a number of risk scores; where the higher the score the higher the risk that it may contribute to heat stress. Observe the environment, taking note of thedescriptions provided, and tick the box (on the right) next to the description that best fits the workplace you are observing. This will provide you with a rank score for that parameter.

If you do not see a description that best fits the work situation you are assessing, or are unsure, then tick the "**Don't know**" box at the bottom of that table. This introduces an uncertainty intothe assessment and requires that you conduct a more detailed qualitative assessment.

5.3.1 Air temperature

AIR TEMPERATURE EXPLAINED

- The temperature of the air surrounding the human body

Estimate Risk of Air Temperature contributing to Heat Stress:

- Consider the temperature of the air surrounding the worker and read the subjective descriptions below.
- Can you provide a subjective estimation of the air temperature? **YES / NO**
  - If **YES,** tick the box that best fits the air temperature you are evaluating. If you think that more than one air temperature is present then tick more than one box.
  - If **NO,** tick "**Don't Know**" and conduct a quantitative heat stress risk assessment.

Description and things to look out for	SCORE	Tick
Cool	-1	
Neutral	0	
Slightly warm	1	
Warm	2	
Hot	3	
Very Hot	4	
	Don't know	

5.3.2 Thermal Radiation

THERMAL RADIATION EXPLAINED

- Thermal radiation is the heat that is given off from a warmer to a colder object.
- Radiant heat may be present if there are heat sources in an environment. Examples may include; the sun, fire and flares; electric fires; furnaces; steam rollers; ovens, walls in kilns, cookers, dryers; hot surfaces & machinery, exothermic chemical reactions, nuclear reactors, tunnel walls in deep mines, molten metals, etc.

Estimate Risk of Radiant Temperature contributing to Heat Stress:

- To obtain a measure of risk for thermal radiation, observe the surroundings and look for sources of heat. Also, consider how close the workers are to these heat sources, and whether they need to wear protective clothing to prevent burns etc. Read the subjective descriptions of radiant heat
- Can you provide a subjective estimation of the air temperature? **YES / NO**
  - If **YES**, tick the box that best fits the radiant temperature you are evaluating. If you think that more than one radiant temperature is present then tick more than one box.
  - If **NO**, tick "**Don't Know**" and conduct a quantitative heat stress risk assessment.

Description and things to look out for	SCORE	Tick
Objects colder than the surrounding air are near to worker.	-1	
There are no heat sources in the environment.	0	
Heat source is present in the environment but the workers are not working in close proximity to it. Heat source surface feels warm to the touch and you could keep your hand there indefinitely.	1	
Heat source surface feels hot to the touch. Worker is working in close proximity to the heat source Heat source makes workers feel hot when they stand near it.	2	
Heat source surface feels very hot to the touch and may burn the skin. Workers cannot work in close proximity to the heat source for more than 10 minutes.	3	
Contact with heat source will cause burning Workers cannot work in close proximity to the heat source for more than 5 minutes.	4	
Workers have to wear flame resistance clothing to protect their skin from burning. **Examples:** Flares, fires and furnaces, kiln walls, etc. Workers are not permitted to work in the environment without PPE to protect them from the radiant heat in that environment.	5	
	Don't know	

5.3.3 Air velocity

AIR VELOCITY EXPLAINED

- Air velocity is the speed at which air moves across the worker. Air velocity may help cool the worker if it is cooler than the environment.

Estimate Risk of Air Velocity contributing to Heat Stress:

- Think about the temperature of the air moving across the worker. Remember that the temperature is important, as it will affect the heat loss or heat gain to the worker.
- To aid your subjective estimation of the air velocity, four categories of air velocity are provide. They are **Still**, **Low**, **Moderate** and **High**
  - ⇨ **Still** air, is where there is no noticeable flow of air.
  - ⇨ **Low** air speed, is when you can just feel the air movement, but it is not as obvious as a breeze may be.
  - ⇨ **Moderate air speed,** is when you can feel the air movement (e.g. a light breeze) on exposed flesh.
  - ⇨ **High** air speed may be similar to the air speed on a windy day, or at or near fans or other machines or equipment that generate air movement.
- In considering the air movement in the work area, look for the following:
  - ⇨ Is there a wind source?
  - ⇨ Have fans been introduced to reduce the temperature (e.g. during specialist maintenance work?)
  - ⇨ Can the workers feel hot or warm air blowing on any exposed skin?
  - ⇨ Is the moving air colder or warmer that the ambient air temperature?
- Read all the categories before deciding on your score.
- Can you estimate the air velocity and it's temperature: **YES / NO**
  - Ž If **YES** give a ranking to the air velocity below.
  - Ž If **NO**, tick "**Don't Know**" conduct a quantitative heat stress risk assessment..
    - If more than one air velocity is observed, or if the temperature of the moving air is changing, then either tick more than one category or tick "**Don't Know**" and conduct a quantitative heat stress risk assessment.

Description and things to look out for	SCORE	Tick
· Cold air at a high air speed (e.g workers standing in front of an air conditioning unit, compressed air supply into clothing for cooling of worker – Breathing apparatus compressed air does not fall into this category)	**-3**	
· Cold air at a moderate air speed · Cool air at a high speed	**-2**	
· Cold air & low movement · Cool air at moderate air speed	**-1**	
· Still air movement in a neutral environment	**0**	
· Warm air & low movement	**1**	
· Still air movement in a warm environment	**2**	
· Still air movement in a hot environment.	**3**	
· Warm air at a moderate speed · Still air movement in a very hot environment · Hot air and moderate air movement	**4**	
· Very hot air at a high speed.	**5**	
	Don't know	

5.3.4 Humidity

HUMIDITY EXPLAINED

- If water is heated and it evaporates to the surrounding environment, the resultant amount of water in the air of that environment will provide humidity. High humidity environments have a lot of vapour in the air and this prevents the evaporation of sweat from the skin.
- If workers are wearing **vapour impermeable PPE**, then the humidity inside the garment increases as they sweat because the sweat cannot evaporate. Therefore, if workers are wearing high protection PPE that is vapour impermeable (e.g. asbestos, chemical protection suits etc) the humidity within the microclimate of the garment may be high.

Examples. Humidity in indoor environments will probably vary greatly, and may be dependent on whether there are drying processes (paper mills, laundry etc) where steam is given off. Indoor environments that are susceptible to outdoor conditions may also be humid on humid days. Where workers wear vapour impermeable PPE.

NOTE: Humidity is very difficult to estimate. Observing worker sweat rates to see if there is profuse sweating with sweat dripping from the person may be an indication of high humidity. However, it is also easy to confuse this with the sweating that occurs as a result of hard work.

Estimate Risk of Humidity contributing to Heat Stress:

- Think about the humidity of the environment within which the worker is working. Remember that the humidity is vitally important, as it will affect the heat loss through evaporation.
- Is the environment susceptible to outdoor conditions, especially in summer? Are there any dryers? Do workers complain about the humidity?
- Read all the categories before deciding on your score.
- Can you estimate the humidity? **YES / NO**
  - If **YES,** give a ranking to the humidity below.
  - If **NO**, tick "**Don't Know**" conduct a quantitative heat stress risk assessment..
    - If more than one humidity is observed, or if the humidity may be changing (i.e. outdoors), then either tick more than one category or tick "**Don't Know**" and conduct a quantitative heat stress risk assessment
  - If workers are donning and removing PPE please only select **ONE** option that best described the environment you are observing and conduct a quantitative heat stress risk

Description and things to look out for	SCORE	Tick
• No humidity. Air is dry, with no drying processes or other mechanisms for increasing the humidity in the workplace.	**0**	
• Humidity seems to be somewhere between very humid and very dry.	**2**	
• Air is very humid. Examples may be near drying machines, laundry machines, chemical processes where steam is given off.	**5**	
• Vapour impermeable PPE is worn	**6**	
	Don't know	

5.3.5 Work Rate

WORK RATE EXPLAINED

- Work rate is also called metabolic rate and is essential for a heat stress risk assessment.
- This is used to describe the heat that the worker may be producing inside their body as they work. The more physical work they perform, the more heat they produce and the more heat they need to lose so that they don't overheat.

Use ISO 8996 (1990), estimation of metabolic heat production for more information.

Estimate Risk of Metabolic Rate contributing to Heat Stress:

- Observe the workers, tacking careful note of their movements, posture, speed, effort, weight of materials they may be handling, parts of their bodies that are responsible for their movement etc?
- To aid your subjective estimation of the metabolic rate, five categories of metabolic rate are provide. They are **Resting**, **Low**, **Moderate**, **High** and **Very High**. Descriptions are provided for each.
- If in doubt, review your manual handling assessment for information of the components of the task.
- Read all the categories before deciding on your score.
- Can you estimate the Metabolic Rate? **YES / NO**
  - If **YES,** give a ranking to the metabolic rate below.
  - If **NO,** tick "**Don't Know**" and conduct a quantitative heat stress risk assessment..
  - If more than one task is being performed then either tick more than one category or tick "**Don't Know**" and conduct a quantitative heat stress risk assessment

Description and things to look out for	SCORE	Tick
Resting. · Worker is resting as part of a work/rest schedule or is awaiting instructions etc. · Worker is not involved in any tasks at all.	**-2**	
Low. · Sitting or standing to control machines. · Light hand work (writing, drafting, sewing, bookkeeping, drafting etc). · Hand and arm work (small bench work, using tools such as table saws; drills, inspecting, assembling or sorting light materials, operating control panel, turning low torque hand wheels, very light assembly operation etc). · Standing with light work at machine or bench while using mostly arms (drill press, milling machine, coil taping, small armature winding, machine with light power tools, Inspecting or monitoring hot processes). · Arm and Leg work (driving a car, operating foot pedals or switch). · Walking in easily accessible areas (can walk upright). · Lifting: 4.5Kg loads for fewer than 8 lifts/min; 11kg fewer than 4 lifts/min	**0**	
Moderate. · Hand and arm work (mailing filing). · Arm and leg work (off-road operation of trucks, tractors and construction equipment). · Arm and trunk work (operating air hammer, tractor assembly, cleaning or clearing light debris spillage, plastering, heavy welding, scrubbing while standing up, intermittently handling heavy objects/, weeding, hoeing, picking fruit and vegetables.) · Carrying, lifting, pulling and pushing light loads (lightweight carts and wheelbarrows); · Operating heavy controls (e.g. opening valves); · Walking in congested areas (limited headroom), walking at 2 to 3 mph. · Lifting: 4.5kg fewer than 10 lifts/min; 11kg fewer than 6 lifts/min	**2**	
High. · Intense arm and trunk work, (carpenter sawing by hand or chiselling wood, shovelling wet sand, transferring heavy materials, sledge hammer work, planting, hand mowing, digging). · Intermittent heavy lifting (such as pick-and-shovel work). · Pushing or pulling heavy loads (pallet trucks, skips, loaded cages, heavy wheelbarrows) · Heavy manual handling and lifting (e.g. laying concrete block, and clearing heavy debris (e.g. cleaning and relining reactor vessels)). · Heavy assembly work on a non-continuous basis. · Lifting: 4.5kg 14 lifts/min; 11kg 10 lifts/min	**4**	
Very High. · Work at this rate cannot be sustained for long periods. · Very intense activity at a fast maximum pace (e.g. intense shovelling, axe work, running). · Heavy assembly, building or construction work; (climbing stairs, ramps or ladders rapidly) Walking faster than 4mph · Lifting 4.5kg more than 18 lifts/min. 11kg more than 13 lifts/min.	**6**	
	Don't know	

5.3.6 Clothing

CLOTHING EXPLAINED

- Clothing interferes with our ability to lose heat to the environment.
- Heat stress is a risk in situations where workers may be wearing Personal Protective Equipment, even if the environment is not considered warm or hot. It is important therefore, to identify whether the clothing the worker is wearing may be contributing to the risk of heat stress.
- Examples of different types of clothing are provided below.

Use BS EN 29920 (1992), "*Estimation of the thermal characteristics of a clothing ensemble*." for more information

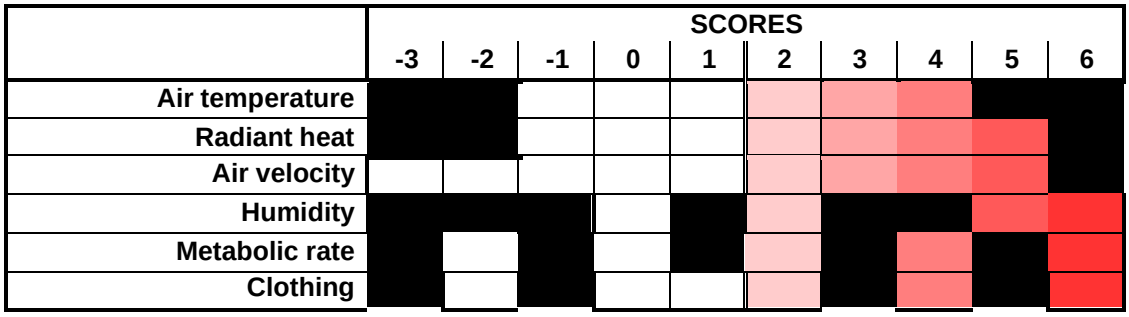
Estimate Risk of Clothing contributing to Heat Stress:

- It is impossible to list or describe in this method all the clothing that may be worn in industry. Therefore, general descriptions of clothing are provided. Observe the worker and look through the list for an ensemble that may best describe the type of clothing they are wearing.
- Additional information may be obtained by contacting the manufacturer or a supplier of the PPE for further advice.
- Read all the categories before deciding on your score.
- Is the relevant Clothing described below? **YES / NO**
  - If **YES** give a ranking to the clothing.
  - If **NO,** tick "**Don't Know**" conduct a quantitative heat stress risk assessment..
  - If workers don and remove clothing then tick more than one category or tick "**Don't Know**". Conduct a quantitative heat stress risk assessment

Description of clothing	SCORE	Tick
· Shorts and a T-shirt. No protective or work clothing worn.	**-2**	
· Light work clothing	**0**	
· Cotton coverall, jacket	**1**	
· Winter work clothing, double cloth coveralls, water barrier materials	**2**	
· Light weight vapour barrier suits	**4**	
· Fully enclosed suit with hood and gloves	**6**	
	Don't know	

5.4 RESULTS OF OBSERVATION CHECKLIST FOR HEAT STRESS RISK ASSESSMENT

Referring back to each of the parameters you have just observed, please tick the subjective score below that corresponds to score you gave to each parameter. The black squares indicate that that score was not available for a particular category.



Those scores higher than 1 may contribute to heat stress. The more scores you that have that are higher than 1, the greater the risk. As the scores increase (also shown by colour shading from light red to dark red) so the potential of that parameter contributing to heat stress increases. If three or more of your scores are greater than 1, there may be a risk of heat stress.

CHAPTER 6
APPENDICES

6.1 TABLES FOR ESTIMATING METABOLIC RATE FROM ITS COMPONENTS.(TAKEN FROM ISO 8996)

Table 74 Metabolic rate for body posture, values excluding basal metabolic rate.

Body Posture	**Posture W.m^2**
Sitting	10
Kneeling	20
Crouching	20
Standing	25
Stranding stooped	30

Table 75 Metabolic rate for different types of work, values excluding basal metabolism

	Metabolic rate W.m^2	
	Mean value	**Range**
Handwork		
light	15	<20
moderate	30	20 to 30
heavy	40	>35
One arm work		
light	40	<45
moderate	55	45 to 65
heavy	75	>65
Two arm work		
light	65	<75
moderate	85	75 to 95
heavy	105	>95
Trunk work		
light	125	<155
moderate	190	155 to 230
heavy	280	230 to 330
very heavy	390	>330

Other data used was that was not included in these tables but that can be found in the standardinclude:

- Slow walking speed (about 2km/h) = 120 W.m^2
- Basal metabolic rate = 44 W.m^2

6.2 MALCHAIRE'S OBSERVATION METHODOLOGY

Scoring scales for the "Observation" method

Score	Condition
	AIR TEMPERATURE
-3	- generally freezing
-2	- generally between 0 and 10°c.
-1	- generally between 10 and 18°C
0	- generally between 18 and 25°C
1	- generally between 25 and 32°C
2	- generally between 32 and 40°C
3	- generally greater than 40°C
	HUMIDITY
-1	- dry throat/eyes after 2-3 hours
0	- normal
1	- moist skin
2	- skin completely wet
	THERMAL RADIATION
-1	- cold on the face after 2-3 minutes
0	- no radiation discernible
1	- warm on the face after 2-3 minutes
2	- unbearable on the face after more than 2 minutes
3	- immediate burning sensation
	AIR MOVEMENTS
-2	- cold strong air movements
-1	- cold light air movements
0	- no air movements
1	- warm light air movements
2	- warm strong air movements
	WORK LOAD
0 **1**	- office work: easy low muscular constraints, occasional movements at normal speed.
2	- moderate work with arms or legs: use of heavy machines steadily walking
3	- intense work with arms and trunk: handling of heavy objects shovelling, wood cutting, walking rapidly or while carrying a heavy load - very intense work at high speed: stairs, ladders.
	CLOTHING
0	- light, flexible, not interfering with the work
1	- long, heavier, interfering slightly with the work
2	- clumsy, heavy, special for radiation, humidity or cold temperatures
3	- special overalls with gloves, hoods, shoes
	OPINION OF THE WORKERS
-3	- shivering, strong discomfort for the whole body
-2	- strong local discomfort; overall sensation of coolness
-1	- slight local cool discomfort
0	- no discomfort
1	- slight sweating and discomfort; thirst
2	- heavy sweating, strong thirst, work pace modified
3	- excessive sweating, very tiring work, special clothing

4.2.3. Report the results in the table below

Table of scores for the present situation

	-3	-2	-1	0	1	2	3
Air temperature							
Humidity							
Thermal radiation							
Air movements							
Work Load							
Clothing							
Opinions of the workers							

4.2.4. If the situation is not ideal (scores outside -1 to 1), identify the reason for this and describe the importance of the problem (sources, surfaces, location…).

The scales above are designed so that the optimum situation is zero in each case. When one or several parameters deviate from this optimum, prevention measures should be taken, and, the greater the deviation, the higher the need for solutions.

If the industrial process does not strictly impose the thermal parameters, look for ways to improve the situation, considering the examples of prevention measures given in the annexe 1.

Determine, if necessary, the measures to be taken in the short-term: hot or cold drinks, recovery periods, work organisation, clothing…. Short-term measures should remain temporary measures. They indicate the need for a further ***"ANALYSIS"*** to solve technically the problem.

Estimate what the scores might be if the situation was improved as envisaged. Judge, on the scales described in table 1, the condition in the future, taking into account the prevention/control measures. When this prediction of the future situation is difficult to do or does not appear to be reliable, this indicates the need for a further ***"ANALYSIS"*** to estimate the residual risk and identify the additional control measures.

4.2.5. Report these scores on table below

Table of scores for the anticipated situation

	-3	-2	-1	0	1	2	3
Air temperature							
Humidity							
Thermal radiation							
Air movements							
Work Load							
Clothing							

4.2.6. Decide whether a more detailed ***"ANALYSIS"*** is needed to quantify and to solve the problem. For this, consider the number of scores outside the range from -1 to 1 for the anticipated situation in the future.

At the end of the ***"OBSERVATION"***, the user must determine whether, for this working situation, a more thorough ***"ANALYSIS"*** is necessary.

6.2.1. ANNEXE 1 Examples of prevention measures

AIR TEMPERATURE

- Locate the sources of heat or cold in the periphery
- Eliminate the sources of hot or cold air
- Insulate the hot surfaces
- Exhaust hot or cold air locally
- Ventilate without draughts
- Use clothes with lower or higher insulation
- …

HUMIDITY

- Eliminate the leaks of vapour and water
- Enclose the surfaces cooled with water or any evaporating surface
- Use clothes waterproof but permeable to vapour
- …

THERMAL RADIATION

- Reduce the radiating surfaces
- Use reflecting screens
- Insulate or treat the radiating surface
- Locate workstations away from radiating surfaces
- Use special protective clothes reflecting radiation
- …

AIR MOVEMENTS

- Reduce or eliminate air draughts
- Use screens to protect locally against draughts
- Locate workstations away from air draughts
- …

WORK LOAD

- Reduce the movements during work
- Reduce displacements
- Reduce the speed of movements
- Reduce the efforts, use mechanical assistance…
- Improve the postures
- …

CLOTHING

- Improve the design of the clothing
- Select more suitable materials
- Look for lighter materials
- …

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CHAPTER 8 GLOSSARY OF TERMS

Symbol	TERM	Units
M	Metabolic power	Wm^{-2}
W	Mechanical power	Wm^{-2}
***C*res**	Respiratory heat loss by convection	Wm^{-2}
***E*res**	Respiratory heat loss by evaporation	Wm^{-2}
K	Heat exchange on the skin by conduction	Wm^{-2}
C	Heat exchange on the skin by convection	Wm^{-2}
R	Heat exchange on the skin by radiation	Wm^{-2}
E	Heat flow by evaporation at skin surface	Wm^{-2}
***E*req**	Required evaporation for thermal equilibrium	Wm^{-2}
SW_{req}	Required sweat rate for thermal equilibrium	Wm^{-2}
w	Skin wettedness	ND
***w*req**	Skin wettedness required	ND
r_{req}	Evaporative efficiency at required sweat rate	ND
t_a	Air temperature	°C
Pa	Partial vapour pressure	kPa
h_c	Convective heat transfer coefficient	$Wm^{-2}K^{-1}$
F_{cl}	Reduction factor for sensible heat exchange due to the wearing	ND
t_{sk}	Mean skin temperature	°C
H_r	Radiative heat transfer coefficient	$Wm^{-2}K^{-1}$
T_r	Mean radiant temperature	°C
$P_{sk,s}$	Saturated vapour pressure at skin temperature	kPa
R_t	Total evaporative resistance of limiting layer of air and clothing	m^2kPaW^{-1}
***E*max**	Maximum evaporative rate which can be achieved with the skin Completely wet	Wm^{-2}
V_{ar}	Relative air velocity	ms^{-1}
V_a	Air velocity for a stationary subject	ms^{-1}
s	Stefan-boltzman constant, 5.67 x 10-8	$Wm^{-2}K^{-4}$
E_{sk}	Skin emissivity (0.97)	ND
A_r/A_{du}	Fraction of skin surface involved in heat exchange by radiation	ND
F_{cl}	Ratio of the subject's clothed to unclothed surface area	ND
F_{pcl}	Reduction factor for latent heat exchange	ND
h_e	Evaporative heat transfer coefficient	$Wm^{-2}kPa^{-1}$
I_{cl}	Basic dry thermal insulation of clothing	Clo or $m^2°CW^{-1}$

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Indexes to the UK Standard Industrial Classification of Economic Activities 2007

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Preface

This volume contains both an alphabetical and a numerical listof typical activities or, sometimes, products. These lists show the UK SIC (2007) class or subclass to which the activity or product should be classified.

Both lists attempt to provide a link to the last Standard Industrial Classification (UK SIC (2003), which was significantly different in structure, although in some casesit was not possible to do so without further information. The link indicated should, therefore, not be taken to be definitive.

It is important to remember that classification involves identification of the appropriate statistical unit. For example, when a road freight transport section of a manufacturing firmis a separate statistical unit, it will be classified to transport (division 49, group 49.4) but when it is an integral part of themain firm then it will be classified to the principal activity of that firm.

Activities and products may be known under different names and some have been classified in the alphabetical index under several alternative titles. These alternatives also appear in

the numerical index. Due to changes and innovation, it has not been possible to list all economic activities within this publication; the indexes remain dynamic and any addendumswill be published on the UKSIC webpage www.statistics.co.uk/uksic

Unlike the SIC80 Indexes publication, it has not been necessaryto include references to the equivalent European Union classification system, NACE rev 2 today, as the two systems areidentical down to and including the four digit class level.

The detail of the classification has substantially increased (from 514 to 615 classes). For service-producing activities, this increase is visible at all levels, including the highest one, while for other activities, such as agriculture, the increase in detail affected mostly the lower level of the classification. One effectof the increase in detail at class level has been a reduced need for detail at the subclass level. The total number of subclasses has decreased from 285 to 191.

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December 2009

Part

Alpha

Part 1

A

Alphabetical Index

SIC 2007	SIC 2003	Activity
01160	01110	Abaca and other vegetable textile fibre growing
10110	15111	Abattoir (manufacture)
17120	21120	Abrasive base paper (manufacture)
23910	26810	Abrasive bonded disc, wheel and segment (manufacture)
23910	26810	Abrasive cloth (manufacture)
23910	26810	Abrasive grain (manufacture)
23910	26810	Abrasive grain of aluminium oxide (manufacture)
23910	26810	Abrasive grain of artificial corundum (manufacture)
23910	26810	Abrasive grain of boron carbide (manufacture)
23910	26810	Abrasive grain of silicon carbide (manufacture)
08990	14500	Abrasive materials mining and quarrying
23910	26810	Abrasive paper (manufacture)
20411	24511	Abrasive soap (manufacture)
23910	26810	Abrasive wheel (bonded) (manufacture)
32500	24422	Absorbable haemostatics (manufacture)
26511	33201	Absorptiometer (electronic) (manufacture)
26513	33202	Absorptiometer (non-electronic) (manufacture)
23190	26150	Absorption drums made of glass (manufacture)
46690	51870	AC and DC electrical motors (single or multi-phase) (wholesale)
94120	91120	Academic organisations
85590	80429	Academic tutoring
20200	24200	Acaricide (manufacture)
29320	34300	Accessories and parts for motor vehicles and their engines (manufacture)
26702	33403	Accessories for photographic equipment (manufacture)
86101	85112	Accident and emergency service (private sector)
86101	85111	Accident and emergency service (public sector)
65120	66031	Accident insurance
77390	71320	Accommodation container renting
55300	55210	Accommodation in protective shelters or plain bivouac facilities for tents and/or sleeping bags
32200	36300	Accordion (manufacture)
17230	22220	Account books (manufacture)
69201	74121	Accountancy services
69201	74121	Accounting activities
94120	91120	Accounting associations
28230	30010	Accounting machine (manufacture)
77330	71330	Accounting machinery and equipment rental and operating leasing
70221	74142	Accounting systems design
27200	31400	Accumulator (manufacture)
23190	26150	Accumulator cell cases made of glass (manufacture)
28990	29560	Accumulator for hydraulic equipment (manufacture)
20140	24140	Acetic acid (manufacture)
20140	24140	Acetone (manufacture)
20110	24110	Acetylene (manufacture)
46690	51870	Acetylene gas generators (wholesale)
20130	24130	Acid (inorganic) (manufacture)
20140	24140	Acid (organic) (manufacture)
20120	24120	Acid dye (manufacture)
46750	51550	Acids (wholesale)
02300	02010	Acorn gathering
43290	45320	Acoustical engineering
71129	74204	Acoustical engineering design
71200	74300	Acoustics and vibration testing
20520	24620	Acrylic adhesives (manufacture)
20301	24301	Acrylic paints (manufacture)
46120	51120	Acrylic polymers in primary forms (commission agent)
46750	51550	Acrylic polymers in primary forms (wholesale)
20160	24160	Acrylic resins (manufacture)
20160	24160	Acrylics (manufacture)
20140	24140	Acrylonitrile (manufacture)
20160	24160	Acrylonitrile butadiene styrene (abs) polymers (manufacture)
32409	36509	Action figures (manufacture)
20140	24140	Activated and unactivated charcoal (other than wood charcoal) (manufacture)
20590	24660	Activated carbon (manufacture)
20140	24140	Activated earths (manufacture)
97000	95000	Activities of households as employers of domestic babysitters
97000	95000	Activities of households as employers of domestic butlers
97000	95000	Activities of households as employers of domestic caretakers
97000	95000	Activities of households as employers of domestic chauffeurs
97000	95000	Activities of households as employers of domestic cooks
97000	95000	Activities of households as employers of domestic gardeners
97000	95000	Activities of households as employers of domestic gatekeepers
97000	95000	Activities of households as employers of domestic governesses
97000	95000	Activities of households as employers of domestic laundresses
97000	95000	Activities of households as employers of domestic maids
97000	95000	Activities of households as employers of domestic secretaries
97000	95000	Activities of households as employers of domestic stable-lads
97000	95000	Activities of households as employers of domestic staff
97000	95000	Activities of households as employers of domestic tutors
97000	95000	Activities of households as employers of domestic valets
97000	95000	Activities of households as employers of domestic waiters

A

SIC 2007	SIC 2003	Activity
33200	28520	Activities of millwrights (manufacture)
64209	74156	Activities of service trades holding companies not engaged in management
93110	92619	Activity centre (sports)
90010	92311	Actors
66290	67200	Actuarial services
27110	31620	Actuator (electro-magnetic positioner) (manufacture)
28120	29122	Actuator for hydraulic equipment (manufacture)
20140	24140	Acyclic (fatty) alcohols (manufacture)
46120	51120	Acyclic and cyclic hydrocarbons (commission agent)
20140	24140	Acyclic hydrocarbons (saturated and unsaturated) (manufacture)
28230	30010	Adding machines (manufacture)
46660	51850	Adding machines (wholesale)
28230	30010	Address plate embossing machine (manufacture)
28230	30010	Addressing machine (manufacture)
20520	24620	Adhesive (formulated) (manufacture)
18140	22230	Adhesive binding of books, brochures, etc. (manufacture)
20520	24620	Adhesive coating (manufacture)
46180	51180	Adhesive dressings, catgut and similar materials (commission agent)
46460	51460	Adhesive dressings, catgut and similar materials (wholesale)
22290	25240	Adhesive labels of plastic or cellulose (manufacture)
20520	24620	Adhesive made of urea formaldehyde (manufacture)
17230	21230	Adhesive paper ready for use (manufacture)
20520	24620	Adhesive paste (manufacture)
32500	24422	Adhesive plaster and surgical bandage (manufacture)
22190	25130	Adhesive repair material made of rubber (manufacture)
22190	25130	Adhesive tape of rubberised textile (manufacture)
25720	28630	Adjustable seat mechanisms (manufacture)
66210	67200	Adjuster (insurance)
84230	75230	Administration and operation of administrative civil and criminal law courts
84240	75240	Administration and operation of regular and auxiliary police forces supported by public authorities
84240	75240	Administration and operation of special police forces
84220	75220	Administration of defence-related research and development policies and related funds
84220	75220	Administration supervision and operation of engineering, and other non-combat forces and commands
84220	75220	Administration supervision and operation of intelligence and other non-combat forces and commands
84220	75220	Administration supervision and operation of land, sea, air and space defence forces
84220	75220	Administration supervision and operation of military defence affairs
84220	75220	Administration supervision and operation of reserve/ auxiliary forces of the defence establishment
84220	75220	Administrative, operational and supervisory services related to civil defence
84220	75220	Administrative, operational and supervisory services related to military defence
88990	85321	Adoption activities (charitable)
88990	85322	Adoption activities (non-charitable)
85590	80429	Adult education centre
85590	80429	Adult education residential college
46420	51421	Adults' fur and leather clothing exporter (wholesale)
46420	51421	Adults' fur and leather clothing importer (wholesale)
93290	92729	Adventure playground
73110	74402	Advertising agencies
73110	74402	Advertising campaign creation and realisation
18129	22220	Advertising catalogue printing (manufacture)
73110	74402	Advertising consultants
73110	74402	Advertising contractor
59111	92111	Advertising film production
27400	31500	Advertising light (manufacture)
18140	22230	Advertising mailing literature finishing (manufacture)
22290	25240	Advertising material made of plastic (manufacture)
73110	74409	Advertising material or samples delivery or distribution
58190	22150	Advertising material publishing
58130	22120	Advertising newspaper publishing
18129	22220	Advertising printed matter printing (manufacture)
73120	74401	Advertising space or time (sales or leasing thereof)
59112	92111	Advertising video production
71111	74201	Advisory and pre-design architectural activities
68310	70310	Advisory services in connection with buying, selling and renting of real estate
70229	74149	Advisory, conciliation and arbitration service
70229	74143	Advisory, guidance and operational assistance services concerning business policy and strategy
69101	74112	Advocate of the Scottish bar
25730	28620	Adze (manufacture)
11070	15980	Aerated water (manufacture)
28290	29240	Aeration plant for effluent treatment (manufacture)
26309	32300	Aerial (domestic) (manufacture)
26309	32300	Aerial (non-domestic) (manufacture)
73110	74409	Aerial and outdoor advertising services
49319	60219	Aerial cable-ways operation
43210	45310	Aerial erection (domestic)
43999	45250	Aerial mast (self supporting) erection
74202	74813	Aerial photography (other than for cartographic and spatial activity purposes)
74202	74206	Aerial photography for cartographic and spatial activity purposes
26309	32300	Aerial reflectors (manufacture)
28220	29220	Aerial ropeway and cableway (manufacture)
26309	32300	Aerial rotors (manufacture)
26309	32300	Aerial signal splitters (manufacture)
71122	74206	Aerial survey
30300	35300	Aero engine manufacture (all types) (manufacture)
30300	35300	Aero engine parts and sub assemblies (manufacture)
90010	92349	Aerobatic display
52230	63230	Aerodrome
18130	22250	Aerographing (manufacture)
81299	74709	Aeroplane cleaning (non-specialised)
30300	35300	Aeroplanes (manufacture)
25920	28720	Aerosol cans made of metal (manufacture)
82920	74820	Aerosol filling on a fee or contract basis
30300	35300	Aerospace equipment (manufacture)
20420	24520	After shave lotion (manufacture)
74909	74879	Agents and agencies in entertainment
74909	74879	Agents and agencies in motion picture theatrical production
74909	74879	Agents and agencies in placement of artworks with publishers
74909	74879	Agents and agencies in placement of books with publishers

SIC 2007	SIC 2003	Activity

74909 74879 Agents and agencies in placement of photographspublishers

74909 74879 Agents and agencies in placement of plays withpublishers producers

74909 74879 Agents and agencies in sports attractions23910 26810 Agglomerated abrasives (manufacture)

16290 20520 Agglomerated cork (manufacture)

19100 23100 Agglomeration of coke (manufacture)

01629 01429 Agistment services on a fee or contract basis 46610 51880 Agricultural and forestry machinery (wholesale) 77310 71310 Agricultural and forestry machinery and equipment operational leasing (without operator)

28302 29320 Agricultural and forestry machinery parts (excepttractor parts) (manufacture)

28302 29320 Agricultural broadcaster (manufacture)

23490 26250 Agricultural ceramic ware (manufacture)

85320 80220 Agricultural college

01610 01410 Agricultural contracting

71200 74300 Agricultural grain electrophoresis

25730 28620 Agricultural hand tools, not power-driven (manufacture)

25730 28620 Agricultural knife (manufacture)

43120 45110Agricultural land drainage

68209 70209 Agricultural land letting

01610 01410 Agricultural land maintenance in good agriculturaland environmental condition

23520 26520 Agricultural lime processing (manufacture)

46140 51140Agricultural machinery (commission agent)

28302 29320 Agricultural machinery (manufacture) 46610 51880 Agricultural machinery and accessories and implements, including tractors exporter (wholesale)

46610 51880 Agricultural machinery and accessories and implements, including tractors importer (wholesale)

77310 71310Agricultural machinery and equipment rental andleasing (without operator)

01610 01410 Agricultural machinery and equipment rental withoperator

28302 29320 Agricultural machinery for soil preparation(manufacture)

77310 71310Agricultural machinery hire (without operator) 28302 29320 Agricultural motor drawn trailer (manufacture) 28302 29320 Agricultural planting machinery (manufacture) 46110 51110 Agricultural raw materials (commission agent) 72190 73100 Agricultural research (other than biotechnological) 28302 29320 Agricultural self-loading semi-trailers (manufacture)

28302 29320 Agricultural self-loading trailers (manufacture)

28302 29320 Agricultural self-unloading semi-trailers (manufacture)

28302 29320 Agricultural self-unloading trailers (manufacture) 84130 75130 Agricultural services administration and regulation (public sector)

82990 74879 Agricultural showground

13940 17520 Agricultural twine (manufacture)

74909 74879 Agricultural valuer

46750 51550 Agro-chemical products (wholesale)

20200 24200 Agro-chemical products n.e.c. (manufacture)

74909 74149Agronomy consulting

22290 25240 Air beds made of inflatable plastic (manufacture)52290 63400 Air cargo agents activities

51210 62209 Air charter service (freight)

51102 62201 Air charter service (passenger)

28250 29230 Air cleansing plant (not for air conditioning equipment) (manufacture)

28132 29122 Air compressor (manufacture)

43220 45330 Air conditioning contracting

28250 29230 Air conditioning equipment for aircraft (manufacture)

28250 29230 Air conditioning machines (manufacture)

46690 51870 Air conditioning machines (wholesale)

28250 29230 Air conditioning package (manufacture)

30300 35300 Air cushion vehicle (manufacture) 28250 29230 Air filter for air conditioning equipment (manufacture)

52290 63400 Air freight agent or broker 25400 29600 Air gun (manufacture)

46499 51479 Air heaters and hot air distributors (non-electric) (wholesale)

71200 74300 Air measuring related to cleanness

26511 33201 Air navigation instruments and systems (electronic) (manufacture)

26513 33202 Air navigation instruments and systems (non-electronic) (manufacture)

52242 63110 Air passenger baggage handling services 77351 71231 Air passenger transport equipment rental and leasing without operator 25400 29600 Air pistol (manufacture)

28120 29122 Air preparation equipment for use in pneumatic systems (manufacture)

28131 29121 Air pump (manufacture)

25400 29600 Air rifle (manufacture)

51102 62201 Air taxi service

52230 63230 Air terminal operated by airline 52230 63230 Air traffic control activities

52230 63230 Air traffic control centre

77352 71239 Air transport equipment for freight rental (without operator)

51210 62109 Air transport of freight over regular routes 51102 62201 Air transport of passengers by aero clubs for instruction or pleasure

52230 63230 Air transport supporting activities 29320 34300 Airbags for motor vehicle (manufacture) 46140 51140 Aircraft (commission agent)

30300 35300 Aircraft (manufacture)

46690 51870 Aircraft (wholesale)

25400 29600 Aircraft bomb (manufacture)

30300 35300 Aircraft brake (not brake lining) (manufacture) 28990 35300 Aircraft carrier catapults and related equipment (manufacture)

71200 74300 Aircraft certification

26513 33202 Aircraft engine instruments (non-electronic) (manufacture)

30300 35300 Aircraft galley (manufacture)

77352 71239 Aircraft hire for freight (without crew) 77351 71231 Aircraft hire for passengers without crew 46690 51870 Aircraft launching gear and deck arresters (wholesale)

28990 35300 Aircraft launching gear and related equipment (manufacture)

22290 25240 Aircraft parts and accessories made of plastic (manufacture)

30300 35300 Aircraft parts and sub assemblies (not electric) (manufacture)

30300 35300 Aircraft propeller (manufacture)

4

SIC 2007	SIC 2003	Activity
52230	63230	Aircraft refuelling services
30300	36110	Aircraft seat (manufacture)
26511	33201	Airfield electronic controls and approach aids(manufacture)
52230	63230	Airfield ground service activities
30200	35200	Airfield mechanical or electro-mechanical signalling,safety, traffic control equipment(manufacture)
42110	45230	Airfield runway construction
30300	35300	Airframe (manufacture)
30300	35300	Airframe parts and sub assemblies (not electric)(manufacture)
56290	55520	Airline catering
49390	60219	Airline coach service (scheduled)
52230	63230	Airport activities
52230	63230	Airport fire fighting and fire-prevention services
42110	45230	Airport runway construction
81299	90030	Airport runways clearing of snow and ice
49390	60231	Airport shuttles
30300	35300	Airscrew (manufacture)
30300	35300	Airship (manufacture)
51101	62101	Air-transport equipment renting with operator,for scheduled passenger transportation
52230	63230	Airway terminals operation
23700	26700	Alabaster bowl cutting (manufacture)
08110	14110	Alabaster mine
26520	33500	Alarm clock (manufacture)
80200	74602	Alarm monitoring activities
18129	22220	Album printing (manufacture)
46170	51170	Alcoholic beverages (commission agent)
47250	52250	Alcoholic beverages (retail)
46342	51342	Alcoholic beverages (wholesale)
46342	51342	Alcoholic beverages exporter (wholesale)
46342	51342	Alcoholic beverages importer (wholesale)
11010	15910	Alcoholic distilled potable beverage (manufacture)
20140	24140	Aldehyde (manufacture)
46120	51120	Aldehyde function compounds (commission agent)
46750	51550	Aldehyde function compounds (wholesale)
11050	15960	Ale brewing (manufacture)
10910	15710	Alfalfa (Lucerne) meal and pellets (manufacture)
01190	01110	Alfalfa growing
03110	05010	Algae gathering
20160	24160	Alginates (manufacture)
84240	75240	Alien registration administration and operation
20120	24120	Alizarin dye (manufacture)
20130	24130	Alkali (manufacture)
46120	51120	Alkili or alkaline earth metals (commission agent)
20301	24301	Alkyd (manufacture)
20160	24160	Alkyd resins (manufacture)
01130	01120	Alliaceous vegetable growing
25500	28400	Alloy and steel forging roll (manufacture)
24100	27100	Alloy bearing steel (manufacture)
24100	27100	Alloy pig iron (manufacture)
24100	27100	Alloy tool steel (manufacture)
18129	22220	Almanac printing (manufacture)
10612	15612	Almond grinding (manufacture)
01250	01139	Almond growing
13100	17120	Alpaca and mohair spinning on the woollen system(manufacture)
13100	17130	Alpaca and mohair spinning on the worsted system(manufacture)

13200 17220 Alpaca woollen weaving (manufacture)
13200 17230 Alpaca worsted weaving (manufacture)
27110 31100 Alternating current (ac) generators (manufacture) 27110 31100 Alternating current (ac) motors (manufacture) 29310 31610 Alternator for vehicle (manufacture)
27110 31100 Alternators (not for vehicles) (manufacture) 26513 33202 Altimeter (non-electronic) (manufacture)
08910 14300 Alum mine
24420 27420 Aluminium alloys production (manufacture) 26200 30020 Aluminium coating inside pc cases (manufacture) 20130 24130 Aluminium compounds (except bauxite and abrasives) (manufacture)
24420 27420 Aluminium foil laminates made from aluminium foil as primary component (manufacture)
24420 27420 Aluminium from alumina production (manufacture) 24420 27420 Aluminium hardener (manufacture)
07290 13200 Aluminium ore (bauxite) mining or preparation 24420 27420 Aluminium oxide (alumina) production (manufacture) 20301 24301 Aluminium paint (manufacture)
20301 24301 Aluminium paste (manufacture)
24420 27420 Aluminium refining (manufacture)
24420 27420 Aluminium semi-manufactures production (manufacture)
24420 27420 Aluminium smelting (manufacture)
24420 27420 Aluminium wire made by drawing (manufacture) 23510 26510 Aluminous cement (manufacture)
20130 24130 Alums (manufacture)
32990 36639 Amber turning (manufacture)
29100 34100 Ambulance (manufacture)
86900 85140 Ambulance service
45111 50101 Ambulances with a weight not exceeding 3.5 tonnes (new) (retail)
45111 50101 Ambulances with a weight not exceeding 3.5 tonnes (new) (wholesale)
45112 50102 Ambulances with a weight not exceeding 3.5 tonnes (used) (retail)
45112 50102 Ambulances with a weight not exceeding 3.5 tonnes (used) (wholesale)
46180 51180 Amides and their derivatives and salts (commission agent)
46120 51120 Amine function compounds (commission agent) 20140 24140 Amines (manufacture)
46120 51120 Amino resins, phenolic resins and polyurethanes in primary forms (commission agent)
46750 51550 Amino resins, phenolic resins and polyurethanes in primary forms (wholesale)
20160 24160 Aminoplastic resins (manufacture)
26511 33201 Ammeters (electronic) (manufacture)
26513 33202 Ammeters (non-electronic) (manufacture)
20150 24150 Ammonia (manufacture)
19100 23100 Ammoniacal liquor from coke ovens (manufacture) 20150 24150 Ammonium chloride (manufacture)
46120 51120 Ammonium chloride, nitrites and carbonates (commission agent)
20150 24150 Ammonium compounds (excluding ammonium nitrate, sulphate and phosphate) (manufacture)
20150 24150 Ammonium nitrate (not for explosives) (manufacture) 20510 24610 Ammonium nitrate for explosives (manufacture) 20150 24150 Ammonium phosphate (manufacture)
20150 24150 Ammonium sulphate (manufacture)
19100 23100 Ammonium sulphate from coke ovens (manufacture)

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SIC 2007	SIC 2003	Activity

25400 29600 Ammunition (manufacture)
47789 52489 Ammunition (retail)
20510 24610 Amorce (manufacture)
29100 34100 Amphibious vehicles (manufacture)
26400 32300 Amplifier for audio separates (manufacture) 26309 32300 Amplifier for broadcasting studio (manufacture) 26400 32300 Amplifiers and sound amplifier sets (manufacture)26110 32100 Amplifying valve (manufacture)
23190 26150 Ampoules made of glass (hygienic and pharmaceutical) (manufacture)
92000 92710 Amusement arcade
46180 51180Amusement goods (commission agent)
18129 22220 Amusement guide periodical printing (manufacture)58142 22130 Amusement guide periodical publishing
77390 71340 Amusement machine hire
32401 36501 Amusement machines (manufacture)
93210 92330 Amusement park activities
93210 92330 Amusement park mechanical rides, water rides, games
93210 92330 Amusement park shows, theme exhibits and picnic grounds
20520 24620 Anaerobic adhesive (manufacture)
32500 33100 Anaesthetic equipment (manufacture)
21200 24421 Anaesthetics (manufacture)
86101 85111Anaesthetist (public sector)
21200 24421 Analgesics (manufacture)
26200 30020 Analogue computer (manufacture)
70221 74142Analysis of capital investment proposals consultancy services
71200 74300 Analytical chemist
25990 28750 Anchor (manufacture)
50200 61102Anchor handling services
10130 15139Andouillettes (manufacture)
28922 29522 Angle-dozers (manufacture)
24420 27420 Angles made of aluminium (manufacture)24100 27100 Angles of stainless steel (manufacture) 01490 01250 Angora rabbit breeding
08110 14120Anhydrite mine or quarry
23520 26530 Anhydrite plaster (manufacture)
46750 51550 Aniline (wholesale)
20120 24120Aniline dye (manufacture)
75000 85200 Animal ambulance activities
10910 15710 Animal compound feed (manufacture)
49390 60239 Animal drawn vehicle transport
10410 15410 Animal fat and oil production (non-edible) (manufacture)
28930 29530 Animal fat or oils extraction and preparation machinery (manufacture)
46210 51210Animal feed (wholesale)
10910 15710 Animal feed supplement (manufacture)
10110 15112 Animal grease (manufacture)
01430 01220 Animal hair (not carded or combed) including horsehair production
46210 51210Animal hair (wholesale)
75000 85200 Animal health care and control activities for farm animals
75000 85200 Animal health care and control activities for pet animals
75000 85200 Animal hospital (RSPCA, PDSA, Blue Cross)75000 85200 Animal hospital run by veterinary surgeon

75000 85200 Animal hospital supervised or run by registered veterinarian

01700 01500 Animal hunting and trapping

10110 15112 Animal offal (inedible) production (manufacture) 10110 15112 Animal offal processing (manufacture)

10410 15420 Animal oil refining (manufacture)

01629 01429 Animal production support activities other than farm animal boarding and care

01629 01429 Animal propagation, growth and output – activities to promote these, on a fee or contract basis

94990 91330 Animal protection organisations 01490 01250 Animal rearing for medical research

01629 01429 Animal rearing for production of serum 77390 71340 Animal rental (herds, racehorses) 90010

92349 Animal training for circuses, etc.

59111 92111 Animated film production

59112 92111 Animated video production

01280 01139 Anise growing

28210 29210 Annealing lehr (manufacture)

25610 28510 Anodising (manufacture)

14131 18221 Anoraks for men and boys (manufacture) 14132 18222 Anoraks for women and girls (manufacture) 20140 24140 Anthracene (manufacture)

46180 51180 Antibiotics (commission agent)

21100 24410 Antibiotics (manufacture)

46460 51460 Antibiotics (wholesale)

43341 45440 Anti-corrosive coatings application work

20301 24301 Anti-corrosive paint (manufacture)

20590 24660 Anti-freeze mixtures (excluding pure ethyl glycol)(manufacture)

46120 51120 Anti-freezing preparations and prepared de-icing fluids (commission agent)

24450 27450 Antifriction metal (manufacture)

30300 35300 Anti-icing equipment and systems for aircraft (manufacture)

21200 24421 Anti-infectives (manufacture)

20590 24660 Anti-knock compounds (manufacture)

46120 51120 Anti-knock preparations and additives for mineral oils and similar products (commission agent)

24450 27450 Antimony (manufacture)

20420 24520 Anti-perspirant (manufacture)

50200 61102 Anti-pollution vessel services

47791 52501 Antique books (retail)

23110 26110 Antique glass (manufacture)

47791 52501 Antiques (retail)

46470 51479 Antiques (wholesale)

29320 34300 Anti-roll bars for motor vehicles (manufacture) 20590 24660 Anti-rust preparations (manufacture)

45200 50200 Anti-rust treatment of motor vehicles 21200 24421 Antiseptics (manufacture)

21200 24421 Antisera and other blood fractions (manufacture) 46180 51180 Antisera and vaccines (commission agent)

46460 51460 Antisera and vaccines (wholesale)

20200 24200 Anti-sprouting products (manufacture)

46750 51550 Anti-sprouting products (wholesale)

25730 28620 Anvils (manufacture)

68100 70120 Apartment buildings buying and selling 68209 70209 Apartment buildings letting

55209 55232 Apartment letting (self catering) other than holiday centres and holiday villages or youth hostels

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A

SIC 2007	SIC 2003	Activity
11010	15910	Aperitif (spirit based) (manufacture)
28990	33403	Apparatus and equipment for automatically developing photographic film
28940	29540	Apparel and leather production machinery (manufacture)
13200	17210	Apparel cloth woven from yarns spun on the cotton system (manufacture)
14200	18300	Apparel made of fur (manufacture)
22290	25240	Apparel made of plastic (if only sealed together, not sewn) (manufacture)
22190	25130	Apparel made of rubber (if only sealed together, not sewn) (manufacture)
22190	25130	Apparel made of sealed rubber (manufacture)
28940	29540	Apparel production machinery (manufacture)
84230	75230	Appeal Committee of the House of Lords
01240	01139	Apple growing
10890	15899	Apple pomace and pectin (manufacture)
11030	15949	Apple wine making
27900	31300	Appliance cords with insulated wire and connectors (manufacture)
74909	74879	Appraiser and valuer (not insurance or real estate)
85320	80220	Apprentice school
01240	01139	Apricot growing
22190	25130	Aprons (manufacture)
14120	18210	Aprons for domestic use (manufacture)
14120	18210	Aprons for industrial use (manufacture)
03210	05020	Aquaculture in salt water filled tanks or reservoirs
03210	05020	Aquaculture in sea or brackish waters
03220	05020	Aquaculture, freshwater
27510	29710	Aquarium heater (electric) (manufacture)
42910	45240	Aqueduct construction
84230	75230	Arbitration of civil actions
70229	74149	Arbitrators between management and labour
69109	74119	Arbitrators legal activities
27400	31500	Arc lamp (manufacture)
32300	36400	Archery equipment (manufacture)
28131	29121	Archimedean screw pump (manufacture)
94120	91120	Architects associations
71111	74201	Architectural activities and related technical consultancy
71111	74201	Architectural draughtsman
58110	22110	Architectural drawing publishing
71129	74204	Architectural engineering activities
23190	26150	Architectural glass (manufacture)
22230	25239	Architrave made of plastic (manufacture)
91012	92510	Archive activities
27110	31100	Arc-welding transformers (manufacture)
20110	24110	Argon (manufacture)
29320	36110	Arm rest for motor vehicle (manufacture)
31090	36110	Armchair (manufacture)
30400	29600	Armoured amphibious military vehicles (manufacture)
29100	34100	Armoured car (except military fighting vehicles) (manufacture)
80100	74602	Armoured car services
25990	28750	Armoured doors (manufacture)
22190	25130	Armoured hose made of rubber (manufacture)
46660	51850	Armoured or reinforced safes, strong boxes and doors made of base metal (wholesale)
25400	29600	Arms (manufacture)
15120	19200	Army accoutrement made of leather (manufacture)
84220	75220	Army establishment (civilian personnel)
84220	75220	Army establishment (service personnel)
94910	91310	Army scripture readers association
01280	01139	Aromatic crops growing
20530	24630	Aromatic distilled waters (manufacture)
20140	24140	Aromatic hydrocarbons (manufacture)
10620	15620	Arrowroot (manufacture)
24450	27450	Arsenic (manufacture)
47781	52486	Art (retail)
94990	91330	Art clubs
90030	92319	Art expert
91020	92521	Art gallery (not dealer)
85520	80429	Art instruction
15120	19200	Art leather work (manufacture)
25990	28750	Art metal work (manufacture)
91020	92521	Art museums
13923	17403	Art needlework (manufacture)
23410	26210	Art pottery (manufacture)
58190	22150	Art publishing
91011	92510	Art work lending and storage
42210	45250	Artesian well contractor
01130	01120	Artichoke growing
32120	36220	Articles for religious use of base metals clad with precious metals (manufacture)
13950	17530	Articles made from non-wovens (manufacture)
17290	21259	Articles made of paper and paperboard n.e.c. (manufacture)
47710	52421	Articles of fur (retail)
46690	51870	Articulated link chain (except for motor vehicles and bicycles) (wholesale)
28150	29140	Articulated link chain (manufacture)
10890	15899	Artificial concentrates (manufacture)
23990	26829	Artificial corundum (manufacture)
32500	33100	Artificial eye (manufacture)
32990	36639	Artificial flowers and fruit made of paper (manufacture)
32990	36639	Artificial flowers and fruit made of plastic (manufacture)
32990	36639	Artificial flowers and fruit made of textiles (manufacture)
46499	51479	Artificial flowers, foliage and fruit (wholesale)
14200	18300	Artificial fur and articles thereof (manufacture)
10890	15620	Artificial honey (manufacture)
26513	33202	Artificial horizon (non-electronic) (manufacture)
01629	01429	Artificial insemination activities on a fee or contract basis
46460	51460	Artificial joints and parts for the body (wholesale)
86900	85140	Artificial kidney unit
32500	33100	Artificial limb (manufacture)
86900	85140	Artificial limb and appliance centre
20150	24150	Artificial manure (manufacture)
32500	33100	Artificial parts for the heart (manufacture)
32500	33100	Artificial respiration equipment (manufacture)
22230	25239	Artificial stone made of plastic (manufacture)
32500	33100	Artificial teeth (manufacture)
46460	51460	Artificial teeth and dental fittings (wholesale)
20412	24512	Artificial waxes (manufacture)
25400	29600	Artillery (manufacture)
25400	29600	Artillery ammunition (manufacture)
90030	92319	Artist

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SIC 2007	SIC 2003	Activity

32910 36620 Artists' brush (manufacture)
13960 17549 Artists' canvases (manufacture)
20301 24301 Artists' colours (manufacture)
96090 93059 Artists' model
13960 17549 Artists' tracing cloth (manufacture)
46180 51180 Artists', students' and sign board painters' colours, modifying tints and similar (commission agent)
85320 80220 Arts and crafts school
90040 92320 Arts facilities operation
41201 45211 Arts, cultural or leisure facilities buildings construction
23990 26821 Asbestos carding (manufacture)
23650 26650 Asbestos cement products (manufacture)
23990 26821 Asbestos felting (manufacture)
08990 14500 Asbestos mining and quarrying
23990 26821 Asbestos mixing (manufacture)
23990 26821 Asbestos moulding (manufacture)
39000 45250 Asbestos removal work
23990 26821 Asbestos spinning (manufacture)
23990 26821 Asbestos weaving (manufacture)
39000 90030 Asbestos, lead paint, and other toxic material abatement
32500 33100 Aseptic hospital furniture (manufacture)
38210 14500 Ashes and residues of incineration of mining and quarrying waste
01130 01120 Asparagus growing
23990 26829 Asphalt (manufacture)
08990 14500 Asphalt (natural) mining and quarrying
28923 29523 Asphalt laying plant (manufacture)
23990 26829 Asphalt or similar materials (e.g. Asphalt-based adhesives), articles thereof (manufacture)
42110 45230 Asphalt paving of roads
28923 29523 Asphalt processing plant (manufacture)
42110 45230 Asphalting contractor (civil engineering)
08990 14500 Asphaltites and asphaltic rock mining and quarrying
28930 29530 Aspirator separators (manufacture)
01430 01220 Ass farming and breeding
71200 74300 Assay office
30200 35200 Assembled rail sections (manufacture)
18140 22230 Assembling of books, brochures, etc. (manufacture)
33200 33301 Assembling of electronic industrial process control equipment (manufacture)
33200 33302 Assembling of non-electronic industrial process control equipment (manufacture)
41201 45211 Assembly and erection of prefabricated non-residential constructions on the site
41201 28110 Assembly and installation of self-manufactured commercial buildings of metal on site
41201 25239 Assembly and installation of self-manufactured commercial buildings of plastic on site
41201 20300 Assembly and installation of self-manufactured commercial buildings of wood on site
41202 28110 Assembly and installation of self-manufactured domestic buildings of metal on site
41202 25239 Assembly and installation of self-manufactured domestic buildings of plastic on site
41202 20300 Assembly and installation of self-manufactured domestic buildings of wood on site
87300 85311 Assisted-living facilities for the elderly or disabled (charitable)
87300 85312 Assisted-living facilities for the elderly or disabled (non-charitable)

94120 91120 Association of corporate and certified accountants 94990 91330 Associations for the pursuit of a cultural or recreational activity or hobby 65110 66011 Assurance company (life)
96090 93059 Astrologer
26701 33402 Astronomical equipment (optical) (manufacture) 72190 73100 Astronomy research and experimental development 86101 85112 Asylums (private sector)
86101 85111 Asylums (public sector)
93199 92629 Athletes
14190 18249 Athletic clothing (manufacture)
93120 92629 Athletic club
32300 36400 Athletic equipment (manufacture)
15200 19300 Athletic footwear (manufacture)
18129 22220 Atlas printing (manufacture)
58110 22110 Atlas publishing
28250 29230 Atmospheric pollution control plant (manufacture) 72190 73100 Atomic energy research and experimental development
15120 19200 Attaché case made of leather or leather substitute (manufacture)
69201 74121 Attestations, valuations and preparation of pro forma statements
28250 29710 Attic ventilation fans (manufacture)
69102 74113 Attorney
29100 34100 ATVs, go-carts and similar including race cars (manufacture)
01130 01120 Aubergine (egg-plant) growing
47990 52630 Auction houses (except antiques and second hand goods) (retail)
47630 52450 Audio and video recordings (retail) 58110 22110 Audio book publishing
47430 52450 Audio equipment (retail)
26400 32300 Audio separate (manufacture)
46431 51431 Audio separates (wholesale)
18201 22310 Audio tape recording, except master copies for records or audio material (manufacture)
47630 52450 Audio tapes and cassettes (retail) 47430 52450 Audio/visual cassettes (retail)
47430 52450 Audio/visual equipment (retail)
77390 71340 Audio/visual equipment for professional use hire 32500 33100 Audiometers (manufacture)
69201 74121 Auditing activities
25730 28620 Auger and auger bit (manufacture) 13921 17401 Austrian blinds (manufacture)
90030 92319 Author
26701 33402 Auto correlator (optical) (manufacture)
29310 31610 Auto electrical equipment (manufacture)
29320 34300 Auto spare parts (manufacture)
32500 33100 Autoclaves (manufacture)
30910 35410 Autocycle (manufacture)
77330 71330 Automatic data processing equipment hire 25400 29600 Automatic gun (manufacture)
32200 36300 Automatic pianos (manufacture)
26511 33201 Automatic pilots (electronic) (manufacture)
26513 33202 Automatic pilots (non-electronic) (manufacture) 28120 29130 Automatic process control valves (manufacture) 46690 51870 Automatic regulating or controlling instruments and apparatus (wholesale)
28940 29540 Automatic stop motions (textile machinery) (manufacture)

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SIC 2007	SIC 2003	Activity
26200	30020	Automatic teller machines (ATMs) computer terminals not mechanically operated (manufacture)
46660	51850	Automatic typewriters and word-processing machines (wholesale)
94990	91330	Automobile association
52219	50200	Automobile association road patrols
45200	50200	Automobile association service centres
79110	63301	Automobile association touring department
77110	71100	Automobile rental (self drive)
26513	33202	Automotive emissions testing equipment (non-electronic) (manufacture)
71121	74205	Automotive production design
13960	17542	Automotive trimmings (manufacture)
84250	75250	Auxiliary fire brigade services
46640	51830	Auxiliary machinery for use with machines for working textiles (wholesale)
25300	28300	Auxiliary plant for use with steam generators (manufacture)
30300	35300	Auxiliary power unit for aircraft (manufacture)
66210	67200	Average adjuster
65120	66031	Aviation insurance
19201	23201	Aviation spirit (manufacture)
19201	23201	Aviation turbine fuel (manufacture)
01220	01139	Avocado growing
13200	17250	Awning cloth weaving (manufacture)
13922	17402	Awnings (manufacture)
46410	51410	Awnings and sun blinds (wholesale)
47510	52410	Awnings and sunblinds (retail)
22290	25240	Awnings made of plastic (manufacture)
25730	28620	Axe (manufacture)
28132	29122	Axial compressor (manufacture)
28131	29121	Axial flow pump (manufacture)
29320	34300	Axle for motor vehicle (manufacture)
30910	35410	Axle for motorcycle (manufacture)
30200	35200	Axles and wheels for locomotive and rolling stock (manufacture)
30200	35200	Axles for rail and tramway vehicles (manufacture)
30200	35200	Axles made of steel for railway and tramway vehicles (manufacture)
13931	17511	Axminster carpet (manufacture)
20120	24120	Azoic dye (manufacture)
14190	18249	Babies garments (manufacture)
22290	25240	Baby baths made of plastic (manufacture)
30920	36639	Baby carriage (manufacture)
47789	52489	Baby carriages (retail)
46499	51479	Baby carriages (wholesale)
14190	18249	Baby clothing (manufacture)
46380	51380	Baby food (wholesale)
10860	15880	Baby foods (manufacture)
10860	15880	Baby foods (milk based) (manufacture)
14190	18249	Baby linen (manufacture)
13923	17403	Baby napkins made of towelling (manufacture)
28940	29540	Backing and curling machinery (carpet making) (manufacture)
27900	31620	Backward wave oscillator (manufacture)
10130	15131	Bacon curing (manufacture)
10130	15131	Bacon production (manufacture)
10130	15131	Bacon smoking (manufacture)
23440	26240	Bacteria bed tile (manufacture)
71200	74300	Bacteriologist (non medical)
13960	17542	Badges (textile) (manufacture)
25990	28750	Badges made of metal (manufacture)
01280	01139	Badian growing
93120	92629	Badminton club
32300	36400	Badminton shuttlecock (manufacture)
25990	28750	Bag clasp (manufacture)
25990	28750	Bag frame (manufacture)
32409	36509	Bagatelle board (manufacture)
26600	33100	Baggage scanning equipment (manufacture)
13200	17250	Bagging cloth (manufacture)
32200	36300	Bagpipes and reeds (manufacture)
13922	17402	Bags made of canvas (manufacture)
13922	17402	Bags made of canvas or cotton cloth (manufacture)
32130	36610	Bags made of chain (manufacture)
15120	19200	Bags made of leather or leather substitute (manufacture)
17211	21211	Bags made of paper (manufacture)
22220	25220	Bags made of plastic (not designed for prolonged use) (manufacture)
22220	25220	Bags made of plastic for packaging (manufacture)
22220	25220	Bags made of polyethylene (manufacture)
22220	25220	Bags made of transparent regenerated cellulose film (manufacture)
69109	74119	Bailiffs activities
03210	01250	Bait digging
03210	01250	Bait production
13990	17549	Baize (manufacture)
47240	52240	Baker (retail)
10890	15899	Bakers' yeast from distillery (manufacture)
10710	15810	Bakery (baking main activity) (manufacture)
47240	52240	Bakery (selling main activity) (retail)
28930	29530	Bakery machinery and ovens (manufacture)
28930	29530	Bakery moulders (manufacture)
28930	29530	Bakery ovens (industrial) (manufacture)
46690	51870	Bakery ovens (wholesale)
46360	51360	Bakery products (wholesale)
25990	28750	Baking dish, pan and tin (manufacture)
10890	15899	Baking powder (manufacture)
14190	18241	Balaclava helmet (manufacture)
46690	51870	Balances and scales (wholesale)
26511	33201	Balancing machines (electronic) (manufacture)
26513	33202	Balancing machines (non-electronic) (manufacture)
22190	25130	Balata belting (manufacture)
22190	25130	Balata goods (excluding belting) (manufacture)
28940	29540	Bale breakers (manufacture)
28302	29320	Bale handler for agriculture (manufacture)
28302	29320	Baler for hay and straw (manufacture)
13940	17520	Baler twine (manufacture)
28290	29240	Baling press (not agricultural) (manufacture)
46690	51870	Ball and roller bearings (wholesale)
28150	29140	Ball bearing (manufacture)
08120	14220	Ball clay extraction (mine or opencast working)
22190	25130	Ball core (rubber) (manufacture)
28140	29130	Ball valves (manufacture)
46690	51870	Ballasts for discharge lamps or tubes (wholesale)
02300	02010	Balata gathering
90010	92311	Ballet company
85320	80220	Ballet school
15200	19300	Ballet shoe (manufacture)

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

25400 29600 Ballistic missile, except intercontinental ballisticmissile (ICBM) (manufacture)
30300 35300 Balloon (not toy) (manufacture)
46499 51479Balloons, dirigibles and other non-powered aircraft (wholesale)
22190 25130 Balloons, rubber (except pilot and soundingballoons, dirigibles and hot-air balloons) (manufacture)
23190 26150 Ballotini (manufacture)
32990 36631 Ballpoint pen and refill (manufacture)
46499 51479Ball-point, felt-tipped and other porous-tipped pensand markers (wholesale)
32300 36400 Balls for all sports (finished) (manufacture)02300 02010 Balsam gathering
31090 36140 Bamboo furniture (other than seating) (manufacture)16290 20520 Bamboo preparation (manufacture)
10390 15330 Banana ripening and conditioning (manufacture)01220 01139 Bananas and plantain growing
90010 92311 Band (musical)
74909 74879 Band agency
13200 17210Bandage cloth weaving (manufacture)
13990 17542 Banding (woven) (manufacture) 22190 25130 Bands made of elastic (manufacture)
25930 28730 Bands made of plaited metal (manufacture)22190 25130 Bands made of rubber (manufacture)
25930 28730 Bands made of uninsulated plaited copper (manufacture)
25930 28730 Bands, slings, etc. Made of uninsulated plaited ironor steel (manufacture)
25730 28620 Bandsaw blades (manufacture)
64205 65234 Bank holding companies
28230 30010 Bank note counting machine (manufacture)17120 21120 Bank note paper (manufacture)
18129 22220 Bank note printing (manufacture)
64110 65110 Bank of England
66110 67110 Bankers' clearing house
64929 65229 Banking institutions in Channel Islands and Isle ofMan activities (not in UK banking sector)
28230 30010 Banknote dispensing machine (manufacture)
64191 65121Banks (deposit taking)
64929 65229 Banks not authorised by the FSA as deposit taking13922 17402 Banner (making up) (manufacture)
16230 20300 Bannister rails made of wood (manufacture)56210 55520 Banquet catering
94910 91310Baptist church
82990 74879 Bar code imprinting services
46740 51540 Barbed wire and stranded wire (wholesale)25930 28730 Barbed wire made of steel (manufacture) 96020 93020 Barber
46460 51460 Barbers' and similar chairs (wholesale)
26200 30020 Barcode readers and other optical readers (manufacture)
26110 32100 Bare printed circuit boards (manufacture)30110 35110 Barge (manufacture)
50400 61209 Barge lessee or owner (freight)
50300 61201Barge lessee or owner (passenger) (inland waterwayservice)
50200 61102Barge transport (except for inland waterway) freightservice
16100 20100 Bargeboard (manufacture)
08910 14300 Barium sulphate (natural) mining

01110 01110 Barley growing
11060 15970 Barley malting (manufacture)
10611 15611 Barley meal production (manufacture)
10611 15611 Barley milling (manufacture)
10611 15611 Barley processing (blocked, flaked, puffed orpearled) (manufacture)
26511 33201 Barometer (electronic) (manufacture)
26513 33202 Barometer (non-electronic) (manufacture) 25920 28720 Barrels made of aluminium (manufacture) 25910 28710 Barrels made of iron or steel (manufacture)
22220 25220 Barrels made of plastic (manufacture) 16240 20400 Barrels made of wood (manufacture) 69101 74112 Barrister
77390 71219Barrow hiring
24420 27420 Bars made of aluminium (manufacture)24440 27440 Bars made of brass (manufacture) 24440 27440 Bars made of copper (manufacture) 23190 26150 Bars made of glass (manufacture)
24100 27100 Bars of stainless steel (manufacture)
24430 27430 Bars, rods, profiles and wire made of lead (manufacture)
24430 27430 Bars, rods, profiles and wire made of tin (manufacture)
24430 27430 Bars, rods, profiles and wire made of zinc (manufacture)08910 14300 Barytes mine
08110 14110Basalt mine
28290 29240 Base exchange plant for water treatment (manufacture)
25990 28750 Base metal articles (manufacture)
17120 21120 Base paper for printing and writing paper (manufacture)
23190 26150 Basement lights made of glass (manufacture)20120 24120 Basic dye (manufacture)
20150 24150 Basic slag (ground) (manufacture)
01280 01139Basil growing
32300 36400 Basins for swimming and paddling pools (manufacture)
23650 26650 Basins made of fibre-cement (manufacture)25990 28750 Basins made of metal (manufacture)
31090 36110Basket chair (manufacture)
31090 36140 Basket furniture (manufacture)
16290 20520 Baskets made of materials (other than plastic)(manufacture)
22290 25240 Baskets made of plastic (manufacture)16290 20520 Basketware (manufacture)
23690 26660 Bas-relief and haut-relief made of concrete, plaster,cement or artificial stone (manufacture)
13200 17250 Bast fibres and special yarns weaving (manufacture)13100 17170 Bast fibres preparation and spinning (manufacture) 63110 72300 Batch processing
30920 35430 Bath chair (manufacture)
20420 24520 Bath preparations (manufacture)
20420 24520 Bath salts (manufacture)
13923 17403 Bath towel (manufacture)
22290 25240 Bathing caps made of plastic (manufacture)22190 25130 Bathing caps of rubber (manufacture) 93110 92619 Bathing pool proprietor
46730 51530 Baths (wholesale)
23420 26220 Baths made of ceramic (manufacture)

SIC 2007	SIC 2003	Activity
22230	25239	Baths made of fibre glass (manufacture)
25990	28750	Baths made of metal (manufacture)
22230	25239	Baths made of plastic (manufacture)
32300	36400	Bats (manufacture)
23200	26260	Bats made of ceramic (manufacture)
16210	20200	Battenboard (manufacture)
27200	31400	Batteries for vehicles (manufacture)
27110	31100	Battery charger (manufacture)
27200	31400	Battery for car (manufacture)
27200	31400	Battery for flash lamp (manufacture)
28990	29560	Battery making machine (manufacture)
29100	34100	Battery powered electric commercial vehicle (manufacture)
14120	18210	Battledress for men (manufacture)
14120	18210	Battledress for women (manufacture)
01280	01139	Bay growing
25710	28750	Bayonet (manufacture)
77210	71401	Beach chairs and umbrellas renting and leasing
93290	92729	Beach facilities rental (bathhouses, lockers, chairs, etc.)
15200	19300	Beach footwear (manufacture)
93290	92729	Beach hut proprietor
14190	18249	Beachwear for women and girls (manufacture)
30110	35110	Beacon for shipping (manufacture)
30110	35110	Beacons for ships (manufacture)
16100	20100	Beaded wood (manufacture)
16230	20300	Beading made of wood (manufacture)
16230	20300	Beadings and mouldings made of wood (manufacture)
23190	26150	Beads made of glass (manufacture)
16290	20510	Beads made of wood (manufacture)
17220	21220	Beakers made of paper (manufacture)
28940	29540	Beaming machinery (textile) (manufacture)
16230	20300	Beams (manufacture)
10612	15612	Bean grinding (manufacture)
01110	01120	Bean growing
10612	15612	Bean milling (manufacture)
10612	15612	Bean splitting (manufacture)
96020	93020	Beard trimming
28150	29140	Bearing housings (manufacture)
46690	51870	Bearing housings and plain shaft bearings (wholesale)
28150	29140	Bearing, gearing and driving element parts (manufacture)
28150	29140	Bearings (manufacture)
20420	24520	Beauty and make-up preparations (manufacture)
96020	93020	Beauty parlour
96020	93020	Beauty specialist
96020	93020	Beauty treatment activities
46180	51180	Beauty, make-up and skin-care preparations including sun tan preparations (commission agent)
46160	51160	Bed and table linen (commission agent)
31090	36140	Bed heads made of metal (manufacture)
13923	17403	Bed linen (manufacture)
47510	52410	Bed linen (retail)
31090	36110	Bed settee (manufacture)
47510	52410	Bedding (retail)
32990	36639	Bedfolder (manufacture)
13200	17210	Bedford cord (not worsted) weaving (manufacture)
13200	17230	Bedford cord worsted weaving (manufacture)
31030	36150	Beds (mattress and mattress support) (manufacture)
47599	52440	Beds (retail)
14310	17710	Bedsock (manufacture)
13923	17403	Bedspread (manufacture)
13923	17403	Bedspreads made of lace (manufacture)
31090	36140	Bedsteads made of metal (manufacture)
31090	36140	Bedsteads made of wood (manufacture)
01490	01250	Bee keeping
10130	15139	Beef extract (manufacture)
10130	15139	Beef paste (manufacture)
10130	15139	Beef pickling (manufacture)
16290	20510	Beehives made of wood (manufacture)
28302	29320	Bee-keeping machinery (manufacture)
46610	51880	Bee-keeping machines (wholesale)
11050	15960	Beer (non-alcoholic) (manufacture)
47250	52250	Beer (retail)
11050	15960	Beer brewing (manufacture)
56302	55402	Beer gardens (independent)
56302	55404	Beer gardens (managed)
56302	55403	Beer gardens (tenanted)
56302	55402	Beer halls (independent)
56302	55404	Beer halls (managed)
56302	55403	Beer halls (tenanted)
46110	51110	Beer or distilling dregs for animal feed (commission agent)
46342	51342	Beer, wines and liqueurs (wholesale)
10810	15830	Beet pulp (manufacture)
01190	01110	Beet seed growing
10810	15830	Beet sugar (manufacture)
01610	01410	Beet thinning on a fee or contract basis
01130	01120	Beetroot growing
27900	31620	Bell apparatus (other than telegraphic or telephonic) (manufacture)
24540	27540	Bell founding (manufacture)
25940	28740	Belleville washer (manufacture)
22190	25130	Bellows made of rubber (manufacture)
27900	31620	Bells (other than telephone type) (electric) (manufacture)
25990	28750	Bells for pedal cycles (manufacture)
26301	32201	Bells for telephones (manufacture)
25990	28750	Bells made of base metals (manufacture)
13200	17210	Belting duck weaving (manufacture)
22190	25130	Belting for domestic appliances made of rubber (manufacture)
22210	25210	Belting made of plastic (manufacture)
22190	25130	Belting made of rubber (manufacture)
15120	19200	Belts made of leather or leather substitute (manufacture)
31090	36110	Bench seat (manufacture)
25730	28620	Bench vice (manufacture)
28410	29420	Bending machines (metal forming) (manufacture)
24200	27220	Bends made of steel (manufacture)
88990	85321	Benevolent society (charitable services)
65120	66031	Benevolent society (insurance)
10410	15410	Benniseed crushing (manufacture)
10410	15420	Benniseed oil refining (manufacture)
16100	20100	Bent timber (manufacture)
31090	36140	Bentwood furniture (manufacture)
20140	24140	Benzene (manufacture)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

35210 40210 Benzole (crude) from gas works
14190 18241 Beret (knitted) (manufacture)
14190 18241 Beret (not knitted) (manufacture)
02300 01139 Berries, gathering from the wild
52220 63220 Berthing activities
24450 27450 Beryllium (manufacture)
32910 36620 Besom (manufacture)
91020 92521 Bethnal Green Museum
92000 92710 Betting activities
92000 92710 Betting shop
82920 74820 Beverage bottling on a fee or contract basis
01270 01139 Beverage crop growing other than wine grapes
28930 29530 Beverage processing machinery (manufacture)
46170 51170 Beverages (commission agent)
11040 15950 Beverages (non-distilled, fermented) (manufacture)
46390 51390 Beverages (non-specialised) (wholesale)
11030 15949 Beverages made of fermented fruit n.e.c. (manufacture)
13990 17542 Bias binding (manufacture)
17120 21120 Bible paper (manufacture)
94910 91310 Bible society
28150 29140 Bicycle chain
77210 71401 Bicycle hire
25720 28630 Bicycle locks with or without keys (manufacture)
52219 63210 Bicycle parking operations
28131 29121 Bicycle pumps (manufacture)
46150 51150 Bicycles (commission agent)
30920 35420 Bicycles (non-motorised) (manufacture)
47640 52485 Bicycles (retail)
30920 35420 Bicycles and parts (manufacture)
46499 51479 Bicycles and their parts and accessories (wholesale)
32409 36509 Bicycles for children (manufacture)
23420 26220 Bidets made of ceramic, fireclay, etc. (manufacture)
25940 28740 Bifurcated rivet (manufacture)
10110 15112 Bile processing by knackers
74909 63400 Bill auditing and freight rate information
64991 65233 Bill broker on own account (other than discounthouse)
66120 67122 Bill broking on behalf of others (other than discounthouse)
82911 74871 Bill collecting
73110 74402 Bill posting agency
24420 27420 Billets made of aluminium (manufacture)
24440 27440 Billets made of brass (manufacture)
24440 27440 Billets made of copper (manufacture)
24100 27100 Billets made of semi-finished steel (manufacture)
15120 19200 Billfolds made of leather (manufacture)
32401 36501 Billiard ball (manufacture)
32401 36501 Billiard cue (manufacture)
93110 92629 Billiard room or saloon
32401 36501 Billiard table (manufacture)
13990 17549 Billiard table cloth (manufacture)
93120 92629 Billiards and snooker club
22220 25220 Bin liners made of plastic (manufacture)
13940 17520 Binder twine (manufacture)
13990 17542 Binding (woven) (manufacture)
18140 22230 Binding and finishing of books, brochures, magazines, catalogues etc. (manufacture)
13300 17300 Binding and mending of textiles (manufacture)

18140 22230 Binding and related services (manufacture) 28230 30010 Binding machine (manufacture)
92000 92710 Bingo hall
26701 33402 Binoculars (manufacture)
25990 28750 Bins made of metal (manufacture) 22290 25240 Bins made of plastic (manufacture)
26511 33201 Biochemical analysers (electronic) (manufacture)
20200 24200 Biocides (manufacture)
19201 23201 Biofuels from blending of alcohols with petroleum, e.g. Gasohol (manufacture)
72110 73100 Biology research and experimental development 21200 24421 Biotech pharmaceuticals (manufacture)
72110 73100 Biotechnology research and experimental development
32910 36620 Birch broom (manufacture)
10920 15720 Bird food (manufacture) 01490 01250 Bird raising, other than poultry
01700 01500 Bird skin production (from hunting)
01490 01250 Bird skin production from ranching operation 28930 29530 Biscuit making machinery and ovens (manufacture) 23310 26300 Biscuit tile (manufacture)
10720 15820 Biscuits (manufacture)
94990 91330 Bishopsgate Institute
24450 27450 Bismuth (manufacture)
25730 28620 Bit stock drill (manufacture)
19201 23201 Bitumen (manufacture)
23990 26829 Bitumen and flax felts for roofing and damp-proof courses (manufacture)
08990 14500 Bitumen mining and quarrying
28923 29523 Bitumen spreaders (manufacture)
17120 21120 Bituminised building board (manufacture)
46130 51130 Bituminous construction materials (commission agent)
06100 11100 Bituminous or oil shale and sand extraction 20301 24301 Bituminous paint (manufacture)
23990 26829 Bituminous sealants (manufacture) 03210 05020 Bivalves cultured in sea water 11050 15960 Black beer brewing (manufacture)
20510 24610 Black powder (manufacture)
10130 15139 Black pudding (manufacture)
01250 01139 Blackberry (cultivated) growing
28990 29560 Blackboard chalk making machinery (manufacture) 28230 36631 Blackboards (manufacture)
01250 01139 Blackcurrant growing
24100 27100 Blackplate (manufacture)
25620 28520 Blacksmith (not including farriers) (manufacture) 25730 28620 Blacksmiths' tools (manufacture)
08110 14110 Blackstone quarry
32990 36639 Bladder dressing (manufacture)
10110 15112 Bladder processing (manufacture)
46630 51820 Blades for bulldozers and angle-dozers (wholesale) 10890 15899 Blancmange powder (manufacture)
46520 51431 Blank audio and video tapes and diskettes, magnetic and optical disks (CDs, DVDs) (wholesale)
26800 24650 Blank diskettes (manufacture)
26800 24650 Blank optical discs (manufacture) 47630 52450 Blank tapes and discs (retail)
13923 17403 Blanket making up, outside weaving or knitting establishment (manufacture)
27510 29710 Blankets (electric) (manufacture)

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SIC 2007	SIC 2003	Activity
13923	17403	Blankets including travelling rugs (manufacture)
13923	17403	Blankets made of cotton and man-made fibres (manufacture)
13923	17403	Blankets made of wool (manufacture)
23190	26150	Blanks for corrective spectacle lens (manufacture)
24420	27420	Blanks made of aluminium (manufacture)
52102	63121	Blast freezing for air transport activities
52103	63121	Blast freezing for land transport activities
52101	63121	Blast freezing for water transport activities
28210	29210	Blast furnace (manufacture)
43120	45110	Blasting and associated rock removal work
43120	45110	Blasting of construction sites
20510	24610	Blasting powder
14131	18221	Blazers for men and boys (manufacture)
14132	18222	Blazers for women and girls (manufacture)
13300	17300	Bleach works (manufacture)
17110	21110	Bleached paper pulp made by chemical dissolving (manufacture)
17110	21110	Bleached paper pulp made by mechanical processes (manufacture)
17110	21110	Bleached paper pulp made by non-dissolving processes (manufacture)
17110	21110	Bleached paper pulp made by semi-chemical processes (manufacture)
13300	17300	Bleaching and dyeing of fabrics (manufacture)
13300	17300	Bleaching and dyeing of textile articles, including wearing apparel (manufacture)
13300	17300	Bleaching and dyeing of textile fibres (manufacture)
13300	17300	Bleaching and dyeing of yarns (manufacture)
28940	29540	Bleaching machinery (textile) (manufacture)
13300	17300	Bleaching of jeans (manufacture)
13300	17300	Bleaching of wool cop, hank, warp, etc. (manufacture)
27510	29710	Blenders for domestic use (electric) (manufacture)
28930	29530	Blenders for the food industry (manufacture)
28930	29530	Blenders for the grain milling industry (manufacture)
11010	15910	Blending and bottling of whisky (manufacture)
11010	15910	Blending of distilled spirits (manufacture)
11010	51342	Blending of distilled spirits by wholesalers (manufacture)
13100	17130	Blending of fibres on the worsted system (manufacture)
13921	17401	Blinds (soft furnishings) (manufacture)
13922	17402	Blinds made of canvas (manufacture)
17290	21259	Blinds made of paper (manufacture)
22230	25239	Blinds made of plastic (manufacture)
16230	20300	Blinds made of wood (excluding shop blinds) (manufacture)
24440	27440	Blister copper (manufacture)
82920	74820	Blister packaging for card-covered packaging
23320	26400	Block flooring made of clay (manufacture)
13300	17300	Block printing of textiles (manufacture)
16210	20200	Blockboard (manufacture)
18130	22250	Blocking (printing)
28990	29560	Blocking machine (manufacture)
28110	29110	Blocks for industrial engines (manufacture)
16290	36639	Blocks for the manufacture of smoking pipes (manufacture)
23610	26610	Blocks made of breeze (manufacture)
23610	26610	Blocks made of concrete (manufacture)
23200	26260	Blocks made of graphite (manufacture)
22210	25210	Blocks made of plastic (manufacture)
86900	85140	Blood banks
96090	93059	Blood pressure machine operation (coin operated)
21100	24410	Blood processing (manufacture)
10130	15139	Blood pudding (manufacture)
86900	85140	Blood transfusion service
21200	24421	Blood-grouping reagents (manufacture)
24440	27440	Blooms made of copper (manufacture)
24100	27100	Blooms made of semi-finished steel (manufacture)
17120	21120	Blotting paper (manufacture)
14142	18232	Blouses for women and girls (manufacture)
25730	28620	Blow lamp (manufacture)
28960	29560	Blow moulding machine for rubber or plastic (manufacture)
23110	26110	Blown glass (manufacture)
28921	29521	Blow-out prevention apparatus (manufacture)
28490	29430	Blowpipes (hand held, high or low pressure) (manufacture)
28940	29540	Blowroom machinery (textile) (manufacture)
23320	26400	Blue brick (manufacture)
23520	26520	Blue lias lime kiln (manufacture)
08110	14110	Blue pennant stone quarry
01250	01139	Blueberry growing
82190	74850	Blueprinting
32409	36509	Board game (manufacture)
28950	29550	Board making machinery (except chipboard) (manufacture)
55900	55239	Boarding house
96090	93059	Boarding of pet animals
55900	55239	Boarding school accommodation
23990	26821	Boards made of asbestos (manufacture)
23610	26610	Boards made of concrete (manufacture)
23140	26140	Boards made of glass fibre (manufacture)
23620	26620	Boards made of plaster (manufacture)
77342	71229	Boat hire for freight (without crew)
77341	71221	Boat hire for passengers (without crew) (not linked with recreational service)
30120	35120	Boat kits for assembly (manufacture)
50100	61101	Boat rental for passenger conveyance with crew (except for inland waterway services)
50300	61201	Boat rental for passenger conveyance with crew (inland waterway service)
50200	61102	Boat rental for transport of freight with crew (except for inland waterway service)
50400	61209	Boat rental for transport of freight with crew (inland waterway service)
30120	35120	Boatbuilding (manufacture)
47640	52485	Boats (retail)
28940	29540	Bobbins for textile machinery (manufacture)
17290	21259	Bobbins made of paper and paperboard (manufacture)
16290	20510	Bobbins made of wood (not textile accessory) (manufacture)
17290	21259	Bobbins, spools and cops made of paper and paperboard (manufacture)
29201	34201	Bodies (coachworks) for motor vehicles (manufacture)
29201	34201	Body building for motor vehicles (manufacture)
29201	34201	Body for bus (manufacture)
29201	34201	Body for car (manufacture)
29201	34201	Body for coach (manufacture)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

29201 34201 Body for commercial vehicle (manufacture)30200 35200 Body for locomotive (manufacture)

96090 93059 Body piercing studios

30920 35430 Body shell for invalid carriage (manufacture) 29201 34201 Body shell for motor vehicle made of fibre glass (manufacture)

29201 34201 Body shell for motor vehicle made of plastic(manufacture)

93130 92629 Body-building clubs and facilities

80100 74602 Bodyguard activities

30200 35200 Bogie for locomotive (manufacture)

30200 35200 Bogies (manufacture)

10130 15131Boiled ham production (manufacture)

10822 15842 Boiled sweet (manufacture)

25300 28300 Boiler (nuclear powered) (manufacture)

23200 26260 Boiler block (manufacture)

81223 74705 Boiler cleaning and scaling

32990 36639 Boiler covering (not asbestos or slag wool) (manufacture)

25300 28300 Boiler drum (manufacture)

25300 28300 Boiler feed water heater (manufacture) 25210 28220 Boiler for central heating (manufacture) 27520 29720 Boiler for domestic use (oil) (manufacture)

27520 29720 Boiler for domestic use (solid fuel) (manufacture)25300 28300 Boiler for marine applications (manufacture) 25300 28300 Boiler fuel economiser (manufacture)

25300 28300 Boiler fuel handling plant (manufacture)25300 28300 Boiler house plant (manufacture)

65120 66031 Boiler insurance

32990 36639 Boiler packing (not asbestos or slag wool) (manufacture)

23990 26821 Boiler packing made of asbestos (manufacture)14120 18210 Boiler suit (manufacture)

25300 28300 Boilers and associated equipment and parts (manufacture)

28110 29110 Boiler-turbine sets (manufacture)

10130 15139Bolognas (manufacture)

13921 17401 Bolster (manufacture)

13923 17403 Bolster case (manufacture)

25940 28740 Bolt (manufacture)

25730 28620 Bolt cropper (manufacture)

25940 28740 Bolt end (manufacture)

13960 17549 Bolting cloth (manufacture)

25400 29600 Bomb fuse (manufacture)

46690 51870 Bombs, missiles and other projectiles (wholesale)17290 21259 Bonbon paper (manufacture)

23910 26810 Bonded abrasives (manufacture)

13939 17519Bonded fibre carpets (manufacture)

13950 17530 Bonded fibre fabric (manufacture)

52102 63129 Bonded store, vault or warehouse for air transportactivities

52103 63129 Bonded store, vault or warehouse for land transportactivities

52101 63129 Bonded store, vault or warehouse for water transport activities

13300 17300 Bonding of fabric to fabric (manufacture) 10110 15112 Bone boiling by knackers (manufacture) 10110 15112 Bone crushing by knackers (manufacture) 10110 15112 Bone degreasing by knackers (manufacture)10110 15112 Bone flour from knackers (manufacture)

20520 24620 Bone glue (manufacture)
10110 15112 Bone meal (manufacture)
10110 15112 Bone meal from knackers (manufacture) 10410 15410 Bone oil (manufacture)
32500 33100 Bone plates and screws (manufacture) 32500 24422 Bone reconstruction cements (manufacture) 10110 15112 Bone scraping by knackers (manufacture) 10110 15112 Bone sorting by knackers (manufacture) 32990 36639 Bone working (manufacture)
13200 17210 Book cloth weaving (manufacture)
28230 30010 Book keeping machine (manufacture)
91011 92510 Book lending and storage
18129 22220 Book printing (manufacture)
58110 22110 Book publishing
77210 71401 Book rental
18140 22230 Bookbinding (manufacture)
46690 51870 Book-binding and book-sewing machinery (wholesale)
28990 29560 Bookbinding machine (manufacture)
31010 36120 Bookcase (non-domestic) (manufacture) 31090 36140 Bookcase made of wood (manufacture) 69202 74122 Book-keeping activities
92000 92710 Bookmaker
47610 52470 Books (retail)
46499 51479 Books (wholesale)
77299 71409 Books, journals and magazine renting and leasing 15200 19300 Boot (manufacture)
17120 21120 Boot and shoe board (manufacture) 74100 74872 Boot and shoe designing
15200 19300 Boot closing (manufacture)
13990 17542 Boot lace (manufacture)
16290 20510 Boot or shoe lasts and trees made of wood (manufacture)
15200 19300 Boot stiffener (manufacture)
15200 19300 Boot upper (manufacture)
96090 93059 Bootblack
22190 19300 Bootee (rubber protective) (manufacture)
47721 52431 Boots and shoes (retail)
08910 14300 Borates (natural) mining
84240 75240 Border guard administration and operation 43130 45120 Borehole drilling
71122 74206 Borehole surveying
28921 29521 Borers (mining machinery) (manufacture)
43999 45250 Boring (civil engineering)
46630 51820 Boring and sinking machinery (wholesale) 28410 29420 Boring machine (metal cutting) (manufacture) 24100 27100 Boron steel (manufacture)
91040 92530 Botanical gardens
21200 24421 Botanical products for pharmaceutical use (manufacture)
13100 17130 Botany spinning (manufacture)
81299 74709 Bottle cleaning
28290 29240 Bottle cleaning and or drying machinery (manufacture)
22220 25220 Bottle crates made of plastic (manufacture) 23130 26130 Bottle stoppers made of glass (manufacture) 25920 28720 Bottle tops made of metal (manufacture) 46120 51120 Bottled gas (commission agent)
23130 26130 Bottles made of glass or crystal (manufacture)

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SIC 2007	SIC 2003	Activity
22220	25220	Bottles made of plastic (manufacture)
28290	29240	Bottling machinery (manufacture)
10850	15330	Bottling of fruit and vegetables (manufacture)
82920	74820	Bottling on a fee or contract basis
71122	74206	Boundary surveying activities
10110	15111	Bovine hides and skins production from knackers (manufacture)
01420	01210	Bovine semen production
28990	29560	Bow thruster (manufacture)
93110	92629	Bowling alley
28990	36501	Bowling alley equipment (manufacture)
93120	92629	Bowling clubs
93110	92619	Bowling lanes operation
32300	36400	Bowls and bowls equipment (manufacture)
93120	92629	Bowls club
23130	26130	Bowls made of glass (manufacture)
22290	25240	Bowls made of plastic (manufacture)
32300	36400	Bows (manufacture)
29202	34202	Bowsers (tanks on wheels) (manufacture)
15110	19100	Box and willow calf leather (manufacture)
28210	29210	Box furnace (manufacture)
16240	20400	Box pallet (manufacture)
31030	36150	Box spring mattress (manufacture)
16100	20100	Boxboard (manufacture)
32409	36509	Boxed game (manufacture)
17230	21230	Boxed stationery (manufacture)
25910	28710	Boxes and other containers made of iron or steel, of capacity not exceeding 300 litres (manufacture)
25920	28720	Boxes made of aluminium (manufacture)
17219	21213	Boxes made of corrugated cardboard (manufacture)
17219	21213	Boxes made of corrugated paper (manufacture)
25910	28710	Boxes made of iron or steel (manufacture)
25920	28720	Boxes made of metal (collapsible) (manufacture)
17219	21214	Boxes made of non-corrugated cardboard (manufacture)
17219	21214	Boxes made of non-corrugated paper (manufacture)
22220	25220	Boxes made of plastic (manufacture)
17219	21214	Boxes made of rigid board (manufacture)
17219	21213	Boxes made of rigid corrugated board (manufacture)
16240	20400	Boxes made of wood (manufacture)
16240	20400	Boxes made of wood (wirebound) (manufacture)
93199	92629	Boxing
93110	92619	Boxing arena
93120	92629	Boxing clubs
32300	36400	Boxing glove (manufacture)
93199	92629	Boxing promoter
94990	91330	Boy scouts
94990	91330	Boys brigade
14190	18249	Braces (not made of leather or leather substitute) (manufacture)
47710	52424	Braces (retail)
46420	51429	Braces (wholesale)
14190	18249	Braces made of leather (manufacture)
25990	28750	Brackets made of base metal (manufacture)
13960	17542	Braid made of elastic (manufacture)
13960	17542	Braid made of elastomeric (manufacture)
13960	17542	Braid made of non-elastic (manufacture)
13960	17542	Braid made of textile material (manufacture)
18140	22230	Braille copying (manufacture)
26200	30020	Braille pads and other output devices (manufacture)
18129	22220	Braille printing (manufacture)
23990	26821	Brake linings made of asbestos (manufacture)
29320	34300	Brakes and parts (excluding linings for motor vehicles) (manufacture)
30200	35200	Brakes and parts of brakes for locomotive and rolling stock (manufacture)
30200	35200	Braking systems for locomotives (manufacture)
10611	15611	Bran (manufacture)
28930	29530	Bran cleaners (manufacture)
28930	29530	Bran cleaners for the grain milling industry (manufacture)
11010	15910	Brandy (manufacture)
24440	27440	Brass powder (manufacture)
14142	18232	Brassiere (manufacture)
13922	17402	Brattice cloth (manufacture)
10130	15139	Brawn (manufacture)
25730	28620	Brazing lamp (manufacture)
28490	29430	Brazing machines (electric) (manufacture)
28490	29430	Brazing machines (gas) (manufacture)
47240	52240	Bread (retail)
46360	51360	Bread (wholesale)
10710	15810	Bread and flour confectionery baking (manufacture)
10710	15810	Bread baking including rolls (manufacture)
10710	15810	Bread rolls (manufacture)
16290	20510	Breadboards made of wood (manufacture)
28930	29530	Breading rolls or mills (manufacture)
29100	34100	Breakdown lorry (manufacture)
10612	15612	Breakfast cereal (cooked) (manufacture)
10612	15612	Breakfast cereal (uncooked) (manufacture)
32500	33100	Breathing apparatus for diving (manufacture)
46460	51460	Breathing appliances for medical use (wholesale)
14131	18221	Breeches (manufacture)
94990	91330	Breed society
11050	15960	Brewery (beer and other brewing products) (manufacture)
28930	29530	Brewing machinery and plant (manufacture)
20590	24660	Brewing preparations (excluding yeast) (manufacture)
32990	36639	Briar pipe (manufacture)
43999	45250	Brick furnace construction
43999	45250	Brick kiln construction
28990	29560	Brick making machinery (manufacture)
43999	45250	Bricklaying
23200	26260	Bricks and blocks made of refractory ceramic (manufacture)
23200	26260	Bricks and mouldings made of magnesite (manufacture)
23200	26260	Bricks made for refractory insulating (manufacture)
23200	26260	Bricks made of alumina (manufacture)
23200	26260	Bricks made of bauxite (manufacture)
23320	26400	Bricks made of ceramic (manufacture)
23200	26260	Bricks made of chrome (manufacture)
23200	26260	Bricks made of chromite (manufacture)
23320	26400	Bricks made of clay (manufacture)
23610	26610	Bricks made of concrete (manufacture)
23200	26260	Bricks made of dolomite (manufacture)
23200	26260	Bricks made of gannister (manufacture)
23190	26150	Bricks made of glass (manufacture)
23200	26260	Bricks made of high alumina (manufacture)
23200	26260	Bricks made of magnesite (manufacture)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

23200 26260 Bricks made of magnesite chrome (manufacture)23200 26260 Bricks made of refractory (manufacture)

23610 26610 Bricks made of sand lime (manufacture)23200 26260 Bricks made of silica (manufacture) 23200 26260 Bricks made of siliceous (manufacture) 23200 26260 Bricks made of sillimanite (manufacture)42130 45213 Bridge construction

85510 92629 Bridge instructor

52219 63210 Bridge operation

28921 29521 Bridge plugs (manufacture)

30400 29600 Bridgelayer (tracked military) (manufacture)

26301 32201 Bridges for telecommunications (manufacture)32500 33100 Bridges made in dental labs (manufacture) 16230 20300 Bridges made of wood (manufacture)

15120 19200 Bridle cutting (manufacture)

14141 18231 Briefs for men and boys (manufacture) 14142 18232 Briefs for women and girls (manufacture)24310 27310 Bright steel bars (manufacture)

08930 14400 Brine pit

08930 14400 Brine production

19201 10103 Briquette solid fuel production (manufacture) 32910 36620 Bristle dressing for brushes (manufacture) 10110 15112 Bristles from knackers (manufacture)

17120 21120 Bristol board (manufacture)

24430 27430 Britannia metal (manufacture)

24540 27540 Britannia metal founding (manufacture)

32130 36610 Britannia metalware (manufacture)

52230 63230 British Airports Authority

94120 91120British Association for the Advancement of Science94990 91330 British Board of Film Classifications

60100 92201 British Broadcasting Corporation (radio broadcasting)

60200 92202 British Broadcasting Corporation (televisionbroadcasting)

94120 91120British Computer Society

94120 91120British Dental Association

94910 91310British Humanist Association

94910 91310British Jews Society

94990 91330 British Legion (other than social clubs)91011 92510 British Library

94120 91120British Medical Association

91020 92521 British Museum

94990 91330 British Safety Council

79909 63309 British Tourist Authority

28410 28620 Broach for metal working machine tools (manufacture)

28410 29420 Broaching machine (metal cutting) (manufacture)01110 01120 Broad bean growing

28302 29320 Broadcaster for agricultural use (manufacture)82990 74879 Broadcasting transmission rights agent

86101 85111Broadmoor Hospital

13200 17210Brocade weaving (manufacture)

01130 01120 Broccoli growing

18129 22220 Brochure printing (manufacture)

58110 22110 Brochure publishing

20130 24130 Bromine and bromides (manufacture)

24540 27540 Bronze founding (manufacture)

32910 36620 Broom (manufacture)

16290 20510 Broom handles made of wood (manufacture) 46499 51479 Brooms and brushes for domestic use (wholesale)

32910 36620 Brooms and brushes for household use (manufacture)
10890 15891 Broth containing meat or vegetables or both(manufacture)
15120 19200 Brown saddlery (manufacture)
23410 26210 Brown stone pottery (manufacture)
27510 29710 Brush (electric) (manufacture)
32910 36620 Brush (manufacture)
32910 36620 Brush (not electrical) for machines (manufacture)16290 20510 Brush back made of wood (manufacture)
15120 19200 Brush case (not of leather or plastics) (manufacture)
32910 36620 Brush for cosmetics (manufacture)
16290 20510 Brush head made of wood (manufacture)16290 20510 Brush top made of wood (manufacture) 16290 20510 Brush wood ware (manufacture)
22190 36620 Brushes of rubber (manufacture)
20420 24520 Brushless shaving cream (manufacture)
13931 17511Brussels carpet (manufacture)
01130 01120 Brussel sprout growing
28922 29522 Bucket for construction machinery (manufacture)28220 29220 Bucket wheel reclaimer (manufacture)
13922 17402 Buckets made of canvas (manufacture)25990 28750 Buckets made of metal (manufacture) 22290 25240 Buckets made of plastic (manufacture)
22190 25130 Buckets made of rubberised fabric (manufacture) 25910 28710 Buckets made of steel (manufacture)
16240 20400 Buckets made of wood (manufacture)
46690 51870 Buckets, grabs, shovels and grips for cranes, excavators and the like (wholesale)
25990 28750 Buckles made of metal (manufacture)13960 17549 Buckram (manufacture)
13960 17549 Buckram and similar stiffened textile fabrics(manufacture)
14190 18241 Buckram shape (manufacture)
15110 19100 Buckskin (manufacture)
70221 74142Budgetary control procedures design
15120 19200 Buff and mop made of leather (manufacture)01410 01210 Buffalo milk, raw
15120 19200 Buffalo pickers made of leather (manufacture)01420 01210 Buffalo raising and breeding for meat
30200 35200 Buffers and buffer parts (manufacture)56101 55301 Buffet (licensed)
27400 31620 Bug zappers without light (manufacture)32130 36610 Buhl cutting (manufacture)
41201 45211 Builder and contractor for commercial buildings 41202 45212 Builder and contractor for domestic buildings 43341 45440 Builder and decorator (own account)
43320 45420 Builder and joiner
25120 28120 Builders' carpentry and joinery made of metal(manufacture)
16230 20300 Builders' carpentry and joinery made of wood(manufacture)
46730 51530 Builders' carpentry and joinery of metal (wholesale) 28220 29220 Builders' hoist (manufacture)
25730 28620 Builders' knife (manufacture)
22230 25239 Builders' ware made of plastic (manufacture) 16230 20300 Builders' woodwork such as window frames etc. (manufacture)
43910 45220 Building and roofing contractor

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SIC 2007	SIC 2003	Activity
23650	26650	Building boards made of asbestos (manufacture)
23650	26650	Building boards made of asbestos cement (manufacture)
16210	20200	Building boards made of fibre (manufacture)
17120	21120	Building boards made of paper (manufacture)
16210	20200	Building boards made of wood waste (manufacture)
81210	74701	Building cleaning activities
43390	45450	Building completion work
25990	28750	Building components of zinc e.g. Gutters, roof capping (manufacture)
38110	90020	Building debris removal
43110	45110	Building demolition and wrecking
71111	74201	Building design and drafting
41201	45211	Building maintenance and restoration commercial buildings
41202	45212	Building maintenance and restoration domestic buildings
46130	51130	Building materials (commission agent)
23320	26400	Building materials made of clay (non-refractory) (manufacture)
23650	26650	Building materials made of vegetable substances (manufacture)
23650	26650	Building materials of vegetable materials with cement, plaster etc. (manufacture)
47520	52460	Building materials such as bricks, wood, sanitary equipment (retail)
30110	35110	Building of commercial vessels (manufacture)
30110	35110	Building of ferry-boats (manufacture)
30110	35110	Building of fish-processing factory vessels (manufacture)
30120	35120	Building of motor boats (manufacture)
30110	35110	Building of passenger vessels (manufacture)
30120	35120	Building of recreation-type hovercraft (manufacture)
30120	35120	Building of sailboats with or without auxiliary motor (manufacture)
23520	26530	Building plaster (manufacture)
22230	25239	Building products made of plastic (manufacture)
72190	73100	Building research and experimental development
68100	70120	Building sales and purchase
43120	45110	Building site drainage
43120	45110	Building sites clearance
64192	65122	Building societies
64921	65221	Building societies' personal finance subsidiaries activities
71129	74204	Building structure design for ancillary services
43341	45440	Buildings painting
24100	27100	Bulb flats made of steel (manufacture)
27400	31500	Bulb for flash lamp (manufacture)
01130	01120	Bulb growing
46220	51220	Bulbs (wholesale)
23130	26130	Bulbs for vacuum flask inners (manufacture)
23190	26150	Bulbs made of glass (manufacture)
30110	35110	Bulk carrier (cargo ship) (manufacture)
49410	60249	Bulk haulage in tanker trucks
49410	60249	Bulk haulage milk collection at farms
52102	63122	Bulk liquid and gases storage services for air transport activities
52103	63122	Bulk liquid and gases storage services for land transport activities
52101	63122	Bulk liquid and gases storage services for water transport activities
49410	60249	Bulk road haulage
28922	29522	Bulldozer and angle-dozer blades (manufacture)
28922	29522	Bulldozers (manufacture)
46630	51820	Bulldozers and angle-dozers (wholesale)
64991	65233	Bullion broker on own account
66190	67130	Bullion broking on behalf of others
64991	65233	Bullion dealer in investment grades
29320	34300	Bumpers for motor vehicles (manufacture)
16240	20400	Bungs made of wood (manufacture)
31090	36140	Bunk beds made of metal (manufacture)
31090	36140	Bunk beds made of wood (manufacture)
52220	63220	Bunkering services
25290	28210	Bunkers made of heavy steel plate exceeding 300 litres (manufacture)
13922	17402	Bunting (making-up) (manufacture)
13200	17210	Bunting made of cotton (manufacture)
13200	17220	Bunting woollen weaving (manufacture)
16290	20520	Buoyancy apparatus made of cork (except cork life preservers) (manufacture)
30110	35110	Buoys (not plastic) (manufacture)
30110	35110	Buoys made of plastic (manufacture)
66120	67130	Bureaux de change activities
23190	26150	Burettes made of glass (manufacture)
56103	55303	Burger bar (take-away)
56102	55302	Burger bar restaurant (unlicensed)
56103	55304	Burger stand
26301	31620	Burglar alarm and system (manufacture)
77390	71340	Burglar alarm hire
80200	74602	Burglar and fire alarm monitoring including installation and maintenance
46439	51439	Burglar and fire alarms for household use (wholesale)
28210	29210	Burners (manufacture)
19201	23201	Burning oil (manufacture)
29100	34100	Bus (manufacture)
52213	63210	Bus and coach passenger facilities at bus and coach stations
27330	31200	Bus bars, electrical conductors (except switchgear-type) (manufacture)
73110	74402	Bus carding
81299	74709	Bus cleaning (non- specialised)
49319	60219	Bus service
25110	28110	Bus shelters made of metal (manufacture)
52219	63210	Bus station operation
49319	60219	Bus transport (other than inter-city services) (scheduled passenger transport)
49390	60231	Buses operated for transport of employees
28150	29140	Bush for bearing (manufacture)
82990	74879	Business activities n.e.c.
62012	72220	Business and domestic software development
94110	91110	Business and employers membership organisations
74909	74879	Business brokerage activities
74909	74879	Business brokerage and appraisal activities
70229	74143	Business consultancy activities
70229	74143	Business consultant
18129	22220	Business form printing (manufacture)
18140	22230	Business forms finishing (manufacture)
94110	91110	Business organisations

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

70229 74143 Business systems consultant
74909 74879 Business transfer agent
70229 74143 Business turnaround consultancy services
70221 74142 Business valuation services prior to mergers and/or acquisitions
20140 24140 Butadiene (manufacture)
19201 23201 Butane (manufacture)
46711 51511 Butane (wholesale)
06200 11100 Butane extraction from natural gas
47220 52220 Butchers shop (retail)
24200 27220 Butt welding fittings made of steel (manufacture)
46330 51331 Butter (wholesale)
10512 15512 Butter blending (manufacture)
28930 29530 Butter churns (manufacture)
25990 28750 Butter dishes made of metal (manufacture)
25710 28610 Butter knife (manufacture)
10512 15512 Butter milk (manufacture)
10512 15512 Butter oil (manufacture)
10512 15512 Butter production (manufacture)
28930 29530 Butter workers (manufacture)
10512 15512 Butterfat (manufacture)
28140 29130 Butterfly valves (manufacture)
10822 15842 Butterscotch (manufacture)
22290 36639 Button and button moulds made of plastic (manufacture)
13990 36639 Button carding (manufacture)
13990 36639 Button covering (manufacture)
32990 36639 Buttons (manufacture)
22290 36639 Buttons and button bases (not metal or glass)(manufacture)
32990 36639 Buttons made of glass (manufacture)
25990 36639 Buttons made of metal (manufacture)
46342 51342 Buying of wine in bulk and bottling without transformation (wholesale)
11020 51342 Buying wine in bulk with blending, purification and bottling of wine (manufacture)
49320 60220 Cab hire
01130 01120 Cabbage growing
31090 36140 Cabinet case made of wood (manufacture)
22290 25240 Cabinet components made of plastic (manufacture)
31010 36120 Cabinets (non-domestic) (manufacture)
31020 36130 Cabinets for kitchens (manufacture)
31090 36140 Cabinets for sewing machines (manufacture)
31090 36140 Cabinets for televisions (manufacture)
25990 28750 Cabinets made of metal (not designed for placing on the floor) (manufacture)
27320 31300 Cable accessory (manufacture)
23320 26400 Cable conduit made of clay (manufacture)
25990 28750 Cable drum made of metal (manufacture)
16240 20400 Cable drums made of wood (manufacture)
27320 31300 Cable jointing material (manufacture)
42220 45213 Cable laying
13940 17520 Cable made of textile materials (manufacture)
25930 28730 Cable made of uninsulated aluminium (manufacture)
28990 29560 Cable making machine (manufacture)
61100 64200 Cable service
25930 28730 Cable sheathing made of aluminium (manufacture)
30110 35110 Cable ship (manufacture)
25930 28730 Cable strands made of aluminium (manufacture)
42120 45230 Cable supported transport systems construction

26309 32202 Cable television equipment (manufacture)
50200 61102 Cable-laying vessel services
28220 29220 Cableway (manufacture)
28220 29220 Cableway excavator (manufacture)
29201 34201 Cabs for motor vehicles (manufacture)
10822 15842 Cachous (manufacture)
24450 27450 Cadmium (manufacture)
56101 55301 Cafeteria (licensed)
56102 55302 Cafeteria (unlicensed)
28921 29521 Cage plant for mining (manufacture)
30110 35110 Caisson (manufacture)
17220 21220 Cake board (manufacture)
28930 29530 Cake depositing machines (manufacture)
10611 15611 Cake mixture (manufacture)
10710 15810 Cakes (manufacture)
10720 15820 Cakes (preserved) (manufacture)
47240 52240 Cakes (retail)
23510 26510 Calcareous cement (manufacture)
23520 26520 Calcined dolomite (manufacture)
23520 26530 Calcined sulphate plaster (manufacture)
20130 24130 Calcium and calcium compounds (manufacture)
20130 24130 Calcium carbide (manufacture)
46660 51850 Calculating and accounting machines (wholesale)
26513 33202 Calculating instruments (non-electronic) (manufacture)
28230 30010 Calculating machine (manufacture)
47410 52482 Calculating machines (retail)
28230 30010 Calculator (electronic) (manufacture)
18140 22230 Calendar finishing (manufacture)
18129 22220 Calendar printing (manufacture)
28290 29240 Calender for rubber or plastics working (manufacture)
28290 29240 Calendering machinery for textiles (manufacture)
13300 17300 Calendering of textiles (manufacture)
28290 29240 Calendering or other rolling machine parts (for plastic or rubber) (manufacture)
74100 74872 Calico printers' designing
18140 22230 Calico printers' engraving (manufacture)
13300 17300 Calico printing (manufacture)
13200 17210 Calico weaving (manufacture)
82200 74860 Call centres undertaking market research or public opinion polling
82200 74860 Call centres working on a fee or contract basis
32200 36300 Call horns (manufacture)
32200 36300 Calliopes (manufacture)
26513 33202 Callipers (manufacture)
27520 29720 Calorifier (manufacture)
10130 15139 Calves' foot jelly (manufacture)
94910 91310 Calvinistic Methodist Church
28110 34300 Camshaft for motor vehicle engine (manufacture)
13200 17210 Cambric weaving (manufacture)
22110 25110 Camel back strips for retreading tyres (manufacture)
13100 17120 Camel hair spinning on the woollen system (manufacture)
13100 17130 Camel hair spinning on the worsted system (manufacture)
13200 17220 Camel hair woollen weaving (manufacture)
13200 17230 Camel hair worsted weaving (manufacture)
01440 01250 Camelid raising and breeding
01440 01250 Camels (dromedary) raising and breeding

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SIC 2007	SIC 2003	Activity
26309	32202	Camera for television (manufacture)
77210	71401	Camera hire
26702	33403	Cameras (manufacture)
31090	36140	Camp furniture made of wood (manufacture)
77390	71211	Campers (transport) rental (self drive)
13922	17402	Camping goods (manufacture)
47640	52485	Camping goods (retail)
55300	55220	Camping sites
45190	50101	Camping vehicles (retail)
45190	50102	Camping vehicles (used) (retail)
45190	50102	Camping vehicles (used) (wholesale)
45190	50101	Camping vehicles (wholesale)
28150	29140	Camshaft (not for motor vehicle) (manufacture)
50400	61209	Canal carrier (freight)
50300	61201	Canal carrier (passenger)
30120	35120	Canal cruiser (manufacture)
52220	63220	Canal maintenance
52220	63220	Canal operation
72190	73100	Cancer research and experimental development (other than biotechnological)
27400	31500	Candelabra made of base metal (manufacture)
10822	15842	Candied peel (manufacture)
32990	36639	Candle (manufacture)
46499	51479	Candles and tapers (wholesale)
27400	31500	Candlestick (manufacture)
31090	36110	Cane chair (manufacture)
31090	36140	Cane furniture (manufacture)
16290	20520	Cane preparation (manufacture)
16290	20520	Cane splitting and weaving (manufacture)
16290	20520	Cane working (manufacture)
25990	28750	Canisters made of metal (manufacture)
22220	25220	Canisters made of plastic (manufacture)
10890	15891	Canned broth containing meat or vegetables or both (manufacture)
10890	15891	Canned soup containing meat or vegetables or both (manufacture)
28290	29240	Canning machinery (manufacture)
10390	15330	Canning of fruit and vegetables (except fruit juices potatoes) (manufacture)
32500	33100	Cannulae (manufacture)
30120	35120	Canoe (manufacture)
77210	71401	Canoes and sailboats renting and leasing
25920	28720	Cans and boxes made of aluminium (manufacture)
25910	28710	Cans and boxes made of iron or steel (manufacture)
25920	28720	Cans and boxes made of tin (manufacture)
25920	28720	Cans for food products (manufacture)
25920	28720	Cans made of aluminium (manufacture)
25910	28710	Cans made of blackplate (manufacture)
25910	28710	Cans made of steel (manufacture)
01130	01120	Cantaloupe growing
13922	17402	Canvas goods (manufacture)
13960	17549	Canvas prepared for use by painters (manufacture)
13200	17250	Canvas weaving (manufacture)
26110	32100	Capacitor for electronic apparatus (manufacture)
14190	18241	Capeline felt (manufacture)
01130	01120	Capers growing
14200	18300	Capes made of fur (manufacture)
70221	74142	Capital structure consultancy services
22220	25220	Caps and closures made of plastic (manufacture)
22220	25220	Caps for bottles made of plastic (manufacture)
29320	34300	Caps for petrol, oil or radiator for motor vehicle (manufacture)
14190	18241	Caps made of cloth (manufacture)
28220	29220	Capstan (manufacture)
25920	28720	Capsules made of metal (manufacture)
28290	29240	Capsuling machinery (manufacture)
45112	50102	Car auctions
45320	50300	Car batteries (retail)
29320	34300	Car body parts (manufacture)
26520	33500	Car clock (manufacture)
29320	34300	Car components (manufacture)
49410	60249	Car delivery service (by independent contractors)
49410	60249	Car delivery service (by motor manufacturers)
46770	51570	Car dismantlers (wholesale)
77110	71100	Car hire (self drive)
77110	71100	Car leasing
13922	17402	Car loose covers (manufacture)
52219	63210	Car park
41201	45230	Car park construction
20412	24512	Car polish (manufacture)
77110	71100	Car rental (self drive)
49320	60220	Car rental with driver
47421	52488	Car telephones (retail)
45200	50200	Car valeting
45200	50200	Car wash
93110	92619	Car, dog and horse racetrack operation
10890	15620	Caramel (not sweets) (manufacture)
10822	15842	Caramel sweets (manufacture)
29203	34203	Caravan (manufacture)
45190	50102	Caravan (used) (retail)
45190	50102	Caravan (used) (wholesale)
29203	34203	Caravan chassis (manufacture)
55300	55220	Caravan holiday site operator, owner or proprietor
68209	70209	Caravan residential site letting
55300	55220	Caravan sites
29203	34203	Caravan trailers (manufacture)
52219	63210	Caravan winter storage and
45190	50101	Caravans (retail)
77390	71211	Caravans (touring) rental
45190	50101	Caravans (wholesale)
27400	31500	Carbide lanterns (manufacture)
25400	29600	Carbine (manufacture)
20130	24130	Carbon (manufacture)
13200	17250	Carbon and aramid thread weaving (manufacture)
20130	24130	Carbon black (manufacture)
27900	31620	Carbon brush (manufacture)
20110	24110	Carbon dioxide (manufacture)
20130	24130	Carbon disulphide (manufacture)
46690	51870	Carbon electrodes and other articles of graphite or other carbon for electrical purposes (wholesale)
27900	31620	Carbon or graphite electrodes (manufacture)
17120	21120	Carbon paper in large sheets (manufacture)
17120	21120	Carbon paper in rolls (manufacture)
17230	21230	Carbon paper ready for use (manufacture)
17230	21230	Carbon paper stencil ready for use (manufacture)
23990	26829	Carbon products (except carbon paper and electrical carbon) (manufacture)
32990	36631	Carbon ribbon (manufacture)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

08910 14300 Carbonate (barytes and witherite) mining
11070 15980 Carbonated soft drink (manufacture)
46120 51120 Carbonates (commission agent)
46750 51550 Carbonates (wholesale)
17120 21120 Carbonising base paper (manufacture)
17230 21230 Carbonless copy paper ready for use (manufacture)
20140 24140 Carboxylic acid (manufacture)
22220 25220 Carboy made of plastic (manufacture)
23130 26130 Carboys made of glass (manufacture)
28110 34300 Carburettor and parts for motor vehicle (manufacture)
28110 29110 Carburettors and such for all internal combustion engines (manufacture)
28110 29110 Carburettors for industrial engines (manufacture)
93120 92629 Card clubs
17230 21230 Card cutting for index cards (manufacture)
18140 22230 Card embossing (manufacture)
85510 92629 Card game instruction
28940 29540 Card tape reader for textile machinery (manufacture)
17120 21120 Cardboard (manufacture)
28950 29550 Cardboard box making machine (manufacture)
23990 26821 Carded asbestos fibre (manufacture)
13100 17120 Carded sliver preparation for textiles industry (manufacture)
28940 29540 Carders (manufacture)
14390 17720 Cardigans (knitted) (manufacture)
28940 29540 Carding machinery for textiles (manufacture)
13960 17542 Carding of trimmings (manufacture)
32200 36300 Cards for automatic mechanical instruments (manufacture)
52242 63110 Cargo handling for air transport activities
52243 63110 Cargo handling for land transport activities
52241 63110 Cargo handling for water transport activities
30110 35110 Cargo ship (manufacture)
13940 17520 Cargo sling (manufacture)
52220 63220 Cargo superintendent
52220 63220 Cargo terminal
32990 36639 Carnival article (manufacture)
94990 91330 Carnival clubs
43320 45420 Carpenter n.e.c.
43999 45220 Carpenter on building site
25730 28620 Carpenter's drill (manufacture)
43320 45420 Carpentry (not structural)
43999 45220 Carpentry (structural)
96010 93010 Carpet cleaning
43330 45430 Carpet fitter
25720 28630 Carpet fittings made of metal (manufacture)
28940 29540 Carpet making machinery (manufacture)
13100 17110 Carpet pile yarn spun on the cotton system (manufacture)
13100 17120 Carpet pile yarn spun on the woollen system (manufacture)
13100 17130 Carpet pile yarn spun on the worsted and semi-worsted systems (manufacture)
28990 29560 Carpet shampoo appliance (not domestic electric) (manufacture)
20411 24511 Carpet soap (manufacture)
28990 29560 Carpet sweeper (industrial) (manufacture)
47530 52481 Carpet tiles (retail)
22210 25210 Carpet underlay made of plastic (manufacture)
22190 25130 Carpet underlay made of rubber (manufacture)

13931 17511 Carpet weaving (manufacture)
46160 51160 Carpets (commission agent)
13939 17519 Carpets (other than woven or tufted) (manufacture) 47530 52481 Carpets (retail)
46470 51479 Carpets (wholesale)
13939 17519 Carpets and rugs, other than woven or tufted (manufacture)
13939 17519 Carpets made of jute (manufacture) 49410 60249 Carrier (for general hire or reward) 26301 32201 Carrier equipment (manufacture)
01130 01120 Carrot growing
32990 36639 Carry cot (manufacture)
29100 34100 Cars (manufacture)
13922 17402 Cart cover made of canvas (manufacture) 49410 60249 Cartage contractor
71122 74206 Cartographic and spatial information activities 28950 29550 Carton making machinery (manufacture)
28290 29240 Cartoning machinery (manufacture)
17219 21215 Cartons and similar containers for carrying liquids (unwaxed) (manufacture)
17219 21215 Cartons and similar containers for carrying liquids (waxed) (manufacture)
17219 21213 Cartons made of corrugated board (manufacture) 17219 21213 Cartons made of corrugated paper (manufacture) 17219 21214 Cartons made of non-corrugated board (manufacture)
17219 21214 Cartons made of non-corrugated paper (manufacture)
59111 92111 Cartoon film production
59112 92111 Cartoon video production
90030 92319 Cartoonists
25400 29600 Cartridge case (manufacture)
25400 29600 Cartridge primer (manufacture)
32990 36631 Cartridge refill for fountain pen (manufacture) 46690 51870 Cartridges and other ammunition (wholesale) 25400 29600 Cartridges for riveting guns (manufacture) 27400 31500 Case for flash lamp (manufacture)
25610 28510 Case hardening (manufacture)
17120 21120 Case making materials (manufacture)
25730 28620 Case opener (manufacture)
28290 29240 Case packing machinery (manufacture)
20520 24620 Casein based adhesive (manufacture)
10519 15519 Casein production (manufacture)
20160 24160 Casein resins (manufacture)
13200 17210 Casement cloth weaving (manufacture) 25120 28120 Casements made of metal (manufacture) 26520 33500 Cases for clocks and watches (manufacture) 15120 19200 Cases for cutlery (not wooden) (manufacture)
15120 19200 Cases for jewellery (not wooden) (manufacture)
15120 19200 Cases for musical instruments (not wooden) (manufacture)
17219 21213 Cases made of corrugated cardboard (manufacture) 17219 21213 Cases made of corrugated fibreboard (manufacture) 17219 21213 Cases made of corrugated paper (manufacture) 15120 19200 Cases made of leather for cutlery, instruments, etc. (manufacture)
17219 21214 Cases made of non-corrugated cardboard (manufacture)
17219 21214 Cases made of non-corrugated paper (manufacture) 22220 25220 Cases made of plastic (manufacture)

SIC 2007	SIC 2003	Activity
16290	20510	Cases made of wood, for musical instruments (manufacture)
46390	51390	Cash and carry predominantly food (wholesale)
28230	30010	Cash and credit card imprinting and embossing machine (manufacture)
25990	28750	Cash boxes made of metal (manufacture)
28230	30010	Cash dispenser (manufacture)
28230	30010	Cash register (manufacture)
77330	71330	Cash register hire
46660	51850	Cash registers and similar machines incorporating a calculating device (wholesale)
01250	01139	Cashew nut growing
13200	17220	Cashmere woollen weaving (manufacture)
13200	17230	Cashmere worsted weaving (manufacture)
28921	29521	Casing hangars (manufacture)
24200	27220	Casing made of steel (manufacture)
10110	15112	Casings for sausages (manufacture)
92000	92710	Casino
28490	29430	Cask assembly machines (manufacture)
16240	20400	Cask heads made of wood (manufacture)
16290	20510	Caskets (except burial caskets) and cases made of wood (manufacture)
25920	28720	Casks made of aluminium (manufacture)
25910	28710	Casks made of iron or steel (manufacture)
16240	20400	Casks made of wood (manufacture)
01130	01110	Cassava growing
26400	32300	Cassette player (manufacture)
26400	32300	Cassette type recorders (manufacture)
14120	18210	Cassock (manufacture)
23610	26610	Cast concrete products (manufacture)
23110	26110	Cast glass (manufacture)
23610	26610	Cast stone units made of precast concrete (manufacture)
78101	92721	Casting activities for motion pictures, television and theatre
78101	74500	Casting agencies and bureaux
28910	29510	Casting machines (manufacture)
28910	29510	Casting machines for foundries (manufacture)
24530	27530	Casting of aluminium (manufacture)
24530	27530	Casting of aluminium products (manufacture)
24530	27530	Casting of beryllium products (manufacture)
24510	27510	Casting of ferrous metal (manufacture)
24510	27510	Casting of ferrous patterns (manufacture)
24510	27510	Casting of grey iron (manufacture)
24540	27540	Casting of heavy metal and precious metal (manufacture)
24510	27510	Casting of iron (manufacture)
24510	27510	Casting of iron products (finished or semi-finished) (manufacture)
24530	27530	Casting of light metal products (manufacture)
24530	27530	Casting of light metals (manufacture)
24530	27530	Casting of magnesium products (manufacture)
24540	27540	Casting of non-ferrous base metal (manufacture)
24540	27540	Casting of ornamental brass (manufacture)
24540	27540	Casting of other non-ferrous metals (manufacture)
24530	27530	Casting of scandium products (manufacture)
24510	27510	Casting of spheroidal graphite iron (manufacture)
24520	27520	Casting of steel (manufacture)
24520	27520	Casting of steel products (finished or semi-finished) (manufacture)
24530	27530	Casting of titanium products (manufacture)
24530	27530	Casting of yttrium products (manufacture)
23200	26260	Casting pot (manufacture)
01110	01110	Castor bean growing
10410	15420	Castor oil processing (manufacture)
10410	15410	Castor seed crushing (manufacture)
10810	15830	Castor sugar (manufacture)
01490	01250	Cat and dog raising and breeding
10920	15720	Cat food (manufacture)
58190	22150	Catalogue publishing
91011	92510	Cataloguing and preservation of collections
20590	24660	Catalysts (manufacture)
46120	51120	Catalytic preparations (commission agent)
29320	34300	Catalyzers (manufacture)
30120	35120	Catamaran (manufacture)
28990	35300	Catapult for launching aircraft (manufacture)
56210	55520	Catering contractor
28930	29530	Catering equipment (electric) (manufacture)
77390	71340	Catering equipment hire
84130	75130	Catering trade services administration and regulation (public sector)
32990	36639	Catgut (manufacture)
46460	51460	Catgut and similar materials (wholesale)
32500	33100	Catheter (manufacture)
26110	32100	Cathode ray tube (manufacture)
46520	51860	Cathode-ray oscilloscopes and cathode-ray oscillographs (wholesale)
46520	51860	Cathode-ray television picture tubes, television camera tubes, other cathode-ray tubes (wholesale)
94910	91310	Catholic Apostolic Church
96090	93059	Cats' home
23190	26150	Catseye reflector (manufacture)
10840	15870	Catsup (manufacture)
20200	24200	Cattle dip (manufacture)
01420	01210	Cattle farming
15110	19100	Cattle hide leather (manufacture)
01420	01210	Cattle raising and breeding for meat
01130	01120	Cauliflower growing
20301	24303	Caulking compounds and similar non-refractory filling or surfacing preparations (manufacture)
32500	33100	Cautery and light unit (manufacture)
10200	15209	Caviar (manufacture)
10200	15209	Caviar substitute (manufacture)
43290	45320	Cavity wall insulation
47430	52450	CD, DVD recorders (retail)
77220	71404	CDs and disks rental
22230	25239	Ceiling coverings made of plastic (manufacture)
27400	31500	Ceiling rose (manufacture)
22230	25239	Ceiling tiles made of plastic (manufacture)
08910	14300	Celestine pit
32200	36300	Cello (manufacture)
13200	17210	Cellular cloth weaving from yarn spun on the cotton system (manufacture)
61200	64200	Cellular network operations
26301	32202	Cellular phones (manufacture)
22190	25130	Cellular rubber products (manufacture)
47421	52488	Cellular telephones (retail)
16210	20200	Cellular wood panel (manufacture)
20160	24160	Cellulose (manufacture)

SIC 2007	SIC 2003	Activity

20160 24160 Cellulose acetate (manufacture)
22290 25240 Cellulose adhesive tape (manufacture)
20520 24620 Cellulose based adhesive (manufacture) 20160 24160 Cellulose ester and ether ester (manufacture) 17120 21120 Cellulose fibre webs (manufacture)
23650 26650 Cellulose fibre-cement articles (manufacture)
20160 24160 Cellulose nitrate (manufacture)
20301 24301 Cellulose paint (manufacture)
20301 24301 Cellulose varnish (manufacture)
17120 21120 Cellulose wadding (manufacture)
17220 21220 Cellulose wadding products (manufacture)
23510 26510 Cement (manufacture)
46730 51530 Cement (wholesale)
23610 26610 Cement articles for use in construction (manufacture)
20301 24301 Cement based paint (manufacture)
28990 29560 Cement block making machine (manufacture) 23200 26260 Cement made of dolomite (manufacture) 23200 26260 Cement made of fireclay (manufacture) 23200 26260 Cement made of high alumina (manufacture)
23200 26260 Cement made of silica and siliceous (manufacture) 28210 29210 Cement processing kiln (manufacture)
23610 26610 Cement products (manufacture)
23690 26660 Cement products n.e.c. (manufacture)
23200 26260 Cement refractory jointing (manufacture)
23610 26610 Cement wood products (manufacture)
30110 35110 Cementing of ships (manufacture)
96030 93030 Cemetery
84110 75110 Central government administration
28990 29560 Central greasing systems (manufacture) 25210 28220 Central heating boiler parts (manufacture) 94120 91120 Central midwives board
26200 30020 Central processing units for computers (manufacture)
86101 85112 Central sterile supply department (private sector) 86101 85111 Central sterile supply department (public sector) 81100 75140 Centralised supply and purchasing services (public sector)
28990 29560 Centrifugal clothes dryer (manufacture)
28132 29122 Centrifugal compressor (manufacture)
28131 29121 Centrifugal pump (manufacture)
28290 29240 Centrifuge (except laboratory type) (manufacture) 32500 29240 Centrifuge (laboratory type) (manufacture) 28290 29240 Centrifuge parts (except laboratory type) (manufacture)
46690 51870 Centrifuges (wholesale)
46130 51130 Ceramic articles used in construction (commission agent)
23440 26240 Ceramic chemical products (manufacture)
20301 24301 Ceramic colours (manufacture)
20301 24301 Ceramic glaze (manufacture)
28990 29560 Ceramic making machine (manufacture)
28990 29560 Ceramic pastes production machinery (shaped) (manufacture) 43330
45430 Ceramic stove fitting
18130 22250 Ceramic transfer litho engraving (manufacture)
23410 26210 Ceramic ware for domestic use (manufacture)
46690 51870 Cereal and dried vegetable milling or working machinery (wholesale)
10612 15612 Cereal breakfast foods (manufacture)

10720 15820 Cereal for sausage filler (manufacture)01110 01110 Cereal grains growing, except rice

10611 15611 Cereal grains, flour, groats, meal or pellets (manufacture)

77390 71340 Cereal milling and working machinery renting (non agricultural)

37000 90010 Cesspools emptying and cleaning

25930 28740 Chain (manufacture)

25930 28740 Chain (non-precision) (manufacture)

25930 28740 Chain (not articulated transmission) (manufacture)28150 29140 Chain (precision) (manufacture)

28220 29220 Chain pulley block (manufacture)

28240 29410 Chain saw parts (manufacture)

28240 29410 Chain saws (manufacture)

22290 25240 Chains made of plastic (manufacture)25730 28620 Chainsaw blades (manufacture)

31090 36110Chair (non-upholstered) (manufacture)

31090 36110Chair (upholstered) (manufacture)

31090 36110Chair frames made of wood (manufacture)

31090 36110Chair seating made of cane or wicker (manufacture)31010 36120 Chairs and seats for offices, workrooms, hotels, restaurants and public premises (manufacture)31090 36110 Chairs made of metal (manufacture)

31090 36110Chairs made of plastic (manufacture)31090 36110 Chaise longue (manufacture)

55201 55231 Chalets in holiday centres and holiday villages(provision of short-stay lodging in)

55209 55232 Chalets, not holiday centres, holiday villages oryouth hostels (self catering short-stay lodging)

08910 14300 Chalk (ground) production

32990 36631 Chalk for drawing or writing (manufacture)08110 14120 Chalk pit or quarry

94110 91110 Chamber of agriculture

94110 91110 Chambers of commerce organisations

16100 20100 Chamfered wood (manufacture)

15110 19100 Chamois leather (manufacture)

10831 15861 Chamomile herb infusions (manufacture)

27400 31500 Chandeliers (manufacture)

28131 29121 Channel impeller pump (manufacture)

64929 65229 Channel Islands and Isle of Man banking institutes 20140 24140 Charcoal (other than wood charcoal) (manufacture) 46719 51519 Charcoal (wholesale)

20140 24140 Charcoal burning (manufacture)

02200 02010 Charcoal production in the forest using traditionalmethods

99000 99000 Charge d'affaires

88990 85321 Charity administration

18129 22220 Chart printing (manufacture)

58110 22110 Chart publishing

47620 52470 Chart seller (retail)

51210 62209 Charter flights (freight)

51102 62201 Charter flights (passenger)

94120 91120Chartered institute of secretaries

79110 63301 Chartered rail travel

70221 74142Chartered secretary (firm acting as)71122 74206 Chartered surveyor

49390 60231 Charters, excursions and other occasional coachservices

29320 34300 Chassis and parts for coaches (manufacture)29100 34100 Chassis fitted with engine (manufacture)

SIC 2007	SIC 2003	Activity
30200	35200	Chassis for locomotive (manufacture)
29100	34100	Chassis for motor vehicles (manufacture)
30920	35430	Chassis for powered invalid carriage (manufacture)
29100	34100	Chassis with engine for commercial vehicle (manufacture)
49320	60220	Chauffeur driven service
15120	19200	Check strap made of leather (manufacture)
64921	65221	Check trader activities
28140	29130	Check valves (manufacture)
26511	33201	Checking instruments and appliances (electronic) (manufacture)
26513	33202	Checking instruments and appliances (non-electronic) (manufacture)
10512	15512	Cheese (manufacture)
46330	51331	Cheese (wholesale)
28930	29530	Cheese making machines (manufacture)
28930	29530	Cheese moulding machinery (manufacture)
28930	29530	Cheese press (manufacture)
28930	29530	Cheese pressing machinery (manufacture)
14120	18210	Chefs' clothing (manufacture)
46180	51180	Chemical contraceptive preparations based on hormones or spermicides (commission agent)
21200	24421	Chemical contraceptive products (manufacture)
20130	24130	Chemical elements (except metals) (manufacture)
46120	51120	Chemical elements in disk form and compounds doped for use in electronics (commission agent)
26110	24660	Chemical elements in disk form for use in electronics (manufacture)
71129	74204	Chemical engineering design projects
19201	23201	Chemical feedstock (manufacture)
46750	51550	Chemical glues (wholesale)
08910	14300	Chemical minerals mining
46180	51180	Chemical preparations and sensitized emulsions for photographic use (commission agent)
28410	29420	Chemical process machine tool (metal working) (manufacture)
46750	51550	Chemical products (wholesale)
46120	51120	Chemical products and residual products of the chemical or allied industries (commission agent)
46750	51550	Chemical products exporter (wholesale)
46750	51550	Chemical products importer (wholesale)
28302	29320	Chemical seed dresser for agricultural use (manufacture)
37000	90010	Chemical toilets servicing
17110	21110	Chemical woodpulp (manufacture)
46120	51120	Chemically modified animal or vegetable fats and mixtures (commission agent)
21100	24410	Chemically pure sugars (manufacture)
46460	51460	Chemically pure sugars, sugar ethers and sugar and their salts (wholesale)
09900	14300	Chemicals and fertiliser minerals mining support provided on a fee or contract basis
20590	24660	Chemicals specially prepared for laboratory use (manufacture)
71200	74300	Chemist
72190	73100	Chemistry research and experimental development
13200	17210	Chenille (manufacture)
18129	22220	Cheque book printing (manufacture)
28230	30010	Cheque writing and signing machine (manufacture)
12000	16000	Cheroot (manufacture)
11010	15910	Cherry brandy (manufacture)
01240	01139	Cherry growing
08990	14500	Chert quarry
01130	01120	Chervil growing
32409	36509	Chess (electronic) (manufacture)
93120	92629	Chess clubs
85510	92629	Chess instructor
32409	36509	Chess set (manufacture)
31090	36140	Chest of drawers (manufacture)
01250	01139	Chestnut growing
16240	20400	Chests made of wood (manufacture)
10822	15842	Chewing gum (manufacture)
12000	16000	Chewing tobacco (manufacture)
01110	01120	Chick pea growing
10120	15120	Chicken cuts (fresh, chilled or frozen) (manufacture)
01470	01240	Chicken farm (battery rearing)
10910	15710	Chicken food (manufacture)
10130	15139	Chicken paste (manufacture)
01470	01240	Chicken raising and breeding
10850	15139	Chicken ready to eat meals (manufacture)
01130	01120	Chicory growing
10612	15612	Chicory root drying (manufacture)
13200	17210	Chiffon weaving from yarn spun on the cotton system (manufacture)
88910	85321	Child day-care activities (charitable)
88910	85322	Child day-care activities (non-charitable)
88990	85321	Child guidance centre (charitable)
88990	85322	Child guidance centre (non-charitable)
55209	55239	Children's and other holiday homes
30920	35420	Children's bicycles and tricycles (non-motorised) (manufacture)
87900	85311	Children's boarding homes and hostels (charitable)
87900	85312	Children's boarding homes and hostels (non-charitable)
30920	36639	Children's carriage (manufacture)
46420	51422	Children's clothing (exporter) (wholesale)
46420	51422	Children's clothing (importer) (wholesale)
46420	51422	Children's clothing (wholesale)
87900	85311	Children's home (charitable)
87900	85312	Children's home (non-charitable)
86101	85112	Children's hospital (private sector)
86101	85111	Children's hospital (public sector)
47710	52422	Children's wear (retail)
91040	92530	Children's zoos
35300	40300	Chilled water for cooling purposes production and distribution
01280	01139	Chilli growing
01280	01139	Chillies and peppers capsicum sop. Growing
81223	74705	Chimney cleaning esters
43999	45250	Chimney construction
23320	26400	Chimney liners made of clay (manufacture) services
23320	26400	Chimney pots made of ceramic (manufacture)
23320	26400	Chimney pots made of clay (manufacture)
25110	28110	Chimneys made of steel (manufacture)
47599	52440	China (retail)
46440	51440	China (wholesale)
08120	14220	China clay (ground) production
08120	14220	China clay pit
08120	14220	China stone mine
46440	51440	China, glassware, wallpaper and cleaning materials exporter (wholesale)

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

46440 51440 China, glassware, wallpaper and cleaning materials importer (wholesale)
13300 17300 Chintz glazing (manufacture)
13200 17210 Chintz weaving from yarn spun on the cotton system (manufacture)
16210 20200 Chipboard agglomerated with non-mineral binding substances (manufacture)
28490 29430 Chipboard press (manufacture)
28923 29523 Chippers for road surfacing (manufacture)
86900 85140 Chiropodist (NHS)
86900 85140 Chiropodist (private)
86900 85140 Chiropractor clinic (own account)
20510 24610 Chlorate explosive (manufacture)
20301 24301 Chlorinated rubber based paint (manufacture)
28290 29240 Chlorination plant for water treatment (manufacture)
20130 24130 Chlorine and chloride (manufacture)
10821 15841 Chocolate (manufacture)
28930 29530 Chocolate and cocoa making machinery (manufacture)
46360 51360 Chocolate and sugar confectionery (wholesale)
47240 52240 Chocolate and sweets (retail)
10821 15841 Chocolate confectionery (manufacture)
10821 15841 Chocolate couverture (manufacture)
26110 31100 Choke and coil (electronic) (manufacture)
28120 29130 Choke manifolds (manufacture)
56101 55301 Chop house (licensed)
23140 26140 Chopped roving and strand made of glass fibre (manufacture)
25710 28610 Choppers (manufacture)
18129 22220 Christmas card printing (manufacture)
17290 36639 Christmas cracker (manufacture)
17290 36639 Christmas decorations made of paper (manufacture)
01290 02010 Christmas tree growing
27400 31500 Christmas tree lights (manufacture)
46470 51439 Christmas tree lights (wholesale)
28140 29130 Christmas trees and other assemblies of valves (manufacture)
26511 33201 Chromatographs (electronic) (manufacture)
24450 27450 Chrome alloys (manufacture)
23200 26260 Chrome magnesite shape (manufacture)
07290 13200 Chrome ore mining and preparation
25610 28510 Chrome plating (manufacture)
24450 27450 Chrome production and refining (manufacture)
15110 19100 Chrome tanning (manufacture)
24450 27450 Chrome wire made by drawing (manufacture)
23200 26260 Chromite articles (manufacture)
24450 27450 Chromium (manufacture)
20130 24130 Chromium compounds (excluding prepared pigments) (manufacture)
20120 24120 Chromium pigment (manufacture)
25610 28510 Chromium plating (manufacture)
46750 51550 Chromium, manganese, lead and copper oxides and hydroxides (wholesale)
86101 85112 Chronic sick hospital (private sector)
86101 85111 Chronic sick hospital (public sector)
26520 33500 Chronometer (manufacture)
94910 91310 Church Army
94910 91310 Church Commission
94910 91310 Church in Wales
94990 91330 Church Lads' Brigade

94910 91310 Church Missionary Society
94910 91310 Church of Christ Scientist
94910 91310 Church of England
94910 91310 Church of Ireland
94910 91310 Church of Scotland
85100 80100 Church schools at nursery and primary level
85310 80210 Church schools at secondary level
41201 45211 Churches and other ecclesiastical buildings construction
25920 28720 Churns made of aluminium (manufacture)
25910 28710 Churns made of iron or steel (manufacture)
16240 20400 Churns made of wood (manufacture)
10390 15330 Chutney (manufacture)
11030 15941 Cider (alcoholic) (manufacture)
11070 15980 Cider (non-alcoholic) (manufacture)
01240 01139 Cider apple growing
28930 29530 Cider making machinery (manufacture)
46342 51342 Cider merchant (wholesale)
10890 15899 Cider pectin (manufacture)
11030 15941 Cider perry (manufacture)
12000 16000 Cigar (manufacture)
16240 20400 Cigar box made of wood (manufacture)
22290 36639 Cigar holder (manufacture)
46350 51350 Cigar importer (wholesale)
28930 29530 Cigar making machinery (manufacture)
46350 51350 Cigar merchant (wholesale)
12000 16000 Cigarette (manufacture)
25990 28750 Cigarette cases made of metal (manufacture)
22290 36639 Cigarette holder (manufacture)
46350 51350 Cigarette importer (wholesale)
32990 36639 Cigarette lighter (manufacture)
46499 51479 Cigarette lighters (wholesale)
28930 29530 Cigarette making machinery (manufacture)
46350 51350 Cigarette merchant (wholesale)
17219 21219 Cigarette packets (manufacture)
17120 21120 Cigarette paper (uncut in rolls) (manufacture)
17290 21259 Cigarette paper in booklets (manufacture)
17290 21259 Cigarette tube (manufacture)
47260 52260 Cigarettes (retail)
12000 16000 Cigarillo (manufacture)
47260 52260 Cigars (retail)
46170 51170 Cigars, cheroots, cigarillos and cigarettes (commission agent)
26702 33403 Cine camera (manufacture)
59140 92130 Cine club
59140 92130 Cinema
59140 92130 Cinema club
47110 52113 Cinema kiosk (retail)
26702 33403 Cinematographic equipment (manufacture)
59120 92119 Cinematographic film colouring, developing, printing or repairing
20590 24640 Cinematographic sensitized film (manufacture)
01280 01139 Cinnamon growing
24420 27420 Circles made of aluminium (manufacture)
24440 27440 Circles made of brass (manufacture)
24440 27440 Circles made of copper (manufacture)
27120 31200 Circuit breaker (moulded case) (manufacture)
27120 31200 Circuit breaker for power (manufacture)
26110 31200 Circuit protection device (electronic) (manufacture)

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SIC 2007	SIC 2003	Activity
82190	74850	Circular addressing
24200	27220	Circular hollow sections made of steel (manufacture)
28240	29410	Circular or reciprocating saws (manufacture)
25730	28620	Circular sawblades (manufacture)
25730	28620	Circular saws for all materials (manufacture)
28131	29121	Circulator pump (manufacture)
90010	92349	Circus
77390	71340	Circus tent rental
22230	25239	Cistern floats made of plastic (manufacture)
25290	28210	Cistern made of metal exceeding 300 litres (manufacture)
22230	25239	Cisterns made of plastic (manufacture)
88990	85321	Citizens Advice Bureau
94990	91330	Citizens initiative or protest movements
20140	24140	Citric acid (manufacture)
85320	80220	City and Guilds of London Institute
94110	91110	City guild (goldsmiths' company, stationers' company, etc.)
94910	91310	City mission
56101	55301	Civic restaurant (licensed)
94990	91330	Civic trust
84220	75220	Civil defence administration
42990	45213	Civil engineering construction
42220	45213	Civil engineering constructions for long-distance communication
42220	45213	Civil engineering constructions for power lines
42220	45213	Civil engineering constructions for power plants
42220	45213	Civil engineering constructions for urban communication
42990	45213	Civil engineering contractor
46630	51820	Civil engineering machinery and equipment (wholesale)
77320	71320	Civil engineering machinery and equipment rental (without operator)
72190	73100	Civil engineering research and experimental development
43341	45440	Civil engineering structure painting
85320	80220	Civil service college
23610	26610	Cladding wall panels made of precast concrete (manufacture)
43999	45250	Claddings (external)
43330	45430	Claddings (internal)
96090	93059	Clairvoyant
25730	28620	Clamp (manufacture)
52219	63210	Clamping and towing away of vehicles
28290	29240	Clarification plant for water treatment (manufacture)
25990	28750	Clasps (manufacture)
46130	51130	Clay (commission agent)
46730	51530	Clay (wholesale)
09900	14220	Clay and kaolin mining support services provided on or contract basis
08120	14220	Clay extraction for brick, pipe and tile production
08120	14220	Clay mining
08120	14220	Clay quarrying
96010	93010	Clean towel company
20412	24512	Cleaning and polishing preparations (manufacture)
13950	17530	Cleaning cloth (non-woven) (manufacture)
13923	17403	Cleaning cloth (not of bonded fibre fabric) (manufacture)
47789	52489	Cleaning materials (retail)
46440	51440	Cleaning materials (wholesale)
81222	74704	Cleaning of heat and air ducts
81229	74709	Cleaning of industrial machinery
81299	74709	Cleaning of the inside of road and sea tankers
20412	24512	Cleaning powder (other than detergents and scouring powder) (manufacture)
81210	74701	Cleaning service for factory, office or shop
81222	74704	Cleaning services for computer rooms
81222	74704	Cleaning services for hospitals
81299	74709	Cleaning services n.e.c.
39000	90030	Cleaning up oil spills and other pollutions in ocean and seas including coastal areas
39000	90030	Cleaning up oil spills and other pollutions in surface water
39000	90030	Cleaning up oil spills and other pollutions on land
28290	29240	Cleaning, filling, packing or wrapping machine parts (manufacture)
28930	29530	Cleaning, sorting or grading machines for seeds, grain or dried leguminous vegetables (manufacture)
46640	51830	Cleaning, wringing, ironing, pressing, dyeing, etc. Machines for textile yarn and fibres (wholesale)
17220	21220	Cleansing tissues (manufacture)
10822	15842	Clear gum confectionery (manufacture)
20590	24640	Clearing agents for photographic use (manufacture)
66110	67110	Clearing house (banking)
30120	35120	Cleat for pleasure boat (manufacture)
25710	28610	Cleavers (manufacture)
01230	01139	Clementine growing
14120	18210	Clerical vestment (manufacture)
14131	18221	Climbing clothing for men and boys (weatherproof) (manufacture)
14132	18222	Climbing clothing for women and girls (weatherproof) (manufacture)
32300	36400	Climbing frame (manufacture)
86900	85140	Clinic (health service)
75000	85200	Clinico-pathological and other diagnostic activities pertaining to animals
23510	26510	Clinkers and hydraulic cement (manufacture)
96090	93059	Cloakroom (not railway, etc.)
14131	18221	Cloaks for men and boys (manufacture)
14132	18222	Cloaks for women and girls (manufacture)
26520	33500	Clock (electric) (manufacture)
26520	33500	Clock (manufacture)
23190	26150	Clock and watch glass (manufacture)
26520	33500	Clock case made of wood (manufacture)
47770	52484	Clocks (retail)
46480	51479	Clocks (wholesale)
15200	19300	Clog (manufacture)
26309	32202	Closed circuit television equipment (CCTV)
25500	28400	Closed die forging (manufacture)
28290	29240	Closing machinery (manufacture) (manufacture) a fee
25920	28720	Closures made of metal (manufacture)
22220	25220	Closures made of plastic (manufacture)
46410	51410	Cloth (wholesale)
13300	17300	Cloth beetling (manufacture)
13300	17300	Cloth crease resisting treatment (manufacture)
13300	17300	Cloth degreasing (manufacture)
13300	17300	Cloth dressing (manufacture)
13300	17300	Cloth dyeing (manufacture)
13300	17300	Cloth embossing (manufacture)
13300	17300	Cloth ending and mending (manufacture)

SIC 2007	SIC 2003	Activity

13300 17300 Cloth finishing (manufacture)
13300 17300 Cloth fireproofing (manufacture)
13200 17210 Cloth made of cotton and similar man made fibres (manufacture)
25930 28730 Cloth made of wire (manufacture)
13300 17300 Cloth mercerising (manufacture)
46410 51410 Cloth merchant (wholesale)
13300 17300 Cloth piece goods printing (manufacture)
13300 17300 Cloth proofing (manufacture)
13300 17300 Cloth rot proofing (manufacture)
13300 17300 Cloth shrinking (manufacture)
13300 17300 Cloth waterproofing
27510 29710 Clothes airer (electric) (manufacture)
32910 36620 Clothes brush (manufacture)
74100 74872 Clothes designer
16290 20510 Clothes hangers made of wood (manufacture)
77299 71409 Clothes hire
25990 28750 Clothes hook (manufacture)
16290 20510 Clothes horse made of wood (manufacture)
22290 25240 Clothes pegs made of plastic (manufacture)
16290 20510 Clothes pegs made of wood (manufacture)
46439 51439 Clothes washing and drying machines for domesticuse (wholesale)
46160 51160 Clothing (commission agent)
46420 51429 Clothing (wholesale)
14190 18249 Clothing accessories (manufacture)
46420 51429 Clothing accessories (wholesale)
47710 52421 Clothing accessories made of fur or leather (retail)
46420 51421 Clothing accessories made of fur or leather (wholesale)
47710 52422 Clothing accessories, children's, other than of fur orleather (retail)
47710 52424 Clothing accessories, men's, other than of fur orleather (retail)
47710 52423 Clothing accessories, women's, other than of fur orleather (retail)
46420 51429 Clothing exporter (wholesale)
47510 52410 Clothing fabrics (retail)
46420 51429 Clothing importer (wholesale)
23990 26821 Clothing made of asbestos (manufacture)
14200 18300 Clothing made of sheepskin (manufacture)
46420 51429 Clothing outfitter (wholesale)
14190 18249 Clothing pad (manufacture)
46410 51410 Clothing textiles (wholesale)
10511 15511 Clotted cream (manufacture)
01280 01139 Clove growing
01190 01110 Clover growing
32300 36400 Clubs (manufacture)
28150 29140 Clutch (not for motor vehicle) (manufacture)
29320 34300 Clutch and parts for motor vehicles (manufacture)
23990 26821 Clutch linings made of asbestos (manufacture)
46690 51870 Clutches and shaft couplings including universal joints (excluding motor vehicles) (wholesale)
29100 34100 Coach (manufacture)
25940 28740 Coach bolts and screws (manufacture)
29100 34100 Coach engine (manufacture)
49390 60231 Coach hire with driver
49390 60231 Coach services (non-scheduled)
13960 17542 Coach trimming (manufacture)
85510 92629 Coaches of sport

29201 34201 Coachwork for motor vehicles (manufacture) 46120 51120 Coal (commission agent)
46719 51519 Coal (wholesale)
47789 52489 Coal and coke (retail)
19100 23100 Coal carbonisation (manufacture)
05101 10101 Coal cleaning, sizing, grading and pulverising (hard, deep mined)
05102 10102 Coal cleaning, sizing, grading and pulverising (hard, opencast)
05102 10102 Coal contractor (opencast)
28921 29521 Coal cutter (manufacture)
46719 51519 Coal depot (wholesale)
46120 51120 Coal factor (commission agent)
46719 51519 Coal merchant (wholesale) 05101 10101 Coal mine (deep or drift)
46630 51820 Coal or rock cutters and tunnelling machinery (wholesale)
28921 29521 Coal plough (manufacture)
05101 10101 Coal preparation (deep mined)
05102 10102 Coal preparation (opencast)
28921 29521 Coal preparation plant (manufacture)
49500 60300 Coal pumping station
05102 10102 Coal recovery from dumps, tips etc. 05102 10102 Coal recovery of from culm banks 05102 10102 Coal site (opencast)
52103 63129 Coal stockyard for land transport activities 52101 63129 Coal stockyard for water transport activities 35210
40210 Coal tar (crude) from gas works
19201 10103 Coal tar (crude) from manufactured fuel plants (manufacture)
20140 24140 Coal tar (refined) (manufacture)
20140 24140 Coal tar distillation (manufacture)
20140 24140 Coal tar naphtha (manufacture)
23990 26829 Coal tar pitch, articles thereof (manufacture) 05101 10101 Coal washing (deep mined)
05102 10102 Coal washing (opencast)
84240 75240 Coast guards administration and operation 42910 45240 Coastal defence construction
50200 61102 Coastal water transport (freight) 50100 61101 Coastal water transport for passengers
16290 20510 Coat and hat racks made of wood (manufacture) 22290 25240 Coat hangers made of plastic (manufacture) 16290 20510 Coat hangers made of wood (manufacture) 23910 26810 Coated abrasives (manufacture)
25930 28730 Coated electrodes for electric arc-welding (manufacture)
25930 28730 Coated or cored wire (manufacture) 08120 14210 Coated roadstone production
08120 14210 Coated tarmacadam production
28990 29560 Coating machine for bookbinding or paper working (manufacture)
28940 29540 Coating machinery for textiles (manufacture) 13300 17300 Coating of purchased garments (manufacture) 13200 17220 Coating woollen weaving (manufacture)
13200 17230 Coating worsted weaving (manufacture) 14131 18221 Coats for men and boys (manufacture) 14132 18222 Coats for women and girls (manufacture) 31010 36120 Coat stand (non-domestic) (manufacture)
46439 51439 Co-axial cable and co-axial conductors for domestic use (wholesale)

SIC 2007	SIC 2003	Activity
46690	51870	Co-axial cable and co-axial conductors for industrial use (wholesale)
24450	27450	Cobalt (manufacture)
07290	13200	Cobalt mining and preparation
16240	20400	Cock made of wood (manufacture)
03110	05010	Cockle gathering
28140	29130	Cocks for industrial use (manufacture)
31090	36140	Cocktail cabinet (manufacture)
10821	15841	Cocoa (manufacture)
46370	51370	Cocoa (wholesale)
10821	15841	Cocoa bean roasting and dressing (manufacture)
01630	01139	Cocoa beans, peeling and preparation
10821	15841	Cocoa butter (manufacture)
10821	15841	Cocoa fat (manufacture)
01270	01139	Cocoa growing
10821	15841	Cocoa oil (manufacture)
10821	15841	Cocoa powder (manufacture)
10821	15841	Cocoa products (manufacture)
10390	15330	Coconut flakes including desiccated but (not sugared) (manufacture)
01260	01139	Coconut growing
10410	15420	Coconut oil refining (manufacture)
93210	92330	Coconut shy
10410	15420	Cod liver oil refining (manufacture)
10832	15862	Coffee (manufacture)
46370	51370	Coffee (wholesale)
10832	15862	Coffee and chicory essence and extract (manufacture)
10832	15862	Coffee bags (manufacture)
56102	55302	Coffee bar, room or saloon (unlicensed)
10832	15862	Coffee blending (manufacture)
10832	15862	Coffee essence and extract (manufacture)
10832	15862	Coffee extracts and concentrates (manufacture)
10832	15862	Coffee grinding and roasting (manufacture)
01270	01139	Coffee growing
46110	51110	Coffee husks and skins (commission agent)
27510	29710	Coffee or tea makers (electric) (manufacture)
27510	29710	Coffee percolator (electric) (manufacture)
10832	15862	Coffee processing (manufacture)
28930	29530	Coffee processing machinery (manufacture)
10832	15862	Coffee products (manufacture)
10832	15862	Coffee roasting (manufacture)
10832	15862	Coffee substitutes (manufacture)
31090	36140	Coffee table (manufacture)
46370	51370	Coffee, tea, cocoa and spices exporter (wholesale)
46370	51370	Coffee, tea, cocoa and spices importer (wholesale)
30110	35110	Coffer-dam construction (manufacture)
32990	20510	Coffin board (manufacture)
13100	17120	Coffin cloth (manufacture)
13960	17542	Coffin frilling (manufacture)
32990	20510	Coffins (manufacture)
96020	93020	Coiffeur
29310	31610	Coil ignition (manufacture)
25930	28740	Coil springs (not for motor vehicle suspension) (manufacture)
24440	27440	Coils made of copper (manufacture)
32401	36501	Coin operated games (manufacture)
28230	30010	Coin sorting, wrapping and counting machines (manufacture)
32110	36210	Coin striking (manufacture)
92000	92710	Coin-operated gambling machine establishments
93290	92729	Coin-operated games arcade (other than gaming machines)
32110	36210	Coins (manufacture)
47789	52485	Coins (retail)
46719	51519	Coke (wholesale)
35210	40210	Coke gas
46719	51519	Coke merchant (wholesale)
46120	51120	Coke or semi-coke of coal (commission agent)
19100	23100	Coke oven gas (manufacture)
19100	23100	Coke oven products (manufacture)
19201	23201	Coke petroleum (manufacture)
19100	23100	Coke production (manufacture)
10410	15420	Cola oil refining (manufacture)
11070	15980	Cola production (manufacture)
25990	28750	Colanders made of metal (manufacture)
22290	25240	Colanders made of plastic (manufacture)
26110	32100	Cold cathode valve or tube (manufacture)
25730	28620	Cold chisel (manufacture)
24340	27340	Cold drawing or stretching of steel wire (manufacture)
24310	27310	Cold drawn steel bars (manufacture)
24310	27310	Cold drawn steel sections (manufacture)
24310	27310	Cold finished steel bars (manufacture)
24330	27330	Cold formed steel angles (manufacture)
24330	27330	Cold formed steel channels (manufacture)
24330	27330	Cold formed steel sections (manufacture)
25500	28400	Cold pressing of base metals (manufacture)
24320	27320	Cold reduced steel slit strip <600 mm (manufacture)
24100	27100	Cold reduced steel slit strip >600 mm (manufacture)
24100	27100	Cold reduced wide steel strip >600 mm (cold reduced coil) (manufacture)
24320	27320	Cold rolled narrow steel strip <600 mm (manufacture)
24100	27100	Cold rolled narrow steel strip >600 mm
24100	27100	Cold rolled steel plate (manufacture) (manufacture)
24100	27100	Cold rolled steel sheet (manufacture)
24100	27100	Cold rolled steel slit strip >600 mm (manufacture)
24100	27100	Cold rolled wide steel strip >600 mm (cold rolled wide coil) (manufacture)
25500	28400	Cold stamping of base metals (manufacture)
28250	29230	Cold storage equipment (manufacture)
52102	63121	Cold store for air transport activities
52103	63121	Cold store for land transport activities
52101	63121	Cold store for water transport activities
24330	27330	Cold-folded ribbed sheets and sandwich panels (manufacture)
24330	27330	Cold-formed ribbed sheets and sandwich panels (manufacture)
30120	35120	Collapsible boat (not inflatable dinghy) (manufacture)
16240	20400	Collapsible box made of wood (manufacture)
32990	36639	Collar stud (manufacture)
14190	18249	Collars for men and boys (manufacture)
28990	29560	Collating machine for bookbinders (manufacture)
28230	30010	Collating machinery (manufacture)
18140	22230	Collating of books, brochures, etc. (manufacture)
46770	51570	Collecting, sorting, separating, stripping of used goods to obtain reusable parts (wholesale)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

65120 66031 Collecting society
38110 90020 Collection and removal of non hazardous debris and rubble
38120 23300 Collection and treatment of radioactive nuclear waste
38120 90020 Collection of bio-hazardous waste
86900 85140 Collection of female human urine for hormone extraction
38110 90020 Collection of non hazardous construction and demolition waste
38110 90020 Collection of non hazardous recyclable materials
38110 90020 Collection of non hazardous waste output of textile mills
38120 90020 Collection of nuclear waste
36000 41000 Collection of rain water
38110 90030 Collection of refuse in litter bins in public places
38120 90020 Collection of used oil from shipment or garages
36000 41000 Collection of water from rivers, lakes, wells
46499 51479 Collectors stamps and coins (wholesale)
85320 80220 College of agriculture
85320 80220 College of art
85421 80302 College of higher education (degree level)
85320 80220 College of music
85410 80301 College of nursing
85320 80220 College of technology
46120 51120 Colloidal precious metals (commission agent)
18129 22220 Collotype printing (manufacture)
20420 24520 Colognes (manufacture)
26511 33201 Colorimeters (electronic) (manufacture)
26513 33202 Colorimeters (non-electronic) (manufacture)
32500 33401 Colour filter (unmounted) (manufacture)
20120 24120 Colour lake (manufacture)
26110 32100 Colour television tubes (manufacture)
23110 26110 Coloured glass (manufacture)
46750 51550 Colouring matter (wholesale)
20120 24120 Colours for food and cosmetics (manufacture)
20120 24120 Colours in dry, liquid or paste form (manufacture)
25110 28110 Column (fabricated structural steelwork) (manufacture)
25300 28300 Column (process plant) (manufacture)
01110 01110 Colza growing
10410 15410 Colza oil production (manufacture)
28940 29540 Comb for textile machinery (manufacture)
13100 17120 Combers' shoddy for woollen industry (manufacture)
13940 17520 Combination rope (manufacture)
28302 29320 Combine harvester (manufacture)
81100 70320 Combined facilities support activities
82110 74850 Combined office admin. Services (e.g. Reception, billing, record keeping, personnel, mail services)
82110 74850 Combined secretarial activities
13100 17130 Combing and slubbing of wool on a commission basis (manufacture)
15110 19100 Combing leather (manufacture)
28940 29540 Combing machinery for textiles (manufacture)
27510 29710 Combs (electric) (manufacture)
32990 36639 Combs (other than of hard rubber, plastic or metal)(manufacture)
22190 36639 Combs of hard rubber (manufacture)
25990 36639 Combs of metal (manufacture)
22290 36639 Combs of plastic (manufacture)
46499 51479 Combs, hair-slides, hairpins, curling pins (wholesale)

47781 52486 Commercial art gallery (retail)
73110 74402 Commercial artist
41201 45211 Commercial buildings construction
81210 74701 Commercial cleaner
77390 71340 Commercial machinery rental and operating leasing 17230 22220 Commercial notebooks (manufacture)
78200 74500 Commercial or industrial workers (supply) (temporary employment agency)
18129 22220 Commercial printed matter printing (manufacture) 85320 80220 Commercial school
84130 75130 Commercial services administration and regulation (public sector)
17230 22220 Commercial stationery (manufacture)
17230 22220 Commercial stationery binders (manufacture)
17230 22220 Commercial stationery business forms (manufacture) 17230 22220 Commercial stationery registers (manufacture) 77120 71219 Commercial vehicle (light) hire (without driver) 77120 71219 Commercial vehicle (medium and heavy type) contract hire (without driver)
77120 71219 Commercial vehicle (medium and heavy type) hire (without driver)
49410 60249 Commercial vehicle hire with driver 52219 63210 Commercial vehicle park
29100 34100 Commercial vehicles (manufacture)
28290 29240 Comminution plant for effluent treatment (manufacture)
13300 17300 Commission mending of textiles (manufacture) 52220 63220 Commissioners of northern lighthouses
64991 65233 Commodities dealing for investment purposes
35230 40220 Commodity and transport capacity exchanges for gaseous fuels
66120 67122 Commodity contracts brokerage
66110 67110 Commodity contracts exchanges administration 93290 92729 Common (local authority or municipally owned) 99000 99000 Commonwealth Armed Forces
99000 99000 Commonwealth Government Service
99000 99000 Commonwealth Institute
99000 99000 Commonwealth Secretariat
99000 99000 Commonwealth War Graves Commission
52230 63230 Communication centre (civil air)
26301 32201 Communication devices using infrared signal (e.g. Remote controls) (manufacture)
77390 71340 Communication equipment rental and operating leasing
42220 45213 Communication lines construction
84130 75130 Communication services administration and regulation (public sector)
61900 64200 Communications telemetry
84120 75120 Community amenity services administration (public sector)
88990 85321 Community and neighbourhood activities (charitable) 88990 85322 Community and neighbourhood activities (non-charitable)
94990 91330 Community centre
86230 85130 Community dental service clinics
86900 85140 Community health service
35300 40300 Community heating plant
87900 85311 Community homes for children (charitable) 87900 85312 Community homes for children (non-charitable) 86900 85140 Community medical service clinics
94990 91330 Community organisations

SIC 2007	SIC 2003	Activity
86900	85140	Community psychiatric nurse (NHS)
26400	32300	Compact disc players (manufacture)
47430	52450	Compact disc players (retail)
18201	22310	Compact disc reproduction from master copies (manufacture)
59200	22140	Compact disc sound recording publishing
46431	51431	Compact discs (recorded) (wholesale)
84230	75230	Companies court
66190	67130	Company promoting
66110	67110	Company registration agent
69202	74122	Company secretary
26511	33201	Comparators (electronic) (manufacture)
26513	33202	Comparators (non-electronic) (manufacture)
26513	33202	Compass (drawing) (manufacture)
26513	33202	Compass (magnetic) (manufacture)
69201	74121	Compilation of financial statements
43320	45420	Completion of ceilings
26520	33500	Components for clocks and watches (manufacture)
28990	29560	Composing room equipment (manufacture)
20590	24660	Composite diagnostic or laboratory reagents (manufacture)
71200	74300	Composition and purity testing and analysis
23990	26821	Composition asbestos (manufacture)
16290	20520	Composition cork (manufacture)
18130	22240	Composition for printing (manufacture)
15110	19100	Composition leather (manufacture)
10910	15710	Compound animal feed (manufacture)
46210	51210	Compound feed stuff (wholesale)
20150	24150	Compound fertiliser (manufacture)
20530	24630	Compound flavour (blended flavour concentrates) (manufacture)
46120	51120	Compound plasticisers and stabilisers for rubber or plastics (commission agent)
20590	24660	Compound plasticisers for rubber or plastics (manufacture)
46750	51550	Compounds of rare earth metals (wholesale)
46120	51120	Compounds of rare earth metals, yttrium or scandium (commission agent)
46750	51550	Compounds of yttrium and scandium (wholesale)
46120	51120	Compounds with nitrogen functions (commission agent)
85310	80210	Comprehensive schools
35300	40300	Compressed air production and distribution
20110	24110	Compressed industrial gases (manufacture)
26513	33202	Compressibility testing equipment (non-electronic) (manufacture)
28110	29110	Compression ignition engines for industrial use (manufacture)
28110	29110	Compressor engine (manufacture)
28132	29122	Compressor for air or other gas (manufacture)
28132	29122	Compressor for refrigerators (manufacture)
28132	29122	Compressor parts (manufacture)
46690	51870	Compressors for refrigerating equipment (wholesale)
46690	51870	Compressors for use in civil aircraft (wholesale)
84300	75300	Compulsory social security administration concerning family and child benefits
84300	75300	Compulsory social security administration concerning government employee pension schemes
84300	75300	Compulsory social security administration concerning permanent loss of income due to disablement
84300	75300	Compulsory social security administration concerning retirement pensions
84300	75300	Compulsory social security administration concerning unemployment benefits
84300	75300	Compulsory social security administration of sickness, maternity or temporary disablement benefits
26200	30020	Computer (electronic) (manufacture)
62020	72100	Computer audit consultancy services
62020	72220	Computer consultancy (software)
96090	93059	Computer dating agency
26800	24650	Computer discs and tapes (unrecorded) (manufacture)
46140	51140	Computer equipment (commission agent)
62030	72300	Computer facilities management activities
47410	52485	Computer games (retail)
62011	72220	Computer games design
58210	72210	Computer games publishing
62020	72100	Computer hardware acceptance testing services
72190	73100	Computer hardware research and experimental development
18203	22330	Computer media reproduction (manufacture)
46620	51810	Computer numerically controlled (CNC) machine tools (wholesale)
28410	29420	Computer numerically controlled (CNC) metal cutting machines (manufacture)
26200	30020	Computer peripheral equipment (manufacture)
47410	52482	Computer peripheral equipment (retail)
17230	21230	Computer print-out paper (manufacture)
26200	32300	Computer projectors (video beamers) (manufacture)
62090	72600	Computer related activities (other)
85320	80220	Computer repair training
62020	72100	Computer site planning services
26200	30020	Computer store (manufacture)
26200	30020	Computer system (manufacture)
26200	30020	Computer terminal unit (manufacture)
18130	22240	Computer to plate CTP processing of plates for relief printing (manufacture)
18130	22240	Computer to plate CTP processing of plates for relief printing
85590	80429	Computer training
46620	51810	Computer-controlled machine tools (wholesale)
46640	51830	Computer-controlled machinery for sewing and knitting machines (wholesale)
46640	51830	Computer-controlled machinery for the textile industry (wholesale)
47410	52482	Computers and non-customised software (retail)
46510	51840	Computers and peripheral equipment (wholesale)
77330	71330	Computing machinery and equipment rental and operating leasing
10910	15710	Concentrated animal feed and feed supplements (manufacture)
10519	15519	Concentrated dried milk (manufacture)
90040	92320	Concert halls operation
32200	36300	Concertina (manufacture)
90010	92311	Concerts production
23690	26660	Concrete articles n.e.c. (manufacture)
28990	29560	Concrete block making machinery (manufacture)
25610	28510	Concrete coating of metals (manufacture)
23630	26630	Concrete dry mix (manufacture)
49410	60249	Concrete haulage by a unit which is (not the manufacturer)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

28923 29523 Concrete mixer (manufacture)
28923 29523 Concrete placing machinery (manufacture)
28131 29121 Concrete pumps (manufacture)
28923 29523 Concrete surfacing machinery (manufacture)
43999 45250 Concrete work (building)
29100 34100 Concrete-mixer lorries (manufacture)
06200 11100 Condensate extraction
20160 24160 Condensation, polycondensation and polyadditionproducts (plastic material) (manufacture)
10511 15511 Condensed milk (manufacture)
25300 28300 Condenser (steam) (manufacture)
25300 28300 Condenser (vapour) (manufacture)
28250 29230 Condenser for air conditioning equipment (air orwater cooled) (manufacture)
28250 29230 Condenser unit for refrigerator (manufacture)25990 28750 Condiment set made of metal (manufacture) 10840 15870 Condiments (manufacture)
25930 28730 Conductor cable made of steel reinforced aluminium(manufacture)
23320 26400 Conduits made of ceramic (manufacture)23320 26400 Conduits made of clay (manufacture) 10822 15842 Confectioner's novelty (manufacture)
47110 52111 Confectioners, tobacconists and newsagents (CTN's)(retail)
46170 51170 Confectionery (commission agent)
10822 15842 Confectionery (medicated) (manufacture)
46360 51360 Confectionery (wholesale)
28930 29530 Confectionery machines and processing equipment(manufacture)
10821 15841 Confectionery made of chocolate (manufacture)10822 15842 Confectionery made of sugar (manufacture) 94110 91110 Confederation of British industry
68310 70310 Conference centre letting (not self-owned)68202 70201 Conference centre letting (self owned) 82302 74874 Conference organisers
17290 36639 Confetti paper (manufacture)
32990 36639 Conjuring apparatus (manufacture)
90010 92311 Conjuror
43210 45310 Connecting of electric appliances and householdequipment, including baseboard heating
94990 91330 Conservation and Preservation Society
94920 91320 Conservative and Unionist Party
94920 91320 Conservative Association
46499 51477 Construction and constructional toys (wholesale) 38110 90020 Construction and demolition waste collection 28923 29523 Construction equipment (manufacture)
41201 45211 Construction factories
46630 51820 Construction machinery (wholesale)
77320 71320 Construction machinery and equipment rental (without operator)
43999 45500 Construction machinery and equipment rental withoperator
46630 51820 Construction machinery exporter (wholesale)
46630 51820 Construction machinery importer (wholesale)
47520 52460 Construction materials (retail)
46730 51530 Construction materials (wholesale)
46770 51570 Construction materials from demolished buildings(wholesale)
46130 51130 Construction materials made of glass (commissionagent)
32409 36509 Construction model (manufacture)

41201 45211 Construction of airport buildings

41201 45211 Construction of arts, cultural or leisure facilitiesbuildings

41201 45211 Construction of assembly plants

42990 45213 Construction of chemical plants (except buildings) 42210 45213 Construction of civil engineering constructions for long-distance and urban pipelines 41201 45211 Construction of commercial buildings

41202 45212 Construction of domestic buildings

30110 35110 Construction of drilling platforms, floating orsubmersible (manufacture)

41201 45211 Construction of hospitals

41202 45212 Construction of housing association and local authority housing

41201 45211 Construction of indoor sports facilities

42990 45213 Construction of industrial facilities (except buildings) 42210 45240 Construction of irrigation systems (canals)

41202 45212 Construction of multi-family buildings, includinghigh-rise buildings

30110 35110 Construction of non-recreational inflatable rafts41201 45211 Construction of office buildings

42110 45230 Construction of other vehicular and pedestrian ways

42990 45230 Construction of outdoor sports facilities (exceptbuildings)

43999 45211Construction of outdoor swimming pools41201 45211 Construction of parking garages

41201 45211 Construction of primary, secondary and otherschools

42210 45213 Construction of pumping stations

42990 45213 Construction of refineries (except buildings) 41201 45211 Construction of religious buildings

41202 45212 Construction of residential buildings: 42210 45213 Construction of sewage disposal plants42210 45213 Construction of sewer systems

41202 45212 Construction of single-family houses

42130 45213 Construction of tunnels

42120 45230 Construction of underground railways 42220 45213 Construction of utility projects for electricity42220 45213 Construction of utility projects for telecommunications

41201 45211 Construction of warehouses

41201 45211 Construction of workshops

84130 75130 Construction services administration and regulation (public sector)

32409 36509 Construction sets (manufacture)

25110 28110 Construction site huts made of metal (manufacture)71111 74201 Construction supervision

42990 45213 Constructional engineering

32409 36509 Constructional toy (manufacture)

99000 99000 Consular office

84210 75210 Consular services abroad administration andoperation (public sector)

71129 74204 Consultant civil or structural engineer71121 74205 Consultant design engineer

71129 74204 Consultant engineer (civil or structural)

71121 74205 Consultant engineer (other than civil or structural)94990 91330 Consumer associations

64921 65221 Consumer credit granting company (other thanbanks or building societies)

94990 91330 Consumers' association

32500 33401 Contact lens (manufacture)

SIC 2007	SIC 2003	Activity
47782	52487	Contact lenses (retail)
27900	31300	Contacts and other electrical carbon and graphite products (manufacture)
15120	19200	Container for typewriter, radio, etc. Made of leather (manufacture)
28220	29220	Container handling crane (manufacture)
52241	63110	Container handling services for water transport activities
23190	26150	Container made of glass tubing (hygienic and pharmaceutical) (manufacture)
22220	25220	Container made of plastic for closed transit (manufacture)
77390	71219	Container rental
30110	35110	Container ship (manufacture)
17219	21219	Containers and canisters made of cardboard n.e.c. (manufacture)
46690	51870	Containers designed for carriage by one or more means of transport (wholesale)
29202	34202	Containers for carriage by one or more modes of transport (manufacture)
25290	28210	Containers for compressed or liquefied gases made metal (manufacture)
29202	34202	Containers for freight (manufacture)
17219	21219	Containers made of corrugated paper or paperboard n.e.c. (manufacture)
25920	28720	Containers made of foil (manufacture)
23130	26130	Containers made of glass or crystal (manufacture)
25290	28210	Containers made of metal of a capacity exceeding 300 litres (manufacture)
17219	21219	Containers made of paper and paperboard n.e.c. (manufacture)
17219	21219	Containers made of solid board n.e.c. (manufacture)
23130	26130	Containers made of tubular glass (manufacture)
46130	51130	Containers made of wood (commission agent)
16240	20400	Containers made of wood (manufacture)
65120	66031	Contingency insurance
85590	80429	Continuation school
87300	85311	Continuing care retirement communities (charitable)
87300	85312	Continuing care retirement communities (non-charitable)
24100	27100	Continuous cast products made of steel (manufacture)
24420	27420	Continuous cast rod made of aluminium (manufacture)
24440	27440	Continuous cast rod made of copper (manufacture)
24450	27450	Continuous cast rods of other base non-ferrous metals (manufacture)
20600	24700	Continuous filament yarn of man-made fibres (manufacture)
28921	29521	Continuous miner (manufacture)
17230	21230	Continuous stationery (manufacture)
46460	51460	Contraceptive chemical preparations based on hormones or spermicides (wholesale)
77110	71100	Contract car hire (self drive)
81210	74701	Contract cleaning service
13300	17300	Contract cutting of textiles (not self-owned) (manufacture)
46630	51820	Contractors' plant (wholesale)
30300	35300	Control surfaces for aircraft (manufacture)
26200	30020	Control units for computers (manufacture)
26120	32100	Controllers interface cards (manufacture)
86101	85112	Convalescent home (private sector providing medical
86101	85111	Convalescent home (public sector providing medical care)
87900	85311	Convalescent home without medical care (charitable)
87100	85140	Convalescent homes
87900	85312	Convalescent homes without medical care (non-charitable)
94910	91310	Convent (not school or orphanage)
85310	80210	Convent schools at secondary level
25400	29600	Conventional missiles (manufacture)
29203	34203	Conversion of complete vehicles to motor caravans (manufacture)
30110	35110	Conversion of ships (manufacture)
28910	29510	Converters for hot metal handling (manufacture)
31090	36110	Convertible furniture (manufacture)
27110	31100	Converting machinery (electrical) (manufacture)
26200	30020	Converter for computer (manufacture)
46690	51870	Converters, ladles, ingot moulds and casting machines (wholesale)
22290	25240	Conveyer belts made of plastic (manufacture)
28220	29220	Conveying plant (hydraulic and pneumatic)of (manufacture)
28220	29220	Conveyor and feeder (not for agriculture or mining) (manufacture)
15120	19200	Conveyor bands made of leather (manufacture)
13960	17542	Conveyor belting (woven) (manufacture)
22210	25210	Conveyor belts made of plastic (manufacture)
22190	25130	Conveyor belts made of rubber (manufacture)
28302	29320	Conveyor for agricultural use (manufacture)
28921	29521	Conveyor for underground mining (manufacture)
28220	29220	Conveyors (manufacture)
10130	15139	Cooked and preserved meat (manufacture)
47220	52220	Cooked meats (retail)
27510	29710	Cooker (electric) (manufacture)
27520	29720	Cooker (gas) (manufacture)
27520	29720	Cooker (oil) (manufacture)
27520	29720	Cooker (solid fuel) (manufacture)
10720	15820	Cookies (manufacture)
27520	29720	Cooking and heating appliances for domestic use (gas) (manufacture)
27520	29720	Cooking and heating appliances for domestic use (solid fuel) (manufacture)
28930	29530	Cooking appliance for commercial catering (non-electric) (manufacture)
27520	29720	Cooking appliances for domestic use (non-electric) (manufacture)
28930	29530	Cooking equipment for commercial catering (electric) (manufacture)
10420	15430	Cooking fat (compound) (manufacture)
24420	27420	Cooking foil made of aluminium (manufacture)
46690	51870	Cooking or heating equipment for non-domestic use (wholesale)
25990	28750	Cooking utensils made of metal (manufacture)
22290	25240	Cooking utensils made of plastic (manufacture)
16290	20510	Cooking utensils made of wood (manufacture)
01630	01410	Cooling and bulk packing of crops for primary market
28250	29230	Cooling equipment for non-domestic use (manufacture)
47300	50500	Cooling products for motor vehicles
28250	29230	Cooling tower for air conditioning (manufacture)
28290	29240	Cooling towers and similar for direct cooling bycare) means of re-circulated water (manufacture)

SIC 2007	SIC 2003	Activity
01629	01429	Coop cleaning
16240	20400	Cooper's products (manufacture)
16240	20400	Cooper's products reconditioning (manufacture)
16240	20400	Cooper's wood (manufacture)
26511	33201	Co-oxymeters (electronic) (manufacture)
17290	21259	Cop paper (manufacture)
17290	21259	Cop tube (manufacture)
20160	24160	Co-polymer plastics (manufacture)
46720	51520	Copper (wholesale)
47789	52489	Copper goods (retail)
07290	13200	Copper mining and preparation
07290	13200	Copper ore and concentrate extraction and preparation
90030	92319	Copper plate engraver (artistic)
18129	22220	Copper plate printing (manufacture)
24440	27440	Copper refining (manufacture)
24440	27440	Copper smelting (manufacture)
02100	02010	Coppice and pulpwood growing
10410	15410	Copra (coconut) crushing
(manufacture) 16290	20510	Cops made of wood (manufacture)
28230	30010	Copying machine (xerographic) (manufacture)
59200	74879	Copyright acquisition and registration for musical compositions
94120	91120	Copyright protection society
69109	74111	Copyrights preparation
73110	74402	Copywriter
03110	05010	Coral gathering
23990	26821	Cord made of asbestos
(manufacture) 13990	17542	Cord made of elastic (manufacture)
13990	17542	Cord made of elastomeric material (manufacture)
13940	17520	Cordage made of textile material (manufacture)
47789	52489	Cordage, rope, twine and nets (retail)
11070	15980	Cordial (non-alcoholic) (manufacture)
20510	24610	Cordite (manufacture)
26301	32201	Cordless telephones (except cellular) (manufacture)
13200	17210	Corduroy weaving from yarn spun on the cotton system (manufacture)
71122	74206	Core preparation and analysis activities
43130	45120	Core sampling for construction
13100	17110	Core spun yarn spun on the cotton system (manufacture)
01280	01139	Coriander growing
47599	52440	Cork goods (retail)
46499	51479	Cork goods (wholesale)
32990	20520	Cork life preservers (manufacture)
16290	20520	Cork products (except cork life preservers) (manufacture)
02300	02010	Cork, gathering from the wild
46210	51210	Corn (wholesale)
46210	51210	Corn chandler (wholesale)
46110	51110	Corn exchange (commission agent)
46110	51110	Corn factor (commission agent)
46210	51210	Corn merchant (wholesale)
10620	15620	Corn oil (manufacture)
10611	15611	Corn or other cereal grains (manufacture)
10612	15612	Cornflake (manufacture)
10611	15611	Cornflour (manufacture)
84230	75230	Coroners court
66120	67122	Corporate finance companies

56210 55520 Corporate hospitality catering
84230 75230 Correctional services
32500 33401 Corrective glasses (manufacture)
26701 33402 Correlator (optical) (manufacture)
85590 80429 Correspondence college (not leading to degree level qualifications)
85421 80302 Correspondence college specialising in higher education courses (degree level)
71129 74204 Corrosion engineering activities
17219 21213 Corrugated packing case (manufacture)
17211 21211 Corrugated paper (manufacture)
17211 21211 Corrugated paper board (manufacture)
24420 27420 Corrugated plate, sheet or strip made of aluminium (manufacture)
23650 26650 Corrugated sheets made of fibre-cement (manufacture)
24100 27100 Corrugated sheets made of steel (manufacture) 14142 18232 Corselet (manufacture)
14142 18232 Corset (manufacture)
14142 18232 Corset belt (manufacture)
13200 17210 Corset cloth weaving (from yarn spun on the cotton system) (manufacture)
13990 17542 Corset lace (manufacture)
47710 52423 Corsetiere (retail)
20420 24511 Cosmetic soap (manufacture)
46180 51180 Cosmetics (commission agent)
20420 24520 Cosmetics (manufacture)
47750 52330 Cosmetics (retail)
46450 51450 Cosmetics (wholesale)
85320 80220 Cosmetology and barber schools
69201 74121 Cost accountant
70221 74142 Cost accounting programmes design
69201 74121 Cost draughtsman (legal)
74902 74203 Cost draughtsman (quantity surveyor)
74100 74872 Costume designing
32130 36610 Costume jewellery (manufacture)
32130 36610 Costume or imitation jewellery (manufacture) 14132 18222 Costumes for women and girls (manufacture) 13923 17403 Cot blanket (manufacture)
31090 36140 Cot frame (manufacture)
31030 36150 Cot mattress (manufacture)
13923 17403 Cot quilt (manufacture)
28940 29540 Cots (textile machinery accessory) (manufacture) 55201 55231 Cottages and cabins without housekeeping services, provided in holiday centres and holiday villages
55201 55231 Cottages in holiday centres and holiday villages (provision of short-stay lodging in)
55209 55232 Cottages, not in holiday centres, holiday villages, youth hostels (self catering short-stay lodging)
25940 28740 Cotter pin (manufacture)
46210 51210 Cotton (wholesale)
46110 51110 Cotton broker (commission agent)
13100 17110 Cotton carding (manufacture)
13100 17110 Cotton combing (manufacture)
13300 17300 Cotton cord and velveteen finishing (manufacture) 13100 17110 Cotton doubling (manufacture)
13100 17110 Cotton drawing (manufacture)
13300 17300 Cotton fabric bleaching, dyeing or otherwise finishing (manufacture)
01630 01410 Cotton ginning

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SIC 2007	SIC 2003	Activity
28940	29540	Cotton gins (manufacture)
01160	01110	Cotton growing
13100	17110	Cotton lap, sliver, rovings and other intermediate bobbin (manufacture)
10410	15410	Cotton linters production (manufacture)
13100	17110	Cotton opening (manufacture)
13923	17403	Cotton patch quilt (manufacture)
46770	51570	Cotton rags (wholesale)
13100	17110	Cotton reeling (manufacture)
10410	15410	Cotton seed crushing including delinting or cleaning (manufacture)
10410	15410	Cotton seed oil production (manufacture)
10410	15420	Cotton seed oil refining (manufacture)
46750	51550	Cotton size (wholesale)
13100	17110	Cotton sorting (manufacture)
13100	17110	Cotton spinning (manufacture)
28940	29540	Cotton spreaders (manufacture)
13100	17160	Cotton thread mill (manufacture)
52102	63129	Cotton warehouse for air transport activities
52103	63129	Cotton warehouse for land transport activities
52101	63129	Cotton warehouse for water transport activities
13100	17110	Cotton warp (manufacture)
46770	51570	Cotton waste (wholesale)
13300	17300	Cotton waste bleaching, dying or otherwise finishing (manufacture)
13100	17110	Cotton waste spinning (manufacture)
13200	17210	Cotton weaving (manufacture)
32500	24422	Cotton wool and tissues (manufacture)
13100	17110	Cotton yarn (manufacture)
13100	17110	Cotton yarn doubling (manufacture)
13300	17300	Cotton yarn gassing (manufacture)
13300	17300	Cotton yarn polishing (manufacture)
13300	17300	Cotton yarn printing (manufacture)
13100	17110	Cotton yarn twisting (manufacture)
13100	17110	Cotton yarn waxping (manufacture)
13100	17110	Cotton yarn winding (manufacture)
13923	17403	Cotton, silk, etc. embroidering (except lace and apparel) (manufacture)
17110	21110	Cotton-linters pulp (manufacture)
01110	01110	Cottonseed growing
13200	17210	Cotton-type fabrics (manufacture)
13100	17110	Cotton-type yarn (manufacture)
31090	36110	Couch (manufacture)
85590	80429	Council for Accreditation of Correspondence Colleges
85421	80302	Council for National Academic Awards
13923	17403	Counterpane (manufacture)
31010	36120	Counters for shops (manufacture)
28230	30010	Counting and dating machines (manufacture)
26513	33202	Counting instruments (non-electric) (manufacture)
84230	75230	County court
29320	34300	Coupling for articulated motor vehicle (manufacture)
24200	27220	Couplings and flange adapters made of iron or steel (manufacture)
01130	01120	Courgette growing
79901	63303	Courier (travel)
53201	64120	Courier activities (other than national post activities) licensed
53202	64120	Courier activities (other than national post activities) unlicensed
93199	92629	Coursing
84230	75230	Court of appeal
84230	75230	Court of protection
84230	75230	Court of session (Scotland)
84230	75230	Court of the Lord Lyon
82990	74850	Court reporting services
10730	15850	Couscous (manufacture)
13922	17402	Covers made of waterproofed canvas (manufacture)
22230	25239	Coving made of plastic (manufacture)
01110	01120	Cow pea growing
01410	01210	Cows' milk (raw) production
28940	29540	Crabbing machinery for textiles (manufacture)
25300	28300	Cracker for process plant (manufacture)
94990	91330	Craft and collectors' clubs
47789	52489	Craftwork (retail)
25730	28620	Cramp (manufacture)
28220	29220	Crane (manufacture)
77320	71320	Crane hire (without operator)
25990	28750	Crane hook (manufacture)
77320	71320	Crane lorries rental (without operator)
29100	34100	Crane lorry (manufacture)
30200	35200	Crane vans (manufacture)
30920	35420	Crank wheel for pedal cycle (manufacture)
28150	29140	Cranks (manufacture)
28150	29140	Crankshaft (not for motor vehicle engine)
28110	34300	Crankshaft for motor vehicle (manufacture)
16240	20400	Crates made of wood (manufacture)
28290	29240	Crating and de-crating machinery (manufacture)
14190	18249	Cravats (manufacture)
14200	18300	Cravats made of fur (manufacture)
28922	29522	Crawler loader (manufacture)
28922	29522	Crawler tractor (manufacture)
32990	36631	Crayon (manufacture)
10511	15511	Cream (sterilised) (manufacture)
46330	51331	Cream (wholesale)
10511	15511	Cream from fresh homogenized liquid milk (manufacture)
10511	15511	Cream from fresh pasteurized liquid milk (manufacture)
10511	15511	Cream production (manufacture)
28930	29530	Cream separator for industrial use (manufacture)
11070	15980	Cream soda (manufacture)
10511	15511	Creamery (not farm or retail shop) (manufacture)
28990	29560	Creasing machine for bookbinding (manufacture)
73110	74402	Creating and placing advertising
73110	74402	Creation of stands and other display structures and sites
88910	85321	Crèche (charitable)
88910	85322	Crèche (non-charitable)
88990	85321	Credit and debt counselling services (charitable)
88990	85322	Credit and debt counselling services (non-charitable)
82912	74871	Credit bureau
64921	65221	Credit card issuer (sole activity – requiring full payment at end of credit period)
66190	67130	Credit or finance broking
82912	74871	Credit rating
47990	52630	Credit trader (retail)
64921	65221	Credit unions

SIC 2007	SIC 2003	Activity
96030	93030	Cremation board
96030	93030	Cremation services
96030	93030	Crematorium
20140	24140	Creosote (manufacture)
13200	17240	Crepe weaving (manufacture)
17120	21120	Creped paper (manufacture)
01130	01120	Cress growing
20140	24140	Cresylic acid (manufacture)
20160	24160	Cresylic resins (manufacture)
13200	17210	Cretonne weaving (manufacture)
32300	36400	Cricket ball and equipment (manufacture)
93120	92629	Cricket club
84240	75240	Criminal investigation department
17120	21120	Crinkled paper (manufacture)
10720	15820	Crispbread (manufacture)
14390	17720	Crocheted articles (manufacture)
13910	17600	Crocheted fabric (manufacture)
13910	17600	Crocheted fabrics (manufacture)
47599	52440	Crockery (retail)
77299	71409	Crockery hire
01610	01410	Crop and grass drying plant operation by contractor
01630	01410	Crop drying and disinfecting for primary market
01610	01410	Crop establishing for subsequent crop production, on a fee or contract basis
01500	01300	Crop growing in combination with farming of livestock
01610	01410	Crop harvesting and preparation
01630	01410	Crop preparation for primary market (cleaning, trimming, grading, etc.)
01610	01410	Crop production support activities
01610	01410	Crop spraying on a fee or contract basis
01610	01410	Crop treatment on a fee or contract basis
01630	01410	Crop wax covering, polishing and wrapping for primary market
28940	29540	Cropping machinery for textiles (manufacture)
93120	92629	Croquet club
20520	24620	Cross linking adhesive (manufacture)
32300	36400	Crossbows (manufacture)
26511	33201	Cross-talk meters (electronic) (manufacture)
99000	99000	Crown agents for overseas governments and administrations
25920	28720	Crown cork (manufacture)
46690	51870	Crown corks and stoppers (wholesale)
84230	75230	Crown court
84230	75230	Crown prosecution service
23200	26260	Crucibles made of fireclay (manufacture)
23200	26260	Crucibles made of fireclay or graphite (manufacture)
23200	26260	Crucibles made of graphite (manufacture)
23200	26260	Crucibles made of refractory ceramic (manufacture)
19100	23100	Crude benzole from coke ovens (manufacture)
19100	23100	Crude coal tar from coke ovens (manufacture)
19100	23100	Crude coal tar production (manufacture)
06200	11100	Crude gaseous hydrocarbon production (natural gas)
20411	24511	Crude glycerol (manufacture)
20150	24150	Crude natural phosphates (manufacture)
46711	51511	Crude oil (wholesale)
71122	74206	Crude oil exploration
06100	11100	Crude oil extraction
19201	23201	Crude oil refining (manufacture)

06100 11100 Crude oils obtained by decantation processes 06100 11100 Crude oils obtained by dehydration processes 06100 11100 Crude oils obtained by desalting processes 06100 11100 Crude oils obtained by stabilisation processes 46711 51511 Crude petroleum (wholesale)
06100 11100 Crude petroleum extraction
19201 23201 Crude petroleum jelly (at refinery) (manufacture) 06100 11100 Crude petroleum production
06100 11100 Crude petroleum production from bituminous shale and sand
10410 15410 Crude vegetable oil production (manufacture) 10710 15810 Crumpet making (manufacture)
94910 91310 Crusaders' union
20120 24120 Crushed pigment colours (manufacture)
28930 29530 Crusher (food or drink machinery) (manufacture) 08110 14110 Crushing and breaking of stone
28921 29521 Crushing machine for mining (manufacture) 28923 29523 Crushing plant (not for mines) (manufacture)
38320 37200 Crushing, cleaning and sorting of demolition waste to obtain secondary raw materials
38320 37200 Crushing, cleaning and sorting of glass
38320 37200 Crushing, cleaning and sorting of glass to produce secondary raw materials
10200 15209 Crustacean and mollusc canning (manufacture) 10200 15209 Crustacean and mollusc preservation by drying (manufacture)
10200 15209 Crustacean and mollusc products (manufacture) 10200 15209 Crustacean and mollusc salting (manufacture) 10200 15201 Crustacean freezing (manufacture)
10200 15209 Crustacean preservation (other than by freezing) (manufacture)
47230 52230 Crustaceans (retail)
46380 51380 Crustaceans (wholesale)
03210 05020 Crustaceans cultured in sea water 32500 33100 Crutches (manufacture)
23130 26130 Crystal articles (manufacture)
10822 15842 Crystallised fruit (manufacture)
28990 29560 Crystalliser for chemical industry (manufacture) 26600 33100 CT scanners (manufacture)
01130 01120 Cucumber growing
32401 36501 Cue for billiards or snooker (manufacture) 32130 36610 Cuff link (not of, or clad in, precious metal, or of precious/semi precious stones) (manufacture) 14190 18249 Cuffs for men and boys (manufacture) 23130 26130 Culinary glassware (manufacture)
46719 51519 Culm (wholesale)
28302 29320 Cultivator (manufacture)
28302 29320 Cultivator tine (manufacture)
94120 91120 Cultural associations
85520 80429 Cultural education
94120 91120 Cultural organisation (professional)
94990 91330 Cultural organisations (hobby)
84120 75120 Cultural services administration (public sector) 20140 24140 Cumene (manufacture)
31090 36140 Cupboard (manufacture)
31020 36130 Cupboards for kitchens (manufacture)
23410 26210 Cups and saucers made of china or porcelain (manufacture)
17220 21220 Cups made of paper (manufacture) 22290 25240 Cups made of plastic (manufacture)

SIC 2007	SIC 2003	Activity
10512	15512	Curd production (manufacture)
28940	29540	Curing machinery for textiles (manufacture)
47789	52489	Curios (retail)
27510	29710	Curlers (electric) (manufacture)
01250	01139	Currant growing
66120	67130	Currency broking
26511	33201	Current checking instruments (electronic) (manufacture)
10840	15870	Curry powder (manufacture)
15110	18300	Currying of fur skins and hides with the hair on (manufacture)
96010	93010	Curtain cleaning
96010	93010	Curtain cleaning (not lace dressing)
22290	25240	Curtain hooks, rings and runners made of plastic (manufacture)
13990	17542	Curtain loop (manufacture)
47530	52440	Curtain material (retail)
25720	28630	Curtain rail and runners made of metal (manufacture)
22290	25240	Curtain rail, rollers and fittings made of plastic (manufacture)
25120	28120	Curtain walling made of metal (manufacture)
13921	17401	Curtains (made-up) (manufacture)
47530	52440	Curtains (retail)
46160	51160	Curtains, drapes and interior blinds (commission agent)
13921	17401	Cushion covers (manufacture)
22190	25130	Cushioning for upholstery made of rubber (manufacture)
13921	17401	Cushions (manufacture)
10890	15899	Custard powder (manufacture)
66120	67122	Custodians and settlement services
62012	72220	Custom software development
14131	18221	Custom tailored outerwear for men and boys (manufacture)
14131	18221	Custom tailoring for men and boys (manufacture)
14132	18222	Custom tailoring for women and girls (manufacture)
84110	75110	Customs administration
52290	63400	Customs clearance agents activities
99000	99000	Customs co-operation council
01190	01120	Cut flowers and flower bud production
15200	19300	Cut soles for footwear (manufacture)
14190	18243	Cut, make and trim on a fee or contract basis (manufacture)
32990	18243	Cut, make, trim of fire-resistant and protective safety clothing, fee or contract basis (manufacture)
25710	28750	Cutlasses (manufacture)
46150	51150	Cutlery (commission agent)
25710	28610	Cutlery (electro plated nickel silver) (manufacture)
25710	28610	Cutlery (manufacture)
47599	52440	Cutlery (retail)
46499	51440	Cutlery (wholesale)
15120	19200	Cutlery case (not leather or plastics) (manufacture)
16290	20510	Cutlery case made of wood (manufacture)
25710	28610	Cutlery for domestic use (manufacture)
32990	36639	Cutlery handles made of horn, ivory, tortoise shell, etc. (manufacture)
77299	71409	Cutlery hire
22290	25240	Cutlery made of plastic (manufacture)
32120	36220	Cutlery made of precious metal (manufacture)
32500	33100	Cutter for dental use (manufacture)
28490	29430	Cutter for wood (manufacture)
25730	28620	Cutting blades for machines or mechanical appliances (manufacture)
28990	29560	Cutting machine for bookbinding (manufacture)
28410	29420	Cutting machine for metal (manufacture)
28940	29540	Cutting machine for textile fibres (manufacture)
28921	29521	Cutting machinery for coal or rock (manufacture)
28940	29540	Cutting machinery for textile fabrics (manufacture)
25620	28520	Cutting of metals by laser beam (manufacture)
19209	23209	Cutting oil (manufacture)
28490	29430	Cutting torch (manufacture)
18140	22230	Cutting, cover laying, gluing, collating books, brochures, magazines, catalogues etc. (manufacture)
23700	26700	Cutting, shaping and finishing of stone for use as roofing (manufacture)
23700	26700	Cutting, shaping and finishing of stone for use in cemeteries (manufacture)
23700	26700	Cutting, shaping and finishing of stone for use in construction (manufacture)
23700	26700	Cutting, shaping and finishing of stone for use on roads (manufacture)
46750	51550	Cyanides, cyanide oxides and complex cyanides (wholesale)
47640	52485	Cycle accessories (retail)
47640	52485	Cycle agent (retail)
15120	19200	Cycle bags made of leather (manufacture)
93120	92629	Cycle club
30920	35420	Cycles (non-motorised) (manufacture)
46499	51479	Cycles (wholesale)
30920	35420	Cycles and parts (manufacture)
30910	35410	Cycles fitted with an auxiliary engine (manufacture)
20140	24140	Cyclic alcohols (manufacture)
20140	24140	Cyclic hydrocarbons (saturated and unsaturated) (manufacture)
46750	51550	Cyclic hydrocarbons (wholesale)
20140	24140	Cyclohexane (manufacture)
30920	35420	Cyclometer (manufacture)
28930	29530	Cyclone separators (manufacture)
27900	31620	Cyclotron (manufacture)
18130	22240	Cylinder engraving for gravure printing (manufacture)
18130	22240	Cylinder etching for gravure printing (manufacture)
28120	29122	Cylinder for hydraulic equipment (manufacture)
28120	29122	Cylinder for pneumatic control equipment (manufacture)
28110	29110	Cylinder heads for industrial engines (manufacture)
28110	29110	Cylinder inserts for industrial engines (manufacture)
28110	34300	Cylinder liner for motor vehicle (manufacture)
28110	29110	Cylinder liners for industrial engines (manufacture)
17290	21259	Cylinder made of hardened paper (manufacture)
17219	21219	Cylinders made of board (open ended for posting documents) (manufacture)
28150	29140	Cylindrical roller bearing (manufacture)
26511	33201	Cytometers (electronic) (manufacture)
10910	15710	Dairy concentrate (animal feed) (manufacture)
46610	51880	Dairy farm machinery (wholesale)
01410	01210	Dairy farming
47290	52270	Dairy grocer's shop (retail)
28930	29530	Dairy industry machinery (manufacture)

SIC 2007	SIC 2003	Activity
46690	51870	Dairy machinery (not farm) (wholesale)
28930	29530	Dairy machinery and plant (not agricultural) (manufacture)
77390	71340	Dairy machinery rental (non agricultural)
28930	29530	Dairy moulding machinery (manufacture)
10512	15512	Dairy preparation of cheese and butter (manufacture)
10511	15511	Dairy preparation of milk and cream (manufacture)
10519	15519	Dairy preparation of milk products n.e.c. (manufacture)
46330	51331	Dairy produce exporter (wholesale)
46330	51331	Dairy produce importer (wholesale)
46330	51331	Dairy produce n.e.c (wholesale)
47290	52270	Dairy products (retail)
47290	52270	Dairyman (retail)
42910	45240	Dam construction
66210	67200	Damage evaluators activities
13200	17210	Damask weaving (not woollen or worsted)(manufacture)
13200	17220	Damask woollen weaving (manufacture)
13200	17230	Damask worsted weaving (manufacture)
43999	45220	Damp proofing of buildings
90010	92311	Dance band
93290	92341	Dance hall
90010	92311	Dance productions
85520	92341	Dancing academy (ballroom)
85520	92341	Dancing master
85520	92341	Dancing school
85520	92341	Dancing schools and dance instructor activities
10832	15862	Dandelion coffee (manufacture)
26702	33403	Dark room equipment (manufacture)
32401	36501	Dart (manufacture)
32401	36501	Dartboard (manufacture)
29310	31610	Dashboard instruments (electric) (manufacture)
62012	72220	Data analysis consultancy services
62090	72220	Data archiving and backup services
60100	92201	Data broadcasting integrated with radio
60200	92202	Data broadcasting integrated with television
63110	72300	Data conversion
18130	22240	Data files preparation for multi-media printing on CD- ROM (manufacture)
18130	22240	Data files preparation for multi-media printing on internet applications (manufacture)
18130	22240	Data files preparation for multi-media printing on paper (manufacture)
61100	64200	Data network management and support services(wired telecommunications)
63110	72300	Data preparation services
63110	72300	Data processing
26200	30020	Data processing equipment (electronic (other than electronic calculators)) (manufacture)
28230	30010	Data processing equipment (non-electronic) (manufacture)
63110	72400	Data storage services
61100	64200	Data transmission (via cables, broadcasting, relay or satellite)
26301	32201	Data transmission link line (manufacture)
63110	72400	Database running activities
62012	72400	Database structure and content design
32990	36631	Date sealing stamps (manufacture)
32990	36631	Date stamp and accessories (manufacture)

01220 01139Dates growing
96090 93059 Dating services
88910 85321 Day care for disabled children (charitable) 88910 85322 Day care for disabled children (non-charitable) 88100 85321 Day centres for the elderly, the physically or the mentally ill (charitable)
88100 85322 Day centres for the elderly, the physically or thementally ill (non-charitable)
85590 80429 Day continuation school
88910 85321 Day nursery (charitable)
88910 85322 Day nursery (non-charitable)
28290 29240 De-aeration plant for water treatment (manufacture)64991 65233 Dealer in stocks and shares on own account
66120 67122 Dealing in finance markets for others (e.g. Stock broking), related activities (not fund management)
66120 67122 Dealing in securities on behalf of others82911 74871 Debt collector
64992 65222 Debt purchasing
10832 15862 De-caffeinated coffee (manufacture)
18129 22220 Decal printing (manufacture)
28940 29540 Decatising machinery for textiles (manufacture)28990 35300 Deck arresters for aircraft (manufacture)
31090 36110Deck chairs made of wood (manufacture)30110 35110 Deck for oil platform (manufacture) 30110 35110 Decking for ships (manufacture)
28990 29560 Decompression chamber (manufacture)
39000 90030 Decontamination and cleaning up of surface waterfollowing accidental pollution
39000 90030 Decontamination of industrial plants or sites 39000 90030 Decontamination of nuclear plants and sites 39000 90030 Decontamination of soil and groundwater
39000 90030 Decontamination of soils and groundwater at theplace of pollution using biological methods
39000 90030 Decontamination of soils and groundwater at theplace of pollution using chemical methods
39000 90030 Decontamination of soils and groundwater at theplace of pollution using mechanical methods
39000 90030 Decontamination of surface water
81222 74704 Decontamination services
23700 26700 Decorated building stone (manufacture)
43341 45440 Decorating of buildings
31010 35500 Decorative restaurant carts, dessert cart, food wagons (manufacture)
23310 26300 Decorative tile made of glazed earthenware(manufacture)
22210 25210 Decorative unsupported polyvinyl chloride film and sheet (manufacture)
20520 24620 Decorators' size (manufacture)
61100 64200 Dedicated business telephone network services(wired telecommunications)
25990 28750 Deed box (manufacture)
69109 74119Deeds preparation
05101 10101 Deep coal mines
27510 29710 Deep freeze unit for domestic use (manufacture) 84220 75220 Defence activities
29310 31610Defrosting and demisting equipment for vehicles(manufacture)
13100 17120Degreasing and carbonising of wool (manufacture) 43999 45250 De-humidification of buildings
10390 15330 Dehydrating fruit for human consumption (manufacture)

SIC 2007	SIC 2003	Activity
10390	15330	Dehydrating of vegetables for human consumption (manufacture)
30300	35300	De-icing equipment for aircraft (manufacture)
20590	24660	De-icing fluid (manufacture)
26301	31620	Delay lines and networks (manufacture)
47290	52270	Delicatessen shop (retail)
22190	25130	Delivery hose made of rubber (manufacture)
28131	29121	Delivery pump (manufacture)
30920	35420	Delivery tricycles (non-motorised) (manufacture)
29310	31610	Demisters (electrical) (manufacture)
43110	45110	Demolition contracting
43999	45500	Demolition equipment rental with operator
43110	45110	Demolition or wrecking of buildings and other structures
20140	15920	Denatured ethyl alcohol (manufacture)
13200	17210	Denim weaving (manufacture)
16210	20200	Densified wood (manufacture)
26511	33201	Density measuring optical equipment (electronic) (manufacture)
26513	33202	Density measuring optical equipment (non-electronic) (manufacture)
86230	85130	Dental activities in operating rooms
32500	33100	Dental brush (manufacture)
32500	24422	Dental cement (manufacture)
32500	33100	Dental chair (manufacture)
20420	24520	Dental cleansing preparation (manufacture)
86230	85130	Dental clinic
86230	85130	Dental clinic (health service)
85421	80302	Dental college or school
32500	33100	Dental drill engines (manufacture)
32500	24422	Dental filling (manufacture)
86101	85112	Dental hospital (private sector)
86101	85111	Dental hospital (public sector)
86900	85140	Dental hygienist
32500	33100	Dental instrument (manufacture)
32500	29240	Dental laboratory furnaces (manufacture)
32500	33100	Dental laboratory instruments and equipment (manufacture)
32500	33100	Dental mirror (manufacture)
86230	85130	Dental practice activities
86230	85130	Dental receptionist
84120	75120	Dental service administration (public sector)
86230	85130	Dental surgeon (not employed full time by a hospital)
32500	33100	Dental surgical instruments and equipment (manufacture)
86900	85140	Dental therapist
20590	24660	Dental wax (manufacture)
32500	24422	Dental wax and other dental plaster preparations
46120	51120	Dental wax and other preparations for use in with a basis of plaster (commission agent)
20420	24520	Dentifrices (manufacture)
86230	85130	Dentist
32500	33100	Denture (manufacture)
20420	24520	Denture fixative preparations (manufacture)
20420	24520	Deodorant (manufacture)
20412	24512	Deodoriser for household use (manufacture)
20412	24512	Deodorisers (manufacture)
24420	27420	Deoxidiser made of aluminium (manufacture)
47190	52120	Department stores (retail)
20420	24520	Depilatory (manufacture)
46750	51550	Depleted uranium and thorium and their compounds (wholesale)
66190	67130	Deposit broker
09100	11200	Derrick erection in situ, repairing and dismantling
28220	29220	Derricks (manufacture)
46690	51870	Derricks, cranes, mobile lifting frames (wholesale)
19201	23201	Derv (manufacture)
28290	29240	Desalination plant for water treatment (manufacture)
36000	41000	Desalting of sea or ground water to produce water
20590	24660	Desiccants (chemical) (manufacture)
23190	26150	Desiccator made of glass (manufacture)
71129	74204	Design consultant for civil and structural engineering
71121	74205	Design consultant for industrial process and production
71129	74204	Design office for civil and structural engineering
71121	74205	Design office for industrial process and production
90030	92319	Designing (artistic)
62011	72400	Designing of structure and content of an interactive leisure and entertainment software database
62012	72400	Designing of structure and content of business and domestic software databases
28940	29540	De-sizing machinery for textiles (manufacture)
25990	28750	Desk tray made of metal (manufacture)
31010	36120	Desks (manufacture)
26200	30020	Desktop computers (manufacture)
10519	15519	Desserts with a milk base (manufacture)
27900	31620	Detection apparatus (manufacture)
84230	75230	Detention centres
20411	24511	Detergent (soapless, formulated) (manufacture)
20411	24511	Detergent (synthetic) (manufacture)
20510	24610	Detonating fuse (manufacture)
20510	24610	Detonator (manufacture)
41100	70110	Developing building projects for commercial buildings hotels, stores, shopping malls, restaurants
43120	45110	Development and preparation of mineral properties and sites
64303	65235	Development capital company
68209	70209	Development for building projects for own operation
41100	70110	Development of building projects for residential buildings
32990	36639	Dev[illegible]le (manufacture)
10110	15113	De-woolling (manufacture)
10620	15620	Dextrin (manufacture)
20520	24620	Dextrin based adhesive (manufacture)
10620	15620	Dextrose (manufacture)
10860	15880	Diabetic food (manufacture)
21200	24421	Diagnostic reagents (manufacture) (manufacture)
46180	51180	Diagnostic reagents and other pharmaceutical products (commission agent) dentistry
46460	51460	Diagnostic reagents n.e.c. (wholesale)
26301	32201	Dial for telephone (manufacture)
61900	64200	Dial-up internet access provision
28290	29240	Dialysis plant for water treatment (manufacture)
46180	51180	Diamond broker (commission agent)
32120	36220	Diamond cutting (manufacture)
43999	45250	Diamond drilling of concrete and asphalt
23910	26810	Diamond impregnated disc and wheel (manufacture)
25730	28620	Diamond tipped tool (manufacture)

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

32120 36220 Diamond working (manufacture)
96010 93010 Diaper supply services
28131 29121 Diaphragm pump (manufacture)
28140 29130 Diaphragm valves (manufacture)
18129 22220 Diary printing (manufacture)
32500 33100 Diathermy apparatus (manufacture)
08990 14500 Diatomite bed
28230 32300 Dictating machines (manufacture)
58110 22110 Dictionary publishing
25730 28620 Die (press tool) (manufacture)
28910 29510 Die casting machines for foundries (manufacture) 24530 27530 Die casting of aluminium (manufacture)
24540 27540 Die casting of copper or copper alloy (manufacture)24540 27540 Die casting of non-ferrous base metal (manufacture)25730 28620 Die for machine tools (manufacture)
25500 28400 Die forging of ferrous metals (manufacture)25730 28620 Die pellet (manufacture)
18130 22250 Die sinking of stationery (manufacture)
18140 22230 Die sinking or stamping finishing activities (manufacture)
28410 29420 Die stamping machines (metal forming) (manufacture)
18130 22250 Die stamping of stationery (manufacture) 28210 29210 Dielectric heating equipment (manufacture)
30200 35200 Diesel electric locomotive (manufacture) 28110 29110 Diesel engines for industrial use (manufacture)46711 51511 Diesel fuel (wholesale)
30200 35200 Diesel locomotive (manufacture)
19201 23201 Diesel oil (manufacture)
10860 15880 Dietary foods for special medical purposes (manufacture)
10860 15880 Dietetic food (excluding milk based) (manufacture)10860 15880 Dietetic food with a milk base (manufacture) 46380 51380 Dietetic foods (wholesale)
20140 24140 Diethyl phenylamine diamine sulphate (chlorine tablets) (manufacture)
29320 34300 Differential unit for motor vehicle (manufacture)26511 33201 Diffraction apparatus (electronic) (manufacture)28302 29320 Digger (elevator and shaker) (manufacture) 26200 30020 Digital computer (manufacture)
18130 22240 Digital imposition (manufacture)
26200 30020 Digital machines (manufacture)
71122 74206 Digital mapping activities
26702 32300 Digital photographic cameras (manufacture)
71122 74206 Dimensional survey activities
30120 35120Dinghy made of rubber (manufacture)31090 36110 Dining chair (manufacture)
56102 55302 Dining room (unlicensed)
31090 36140 Dining table (manufacture)
32120 36220 Dinnerware flatware hollowware of base metals cladwith precious metals (manufacture)
28921 29521 Dinting machine for mining (manufacture)26110 32100 Diode (manufacture)
46520 51860 Diodes, transistors, thyristors, diacs and triacs (wholesale)
46120 51120Diols, polyalcohols, cyclical alcohols and theirderivatives (commission agent)
46750 51550 Diols, polyalcohols, cyclical alcohols and theirderivatives (wholesale)
99000 99000 Diplomatic missions

28210 29210 Direct arc furnace (manufacture)
27110 31100 Direct current (dc) generator sets (manufacture)27110 31100 Direct current (dc) motors and generators (manufacture)
20120 24120Direct dye (manufacture)
82190 74850 Direct mailing
47990 52630 Direct selling of firewood to the customers premises(retail)
47990 52630 Direct selling of fuel to the customers premises(retail)
47990 52630 Direct selling of heating oil to the customerspremises (retail)
25400 29600 Directed energy weapons (manufacture)
46690 51870 Direction finding compasses and other navigational instruments and appliances (wholesale)
46520 51860 Direction finding compasses, other navigational instruments and appliances (electronic) (wholesale)
90020 92349 Direction, production and support activities to circusperformances
09100 11200 Directional drilling services
24100 27100 Directly reduced iron (manufacture)
58120 22110Directories and compilations (in print) publishing 90020 92311 Directors (theatre)
18129 22220 Directory printing (manufacture)
30300 35300 Dirigibles (manufacture)
93199 92629 Dirt track racing
86900 85140 Disablement services centres
88990 85321 Disaster relief organisations (charitable)
88990 85322 Disaster relief organisations (non-charitable)
29320 34300 Disc brakes (manufacture)
28490 29430 Disc cutting machines for stone, ceramic, asbestoscement and similar (not portable) (manufacture)
28240 29410 Disc cutting machines for stone, ceramics, asbestos-cement or similar (portable) (manufacture)28302 29320 Disc harrow (manufacture)
26702 33403 Discharge lamp (electronic) and other flashlightapparatus (manufacture)
27400 31500 Discharge lamp (manufacture)
87900 85311 Discharged prisoners' hostel (charitable)
87900 85312 Discharged prisoners' hostel (non-charitable)56301 55401 Discotheques (licensed to sell alcohol) 64992 65222 Discount company (e.g. Debt factoring) 64191 65121 Discount houses (monetary intermediation) 32200 36300 Discs for automatic mechanical instruments (manufacture)
24420 27420 Discs made of aluminium (manufacture) 23910 26810 Discs made of bonded abrasives (manufacture)24440 27440 Discs made of brass (manufacture)
17290 21259 Discs made of cardboard (manufacture)24440 27440 Discs made of copper (manufacture)
28290 29240 Dish washing machine parts (industrial type)(manufacture)
46690 51870 Dish washing machines for commercial use (wholesale) 46439 51439 Dish washing machines for domestic use (wholesale)13923 17403 Dish-cloths and similar articles (manufacture)
17220 21220 Dishes made of paper (manufacture) 22290 25240 Dishes made of plastic (manufacture) 16290 20510 Dishes made of wood (manufacture)
27510 29710 Dishwasher for domestic use (manufacture)
28290 29240 Dishwashing machine for commercial catering(manufacture)

SIC 2007	SIC 2003	Activity
20411	24511	Dish-washing preparations (manufacture)
20200	24200	Disinfectant (manufacture)
46120	51120	Disinfectants (commission agent)
20200	24200	Disinfectants for agricultural and other use (manufacture)
81291	74703	Disinfecting of dwellings and other buildings
38310	37100	Dismantling of automobile wrecks for materials recovery
46770	51570	Dismantling of automobiles, computers, and other equipment for re-sale of usable parts (wholesale)
38310	37100	Dismantling of computers for materials recovery
33200	28520	Dismantling of large-scale machinery and equipment (manufacture)
38310	37100	Dismantling of ship wrecks for materials recovery
38310	37100	Dismantling of televisions for materials recovery
38310	37100	Dismantling of wrecks for materials recovery
47730	52310	Dispensing chemist (retail)
47782	52487	Dispensing ophthalmic optician (retail)
47782	52487	Dispensing optician (retail)
47782	52487	Dispensing optometrist (retail)
20120	24120	Disperse dye (manufacture)
20160	24160	Dispersions of synthetic resin (manufacture)
28250	29230	Display cabinet (refrigerated) (manufacture)
31090	36140	Display cabinet for domestic use (manufacture)
31010	36120	Display cases for shops (manufacture)
26110	32100	Display components (plasma, polymer, LCD) (manufacture)
16230	20300	Display stand (manufacture)
17220	21220	Disposable baby napkins made of paper or cellulose wadding (manufacture)
17220	21220	Disposable bed linen made of paper or cellulose wadding (manufacture)
14190	18249	Disposable clothing (manufacture)
38210	90020	Disposal of non-hazardous waste by combustion or incineration or other methods
38220	23300	Disposal of nuclear waste
38220	90020	Disposal of sick or dead animals (toxic)
38220	90020	Disposal of used goods such as refrigerators to eliminate harmful waste
32500	33100	Dissecting instrument (manufacture)
17110	21110	Dissolving chemical wood pulp (manufacture)
20301	24301	Distemper (manufacture)
32910	36620	Distemper brush (manufacture)
46120	51120	Distilled water (commission agent)
20130	24130	Distilled water (manufacture)
46750	51550	Distilled water (wholesale)
20140	15920	Distillery draft production (manufacture)
28290	29240	Distilling machinery for potable spirits (manufacture)
28290	29240	Distilling or rectifying plant (manufacture)
46690	51870	Distilling or rectifying plant (wholesale)
28290	29240	Distilling or rectifying plant for beverage industries (manufacture)
28290	29240	Distilling or rectifying plant for chemical industries (manufacture)
28290	29240	Distilling or rectifying plant for petroleum refineries (manufacture)
35220	40220	Distribution and supply of gaseous fuels of all kinds through a system of mains
36000	41000	Distribution of water through mains, by trucks or other means
84130	75130	Distribution services administration and regulation sector)
86210	85120	District community physician
86900	85140	District nurse
31030	36150	Divan bed (mattress and mattress support) (manufacture)
14132	18222	Divided lightweight skirt (dress made) (manufacture)
28490	28620	Dividing heads and other special attachments for machine tools (manufacture)
52220	63220	Diving contracting (non leisure)
28990	29560	Diving equipment (excluding breathing apparatus) (manufacture)
09100	11200	Diving services incidental to oil and gas exploration
22190	25130	Diving suit made of rubber (manufacture)
47520	52460	DIY equipment (retail)
47520	52460	DIY materials (retail)
28940	29540	Dobbies (textile machinery) (manufacture)
52220	63220	Dock authority
28220	29220	Dock leveller (manufacture)
28220	29220	Dockside cranes (manufacture)
86210	85120	Doctor (unspecified)
86210	85120	Doctors receptionist
28230	30010	Document copying equipment (manufacture)
82190	74850	Document copying service
28230	30010	Document handling machine (manufacture)
82190	74850	Document preparation
28230	30010	Document shredder (manufacture)
18129	22220	Documents of title printing (manufacture)
10920	15720	Dog biscuit (manufacture)
93199	92629	Dog breeding (for greyhound racing)
10920	15720	Dog food (manufacture)
15120	19200	Dog lead made of leather (manufacture)
93199	92629	Dog racing
20411	24511	Dog soap (manufacture)
80100	74602	Dog training for security purposes
96090	93059	Dogs' home
17220	21220	Doilies made of paper (manufacture)
22290	25240	Doilies made of plastic (manufacture)
13923	17403	Doilies made of textiles (manufacture)
77299	71401	Do-it-yourself machinery and equipment hire
32409	36509	Dolls (manufacture)
46499	51477	Dolls (wholesale)
32409	36509	Dolls and doll garments, parts and accessories (manufacture)
46499	51477	Dolls' carriages (wholesale)
32409	36509	Dolls' clothes (manufacture)
32409	36509	Dolls' cots (manufacture)
32409	36509	Dolls' houses (manufacture)
32409	36509	Dolls made of rubber (manufacture)
32409	36509	Dolls' prams (manufacture)
23700	26700	Dolomite (ground) (manufacture)
22230	25239	Dome lights made of plastic (manufacture)
78200	74500	Domestic agency (temporary employment agency)
46150	51150	Domestic electrical appliances (commission agent)
47540	52450	Domestic electrical appliances (retail)
47599	52440	Domestic furniture (retail)
25990	28750	Domestic hollow ware made of metal (manufacture)
46499	51479	Domestic ironmongery (wholesale)
46439	51439	Domestic machinery (wholesale)
27520	29720	Domestic non-electric cooking equipment(public (manufacture)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

27520 29720 Domestic non-electric cooking ranges (manufacture)27520 29720 Domestic non-electric heating equipment (manufacture)

25990 28750 Domestic utensils made of aluminium (manufacture)16290 20510 Domestic woodware (manufacture)

93120 92629 Domino clubs

30990 35500 Donkey-carts (manufacture)

25720 28630 Door and window catches (manufacture) 25720 28630 Door fittings made of metal (manufacture)25120 28120 Door frames made of metal (manufacture)22230 25239 Door frames made of plastic (manufacture)16230 20300 Door frames made of wood (manufacture)

22230 25239 Door furniture for buildings (handles, hinges, knobs,etc.) Made of plastic (manufacture)

25720 28630 Door hardware for buildings, furniture and vehicles(manufacture)

25120 28120 Doors (other than safe doors) made of metal(manufacture)

47520 52460 Doors (retail)

46730 51530 Doors (wholesale)

30300 35300 Doors for aircraft (manufacture)

29320 34300 Doors for motor vehicles (manufacture)22230 25239 Doors made of plastic (manufacture) 16230 20300 Doors made of wood (manufacture) 47990 52630 Door-to-door sales (retail)

20590 24660 Doped compounds for use in electronics (manufacture)

28131 29121 Dosing and proportioning pump (manufacture) 28290 29240 Dosing plant for water treatment (manufacture) 32200 36300 Double bass (manufacture)

10511 15511 Double cream (manufacture)

47520 52460 Double glazing (retail)

25120 28120 Double glazing made of metal (manufacture)22230 25239 Double glazing made of plastic (manufacture)23140 26140 Doubled glass fibre (manufacture)

23140 26140 Doubled yarn made of glass fibre (manufacture)28940 29540 Doubling machinery for textiles (manufacture) 28930 29530 Dough dividers (manufacture)

28930 29530 Dough making machinery (manufacture)

16290 20510 Dowel pin (manufacture)

13100 17170Down of vegetable origin (manufacture)10120 15120 Down production (manufacture)

74202 74813 Downhole photography services

09100 11200 Downhole-fishing services

09100 11200 Downhole-milling services

13200 17210Downproof cloth weaving (manufacture) 26513 33202 Drafting tables and machines (manufacture)

46690 51870 Drafting tables and other drawing, marking out ormathematical calculating instruments (wholesale)

93199 92629 Drag hounds

28220 29220 Drag scraper (manufacture)

28922 29522 Dragline excavator (manufacture) 43120 45110 Drainage of agricultural or forestry land

09100 11200 Draining and pumping services incidental to oil and gas extraction, on a fee or contract basis

46740 51540 Drainpipes (wholesale)

23320 26400 Drainpipes and fittings made of clay (manufacture) 22210 25210 Drainpipes and fittings made of plastic (manufacture) 37000 90010 Drains maintenance

47510 52410 Draper (retail)

46410 51410 Draper (wholesale)
96010 93010 Drapery cleaning
93120 92629 Draughts clubs
32409 36509 Draughts set (manufacture)
71121 74205 Draughtsman for industrial process and production 28410 29420 Draw bench (metal forming) (manufacture)
25730 28620 Draw knife (manufacture)
31010 36120 Drawers (non-domestic) (manufacture)
20590 24660 Drawing ink (manufacture)
26513 33202 Drawing instrument (manufacture)
16290 20510 Drawing instruments case made of wood (not containing instruments) (manufacture)
28410 29420 Drawing machine (metal forming) (manufacture) 28940 29540 Drawing machinery for textiles (manufacture) 17120 21120 Drawing paper (manufacture)
25930 28730 Drawing pin (manufacture)
24420 27420 Drawn products made of aluminium (manufacture) 24440 27440 Drawn products made of copper (manufacture) 23110 26110 Drawn sheet glass (manufacture)
30110 35110 Dredger (manufacture)
42910 45240 Dredging contractor
42910 45240 Dredging for water projects
42910 45240 Dredging of waterways
14132 18222 Dress and jacket knitted ensemble (manufacture) 14190 18249 Dress belts (not made of leather or leather substitute) (manufacture) 13990 17542 Dress binding (manufacture)
13200 17210 Dress fabric (woven (not wool)) (manufacture) 14190 18249 Dress gloves made of fabric (manufacture) 13200 17220 Dress goods woollen weaving (manufacture) 13200 17230 Dress goods worsted weaving (manufacture) 47510 52410 Dress materials (retail)
14190 18249 Dress shield (manufacture)
47710 52423 Dress shop (retail)
13100 17140 Dressed line made of flax (manufacture) 31020 36130 Dressers for kitchens (manufacture)
14132 18222 Dresses for women and girls (manufacture)
15110 18300 Dressing and dying of furskins and hides with the hair on (manufacture)
15120 19200 Dressing case made of leather or leather substitute (manufacture)
13990 17542 Dressing gown cord and girdle (manufacture) 14142 18232 Dressing gown for women and girls (manufacture) 14141 18231 Dressing gowns for men and boys (manufacture) 15110 19100 Dressing of leather (manufacture)
13300 17300 Dressing of textiles and textile articles, including wearing apparel (manufacture)
31090 36140 Dressing table (manufacture)
47710 52423 Dressmaker (retail)
14132 18222 Dressmaking (manufacture)
10890 15899 Dried egg (manufacture)
46380 51380 Dried fish (wholesale)
01190 01120 Dried flower production
10390 15330 Dried fruit (except field dried) (manufacture) 46380 51380 Dried fruit (wholesale)
10390 15330 Dried fruit cleaning (manufacture)
10840 15870 Dried herbs (except field dried) (manufacture) 01110 01110 Dried leguminous vegetables growing
10519 15519 Dried milk (manufacture)

SIC 2007	SIC 2003	Activity
10390	15330	Dried vegetables (except field dried) (manufacture)
10130	15139	Dried, salted or smoked meat (manufacture)
28240	29410	Drill (powered portable) (manufacture)
28921	28620	Drill bits for well drilling (manufacture)
28302	29320	Drill for agricultural use (manufacture)
24200	27220	Drill pipe made of steel (manufacture)
25730	28620	Drill tools (interchangeable) (manufacture)
13200	17210	Drill weaving from yarn spun on the cotton system (manufacture)
09100	11200	Drilling contractor for offshore oil or gas well
28921	29521	Drilling jars for mining (manufacture)
28410	29420	Drilling machine (metal cutting) (manufacture)
20590	24660	Drilling mud (manufacture)
28490	29430	Drilling or milling machines for stone, ceramics, asbestos-cement and similar articles (manufacture)
09100	11200	Drilling services to oil and gas extraction wells
30110	35110	Drilling ship (manufacture)
28240	29410	Drills and hammer drills (manufacture)
28930	29530	Drink processing including combined processing and packaging or bottling machinery (manufacture)
10821	15841	Drinking chocolate (manufacture)
23130	26130	Drinking glass (manufacture)
11010	15910	Drinks mixed with distilled alcoholic beverages (manufacture)
10110	15112	Dripping (manufacture)
29320	34300	Drive shaft for motor vehicles (manufacture)
15120	19200	Driving belts made of leather (manufacture)
28150	29140	Driving elements (manufacture)
85530	80410	Driving instruction
85530	80410	Driving school activities
85320	80220	Driving schools for occupational drivers e.g. Of trucks, buses, coaches
25500	28400	Drop forging of ferrous metals (manufacture)
28410	29420	Drop hammers (manufacture)
25500	28400	Drop stamping of base non-ferrous metals (manufacture)
25500	28400	Drop stamping of ferrous metals (manufacture)
01629	01429	Droving services
21200	24421	Drug (medicinal) (manufacture)
01280	01110	Drug and narcotic crops growing
47730	52310	Drug store (retail)
47730	52310	Druggist (retail)
46460	51460	Druggists' sundries (wholesale)
46460	51460	Druggists' sundriesman (wholesale)
47730	52310	Drugs (retail)
46460	51460	Drugs (wholesale)
32200	36300	Drum (musical instrument) (manufacture)
22220	25220	Drums (containers) made of plastic (manufacture)
16240	20400	Drums and similar packings made of wood (manufacture)
25920	28720	Drums made of aluminium (manufacture)
25910	28710	Drums made of iron or steel (manufacture)
10720	15820	Dry bakery products (manufacture)
27200	31400	Dry battery (non-rechargeable) (manufacture)
96010	93010	Dry cleaner
28940	29540	Dry cleaning machinery (manufacture)
46690	51870	Dry cleaning machines and laundry type washing machines (wholesale)
42910	45240	Dry dock construction
27510	29710	Dryers (electric) (manufacture)
28930	29530	Dryers for agriculture (manufacture)
28990	29560	Dryers for wood, paper pulp, paper or paperboard (manufacture)
46690	51870	Dryers for wood, paper pulp, paper or paperboard (wholesale)
28990	29560	Drying machine for the chemical industry (manufacture)
28940	29540	Drying machinery (commercial) for textiles (manufacture)
28940	29540	Drying machines for laundries or dry cleaners (manufacture)
46690	51870	Drying machines with a capacity exceeding 10 kgs (wholesale)
13300	17300	Drying of textiles and textile articles, including wearing apparel (manufacture)
16100	20100	Drying of timber (manufacture)
43999	45250	Drying out of buildings (incl. Water damage)
13923	17403	Duchesse set (manufacture)
10120	15120	Duck (fresh, chilled or frozen) slaughter and dressing (manufacture)
01470	01240	Duck farming
01470	01240	Duck raising and breeding
13200	17210	Duck weaving (manufacture)
25300	28300	Duct of heavy steel plate (manufacture)
22230	25239	Ducting made of plastic (manufacture)
18130	22250	Dummies for presentation (manufacture)
29100	34100	Dump truck (manufacture)
28922	34100	Dumpers for off road use (manufacture)
14120	18210	Dungarees (manufacture)
20590	24660	Duplicating ink (manufacture)
28230	30010	Duplicating machines (excluding copiers) (manufacture)
77330	71330	Duplicating machines rental and operating leasing
17230	21230	Duplicating paper (cut to size) (manufacture)
82190	74850	Duplicating service
17230	21230	Duplicator stencils ready for use (manufacture)
13923	17403	Dust cloths (manufacture)
28250	29230	Dust collector for air conditioning equipment (manufacture)
13923	17403	Dust sheet (manufacture)
24430	27430	Dust, powder and flakes made of zinc (manufacture)
25990	28750	Dustbins made of metal (manufacture)
22290	25240	Dustbins made of plastic (manufacture)
13923	17403	Duster (cleaning cloth (not of bonded fibre fabric)) (manufacture)
38110	90020	Dustman
25990	28750	Dustpan made of metal (manufacture)
22290	25240	Dustpans made of plastic (manufacture)
84110	75110	Duty and tax collection
13923	17403	Duvet (manufacture)
59132	92120	Dvd distribution
47430	52450	Dvd players (retail)
26400	32300	Dvd recorders and players (manufacture)
77220	71405	Dvd rental
46431	51431	Dvds (recorded) (wholesale)
47630	52450	Dvds (retail)
68100	70120	Dwellings buying and selling
68209	70209	Dwellings letting
20120	24120	Dye (manufacture)
28940	29540	Dye cycle controller (textile machinery) (manufacture)
15110	18300	Dyed lamb including beaver lamb (manufacture)

SIC 2007	SIC 2003	Activity

28940 29540 Dyeing machinery for textiles (manufacture) 13100 17120 Dyeing of wool fleece (manufacture)
28230 30010 Dyeline copying machine (manufacture)
96010 93010 Dyer and cleaner
46750 51550 Dyes (wholesale)
20120 24120 Dyes and pigments from any source in basic or concentrated forms (manufacture)
20120 24120 Dyes for food, drink and cosmetics (manufacture) 20120 24120 Dyes modified for dying acrylic fibres (manufacture) 28940 29540 Dyesprings (textile machinery accessory) (manufacture)
13300 17300 Dyework (manufacture)
42910 45240 Dyke construction
42910 45240 Dykes and static barrages construction 20510 24610 Dynamite (manufacture)
27110 31100 Dynamo (not for vehicle) (manufacture) 29310 31610 Dynamo for vehicle (manufacture)
29310 31610 Dynamo lighting set for cycles (manufacture)
32990 36400 Ear and noise plugs (e.g. for swimming and noise protection) (manufacture)
86101 85112 Ear, nose and throat hospital (private sector) 86101 85111 Ear, nose and throat hospital (public sector) 86220 85120 Ear, nose and throat specialist (private practice) 86101 85111 Ear, nose and throat specialist (public sector) 26400 32300 Earphone (manufacture)
28921 29521 Earth boring machine (manufacture) 08910 14300 Earth colours and fluorspar mining 28922 29522 Earth leveller (manufacture)
28922 29522 Earth mover (construction equipment) (manufacture) 43999 45500 Earth moving equipment rental with operator
43120 45110 Earth moving excavation
28922 29522 Earth moving machinery (manufacture) 72190 73100 Earth sciences research and experimental development (other than biotechnological) 47599 52440 Earthenware (retail)
46499 51440 Earthenware (wholesale)
23410 26210 Earthenware for domestic use (manufacture) 43120 45110 Earthmoving contractor
77320 71320 Earthmoving equipment hire (without operator) 31010 36120 Easel (manufacture)
22190 25130 Ebonite, vulcanite or hard rubber goods (manufacture)
26511 33201 Echo sounders (manufacture)
26600 33100 Echocardiographs (manufacture)
94990 91330 Ecological movements
84210 75210 Economic aid missions accredited to foreign governments (public sector)
84110 75110 Economic and social planning administration (public sector)
72200 73200 Economic and Social Research Council
25300 28300 Economic boiler (manufacture)
84130 75130 Economic services administration and regulation (public sector)
72200 73200 Economics, research and experimental development 25300 28300 Economisers (manufacture)
70229 74143 Economist
10110 15112 Edible fats of animal origin rendering (manufacture) 10612 15612 Edible nut flour or meal production (manufacture) 47210 52210 Edible nuts (retail)
46310 51310 Edible nuts (wholesale)

01250 01139 Edible nuts growing
10110 15112 Edible offal (processed) production (manufacture) 28930 29530 Edible oil and fat processing machinery (manufacture)
46330 51333 Edible oils and fats (wholesale)
46330 51333 Edible oils and fats exporter (wholesale) 46330 51333 Edible oils and fats importer (wholesale)
46330 51333 Edible oils and fats of animal or vegetable origin (wholesale)
03210 05020 Edible seaweed growing
10110 15112 Edible tallow production (manufacture)
96090 93059 Educational agency
94120 91120 Educational association
85600 74149 Educational consulting
85600 74149 Educational guidance counselling activities
17230 22220 Educational notebooks (manufacture)
72200 73200 Educational research and experimental development 84120 75120 Educational services administration (public sector) 17230 22220 Educational stationery (manufacture)
17230 22220 Educational stationery binders (manufacture)
17230 22220 Educational stationery business forms (manufacture) 17230 22220 Educational stationery registers
46900 51900 Educational supplies (except furniture) (wholesale) 85600 74149 Educational support activities
85600 74149 Educational testing activities
85600 74149 Educational testing evaluation activities
02300 02010 Eel grass gathering
56103 55303 Eel pie shop
47230 52230 Eels (retail)
46380 51380 Eels (wholesale)
28290 29240 Effluent treatment plant (manufacture) 16240 20400 Egg box made of wood (manufacture) 25990 28750 Egg boxes made of metal (manufacture) 17290 21259 Egg boxes made of paper (manufacture) 22220 25220 Egg boxes made of plastic (manufacture)
28302 29320 Egg cleaning, sorting and grading machines (manufacture)
16290 20510 Egg cup made of wood (manufacture) 22290 25240 Egg cups made of plastic (manufacture) 10890 15899 Egg drying (manufacture)
46330 51332 Egg grading and packing (wholesale) 01470 01240 Egg hatchery
46330 51332 Egg packing station (wholesale)
10890 15899 Egg pickling (manufacture)
01130 01120 Egg plant growing
01470 01240 Egg production
01470 01240 Egg production from poultry
46330 51333 Egg products (wholesale)
10890 15899 Egg products and egg albumin (manufacture) 10890 15899 Egg substitute (manufacture)
17290 21259 Egg trays and other moulded pulp packaging products (manufacture)
10890 15899 Eggs (powdered or reconstituted) (manufacture) 47290 52270 Eggs (retail)
46330 51332 Eggs (wholesale)
46330 51332 Eggs exporter (wholesale)
46330 51332 Eggs importer (wholesale)
13923 17403 Eiderdowns (manufacture)
28131 29121 Ejector pump (manufacture)

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SIC 2007	SIC 2003	Activity
30300	35300	Ejector seat for aircraft (manufacture)
13910	17600	Elastic and elastomeric fabric (manufacture)
13960	17542	Elastic fabric (not more than 30 cm wide) (manufacture)
13910	17600	Elastic or elastomeric knitted or netted fabric more than 30 cm wide (manufacture)
26513	33202	Elasticity testing equipment (non-electronic) (manufacture)
13960	17542	Elastomeric fabric (not more than 30 cm wide) (manufacture)
24200	27220	Elbows made of steel (manufacture)
27200	31400	Electric accumulators including parts thereof (manufacture)
28210	29210	Electric and other industrial and laboratory furnaces (manufacture)
28210	29210	Electric and other industrial and laboratory incinerators (manufacture)
28210	29210	Electric and other industrial and laboratory ovens (manufacture)
27900	31620	Electric bells (manufacture)
46439	51439	Electric blankets (wholesale)
27320	31300	Electric cable (manufacture)
27120	31200	Electric control and distribution boards (manufacture)
28410	29420	Electric discharge metal working tool (manufacture)
27400	31500	Electric fireplace logs (manufacture)
28210	29710	Electric household heating equipment (permanently mounted) (manufacture)
28210	29210	Electric household type furnaces (manufacture)
27400	31500	Electric insect lamps (manufacture)
27400	31500	Electric lanterns (manufacture)
27400	31500	Electric lighting equipment (manufacture)
27110	31100	Electric motors, generators (manufacture)
27120	31200	Electric power switches (manufacture)
30200	35200	Electric rail locomotives (manufacture)
28210	29210	Electric swimming pool heaters (permanently mounted) (manufacture)
27510	29710	Electric tea makers (manufacture)
27510	29710	Electricaire unit (manufacture)
71129	74204	Electrical and electronic engineering design projects
29310	31610	Electrical and electronic equipment for motor vehicles (manufacture)
46690	51870	Electrical apparatus for line telephony or telegraphy (wholesale)
27120	31200	Electrical apparatus for switching or protecting electrical circuits (manufacture)
27510	29710	Electrical appliances for domestic use (manufacture)
47540	52450	Electrical appliances, accessories and fittings (retail)
46690	51870	Electrical appliances, accessories and fittings for industry (wholesale)
27900	31620	Electrical base metal conduit and fittings (manufacture)
27900	32100	Electrical capacitors (manufacture)
26110	32100	Electronic condensers (manufacture)
27900	31620	Electrical carbon (manufacture)
23430	26230	Electrical ceramic fittings (manufacture)
27900	32100	Electrical condensers and similar components (manufacture)
24200	27220	Electrical conduit tube made of steel (manufacture)
27900	31620	Electrical conduit tubing, base metal (manufacture)
43210	45310	Electrical contractor (construction)
77299	71409	Electrical domestic appliance rental and leasing
27900	31620	Electrical door opening and closing devices (manufacture)
29310	31610	Electrical equipment for engines and vehicles (manufacture)
29310	31610	Electrical equipment for vehicles and aircraft (manufacture)
46439	51439	Electrical heating appliances (wholesale)
46439	51439	Electrical household appliances (excluding radios, televisions, etc) (wholesale)
47540	52450	Electrical household appliances (retail)
46439	51439	Electrical installation equipment for domestic use (wholesale)
23430	26230	Electrical insulating components made of ceramic (manufacture)
27900	31620	Electrical insulators (except glass or porcelain) (manufacture)
46690	51870	Electrical insulators and insulating fittings for electrical machines or equipment (wholesale)
23190	26150	Electrical insulators made of glass (manufacture)
46690	51870	Electrical machinery and apparatus and materials for professional use (wholesale)
46690	51870	Electrical motors (wholesale)
27330	31200	Electrical outlets or sockets (manufacture)
17120	21120	Electrical paper (manufacture)
27900	31620	Electrical pedestrian signalling equipment (manufacture)
71121	74205	Electrical power systems instrumentation design activities
27120	31200	Electrical relays (manufacture)
47599	52482	Electrical security alarm systems e.g. Safes and vaults
24100	27100	Electrical sheet steel (not finally worked) (manufacture)
27900	31620	Electrical signs (manufacture)
27900	29430	Electrical soldering equipment (manufacture)
24100	27100	Electrical steel (manufacture)
27900	31620	Electrical traffic lights (manufacture)
27900	29430	Electrical welding equipment (manufacture)
43210	45310	Electrical wiring of buildings
29100	34100	Electrically powered commercial vehicles (manufacture)
35130	40130	Electricity distribution
27120	31200	Electricity distribution and control apparatus (manufacture)
35130	40130	Electricity distribution operations by lines, poles, meters, and wiring
35110	40110	Electricity generation
35110	40110	Electricity generation by gas turbine
26511	33201	Electricity meter (electronic) (manufacture)
26513	33202	Electricity meter (non-electronic) (manufacture)
35140	40130	Electricity power agents
35140	40130	Electricity power brokers
35110	40110	Electricity production
35110	40110	Electricity production from diesel and renewables
35110	40110	Electricity production from hydroelectric generation facilities
35110	40110	Electricity production from thermal generation facilities
35140	40130	Electricity sales
35140	40130	Electricity sales agents
35140	40130	Electricity sales to the user
35120	40120	Electricity transmission

SIC 2007	SIC 2003	Activity
26600	33100	Electro medical equipment (manufacture)
26600	33100	Electro medical pacemaker (manufacture)
26600	33100	Electro medical stimulator (manufacture)
25710	28610	Electro plated nickel silver cutlery (manufacture)
28210	29210	Electro slag furnace (manufacture)
24100	27100	Electro zinc coated sheet steel (manufacture)
26600	33100	Electrochemical apparatus for industrial use (manufacture)
28410	29420	Electrochemical metal working machine tools(manufacture)
20301	24301	Electrocoats paint (manufacture)
27900	31620	Electrodes for welding (manufacture)
26600	33100	Electro-diagnostic apparatus (manufacture)
46460	51460	Electro-diagnostic apparatus for medical use (wholesale)
26600	33100	Electro-encephalographs (manufacture)
96020	93020	Electrolysis specialist
28490	31620	Electrolytic chemical process plant (manufacture)
24100	27100	Electrolytic chromium/chromium oxide coated steel (manufacture)
24440	27440	Electrolytic copper (manufacture)
24100	27100	Electrolytically metal coated sheet steel (manufacture)
28131	29121	Electro-magnetic pumps (manufacture)
28410	29420	Electro-magnetic-pulse (magnetic-forming) metalforming machines (manufacture)
27900	31620	Electromagnets (manufacture)
26600	33100	Electromyographs (manufacture)
26511	33201	Electron microscope (manufacture)
26110	32100	Electron tubes (manufacture)
26110	32100	Electronic active components (manufacture)
26511	33201	Electronic aircraft engine instruments (manufacture)
46520	51860	Electronic and telecommunications equipment and parts (wholesale)
26511	33201	Electronic apparatus for testing physical and mechanical properties of materials (manufacture)
26511	33201	Electronic automotive emissions testing equipment(manufacture)
61200	64200	Electronic bulletin board services (wireless telecommunications)
46520	51860	Electronic components (wholesale)
26110	31200	Electronic connectors (manufacture)
26511	33201	Electronic counter (manufacture)
26110	32100	Electronic crystals and crystal assemblies (manufacture)
71121	74205	Electronic design consultant
26511	33201	Electronic environmental controls and automaticcontrols for appliances (manufacture)
77299	71409	Electronic equipment for household use rentingleasing
27900	31620	Electronic filter (manufacture)
26511	33201	Electronic flame and burner control (manufacture)
26511	33201	Electronic flight recorders (manufacture)
26400	36509	Electronic games (domestic) (manufacture)
26511	33201	Electronic GPS devices (manufacture)
26511	33201	Electronic humidistats (manufacture)
26511	33201	Electronic hydronic limit controls (manufacture)
26511	33201	Electronic instruments and appliances for measuring, testing, and navigation (manufacture)
26110	32100	Electronic integrated circuits (manufacture)
46520	51860	Electronic integrated circuits and micro-assemblies(wholesale)

26511 33201 Electronic laboratory analytical instruments (manufacture)

26511 33201 Electronic laboratory incubators and sundry laboratory apparatus for measuring, testing (manufacture)

46520 51860 Electronic machinery, apparatus and materials for professional use (wholesale)

61100 64200 Electronic mail services (wired telecommunications) 18130 22240 Electronic makeup (manufacture)

61200 64200 Electronic message and information services (wireless telecommunications)

26511 33201 Electronic metal detectors (manufacture)

26110 32100 Electronic micro-assemblies of moulded module, micromodule or similar types (manufacture)

27900 31620 Electronic miscellaneous unspecified equipment (manufacture)

26511 33201 Electronic motion detectors (manufacture)

32200 36300 Electronic musical instrument (manufacture)

26110 32100 Electronic passive components (manufacture)

26511 33201 Electronic physical properties testing and inspection equipment (manufacture)

26511 33201 Electronic pneumatic gauges (manufacture)

26511 33201 Electronic polygraph machines (manufacture)

58110 22110 Electronic publishing of books

26511 33201 Electronic pulse (signal) generators (manufacture) 27900 31620 Electronic scoreboards (manufacture)

26511 33201 Electronic tally counters (manufacture)

26511 33201 Electronic testing equipment (manufacture)

26520 33500 Electronic timer (not clock or watch) (manufacture) 26400 36509 Electronic toys and games with replaceable software (manufacture)

26110 32100 Electronic tube (manufacture)

46520 51860 Electronic tubes (wholesale)

26110 32100 Electronic valve (manufacture)

46520 51860 Electronic valves (wholesale)

71200 74300 Electrophoresis

25610 28510 Electroplating (manufacture)

28490 31620 Electroplating equipment (manufacture)

28230 30010 Electrostatic copying machine (manufacture)

28290 29240 Electrostatic precipitator (manufacture)

26600 33100 Electrotherapeutic equipment (manufacture) 27510 29710 Electro-thermic appliances for domestic use (manufacture)

46439 51439 Electro-thermic hair-dressing or hand drying apparatus (wholesale)

18130 22240 Electrotyping (manufacture)

20110 24110 Elemental gases (manufacture)

42130 45213 Elevated highways construction

49311 60213 Elevated railways (scheduled passenger transport) 28220 29220 Elevator (manufacture)

15120 19200 Elevator bands made of leather (manufacture) 22190 25130 Elevator belting made of rubber (manufacture) 28302 29320 Elevator for agricultural use (manufacture)

28921 29521 Elevators with continuous action for underground use (manufacture) 99000 99000 Embassy

18130 22250 Embossing (manufacture)

32990 36631 Embossing devices (hand operated) for labels (manufacture)

28940 29540 Embossing machinery for textiles (manufacture) 28950 29550 Embossing machines for working paper and board (manufacture)

SIC 2007	SIC 2003	Activity
21200	24421	Embrocation (manufacture)
13923	17403	Embroidering on made-up textile goods (manufacture)
13100	17160	Embroidery cotton (manufacture)
13990	17541	Embroidery lace (manufacture)
47510	52410	Embroidery making materials (retail)
13300	17300	Embroidery on made up textile goods
23910	26810	Emery cloth (manufacture)
08990	14500	Emery extraction
23910	26810	Emery paper (manufacture)
23910	26810	Emery wheel (manufacture)
96090	93059	Emigration agency (not of foreign government, etc.)
65300	66020	Employee benefit plans
94110	91110	Employers organisations
78200	74500	Employment agency (temporary)
78109	74500	Employment consultants
78109	74500	Employment placement agencies
88990	85321	Employment rehabilitation centre (charitable)
88990	85322	Employment rehabilitation centre (non-charitable)
01490	01250	Emu raising and breeding
28131	29121	Emulsion (gas lift) pumps (manufacture)
20520	24620	Emulsion adhesive (manufacture)
20301	24301	Emulsion paint (manufacture)
20160	24160	Emulsions of synthetic resin (manufacture)
20301	24301	Enamel (manufacture)
23190	26150	Enamel glass in the mass (manufacture)
23310	26300	Enamelled tile (glazed) (manufacture)
25610	28510	Enamelling of metals including vitreous enamelling (manufacture)
38220	23300	Encapsulation, preparation and other treatment of nuclear waste for storage
23310	26300	Encaustic tile (manufacture)
58110	22110	Encyclopaedia publishing
28410	28620	End mill (manufacture)
13300	17300	Ending and mending of textiles (manufacture)
86230	85130	Endodontic dentistry
26600	33100	Endoscopes (manufacture)
21200	24421	Enema preparations (manufacture)
11070	15980	Energy drinks (manufacture)
74901	74206	Energy efficiency consultancy activities
84130	75130	Energy services administration and regulation (public sector)
28110	34300	Engine block for motor vehicle (finished) (manufacture)
46770	51570	Engine cleaning waste (wholesale)
29100	34100	Engine for motor vehicle (manufacture)
23990	26821	Engine packing made of asbestos (manufacture)
77390	71340	Engine rental and operating leasing
94120	91120	Engineering associations
23320	26400	Engineering brick (manufacture)
71129	74209	Engineering contractor responsible for complete process plant
71129	74204	Engineering design activities for the construction of civil engineering works
71121	74205	Engineering design services for industrial process and production
58110	22110	Engineering drawing publishing
72190	73100	Engineering research and experimental development
24100	27100	Engineering steel (manufacture)
71121	74205	Engineers' draughtsman
46690	51870	Engineers' plant and stores (wholesale)
25500	28400	Engineers' stampings and pressings of base non-ferrous metals (manufacture)
25500	28400	Engineers' stampings and pressings of ferrous metals (manufacture)
29100	34100	Engines (internal combustion) for motor vehicles (manufacture)
30910	35410	Engines (internal combustion) for motorcycles (manufacture)
28110	29110	Engines and parts for marine use (manufacture)
28110	29110	Engines and parts for railways (manufacture)
28110	29110	Engines for agricultural machinery (manufacture)
30300	35300	Engines for aircraft (manufacture)
46690	51870	Engines for aircraft (wholesale)
28110	29110	Engines for combine harvesters (manufacture)
28110	29110	Engines for construction equipment (manufacture)
28110	29110	Engines for forklift trucks (manufacture)
28110	29110	Engines for industrial application (manufacture)
28110	29110	Engines for lawn mowers (manufacture)
28110	29110	Engines for locomotives (manufacture)
28110	29110	Engines for marine use (manufacture)
30910	34100	Engines for motorcycles (manufacture)
28110	29110	Engines for railway vehicles (manufacture)
90030	92319	Engravers
32120	36220	Engraving (personalised) on precious metal (manufacture)
18130	22240	Engraving for printing (manufacture)
32120	36220	Engraving of personal non-precious metal products (manufacture)
80300	74879	Enquiry agency
20130	23300	Enriched thorium (manufacture)
46120	51120	Enriched uranium and plutonium and their compounds (commission agent)
20130	23300	Enriched uranium production (manufacture)
46719	51519	Enriched uranium supply to nuclear reactors (wholesale)
14132	18222	Ensembles (manufacture)
93290	92349	Entertainment activities n.e.c.
26301	32201	Entrance telephones (manufacture)
82190	74850	Envelope addressing service
28950	29550	Envelope making machine (manufacture)
28230	30010	Envelope stuffing machine (manufacture)
82190	74850	Envelope stuffing, sealing and mailing service including for advertising
17230	21230	Envelopes and letter-cards (manufacture)
16290	20520	Envelopes for bottles made of straw (manufacture)
23190	26150	Envelopes made of glass (manufacture)
23190	26150	Envelopes made of glass for light bulbs and electronic valves (manufacture)
71129	74204	Environmental consultants
26513	33202	Environmental controls and automatic controls for appliances (non-electronic) (manufacture)
71129	74204	Environmental engineering consultancy activities
94990	91330	Environmental movements
72190	73100	Environmental pollution research and experimental development
74901	74206	Environmental project consultancy activities
84120	75120	Environmental services administration (public sector)
46750	51550	Enzymes (wholesale)
46120	51120	Enzymes and other organic compounds (commission agent)

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

20140 24140 Enzymes and other organic compounds (manufacture)
94910 91310 Episcopal Church in Scotland
26702 33403 Episcope (manufacture)
20520 24620 Epoxide adhesive (manufacture)
20160 24160 Epoxide resins (manufacture)
20140 24140 Epoxides (manufacture)
20301 24301 Epoxy paint (manufacture)
28923 29523 Equipment for concrete crushing and screening roadworks (manufacture)
28290 29240 Equipment for dispersing liquids or powders (manufacture)
26520 33500 Equipment for measuring and recording (manufacture)
28290 29240 Equipment for projecting liquids or powders (manufacture)
28290 29240 Equipment for spraying liquids or powders (manufacture)
26513 33202 Equipment for testing physical and mechanical properties of materials (non-electronic) (manufacture)
71121 74205 Equipment layout and other plant design services
22190 25130 Eraser rubber (manufacture)
42110 45230 Erection of roadway barriers
43910 45220 Erection of roofs
28220 29220 Escalator (manufacture)
13922 17402 Escape chute for aircraft (manufacture)
96090 93059 Escort agency
46750 51550 Essential oils (wholesale)
20530 24630 Essential oils and essence (other than turpentine) (manufacture)
46120 51120 Essential oils and mixtures of odiferous substances (commission agent)
46750 51550 Essential oils merchant (wholesale)
68310 70310 Estate agent
29100 34100 Estate car (manufacture)
68209 70209 Estate company (owning and managing)
20140 24140 Esters (but (not polyesters)) (manufacture)
20140 24140 Esters of methacrylic acid (manufacture)
90030 92319 Etchers
18130 22240 Etching for printing (manufacture)
20140 24140 Ethane diol (excluding anti-freeze mixtures) (manufacture)
06200 11100 Ethane extraction from natural gas
19201 23201 Ethane production by refining (manufacture)
20140 24140 Ethanol (synthetic) (manufacture)
46120 51120 Ethers, organic peroxides, epoxides, acetals and hemiacetals and their compounds (commission agent)
46750 51550 Ethers, organic peroxides, epoxides, acetals and hemiacetals and their derivatives (wholesale)
94990 91330 Ethnic and minority group organisations
20140 15920 Ethyl alcohol (non-potable) obtained by fermentation (manufacture)
20140 24140 Ethylene (manufacture)
20140 24140 Ethylene glycol (excluding anti-freeze mixtures) (manufacture)
20160 24160 Ethylene polymers (manufacture)
99000 99000 European Communities Representatives and Information Office
99000 99000 European Community
99000 99000 European Free Trade Association

94910 91310 Evangelists Society
10511 15511 Evaporated milk (manufacture)
25300 28300 Evaporator (manufacture)
28250 29230 Evaporator for refrigeration machinery (manufacture) 43120 45110 Excavation
28922 29522 Excavator (manufacture)
79110 63301 Excursion agency
50100 61101 Excursion, cruise or sightseeing boat operation (except for inland waterway service)
50300 61201 Excursion, cruise or sightseeing boats operation (inland waterway service)
84110 75110 Executive and legislative administration (public sector) 78109 74500 Executive employment placement and search activities
78200 74500 Executive personnel (supply) (temporary employment agency)
78109 74500 Executive recruitment consultant
23990 26829 Exfoliated vermiculite (manufacture)
29320 34300 Exhaust pipes for motor vehicles (manufacture) 45320 50300 Exhaust sales and fitting centre (retail)
29320 34300 Exhaust systems and components for motor vehicles (manufacture)
28110 29110 Exhaust valves for internal combustion engines (manufacture)
68310 70310 Exhibition centre letting (not self-owned) 68202 70201 Exhibition centre letting (self owned) 82301 74873 Exhibition contracting and organising
16230 20300 Exhibition stand (manufacture)
82301 74873 Exhibition stand design
82301 74873 Exhibition stand hire

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23990 26829 Expanded clay (manufacture)
25930 28730 Expanded metal (manufacture)
23990 26829 Expanded vermiculite (manufacture)
26511 33201 Expansion analysers (electronic) (manufacture) 22190 25130 Expansion joints made of rubber (manufacture) 26513 33202 Expansion meter (non-electronic) (manufacture) 25290 28210 Expansion tank made of metal exceeding 300 litres (manufacture)
71122 74206 Exploration for gas or oil 72190 73100 Explorer
20510 24610 Explosive signalling flares (manufacture)
20510 24610 Explosives (manufacture)
46750 51550 Explosives (wholesale)
46190 51190 Export confirming house, general or undefined (commission agent)
73200 74130 Export consultant
65120 66031 Export credit guarantee department
64929 65229 Export finance company (other than in banks' sector) 52290 63400 Export packer
46190 51190 Export purchasing, general or undefined (commission agent)
26511 33201 Exposure meter (electric) (manufacture) 49390 60211 Express coach service on scheduled routes
27900 31300 Extension cords made from purchased insulated wire (manufacture)
27900 31300 Extension cords with insulated wire and connectors (manufacture)
81229 74709 Exterior cleaning of buildings
43341 45440 Exterior painting of buildings
43310 45410 Exterior plaster application in buildings or other constructions incl. related lathing materials

SIC 2007	SIC 2003	Activity
43310	45410	Exterior stucco application in buildings or other incl. related lathing materials
81291	74703	Exterminating of insects, rodents and other pests (except agricultural)
10890	15139	Extracts and juices of meat, fish, crustaceans or molluscs (manufacture)
20530	24630	Extracts of aromatic products (manufacture)
24440	27440	Extruded products made of copper (manufacture)
24420	27420	Extruded sections made of aluminium (manufacture)
24420	27420	Extruded tubes made of aluminium (manufacture)
28960	29560	Extruder for rubber or plastics (manufacture)
28940	29540	Extruding machinery for textiles (manufacture)
46640	51830	Extruding, drawing, texturing or cutting machinery man-made textile materials (wholesale)
20160	24160	Extrusion compounds (plastics) (manufacture)
24420	27420	Extrusion ingots made of aluminium (manufacture)
24420	27420	Extrusions made of aluminium (manufacture)
86101	85112	Eye hospital (private sector)
86101	85111	Eye hospital (public sector)
86220	85120	Eye specialist (private practice)
86101	85111	Eye specialist (public sector)
25990	28750	Eyelet (manufacture)
94920	91320	Fabian Society
23990	26821	Fabric made of asbestos (manufacture)
28940	29540	Fabric processing machinery (manufacture)
17240	21240	Fabric wallcoverings (manufacture)
25110	28110	Fabricated structural steelwork for buildings (manufacture)
47510	52410	Fabrics (retail)
46410	51410	Fabrics (wholesale)
13960	17549	Fabrics coated with gum or amylaceous substances (manufacture)
13960	17549	Fabrics impregnated, coated, covered or laminated with plastics (manufacture)
20420	24520	Face powder or cream (manufacture)
96020	93020	Facial massage
81100	70320	Facilities management
26301	32201	Facsimile transmission apparatus (manufacture)
20170	24170	Factice (manufacture)
64992	65222	Factoring company (buying book debts)
49390	60219	Factory bus service
81210	74701	Factory cleaning contractor
68209	70209	Factory letting
56290	55510	Factory or office canteens
29100	34100	Factory rebuilding of motor vehicle engines (manufacture)
94120	91120	Faculty of actuaries
82301	74873	Fair organiser
93210	92330	Fairground activities
32200	36300	Fairground organs (manufacture)
28990	36639	Fairground rides (manufacture)
93290	92330	Fairs and shows of a recreational nature
28940	29540	Faller (textile machinery accessory) (manufacture)
32990	36639	False beard (manufacture)
32990	36639	False eyebrow (manufacture)
86210	85120	Family doctor service
86900	85140	Family Planning Association clinics (not providing medical treatment)
88990	85321	Family Planning Associations (not clinics)
86220	85120	Family planning centre providing medical treatment without accommodation
88990	85321	Family Welfare Association
27510	29710	Fan (electric, domestic) (manufacture)
22190	25130	Fan belts for motor vehicles (manufacture)
28250	29230	Fan coil unit (manufacture)
23190	26150	Fancy articles and goods made of glass (manufacture)
77210	71401	Fancy dress hire
47789	52489	Fancy goods (retail)
46499	51478	Fancy goods (wholesale)
14310	17710	Fancy hosiery (manufacture)
15120	19200	Fancy leather goods (manufacture)
17120	21120	Fancy paper (manufacture)
10710	15810	Fancy pastry (manufacture) for use (wholesale)
28250	29710	Fans (domestic) (manufacture)
28250	29230	Fans (non-domestic) (manufacture)
46439	51439	Fans and ventilating or recycling hoods for domestic use (wholesale)
10730	15850	Farinaceous products (manufacture)
01621	01421	Farm animal boarding and care (except pets)
10910	15710	Farm animal feeds produced from slaughter waste (manufacture)
01621	01421	Farm animal pound
55209	55239	Farmhouse short stay accommodation
28302	29320	Farmyard manure spreader (manufacture)
01629	28520	Farriers, on a fee or contract basis
14132	18222	Fashion (manufacture)
82990	74879	Fashion agent
82990	74879	Fashion artist
74100	74872	Fashion designing
32130	36610	Fashion jewellery (manufacture)
74209	74819	Fashion photography
18129	22220	Fashion printing (manufacture)
56102	55302	Fast food outlet with restaurant (unlicensed)
25940	28740	Fasteners made of metal (manufacture)
56101	55301	Fast-food restaurants, licensed
56102	55302	Fast-food restaurants, unlicensed
10410	15410	Fat of marine animals production (manufacture)
10110	15112	Fat recovery from knackers (manufacture)
20140	24140	Fat splitting and distilling (manufacture)
10420	15430	Fats (edible) (manufacture)
20140	24140	Fatty acid (manufacture)
21100	24410	Fatty amines and quaternary ammonium salts (manufacture)
26301	32201	Fax machines (manufacture)
32990	36639	Feather curling (manufacture)
32910	36620	Feather duster (manufacture)
32990	36639	Feather ornament (manufacture)
10120	15120	Feather production (manufacture)
32990	36639	Feather purifying (manufacture)
32990	36639	Feather sorting (manufacture)
46900	51900	Feathers (wholesale)
94110	91110	Federations of business and employers' membership organisations
10910	15710	Feed supplements for animals (manufacture)
28930	29530	Feeders (manufacture)
08990	14500	Feldspar mining and quarrying
10110	15113	Fellmongery (manufacture)
13990	17549	Felt (manufacture)
46640	51830	Felt finishing machinery (wholesale)

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SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

14190 18241 Felt hat bleaching and dying (manufacture)14190 18241 Felt hat body making (manufacture)
14190 18241 Felt hat finishing (manufacture) 23990 26821 Felt made of asbestos (manufacture) 23140 26140 Felt made of glass fibre (manufacture)
28940 29540 Felt or non-woven fabric production or finishingmachines (manufacture)
32990 36631 Felt tipped pen (manufacture)
17120 21120 Feltboard including felt paper (manufacture)22190 25130 Felting made of rubber (manufacture)
28940 29540 Felts or non-wovens production and finishingmachines (manufacture)
01610 01410 Fencing by agricultural contractor
43290 45340 Fencing contractor (not agricultural) 22230 25239 Fencing made of plastic (manufacture) 25930 28730 Fencing made of steel wire (manufacture)
16230 20300 Fencing made of wood (assembled) (manufacture)16290 20520 Fenders made of cork (manufacture)
01130 01120 Fennel growing
02300 02010 Fern collecting, cutting, gathering
26110 31100 Ferrite parts for electronic apparatus (manufacture)24100 27100 Ferro alloys (high carbon ferro manganese) (manufacture)
24100 27100 Ferro aluminium (manufacture)
24100 27100 Ferro chromium (manufacture)
43999 45250 Ferro concrete bar bending and fixing contractor24100 27100 Ferro molybdenum (manufacture)
24100 27100 Ferro nickel (manufacture)
24100 27100 Ferro niobium (manufacture)
24100 27100 Ferro phosphorus (manufacture)
24100 27100 Ferro titanium (manufacture)
24100 27100 Ferro tungsten (manufacture)
24100 27100 Ferro vanadium (manufacture)
24100 27100 Ferro zirconium (manufacture)
24100 27100 Ferro-alloys (except high carbon ferro-manganeseproduction) (manufacture)
24100 27100 Ferrosilicon (manufacture)
24100 27100 Ferrosilicon chromium (manufacture)
24100 27100 Ferrosilicon manganese (manufacture)
24100 27100 Ferrosilicon titanium (manufacture)
24100 27100 Ferrosilicon tungsten (manufacture)
46720 51520 Ferrous and non-ferrous metal ores (wholesale) 46720 51520 Ferrous and non-ferrous metals in primary forms (wholesale)
46720 51520 Ferrous and non-ferrous semi-finished metalproducts n.e.c. (wholesale)
24510 27510 Ferrous metal foundry (manufacture)
24100 27100 Ferrous products production by reduction of iron ore(manufacture)
30110 35110 Ferry (manufacture)
50300 61201Ferry transport for passengers (inland waterwayservice)
20150 24150 Fertiliser (manufacture)
28302 29320 Fertiliser distributor or broadcaster (manufacture)08910 14300 Fertiliser minerals mining
46120 51120Fertilisers (commission agent)
47760 52489 Fertilisers (retail)
46750 51550 Fertilisers (wholesale)
28302 29320 Fertilizing plough machinery (manufacture) 46499 51477 Festive, carnival or other entertainment articles, conjuring tricks and novelty jokes (wholesale)

13921 17401 Festoon blinds (manufacture)
16210 20200 Fibre board (manufacture)
16210 20200 Fibre building board (manufacture)
23650 26650 Fibre cement (manufacture)
13940 17520 Fibre core for wire rope (manufacture)01160 01110 Fibre crop growing
32910 36620 Fibre dressing for brushes (manufacture)26701 33402 Fibre optic apparatus (manufacture)
27310 31300 Fibre optic cable for data transmission or livetransmission of images (manufacture)
32990 36631 Fibre tipped pen (manufacture)
20600 24700 Fibrillated yarn (manufacture)
93120 92629 Field and track clubs
93110 92619 Field and track stadium
01610 01410 Field preparation on a fee or contract basis01220 01139 Fig growing
23110 26110 Figured glass (manufacture)
23190 26150 Figurines made of glass (manufacture)20600 24700 Filament tow (manufacture)
24340 27340 Filament wire made of steel (manufacture) 28410 29420 Filament wire spiralling machines (manufacture)25730 28620 File (hand tool) (manufacture)
31010 36120 Filing cabinet (manufacture)
25990 28750 Filing cabinet made of metal (not designed to beplaced on the floor) (manufacture)
20301 24303 Filling and sealing compounds for painters (manufacture)
28290 29240 Filling machinery (manufacture)
47300 50500 Filling station (motor fuel and lubricants)94990 91330 Film and photo clubs
22210 25210 Film and sheet of decorated unsupported polyvinyl chloride (manufacture)
52102 63129 Film bonded warehouse for air transport activities 52103 63129 Film bonded warehouse for land transport activities 52101 63129 Film bonded warehouse for water transport activities 59131 92120 Film broker
74203 74814 Film copying (not motion picture)59120 92119 Film cutting activities
59131 92120 Film distribution
59131 92120 Film distribution rights acquisition
59120 92119Film editing
59131 92120 Film hiring agency
91011 92510 Film lending and storage
59131 92120 Film library
22210 25210 Film made of cellophane (manufacture) 22210 25210 Film made of plastic (manufacture) 22210 25210 Film made of polyethylene (manufacture)
22210 25210 Film made of polypropylene (manufacture)22210 25210 Film made of polythene (manufacture)
22210 25210 Film made of polyvinyl chloride (PVC) (manufacture)74203 74814 Film processing
59120 92119Film processing activities
59111 92111 Film producer (own account)
59111 92111 Film production for projection or broadcasting 28940 29540 Film reader for textile machinery (manufacture)59131 92120 Film rental
59120 92119 Film sound track dubbing and synchronisation59111 92111 Film studios
59120 92119 Film title printing

SIC 2007	SIC 2003	Activity
13922	17402	Filter cloth (made-up) (manufacture)
13960	17549	Filter cloth weaving (manufacture)
28120	29122	Filter for pneumatic control equipment (manufacture)
17290	21259	Filter paper and paperboard (cut to size) (manufacture)
17120	21120	Filter paper stock (manufacture)
28930	29530	Filtering and purifying machinery for the industrial preparation of food or drink (manufacture)
28290	29240	Filtering or purifying machinery parts (manufacture)
46690	51870	Filters for oil, petrol and air for internal combustion engines (not motor vehicle) (wholesale)
22290	25240	Filtration elements made of plastic (manufacture)
46690	51870	Filtration equipment and apparatus (wholesale)
28290	29240	Filtration equipment for hydraulic equipment (manufacture)
28290	29240	Filtration equipment for the chemical industry (manufacture)
64929	65229	Finance corporation for industry
64921	65221	Finance house activities (non-deposit taking)
66190	67130	Financial advisor
82912	74871	Financial and credit reporting
64991	65233	Financial futures, options and other derivatives dealing in on own account
64999	65239	Financial intermediation n.e.c.
64910	65210	Financial leasing
70221	74142	Financial management consultancy services (except corporate tax)
66110	67110	Financial markets administration
84110	75110	Financial services (public sector)
66190	67130	Financial transactions centre
32130	36610	Findings and stampings made of base metal for jewellery (manufacture)
32120	36220	Findings and stampings made of precious metals for jewellery (manufacture)
90030	92319	Fine art expert
85520	80429	Fine arts schools (except academic)
12000	16000	Fine cut tobacco (manufacture)
01490	01220	Fine or coarse animal hair, not including sheep or goats wool
13100	17120	Fingering wool (manufacture)
03220	05020	Fingerling production, freshwater
03210	05020	Fingerling production, marine
80100	74602	Fingerprinting services
20590	24660	Finings (manufacture)
26110	24660	Finished or semi-finished dice, semiconductor (manufacture)
26110	24660	Finished or semi-finished wafers, semiconductor (manufacture)
46120	51120	Finishing agents, dye carriers and similar industrial chemical products (commission agent)
28490	29430	Finishing and polishing machine tools for optical, spectacle or clock or watch faces (manufacture)
28940	29540	Finishing machinery for textiles (manufacture)
31090	36110	Finishing of chairs and seats
13300	17300	Finishing of leather wearing apparel (manufacture)
13300	17300	Finishing of wearing apparel n.e.c. (manufacture)
18140	22230	Finishing services for CD-ROMS (manufacture)
27510	29710	Fire (electric) (manufacture)
27520	29720	Fire (gas) (manufacture)
27520	29720	Fire (oil) (manufacture)
26301	31620	Fire alarm and system (manufacture)
77390	71340	Fire alarm hire
26301	31620	Fire alarm systems, sending signals to a control station (manufacture)
71122	74206	Fire and explosion protection and control consultancy activities
84250	75250	Fire authorities
84250	75250	Fire brigades
29100	34100	Fire engine (manufacture)
28290	29240	Fire extinguisher (hand held) (manufacture)
46120	51120	Fire extinguisher charges and preparations (commission agent)
46690	51870	Fire extinguishers (excluding motor vehicle) (wholesale)
28290	29240	Fire extinguishing apparatus (excluding hand operated chemical extinguishers) (manufacture)
20590	24660	Fire extinguishing chemicals (manufacture)
84250	75250	Fire fighting and fire prevention
65120	66031	Fire insurance
16290	20510	Fire logs and pellets, of pressed wood, or of coffee or soybean grounds and the like (manufacture)
24440	27440	Fire refined copper (manufacture)
32990	18100	Fire resistant and protective safety clothing of leather (manufacture)
31090	36140	Fire screen (manufacture)
84250	75250	Fire service activities
29100	34100	Fire tender (manufacture)
25400	29600	Firearms for hunting, sporting or protective use (manufacture)
46690	51870	Firearms, sporting, hunting or target shooting rifles (wholesale)
23200	26260	Firebrick and shape (manufacture)
08120	14220	Fireclay mine or quarry
32990	18249	Fire-fighting protection suits (manufacture)
32990	36639	Firelighter (manufacture)
81223	74705	Fire-places cleaning
43290	45320	Fireproofing work
32990	18249	Fire-resistant and protective safety clothing (manufacture)
47789	52489	Firewood (retail)
20510	24610	Firework (manufacture)
93290	92349	Firework displays
46120	51120	Fireworks (commission agent)
25300	28300	Firing plant for boilers, etc. (manufacture)
46180	51180	First aid boxes (commission agent)
46460	51460	First aid boxes (wholesale)
85421	80302	First-degree level higher education
84110	75110	Fiscal services (public sector)
47230	52230	Fish (retail)
46380	51380	Fish (wholesale)
56103	55303	Fish and chip shop
56103	55304	Fish and chip stand
10410	15410	Fish and marine mammal oil extraction (manufacture)
10200	15209	Fish and other aquatic animal meals and solubles unfit for human consumption (manufacture)
16240	20400	Fish boxes made of wood (manufacture)
03220	01250	Fish breeding, freshwater
03210	05020	Fish breeding, marine
10200	15209	Fish cakes (manufacture)
10200	15209	Fish canning (manufacture)
10200	15209	Fish curing (other than by distributors) (manufacture)

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

10850 15209 Fish dish (prepared) production (manufacture) 10850 15209 Fish dishes, including fish and chips (manufacture)46380 51380 Fish distribution (wholesale)
10200 15209 Fish drying (manufacture)
25710 28610 Fish eater (manufacture)
46170 51170Fish factor (commission agent)
03220 05020 Fish farming in fresh water, including farming offreshwater ornamental fish
03210 05020 Fish farming, marine
10200 15209 Fish fillet production (manufacture)
10850 15209 Fish fingers (manufacture)
03220 05020 Fish fry production, freshwater
03210 05020 Fish fry production, marine
03220 05020 Fish hatcheries and farms service activities, freshwater
03210 05020 Fish hatcheries and farms service activities, marine03220 05020 Fish hatcheries, freshwater
03210 05020 Fish hatcheries, marine
32300 36400 Fish hook (manufacture)
10410 15410 Fish liver oil (unrefined) production (manufacture) 10410 15420 Fish liver oil refining (manufacture)
10200 15209 Fish meal (manufacture)
10410 15410 Fish oil (crude) production (manufacture)10200 15209 Fish paste (manufacture)
24100 27100 Fish plates (hot rolled) (manufacture)
24100 27100 Fish plates and sole plates (non-rolled) (manufacture)25930 28740 Fish plates for arches made of steel (manufacture) 10200 15209 Fish preservation (other than by freezing) (manufacture)
10200 15201 Fish preservation by freezing (manufacture) 10200 15209 Fish processing (not freezing) (manufacture) 28930 29530 Fish processing machines and equipment (manufacture)
10200 15209 Fish products (manufacture)
10200 15209 Fish salting (manufacture)
47810 52620 Fish stall (retail)
70229 05010 Fish stock management consultancy services
10200 15209 Fish, crustacean and mollusc cooking (manufacture)10200 15209 Fish, crustacean and mollusc preparation and preservation, by immersing in brine (manufacture) 10200 15209 Fish, crustacean and mollusc smoking (manufacture)93199 92629 Fishing (recreational)
30110 35110 Fishing boats (manufacture)
03110 05010 Fishing by line, except for recreation or sport03110 05010 Fishing for shellfish
47640 52485 Fishing gear (retail)
03110 05010 Fishing in ocean, sea, coastal or inland waters13940 17520 Fishing line (manufacture)
13940 17520 Fishing net (manufacture)
13940 17520 Fishing net mending (manufacture)
13100 17110Fishing net yarn made of cotton (manufacture) 03120 05010 Fishing on a commercial basis in inland waters 03110 05010 Fishing on a commercial basis in ocean and coastal waters
46499 51479Fishing rods, line fishing tackle and articles forhunting or fishing (wholesale)
03110 05010 Fishing service activities
84130 75130 Fishing services administration and regulation(public sector)
32300 36400 Fishing tackle (manufacture)

47640 52485 Fishing tackle (retail)
30110 35110 Fishing vessel (manufacture)
47230 52230 Fishmonger (retail)
46380 51380 Fishmonger (wholesale)
32300 36400 Fitness centre equipment and appliances (manufacture)
93130 92629 Fitness centre operation
46740 51540 Fittings and fixtures (wholesale)
31010 36120 Fittings and furnishing for hotels (manufacture) 31010 36120 Fittings and furnishings for banks (manufacture) 31010 36120 Fittings and furnishings for bars (manufacture) 31010 36120 Fittings and furnishings for laboratories (manufacture)
31010 36120 Fittings and furnishings for libraries (manufacture) 31010 36120 Fittings and furnishings for museums (manufacture) 31010 36120 Fittings and furnishings for offices (manufacture) 31010 36120 Fittings and furnishings for public houses (manufacture)
31010 36120 Fittings and furnishings for restaurants (manufacture) 31010 36120 Fittings and furnishings for shops (manufacture) 24510 27210 Fittings for tubes made of cast iron (manufacture) 24510 27210 Fittings for tubes made of cast steel (manufacture)
22190 25130 Fittings made of rubber (manufacture)
24200 27220 Fittings made of steel (manufacture)26309 32202 Fixed transmitters (manufacture)
20590 24640 Fixer for photographic use (manufacture)13200 17220 Flag fabric (woollen) (manufacture)
13922 17402 Flag making up (manufacture) 23310 26300 Flags made of clay (manufacture)
23310 26300 Flags made of non-refractory ceramic (manufacture)46730 51530 Flagstone merchant (wholesale)
08110 14110Flagstone quarry
23610 26610 Flagstones made of precast concrete (manufacture)24420 27420 Flake made of aluminium (manufacture)
24440 27440 Flake made of copper (manufacture)
10390 15330 Flaked coconut including desiccated but (notsugared) (manufacture)
10611 15611 Flaked maize (manufacture)
26513 33202 Flame and burner control (non-electronic) (manufacture)
25400 29600 Flame throwers (manufacture)
25930 28740 Flange jointing sets (manufacture) 24200 27220 Flanges made of steel (manufacture)13200 17220 Flannel (manufacture)
13300 17300 Flannel ending (manufacture)
13300 17300 Flannel filling (manufacture)
13300 17300 Flannel finishing (manufacture)
13300 17300 Flannel preparing (manufacture)
13300 17300 Flannel scouring (manufacture)
13300 17300 Flannel shrinking (manufacture)
13300 17300 Flannelette raising and finishing (manufacture)13200 17210 Flannelette weaving (manufacture)
28120 29130 Flaps, diaphragms and other parts of hydraulic andpneumatic valves (manufacture)
43999 45250 Flare stack and flareboom erection work27400 31500 Flash lamp case (manufacture)
27400 31500 Flashcubes (manufacture)
26702 33403 Flashlight apparatus (manufacture)
27400 31500 Flashlights (manufacture)
23110 26110 Flat glass (manufacture)

SIC 2007	SIC 2003	Activity
47520	52460	Flat glass (retail)
46730	51530	Flat glass (wholesale)
68209	70209	Flat letting
68310	70310	Flat letting agency
24320	27320	Flat rolled steel products in coils or straight lengths <600 mm (manufacture)
24100	27100	Flat rolled steel products in coils or straight lengths >600 mm (manufacture)
29202	34202	Flat trailer (motor drawn) (manufacture)
25990	28750	Flat ware made of base metal (manufacture)
55201	55231	Flats in holiday centres and holiday villages (provision of short-stay lodging in)
55209	55232	Flats, not in holiday centres, holiday villages or youth hostels (self catering short-stay lodging)
41201	45230	Flatwork for sport and recreational installations (commercial buildings)
28940	29540	Flatwork machine for laundry (manufacture)
46750	51550	Flavourings (wholesale)
46210	51210	Flax (wholesale)
13100	17140	Flax carding (manufacture)
13100	17140	Flax deseeding (manufacture)
13100	17140	Flax dressing (manufacture)
01160	01110	Flax growing
13100	17140	Flax hackling (manufacture)
13100	17140	Flax preparing (manufacture)
13100	17140	Flax roughing (manufacture)
13100	17140	Flax sorting (manufacture)
13100	17140	Flax spinning (manufacture)
13100	17140	Flax tow (manufacture)
13100	17140	Flax type yarns (manufacture)
13200	17250	Flax woven cloth (manufacture)
13300	17300	Flax yarn bleaching, dyeing or otherwise finishing (manufacture)
13100	17140	Flax-type fibre preparation and spinning (manufacture)
30110	35110	Fleet tender (manufacture)
17290	21259	Flexible paper packaging (manufacture)
22210	25210	Flexible plastic foam (manufacture)
28290	29430	Flexible shaft drive tool (manufacture)
13922	17402	Flexible ventilating ducting made of textiles (manufacture)
20302	24302	Flexographic ink (manufacture)
18129	22220	Flexographic printing (manufacture)
28990	29560	Flexographic printing machine (manufacture)
18121	21251	Flexographic printing on labels or tags (manufacture)
26511	31620	Flight recorder (electric) (manufacture)
30300	35300	Flight simulator (electronic) (manufacture)
08120	14210	Flint bed, pit or quarry
23910	26810	Flint cloth (manufacture)
32990	36639	Flint for lighters (manufacture)
08120	14210	Flint grit production
23910	26810	Flint paper (manufacture)
23110	26110	Float glass (manufacture)
52220	63220	Floating bridge company
92000	92710	Floating casinos
30110	35110	Floating crane (manufacture)
30110	35110	Floating docks construction (manufacture)
09100	11200	Floating drilling rig operation for petroleum or natural gas exploration or production
30110	35110	Floating harbour (manufacture)
30110	35110	Floating landing stages construction (manufacture)
30110	35110	Floating tanks construction (manufacture)
20130	24130	Flocculating agents (chemical) (manufacture)
46410	51410	Flock (wholesale)
13200	17210	Flock made of cotton (manufacture)
23140	26140	Flock made of glass fibre (manufacture)
17120	21120	Flong paperboard (manufacture)
42910	45240	Floodgates, movable barrages and hydro-mechanical structures construction
23320	26400	Floor and quarry tiles made of unglazed clay (manufacture)
23610	26610	Floor and wall tiles made of concrete and terrazzo (manufacture)
77390	71340	Floor cleaning equipment for industrial use leasing
20412	24512	Floor cleanser (manufacture)
43330	45430	Floor covering laying
22230	36639	Floor coverings (hard surface) (manufacture)
47530	52481	Floor coverings (retail)
46730	51479	Floor coverings (wholesale)
22230	25231	Floor coverings made of plastic (manufacture)
22230	25231	Floor coverings made of printed vinyl (manufacture)
22190	25130	Floor coverings made of rubber (manufacture)
22230	25231	Floor coverings made of supported vinyl (manufacture)
16290	20520	Floor coverings of natural cork (manufacture)
20412	24512	Floor polish (manufacture)
27510	29710	Floor polisher (electric) (manufacture)
13939	17519	Floor rugs made of jute (manufacture)
43999	45250	Floor screeding
20412	24512	Floor seal (manufacture)
32910	36620	Floor sweepers (hand operated mechanical) (manufacture)
47530	52481	Floor tiles (not ceramic) (retail)
23610	26610	Floor units made of precast concrete (manufacture)
43330	45430	Flooring contractor
22190	25130	Flooring made of rubber (manufacture)
16100	20100	Flooring made of wood (not parquet flooring) (manufacture)
16100	20100	Flooring made of wood (unassembled) (manufacture)
25110	28110	Flooring systems made of metal (manufacture)
26800	24650	Floppy disk (manufacture)
26200	30020	Floppy disk drives (manufacture)
47760	52489	Florist (retail)
30110	35110	Flotation vessel of steel, for oil platform (manufacture)
10611	15611	Flour (manufacture)
46380	51380	Flour (wholesale)
28930	29530	Flour and meal manufacturing machinery (manufacture)
10710	15810	Flour confectionery (manufacture)
47240	52240	Flour confectionery (retail)
46360	51360	Flour confectionery (wholesale)
28930	29530	Flour confectionery machinery (manufacture)
10611	15611	Flour milling (manufacture)
10611	15611	Flour mixes and prepared blended flour and dough for biscuits (manufacture)
10611	15611	Flour mixes and prepared blended flour and dough for bread (manufacture)
10611	15611	Flour mixes and prepared blended flour and dough for cakes (manufacture)
10611	15611	Flour mixes and prepared blended flour and dough for pancakes (manufacture)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

10611 15611 Flour of cereal grains production (manufacture) 10612 15612 Flour of dried leguminous vegetables production (manufacture)

10612 15612 Flour or meal of roots or tubers (manufacture) 10110 15112 Flours and meals of meat (manufacture) 26513 33202 Flow measuring and control instrument (non-electronic) (manufacture)

26511 33201 Flow meters (electronic) (manufacture)

26513 33202 Flow meters (non-electronic) (manufacture) 46220 51220 Flower and plants exporter (wholesale) 46220 51220 Flower and plants importer (wholesale) 01190 01120 Flower growing

22290 25240 Flower pots and tubs made of plastic (manufacture) 23490 26250 Flower pots made of clay (manufacture)

23690 26660 Flower pots made of concrete, plaster, cement or artificial stone (manufacture)

46220 51220 Flower salesman (wholesale)

01190 01120 Flower seed growing

47760 52489 Flowers (retail)

46220 51220 Flowers (wholesale)

77299 71409 Flowers and plants rental and leasing 28120 29122 Flowline assembly (hydraulic equipment) (manufacture)

32910 36620 Flue brush (manufacture)

23320 26400 Flue tiles made of clay (manufacture) 28120 29122 Fluid power equipment (manufacture)

28120 29122 Fluid power systems (manufacture) 22190 25130 Fluid seals made of rubber (manufacture) 09100 11200 Fluid-displacement services

27110 31100 Fluorescent ballasts (i.e. Transformers) (manufacture) 20120 24120 Fluorescent brightening agent (manufacture)

27400 31500 Fluorescent tube (manufacture)

26511 33201 Fluorimeter (electronic) (manufacture)

26513 33202 Fluorimeter (non-electronic) (manufacture) 20130 24130 Fluorine, hydrofluoric acid and fluorides (manufacture)

46760 51560 Fluorspar (wholesale)

08910 14300 Fluorspar mining

22230 25239 Flushing cisterns made of plastic (manufacture) 17120 21120 Fluting paper (manufacture)

46120 51120 Flux (commission agent)

20590 24660 Flux (manufacture)

32300 36400 Fly dressing (manufacture)

20200 24200 Fly paper (manufacture)

93120 92629 Flying club

85320 63230 Flying school (for airline pilots)

85530 80410 Flying school activities (not type rating) 85320 63230 Flying schools for commercial airline pilots

85530 80410 Flying schools not issuing commercial certificates and permits

85320 80220 Flying training for professional pilots 28150 29140 Flywheel (not for motor vehicle engine) (manufacture)

46690 51870 Flywheels and pulleys including pulley blocks (wholesale)

13300 17300 Foam backed fabric finishing (manufacture)

13300 17300 Foam backing (single textile material) (manufacture) 13300 17300 Foam backing (texture material sandwich) (manufacture)

22190 25130 Foam rubber (manufacture)

23990 26829 Foamed slag (manufacture)
46210 51210 Fodder (wholesale)
01190 01110 Fodder maize and other grass growing 28302 29320 Fodder preparing equipment (manufacture)
01190 01110 Fodder root growing
20510 24610 Fog signal (manufacture)
30200 35200 Fog signalling equipment (manufacture)
25990 28750 Foil bags (manufacture)
25920 28720 Foil containers made of aluminium (manufacture) 24420 27420 Foil laminate made of aluminium (manufacture) 24420 27420 Foil made of aluminium (decorated, embossed or cut to size) (manufacture)
24420 27420 Foil made of aluminium (not put up as a packaging product) (manufacture)
24440 27440 Foil made of brass (manufacture) 24440 27440 Foil made of copper (manufacture) 22210 25210 Foil made of plastic (manufacture)
24420 27420 Foil packaging goods, made of aluminium (manufacture)
24420 27420 Foil stock made of aluminium (manufacture) 31090 36140 Folding bed (manufacture)
30120 35120 Folding boat made of rubber (manufacture) 17120 21120 Folding boxboard (manufacture)
17219 21219 Folding boxes made of board (manufacture)
28950 29550 Folding machinery for paper and board (not for office use) (manufacture)
17219 21219 Folding paperboard containers (manufacture)
30920 36639 Folding perambulator (manufacture)
10860 15880 Follow-up milk (manufacture)
10860 15880 Follow-up milk for infants (manufacture) 10822 15842 Fondant (manufacture)
46170 51170 Food (commission agent)
47110 52113 Food (general) (retail)
46390 51390 Food (non-specialised) (wholesale)
46690 51870 Food and beverage machinery (wholesale) 46690 51870 Food and drink preparation and manufacturing machinery for industrial use (wholesale) 28930 29530 Food and drink press (manufacture)
82920 74820 Food bottling and packaging on a fee or contract basis
10860 15880 Food for particular nutritional uses (manufacture) 27510 29710 Food freezer for domestic use (manufacture) 28250 29230 Food freezer over 12 cubic feet capacity (manufacture)
71200 74300 Food hygiene testing activities
27510 29710 Food mixer (electric) (manufacture)
46380 51380 Food n.e.c. including fish, crustaceans and molluscs exporter (wholesale)
46380 51380 Food n.e.c. including fish, crustaceans and molluscs importer (wholesale)
56103 55304 Food preparation in market stalls
28930 29530 Food preparation machinery for hotels and restaurants (manufacture)
28930 29530 Food processing equipment (industrial) (manufacture) 28930 29530 Food processing machinery incl. combined processing, packaging or bottling machinery (manufacture)
10890 15899 Food products enriched with vitamins or proteins (manufacture)
10890 15899 Food supplements (manufacture)
46690 51870 Food, beverage and tobacco industry machinery (wholesale)

SIC 2007	SIC 2003	Activity
46390	51390	Food, beverages and tobacco (non-specialised) (wholesale)
46390	51390	Food, beverages and tobacco (non-specialised) importer (wholesale)
10860	15880	Foods for persons suffering from carbohydrate metabolism disorders (manufacture)
10860	15880	Foods to meet the expenditure of intense muscular effort, especially for sportsmen (manufacture)
42990	45230	Foot and cycle path construction
86900	85140	Foot clinic (NHS)
86900	85140	Foot clinic (private)
32500	33100	Foot support (manufacture)
93199	92629	Football Association
32300	36400	Football case made of leather (manufacture)
93120	92629	Football clubs
93110	92619	Football ground
92000	92710	Football pools
93110	92619	Football stadium
46160	51160	Footwear (commission agent)
15200	19300	Footwear (manufacture)
47721	52431	Footwear (retail)
46420	51423	Footwear (wholesale)
46420	51423	Footwear exporter (wholesale)
46420	51423	Footwear importer (wholesale)
15110	19100	Footwear leather preparation (manufacture)
23990	26821	Footwear made of asbestos (manufacture)
14190	18249	Footwear made of textile fabric with applied soles (manufacture)
14190	17710	Footwear made of textiles without applied soles (manufacture)
28940	29540	Footwear making or repairing machinery (manufacture)
46640	51830	Footwear manufacturing and repairing machinery (wholesale)
22290	19300	Footwear parts and accessories made of plastic (manufacture)
77299	71409	Footwear rental and leasing
46210	51210	Forage (wholesale)
28302	29320	Forage harvester (manufacture)
01190	01110	Forage kale and similar forage products growing
01190	01110	Forage plants seed production including grasses
01190	01110	Forage production
10130	15139	Forcemeat (manufacture)
99000	99000	Foreign armed forces
84210	75210	Foreign economic aid services administration (public sector)
99000	99000	Foreign embassy
66120	67130	Foreign exchange broker
99000	99000	Foreign government service
02100	02010	Forest enterprises
02200	02010	Forest harvesting residues, gathering of these for energy
28302	29320	Forest machinery (manufacture)
02400	74149	Forest management consulting services
02400	02020	Forest pest control
02100	02010	Forest tree nursery operation
02400	02020	Forestry fire protection
02400	02020	Forestry inventories
43120	45110	Forestry land drainage
77310	71310	Forestry machinery and equipment rental and leasing (without operator)
46610	51880	Forestry machinery, accessories and implementsexporter (wholesale)
02400	02020	Forestry service activities
84130	75130	Forestry services administration and regulation (public sector)
02400	02020	Forestry support services
02100	02010	Forests and timber tract planting, replanting, transplanting, thinning and conservation
24100	27100	Forged bars (manufacture)
24100	27100	Forged rail accessories (manufacture)
24100	27100	Forged sections (manufacture)
24100	27100	Forged semi-finished products (manufacture)
25730	28620	Forges (manufacture)
25500	28400	Forging (manufacture)
24420	27420	Forging bars made of aluminium (manufacture)
28210	29210	Forging furnace (manufacture)
28410	29420	Forging machine (metal forming) (metal working) (manufacture)
25710	28610	Fork (cutlery) (manufacture)
28220	29220	Forklift truck (manufacture)
46690	51870	Forklift trucks (wholesale)
22290	25240	Forks made of plastic (manufacture)
20140	24140	Formaldehyde (manufacture)
28410	29420	Forming machine (high energy rate) (manufacture)
28990	29560	Forming machine for glass working (multi-head) (manufacture)
28960	29560	Forming machine for rubber or plastics (manufacture)
58190	22150	Forms publishing
20200	24200	Formulated pesticide (manufacture)
43999	45250	Formwork (civil engineering)
93210	92330	Fortune telling (fairground)
96090	93059	Fortune telling (not fairground)
52290	63400	Forwarding agents
14142	18232	Foundation garment (manufacture)
43999	45250	Foundations construction
24540	27540	Founding of non-ferrous base metal (manufacture)
24420	27420	Foundry alloy made of aluminium (manufacture)
20590	24660	Foundry bonding clays (manufacture)
19100	23100	Foundry coke (manufacture)
20590	24660	Foundry core binder (manufacture)
20590	24660	Foundry facing (manufacture)
24420	27420	Foundry ingot made of aluminium (manufacture)
16290	20510	Foundry moulding pattern made of wood (manufacture)
28990	29560	Foundry moulds (for rubber or plastic) production machines (manufacture)
28990	29560	Foundry moulds forming machinery (manufacture)
24100	27100	Foundry pig iron (manufacture)
20590	24660	Foundry preparation (manufacture)
32990	36631	Fountain pen (manufacture)
32990	36631	Fountain pen nib (manufacture)
46499	51479	Fountain pens, Indian ink drawing pens, stylograph pens and other pens (wholesale)
45111	50101	Four wheel drive vehicles with a weight not exceeding 3.5 tonnes (new) (retail)
45111	50101	Four wheel drive vehicles with a weight not exceeding 3.5 tonnes (new) (wholesale)
45112	50102	Four wheel drive vehicles with a weight not exceeding 3.5 tonnes (used) (retail)
45112	50102	Four wheel drive vehicles with a weight not exceeding 3.5 tonnes (used) (wholesale)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

28950 29550 Fourdrinier (manufacture)
09100 11200 Fracture/stimulation services
28490 29430 Frame and carcass cramps (manufacture)
30910 35410 Frame for motor tricycle (manufacture)
30910 35410 Frame for motorcycle (manufacture)
30920 35420 Frame for pedal cycle (manufacture)
30920 35420 Frame for pedal tricycle (manufacture)
16290 20510 Frames for artists canvases (manufacture)
31090 36140 Frames for mattress support made of wood (manufacture)
22230 25239 Frames made of plastic (manufacture)
74909 74879 Franchisers
28230 30010 Franking machine (manufacture)
94990 91330 Fraternities
90030 92400 Freelance journalist
30920 35420 Free wheel for pedal cycle (manufacture)
68209 70209 Freeholder of leasehold property
94990 91330 Freemasons
08110 14110 Freestone mine or quarry
28250 29230 Freezing industrial equipment, including assemblies of components (manufacture)
51210 62209 Freight air transport (non-scheduled)
51210 62109 Freight air transport (scheduled)
77352 71239 Freight air transport equipment operational leasing (without operator)
51210 62209 Freight aircraft rental services with crew (non-scheduled)
52290 63400 Freight broker
77120 71219 Freight container hire
52290 63400 Freight contractor
50200 61102 Freight ferry (domestic or coastal)
50400 61209 Freight ferry (river or estuary)
50200 61102 Freight ferry (sea going)
50400 61209 Freight ferry transport (inland waterway service)
52290 63400 Freight forwarding
77390 71219 Freight land transport equipment rental (without driver)
50200 61102 Freight shipping service (except for inland waterway service)
50200 61102 Freight shipping service (sea and coastal)
49410 60249 Freight transport by animal-drawn vehicles
49200 60109 Freight transport by inter-urban railways
49410 60249 Freight transport by man-drawn vehicles
49200 60109 Freight transport on mainline rail networks
49410 60249 Freight transport operation by road
50400 61209 Freight vessel rental with crew (inland waterway service)
77342 71229 Freight water transport equipment leasing (without operator)
08990 14500 French chalk production
20301 24301 French polish (manufacture)
31090 36140 French polishing (manufacture)
27110 31100 Frequency converter (not power) (manufacture)
26511 33201 Frequency meter (electronic) (manufacture)
26513 33202 Frequency meter (non-electronic) (manufacture)
46310 51310 Fresh fruit (wholesale)
10710 15810 Fresh pastry (manufacture)
03120 05010 Freshwater aquatic animal taking
03120 05010 Freshwater crustacean and mollusc taking
03220 05020 Freshwater crustaceans, bivalves, other molluscs and other aquatic animals, culture of

03120 05010 Freshwater fishing
03120 05010 Freshwater materials gathering
23990 26829 Friction material and unmounted articles thereof, with a mineral or cellulose base (manufacture)
23990 26829 Friction material made of non-metallic mineral (manufacture)
56103 55303 Fried fish shop
65110 66011 Friendly society (not collecting society) 13200 17220 Frieze cloth (manufacture)
13960 17542 Frilling (manufacture)
13960 17542 Fringe (textile material) (manufacture)
03220 05020 Frog farming
46630 51820 Front-end shovel loaders (wholesale)
52102 63121 Frozen and refrigerated goods storage services, for air transport activities
52103 63121 Frozen and refrigerated goods storage services, for land transport activities
52101 63121 Frozen and refrigerated goods storage services, for water transport activities
47110 52113 Frozen food store (retail)
10850 15139 Frozen meals based on meat (manufacture) 10320 15320 Fruit and vegetable concentrates (manufacture) 46310 51310 Fruit and vegetable exporter (wholesale) 46310 51310 Fruit and vegetable importer (wholesale) 46341 51341 Fruit and vegetable juices (wholesale)
46341 51341 Fruit and vegetable juices exporter (wholesale) 46341 51341 Fruit and vegetable juices importer (wholesale) 46310 51310 Fruit and vegetable market porterage (wholesale) 46170 51170 Fruit and vegetables (commission agent)
46310 51380 Fruit and vegetables (processed) (wholesale) 46310 51310 Fruit and vegetables (unprocessed) (wholesale) 01130 01120 Fruit bearing vegetables growing
16290 20510 Fruit bowls made of wood (manufacture) 10710 15810 Fruit cake baking (manufacture)
28302 29320 Fruit cleaning, sorting or grading machines (manufacture)
11070 15980 Fruit cordial (manufacture)
11070 15980 Fruit drinks (non-alcoholic) (manufacture)
20200 24200 Fruit dropping compound (manufacture)
10390 15330 Fruit freezing (manufacture)
10390 15330 Fruit jelly (preserve) (manufacture)
10320 15320 Fruit juice (manufacture)
28930 29530 Fruit juice preparation machinery (manufacture) 10710 15810 Fruit loaf baking (manufacture)
10390 15330 Fruit or vegetable food products (manufacture) 01630 01410 Fruit packing, for primary market
10822 15842 Fruit peel preserving in sugar (manufacture) 10390 15330 Fruit pickling (manufacture)
10710 15810 Fruit pie making (manufacture)
10390 15330 Fruit preserving (manufacture)
10822 15842 Fruit preserving in sugar (manufacture)
10390 15330 Fruit processing and preserving (except in sugar) (manufacture)
28930 29530 Fruit processing machines and equipment (manufacture)
10390 15330 Fruit pulp (manufacture)
46310 51310 Fruit salesman (wholesale)
01250 01120 Fruit seed growing
20200 24200 Fruit setting compound (manufacture)
47210 52210 Fruit shop (retail)

SIC 2007	SIC 2003	Activity
11070	15980	Fruit squash (manufacture)
47810	52620	Fruit stall keeper (retail)
11070	15980	Fruit syrup (manufacture)
01610	01410	Fruit tree and vine trimming, on a fee or contract basis
01630	01410	Fruit waxing
11030	15949	Fruit wines other than cider and perry (manufacture)
10390	15330	Fruit, nuts or vegetables preserved by immersing in (manufacture)
10390	15330	Fruit, nuts or vegetables preserved by immersing in vinegar (manufacture)
47210	52210	Fruiterer (retail)
46310	51310	Fruiterer (wholesale)
27510	29710	Frying pans (electric) (manufacture)
25990	28750	Frying pans (non-electric) (manufacture)
46120	51120	Fuel (commission agent)
20590	24660	Fuel additive (manufacture)
77390	71340	Fuel bunkers leasing
25290	28210	Fuel bunkers made of metal exceeding 300 litres (manufacture)
28210	29210	Fuel burner (other than oil or gas) (manufacture)
20130	23300	Fuel elements for nuclear reactors production (manufacture)
47300	50500	Fuel for motor vehicles and motorcycles
19201	23201	Fuel heavy fuel oil (manufacture)
28131	29121	Fuel injection equipment for industrial engines (manufacture)
19201	23201	Fuel oil (manufacture)
46711	51511	Fuel oil bulk distribution (wholesale)
47789	52489	Fuel oil for household use (retail)
28131	29121	Fuel pump for industrial engine (manufacture)
28131	29121	Fuel pump for internal combustion piston engine, for aircraft (manufacture)
84130	75130	Fuel services administration and regulation (public sector)
29320	34300	Fuel tank for motor vehicle (manufacture)
30300	35300	Fuel tanks for aircraft (manufacture)
47789	52489	Fuel wood (retail)
02100	02010	Fuel wood production
46719	51519	Fuels (other than petroleum) (wholesale)
46719	51519	Fuels exporter (other than petroleum) (wholesale)
46719	51519	Fuels importer (other than petroleum) (wholesale)
08120	14220	Fuller's earth pit
13300	17300	Fulling mill (manufacture)
46750	51550	Fulminates, cyanates and thiocyanates (wholesale)
31090	36140	Fume cupboards (manufacture)
20200	24200	Fumigating block (manufacture)
81291	74703	Fumigation services
93210	92330	Fun fair
56101	55301	Function room (licensed)
66300	67121	Fund management activities
84110	75110	Fundamental research administration (public sector)
84300	75300	Funding and administration of government provided retirement pensions
84300	75300	Funding and administration of government provided sickness, work-accident and unemployment insurance
82990	74879	Fundraising organisation services on a contract or fee basis
96030	93030	Funeral and related activities
96030	93030	Funeral direction
96030	93030	Funeral furnishing
23700	26700	Funerary stonework (manufacture)
32401	36501	Funfair articles (manufacture)
32401	36501	Funfair games (manufacture)
20200	24200	Fungicide (manufacture)
46120	51120	Fungicides, rodenticides and similar products (commission agent)
46750	51550	Fungicides, rodenticides and similar productsoil (wholesale)
49319	60219	Funicular railway
22290	25240	Funnels made of plastic (manufacture)
01490	01250	Fur animal raising
46420	51429	Fur articles (wholesale)
46160	51160	Fur broker (commission agent)
46420	51421	Fur clothing for adults (wholesale)
15110	18300	Fur dressing (manufacture)
15110	18300	Fur dressing and dyeing (manufacture)
01490	01250	Fur farming
46420	51421	Fur merchant (wholesale)
14200	18300	Fur skin assemblies including dropped fur skins, plates, mats and strips (manufacture)
01490	01250	Fur skin production from ranching operation
28210	29210	Furnace (electric) (manufacture)
23200	26260	Furnace block and pot (manufacture)
46690	51870	Furnace burners, mechanical stokers and grates and mechanical ash dischargers (wholesale)
81223	74705	Furnace cleaning
28210	29210	Furnace for strip processing line (manufacture)
28210	29210	Furnace, furnace burner and industrial oven parts (manufacture)
28210	29210	Furnaces and furnace burners (manufacture)
46690	51870	Furnaces, ovens, incinerators, for industrial or laboratory use (excluding bakery ovens) (wholesale)
13921	17401	Furnishing articles (made-up) (manufacture)
46470	51471	Furnishing contractor (wholesale)
13200	17210	Furnishing fabric (woven (not wool or worsted)) (manufacture)
13200	17230	Furnishing fabric worsted weaving (manufacture)
13200	17220	Furnishing fabrics woollen weaving (manufacture)
13990	17541	Furnishing lace (manufacture)
46150	51150	Furniture (commission agent)
46470	51471	Furniture (wholesale)
31090	36140	Furniture components made of wood (manufacture)
13921	17401	Furniture covers (manufacture)
74100	74872	Furniture designing
46470	51471	Furniture exporter (wholesale)
31090	36140	Furniture finishing (except chairs and seats) (manufacture)
25720	28630	Furniture fittings made of metal (manufacture)
22290	25240	Furniture fittings made of plastic (manufacture)
31090	36140	Furniture for bedrooms (other than mattresses and mattress supports) (manufacture)
31010	36120	Furniture for churches (manufacture)
31010	36120	Furniture for cinemas (manufacture)
31010	36120	Furniture for drawing offices (manufacture)
31090	36140	Furniture for gardens (manufacture)
31020	36130	Furniture for kitchens (manufacture)
31010	36120	Furniture for laboratories (manufacture)
31010	36120	Furniture for libraries (manufacture)
31090	36140	Furniture for living rooms (manufacture)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

32500 33100 Furniture for medical, surgical, dental or veterinaryuse (manufacture)
31010 36120 Furniture for museums (manufacture)
31090 36140 Furniture for nurseries (manufacture)
31010 36120 Furniture for offices (manufacture)
46650 51850 Furniture for offices (wholesale)
31010 36120 Furniture for public houses (manufacture)31010 36120 Furniture for restaurants (manufacture)
31010 36120 Furniture for schools (manufacture)
46650 51850 Furniture for schools (wholesale)
31010 36120 Furniture for ships (manufacture)
31010 36120 Furniture for shops (manufacture)
31010 36120 Furniture for workrooms (manufacture)
46470 51471Furniture importer (wholesale)
31090 36140 Furniture kit (manufacture)
31090 36140 Furniture made of bamboo (other than seating)(manufacture)
23690 26660 Furniture made of concrete, plaster, cement orartificial stone (manufacture)
23650 26650 Furniture made of fibre-cement (manufacture)31090 36140 Furniture parts made of wood (manufacture) 20412 24512 Furniture polish (manufacture)
49420 60241 Furniture removal
77299 71409 Furniture rental and leasing
52102 63129 Furniture repository for air transport activities 52103 63129 Furniture repository for land transport activities52101 63129 Furniture repository for water transport activities 14200 18300 Furrier (manufacture)
47710 52421 Furrier (retail)
46420 51421Furrier (wholesale)
46160 51160Furs (commission agent)
14200 18300 Furskin articles (manufacture)
14200 18300 Furskin assemblies (manufacture)
14200 18300 Furskin pouffes, unstuffed (manufacture)
01700 01500 Furskin production (from hunting)
46240 51241Furskins (wholesale)
46240 51241Furskins exporter (wholesale)
46240 51241Furskins importer (wholesale)
02100 02010 Furze collecting, cutting or gathering 27120 31200 Fuse and fusegear (power) (manufacture)20510 24610 Fuse for explosives (manufacture)
25400 29600 Fuse for shells and bombs (manufacture)
24440 27440 Fuse wire (manufacture)
27120 31200 Fusebox for domestic use (manufacture)
20590 24660 Fusel oil (manufacture)
30300 35300 Fuselage for aircraft (manufacture)
27120 31200 Fuses for domestic use (manufacture)
46690 51870 Fuses, relays and apparatus for protecting electricalcircuits (wholesale)
28940 29540 Fusing presses (manufacture)
13200 17210Fustian weaving (manufacture)
66110 67110 Futures commodity contracts exchanges administration
13200 17210Gabardine (cotton) weaving (manufacture)15200 19300 Gaiters made of leather (manufacture) 10130 15139 Galantines (manufacture)
13960 17542 Galloon ribbon (manufacture)
15200 19300 Galoshes made of rubber (manufacture)
24100 27100 Galvanised sheet steel (manufacture)

46720 51520 Galvanised sheets (wholesale)
25610 28510 Galvanising (manufacture)
26513 33202 Galvanometer (manufacture)
92000 92710 Gambling activities
47220 52220 Game (retail)
46320 51320 Game (wholesale)
10120 15120 Game bird (fresh, chilled or frozen) dressing or preparation (manufacture)
01490 01250 Game bird farming
01700 01500 Game propagation
32409 36509 Games and toys (manufacture)
47650 52485 Games and toys (retail)
46499 51477 Games and toys (wholesale)
47650 52485 Games apparatus (retail)
32401 36501 Games for professional and arcade use (manufacture)
32401 36501 Gaming (automatic slot) machines (manufacture)
92000 92710 Gaming board for Great Britain
92000 92710 Gaming club
77390 71340 Gaming machine hire
21200 24421 Gammaglobulin (manufacture)
46730 51530 Ganister (wholesale)
08990 14500 Ganister extraction
52219 63210 Garage (parking)
68209 70209 Garage letting (lock up)
16230 20300 Garage made of wood (manufacture)
45112 50102 Garage selling used motor vehicles (retail)
46690 51870 Garage tools (wholesale)
23650 26650 Garages made of asbestos cement and concrete (manufacture)
38110 90020 Garbage collection
13940 17520 Garden and horticultural net (manufacture)
47760 52489 Garden centre (retail)
31090 36110 Garden chairs (manufacture)
25730 28620 Garden fork (manufacture)
25120 28120 Garden frames made of metal (manufacture)
16230 20300 Garden frames made of wood (manufacture)
22190 25130 Garden hose made of rubber (manufacture)
31090 36110 Garden seating (manufacture)
47760 52489 Garden seeds and plants (retail)
25730 28620 Garden shears (manufacture)
77299 71401 Garden tool hire
25730 28620 Garden trowel (manufacture)
94990 91330 Gardening clubs
47520 52460 Gardening tools (retail)
46610 51880 Gardening tools (wholesale)
81300 01410 Gardens and sport installations, planting and maintenance on a fee or contract basis
01130 01120 Garlic growing
14200 18300 Garments made of rabbit fur (manufacture)
23910 26810 Garnet abrasives (manufacture)
28940 29540 Garnetters (manufacture)
14190 18249 Garter (manufacture)
47789 52489 Gas (bottled) (retail)
35230 40220 Gas agents (mains gas)
47599 52440 Gas appliances (retail)
46719 51519 Gas bottling and distribution (wholesale)
35230 40220 Gas brokers (mains gas)
28210 29210 Gas burner (manufacture)

SIC 2007	SIC 2003	Activity
26513	33202	Gas chromatograph (manufacture)
28250	29230	Gas cleansing plant (manufacture)
28131	29121	Gas combustion pumps (manufacture)
28132	29122	Gas compressor (manufacture)
28140	29130	Gas cylinder outlet valves (manufacture)
06200	11100	Gas desulphurisation
27400	31500	Gas discharge lamp (manufacture)
06200	11100	Gas extraction (natural gas)
09100	11200	Gas extraction service activities
28290	29240	Gas generators (manufacture)
25400	29600	Gas guns (manufacture)
27400	31500	Gas lanterns (manufacture)
27510	29710	Gas lighter (electric) (manufacture)
52219	11100	Gas liquefaction for land transportation purposes
52220	11100	Gas liquefaction for water transportation purposes
23200	26260	Gas mantle ring and rod (manufacture)
13960	17549	Gas mantles and tubular gas mantle fabric (manufacture)
32990	33100	Gas masks (manufacture)
26511	33201	Gas meter (electronic) (manufacture)
26513	33202	Gas meter (non-electronic) (manufacture)
15120	19200	Gas meter diaphragm made of leather (manufacture)
42210	45213	Gas offshore pipeline laying
19201	23201	Gas oil (manufacture)
46719	51519	Gas oil (wholesale)
28290	29240	Gas or water generator parts (manufacture)
24200	27220	Gas pipes made of steel (manufacture)
35210	40210	Gas production for the purpose of gas supply
23200	26260	Gas retort and kiln lining (manufacture)
49500	60300	Gas transport via pipelines
28110	29110	Gas turbine (excluding turbo-jets and turbo-propellers) parts (manufacture)
28110	29110	Gas turbine (industrial engine) (manufacture)
28110	29110	Gas turbine for marine use (manufacture)
35210	40210	Gas works
82990	74879	Gas, water and electricity meter reading
46719	51519	Gaseous fuels (other than petroleum) (wholesale)
46711	51511	Gaseous petroleum fuels (wholesale)
28290	29240	Gasket (manufacture)
46690	51870	Gaskets (excluding motor vehicle) (wholesale)
23990	26821	Gaskets made of asbestos (manufacture)
46711	51511	Gasoline (wholesale)
27400	31500	Gasoline lanterns (manufacture)
19201	23201	Gasoline motor fuel (manufacture)
13300	17300	Gassing yarn (manufacture)
16230	20300	Gate made of wood (manufacture)
28140	29130	Gate valves (manufacture)
25120	28120	Gates made of metal (manufacture)
26301	32201	Gateways for telecommunications (manufacture)
28990	29560	Gathering machine (paper working) (manufacture)
26511	33201	Gauge (electronic) (manufacture)
26513	33202	Gauge (non-electronic) (manufacture)
23190	26150	Gauge glass (manufacture)
32990	18249	Gauntlet (protective) (manufacture)
32500	24422	Gauze (surgical) (manufacture)
13200	17210	Gauze weaving (manufacture)
28150	29140	Gear box (not for motor vehicle) (manufacture)
29320	34300	Gear box for motor vehicle (manual or automatic) (manufacture)

30910 35410 Gear box for motorcycle (manufacture)
28150 29140 Gear cutting (not for motor vehicle) (manufacture)30920 35420 Gear for pedal cycle (manufacture)
28410 29420 Gear making or finishing machines (metal cutting)(manufacture)
28131 29121 Gear pumps (manufacture)
28150 29140 Geared motor unit (manufacture)
28150 29140 Gearing (manufacture)
28150 29140 Gears (manufacture)
46690 51870 Gears, gearing, ball screws, gear boxes, other speedchangers (excluding motor vehicles) (wholesale)
01470 01240 Geese farming
20590 24620 Gelatine (manufacture)
20590 24620 Gelatine derivatives (manufacture)
20510 24610 Gelignite (manufacture)
08990 14500 Gem stones mining and quarrying 96090 93059 Genealogical organisation services
96090 93059 Genealogist
81210 74701 General cleaning of houses or apartments94120 91120 General Council of the Bar
46900 51900 General dealer (wholesale)
25620 28520 General engineering (manufacture)
86101 85111General hospital (public sector)
86101 85111General hospital psychiatric unit (public sector)33120 28520 General mechanical maintenance and repair of machinery (manufacture)
86210 85120 General medical consultant (private practice)86101 85111 General medical consultant (public sector) 94120 91120 General Medical Council
86210 85120 General medical practitioner
86101 85112General medicine consultant (private sector) 52102 63129 General merchandise warehouses for air transport activities
94120 91120General Nursing Council
84110 75140 General personnel administration and operational services (public sector)
18129 22220 General printing (manufacture)
84110 75110 General public administration activities 47110 52112 General store with predominant sale of food beverages or tobacco products (licensed) (retail)
47110 52113 General store with predominant sale of food beverages or tobacco products (unlicensed) (retail)
47190 52120 General stores in which the sale of food beveragesor tobacco products is not predominant (retail)
28290 29240 General-purpose machinery parts (manufact
46690 51870 Generating sets (wholesale)
35110 40110 Generating station
28110 29110 Generator engine (manufacture)
27110 31100 Generator set (manufacture)
29310 31610Generators (dynamos and alternators) (manufacture)86220 85120 Genito-urinary specialist (private practice)
86101 85111Genito-urinary specialist (public sector)
71122 74206 Geodetic surveying activities
58110 22110 Geographical publishing
71122 74206 Geological and prospecting activities
71122 74206 Geological surveying for petroleum or natural gas(not geological consultancy)
43130 45120Geological test drilling, test boring and core sampling71122 74206 Geologist (consultant)
71122 74206 Geophysical consultancy activities (engineeringrelated)

SIC 2007	SIC 2003	Activity
26511	33201	Geophysical instruments and appliances (electronic)(manufacture)
26513	33202	Geophysical instruments and appliances (non-electronic) (manufacture)
43130	45120	Geophysical test drilling, test boring and coresampling
71122	74206	Geophysical, geologic and seismic surveying
71129	74204	Geotechnical engineering consultancy activities
86101	85112	Geriatric hospital (private sector)
86101	85111	Geriatric hospital (public sector)
86101	85111	Geriatrician (public sector)
24450	27450	Germanium (manufacture)
27330	31200	GFCI (ground fault circuit interrupters) (manufacture)
01130	01120	Gherkin growing
10390	15330	Gherkin pickling (manufacture)
47789	52489	Gift shop (retail)
18140	22230	Gilding (printing service) (manufacture)
25610	28510	Gilding of metals (manufacture)
15110	19100	Gill leather (manufacture)
32130	36610	Gilt (manufacture)
13960	17542	Gimp (manufacture)
11010	15910	Gin (manufacture)
10410	15420	Gingelly oil refining (manufacture)
10410	15410	Gingelly seed crushing (manufacture)
11070	15980	Ginger beer (manufacture)
01280	01139	Ginger growing
13200	17210	Gingham weaving (manufacture)
94990	91330	Girl Guides Association
94990	91330	Girls' Brigade
94990	91330	Girls' Friendly Society
15110	19100	Glace kid (manufacture)
21100	24410	Gland extracts (manufacture)
21100	24410	Gland processing (manufacture)
46180	51180	Glands and other organs, extracts thereof and otherhuman or animal substances (commission agent)
46460	51460	Glands, other organs and their extracts and otherhuman or animal substances n.e.c. (wholesale)
47520	52460	Glass (retail)
23190	26150	Glass ball (manufacture)
23190	26150	Glass ball, bar, rod and tube for processing(manufacture)
25730	28620	Glass cutter (manufacture)
28490	29430	Glass cutting (shaping) machines for faceting or forcut-glass articles (cold glass) (manufacture)
28490	29430	Glass cutting machines of the wheel or diamondtype (cold glass) (manufacture)
28490	29430	Glass engraving machines of the grinding wheel ordiamond type (manufacture)
32500	33100	Glass eyes (manufacture)
23140	26140	Glass fibre spinning and doubling (manufacture)
13200	17250	Glass fibre woven fabric (manufacture)
23140	26140	Glass fibres (manufacture)
23190	26150	Glass in the mass (manufacture)
23130	26130	Glass inners for vacuum flasks and other vacuumvessels (manufacture)
23120	26120	Glass mirrors (manufacture)
23120	26120	Glass mirrors for motor vehicles (not further assembled) (manufacture)
23910	26810	Glass paper (manufacture)
20412	24512	Glass polish (manufacture)
28490	29430	Glass polishing machines (manufacture)

20301 24301 Glass powder (manufacture)
77299 71409 Glass rental and leasing
23120 26120 Glass shaping and processing (manufacture)
46770 51570 Glass waste (wholesale)
23140 26140 Glass wool (manufacture)
28990 29560 Glass, glassware and glass fibre or yarn production machinery (manufacture)
25110 28110 Glasshouses with metal frame (manufacture)
17120 21120 Glassine paper (manufacture)
23190 26150 Glassware (hygienic and pharmaceutical) (manufacture
) 47599 52440 Glassware (retail)
46440 51440 Glassware (wholesale)
23130 26130 Glassware for domestic use (manufacture)
23190 26150 Glassware for laboratory, hygienic or pharmaceutical use (manufacture)
23190 26150 Glassware for technical use (manufacture)
23190 26150 Glassware used in imitation jewellery (manufacture)
23310 26300 Glazed fireplace brick (manufacture)
10612 15612 Glazed rice (manufacture)
23310 26300 Glazed tile (manufacture)
23310 26300 Glazed tiles for fireplaces (manufacture)
20301 24301 Glazes and engobes and similar preparations (manufacture
)43342 45440 Glazing
25120 28120 Glazing bars (manufacture)
43342 45440 Glazing contractor
30300 35300 Glider (manufacture)
93120 92629 Glider club
46499 51479 Gliders and hang-gliders (wholesale)
28140 29130 Globe valves (manufacture)
32990 22110 Globes (manufacture)
23190 26150 Globes made of glass (manufacture)
96010 93010 Glove cleaning
15110 19100 Glove leather preparation (manufacture)
14190 18249 Gloves (other than knitted) (manufacture)
46420 51429 Gloves (wholesale)
22190 25130 Gloves and gauntlets of unstitched rubber (manufacture)
14190 18249 Gloves for children (manufacture)
14190 18249 Gloves made of cloth (manufacture)
14190 18249 Gloves made of fur (manufacture)
47710 52421 Gloves made of fur or leather (retail)
46420 51421 Gloves made of fur or leather (wholesale)
14190 18249 Gloves made of leather (not sports) (manufacture)
14190 18249 Gloves made of textiles for household use (manufacture)
22290 25240 Gloves made of unstitched plastic (manufacture)
47710 52422 Gloves, children's, other than of fur or leather (retail)
47710 52424 Gloves, men's, other than of fur or leather (retail)
47710 52423 Gloves, women's, other than of fur or leather (retail)
29310 31610 Glow plugs (manufacture)
10620 15620 Glucose (manufacture)
10620 15620 Glucose syrup (manufacture)
20520 24620 Glue (manufacture)
16210 20200 Glue laminated wood (manufacture)
18140 22230 Glueing of books, brochures, etc.
16230 20300 Glue-laminated and metal connected prefabricated wooden roof trusses (manufacture)
46120 51120 Glues (commission agent)

SIC 2007	SIC 2003	Activity
28990	29560	Gluing machinery for bookbinders, etc. (manufacture)
28490	29430	Gluing machines (manufacture)
10620	15620	Gluten (manufacture)
10860	15880	Gluten-free foods (manufacture)
46120	51120	Glycerol (commission agent)
20411	24511	Glycerol (manufacture)
46460	51460	Glycoside, vegetable alkaloids and their salts, ethers, esters and other derivatives (wholesale)
21100	24410	Glycosides and their salts, ethers, esters and other derivatives (manufacture)
46180	51180	Glycosides, vegetable alkaloids, their salts, ethers, esters and other derivatives (commission agent)
01450	01220	Goat farming
01450	01220	Goat milk (raw) production
01450	01220	Goat raising and breeding
32500	33401	Goggles (manufacture)
24410	27410	Gold (manufacture)
46720	51520	Gold and other precious metals (wholesale)
32120	36220	Gold and silver braid (manufacture)
24410	27410	Gold and silver bullion (manufacture)
32120	36220	Gold and silver embroidery (manufacture)
32120	36220	Gold and silver mounting (manufacture)
18140	22230	Gold blocking (manufacture)
32120	36220	Gold laceman (manufacture)
32120	36220	Gold leaf (manufacture)
07290	13200	Gold mining and preparation
24410	27410	Gold rolled onto base metals or silver production (manufacture)
18140	22230	Gold stamping (manufacture)
15110	19100	Goldbeaters' skin or bung (manufacture)
32120	36220	Goldsmiths' articles (manufacture)
32120	36220	Goldsmiths' articles of base metals clad with precious metals (manufacture)
32120	36220	Goldsmiths' articles of precious metals (manufacture)
32300	36400	Golf ball (finished) (manufacture)
22190	25130	Golf ball core (manufacture)
29100	34100	Golf carts (manufacture)
93120	92629	Golf club
32300	36400	Golf club (manufacture)
42990	45230	Golf course construction
93110	92619	Golf courses
93110	92619	Golf links
28220	29220	Goliath type crane (manufacture)
52290	63400	Goods agent (not transport authority)
52290	63400	Goods handling operations
52219	63210	Goods handling station operation
46900	51900	Goods n.e.c. exporter (wholesale)
46900	51900	Goods n.e.c. importer (wholesale)
30200	35200	Goods van for railways (manufacture)
28290	29240	Goods vending machines (manufacture)
30200	35200	Goods wagon for railways (manufacture)
10120	15120	Goose (fresh, chilled or frozen) slaughter and dressing (manufacture)
01470	01240	Goose raising and breeding
01250	01139	Gooseberry growing
25730	28620	Gouge (wood frame) (manufacture)
42990	45213	Government department (building and civil engineering works division)
91012	75140	Government records and archives maintenance and storage (public sector)
72190	73100	Government research establishment (other than biotechnological)
85320	80220	Government training centre
14132	18222	Gowns (manufacture)
14120	18210	Gowns for academic, legal or ecclesiastical use (manufacture)
26513	33202	GPS devices (non-electronic) (manufacture)
28922	29522	Grab (manufacture)
28922	29522	Grader (manufacture)
46630	51820	Graders and levellers (wholesale)
85421	80302	Graduate school for business studies
23190	26150	Graduated glassware (manufacture)
46210	51210	Grain (wholesale)
28302	29320	Grain auger (manufacture)
46110	51110	Grain broker (commission agent)
28930	29530	Grain brushing machines (manufacture)
28302	29320	Grain cleaning, sorting and grading machines (manufacture)
28302	29320	Grain drier (manufacture)
01630	01410	Grain drying
01110	01110	Grain maize growing
10611	15611	Grain milling (manufacture)
28930	29530	Grain milling industry machinery (manufacture)
24100	27100	Grain oriented electrical sheet steel (manufacture)
28930	29530	Grain processing machinery and plant (manufacture)
52102	63123	Grain silos operation for air transport activities
52103	63123	Grain silos operation for land transport activities
52101	63123	Grain silos operation for water transport activities
52102	63123	Grain warehouse for air transport activities
52103	63123	Grain warehouse for land transport activities
52101	63123	Grain warehouse for water transport activities
46210	51210	Grain, seeds and animal feeds exporter (wholesale)
46210	51210	Grain, seeds and animal feeds importer (wholesale)
85310	80210	Grammar schools
26400	32300	Gramophone (manufacture)
26400	32300	Gramophone accessory (manufacture)
26400	32300	Gramophone cabinet (manufacture)
59200	22140	Gramophone record publishing
18201	22310	Gramophone record reproduction from master copies (manufacture)
18201	22310	Gramophone records (except master copies) including blanks for cutting) (manufacture)
47630	52450	Gramophone records (retail)
46431	51431	Gramophone records (wholesale)
46431	51431	Gramophone records, recorded tapes, CDs etc. and equipment for playing them, exporter (wholesale)
46431	51431	Gramophone records, recorded tapes, CDs etc. and equipment for playing them, importer (wholesale)
52102	63123	Granary for air transport activities
52103	63123	Granary for land transport activities
52101	63123	Granary for water transport activities
46730	51530	Granite (wholesale)
08110	14110	Granite quarrying (rough trimming and sawing)
23700	26700	Granite working (manufacture)
94990	91330	Grant giving activities by membership organisations or others
94990	91330	Grant making foundations
28990	29560	Granulator for the chemical industry (manufacture)
01210	01131	Grape production
01230	01139	Grapefruit growing

SIC 2007	SIC 2003	Activity
74100	74872	Graphic designer
26200	30020	Graphics tablets and other input devices (manufacture)
23990	26829	Graphite (manufacture)
08990	14500	Graphite (natural) mining
28990	29560	Graphite electrodes production machinery (manufacture)
23990	26829	Graphite products (other than block and crucible)(manufacture)
96090	93059	Graphologist
25990	28750	Grapnel (manufacture)
28210	29210	Grates (mechanical) (manufacture)
27520	29720	Grates for domestic use (non-electric) (manufacture)
32500	33401	Grating (mounted, (not photographic)) (manufacture)
32500	33401	Grating (unmounted, optical) (manufacture)
46730	51530	Gravel (wholesale)
08120	14210	Gravel and sand breaking and crushing
09900	14210	Gravel and sand pit support services provided on a fee or contract basis
09100	11200	Gravel packing services
08120	14210	Gravel pit or quarry
24540	27540	Gravity casting of non-ferrous base metal (manufacture)
20302	24302	Gravure ink (manufacture)
28990	29560	Gravure printing machine (manufacture)
18121	21251	Gravure printing on labels or tags (manufacture)
10840	15870	Gravy (manufacture)
01629	01429	Grazing
19209	23209	Grease formulation outside refineries (manufacture)
17120	21120	Greaseproof paper (manufacture)
19201	23201	Greases (at refinery) (manufacture)
46719	51519	Greases (wholesale)
47210	52210	Greengrocer (retail)
16230	20300	Greenhouse made of wood (manufacture)
18129	22220	Greeting card printing (manufacture)
46499	51479	Greeting cards (wholesale)
58190	22150	Greeting cards publishing
47620	52470	Greetings cards (retail)
25400	29600	Grenade (manufacture)
17120	21120	Grey board (manufacture)
93110	92619	Greyhound racing stadium
93110	92619	Greyhound track
93199	92629	Greyhound training
16290	20510	Grids made of wood (manufacture)
25120	28120	Grilles made of metal (not cast) (manufacture)
27510	29710	Grills (electric) (manufacture)
25930	28730	Grills made of wire (manufacture)
27510	29710	Grinders (electric) (manufacture)
25610	28510	Grinding (metal finishing) (manufacture)
28923	29523	Grinding and other mineral processing machinery(manufacture)
28410	29420	Grinding machines (metal cutting) (manufacture)
28990	29560	Grinding machines for glass (manufacture)
28302	29320	Grinding mill for agricultural use (manufacture)
28930	29530	Grinding mills (manufacture)
23910	26810	Grinding paste (manufacture)
28240	29410	Grinding tools (powered portable) (manufacture)
28490	29430	Grinding wheel cutting and dressing machines (manufacture)

28490 29430 Grinding, smoothing, polishing and grainingmachines for stone, ceramics, asbestos
23910 26810 Grindstones made of bonded abrasives (manufacture)
10611 15611 Grist milling (manufacture)
28290 29240 Grit extraction plant for effluent treatment(manufacture)
28923 29523 Gritting machine (manufacture)
10611 15611 Groats production (manufacture) 47110 52112 Grocer with alcohol licence (retail) 47110 52113 Grocer without alcohol licence (retail)47810 52620 Grocery stall (retail)
96090 93059 Grooming of pet animals
16100 20100 Grooved wood (manufacture)
10832 15862 Ground coffee (manufacture)
30300 35300 Ground effect vehicles (manufacture) 30300 35300 Ground equipment for spacecraft (excluding electronic or telemetric equipment) (manufacture) 30300 35300 Ground flying trainers (manufacture)
46690 51870 Ground flying trainers (wholesale)
26309 32202 Ground station for relay satellite communication(manufacture)
42110 45230 Ground work contracting
68209 70209 Ground, landlord
10410 15410 Groundnut crushing (manufacture)
01110 01110 Groundnut growing
10410 15420 Groundnut oil refining (manufacture)
22190 25130 Groundsheet made of rubber (manufacture) 93110 92619 Groundsman
22190 25130 Grout packers (manufacture)
43999 45250 Grouting contractor (building)
43999 45250 Grouting contractor (civil engineering) 02300 02010 Growing materials, gathering from the wild01250 01139 Growing of berries
01230 01139Growing of citrus fruits 02100 01120 Growing of forest tree seeds
01260 01110Growing of oleaginous fruits other than olives46750 51550 Guano (wholesale)
08910 14300 Guano mining
80100 74602 Guard activities
55209 55239 Guest house (licensed)
55209 55239 Guest house (unlicensed)
96090 93059 Guide (other than tourist)
25400 29600 Guided weapon airborne delivery system, not intercontinental ballistic missile (ICBM) (manufacture)
26511 33201 Guided weapon launching gear and launch controlpost (electronic) (manufacture)
25400 29600 Guided weapon warheads (manufacture) 25400 29600 Guided weapon, except intercontinental ballistic missile (ICBM) (manufacture)
94110 91110 Guilds and similar organisations
01470 01240 Guinea fowl production
01470 01240 Guinea fowl raising and breeding32200 36300 Guitar (manufacture)
23610 26610 Gullies made of concrete (manufacture)20520 24620 Gum (manufacture)
17230 21230 Gummed paper ready for use (manufacture) 46750 51550 Gums (wholesale)
25400 29600 Gun (manufacture)
25400 29600 Gun carriage mounting or platform (manufacture)

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SIC 2007	SIC 2003	Activity
15120	19200	Gun cases made of leather (manufacture)
20510	24610	Guncotton (manufacture)
26511	33201	Gunnery control instrument (electronic) (manufacture)
26513	33202	Gunnery control instrument (non-electronic) (manufacture)
26701	33402	Gunnery control instrument (optical) (manufacture)
20510	24610	Gunpowder (manufacture)
16290	20510	Gunstock made of wood (manufacture)
32990	36639	Gut for musical instruments and sports goods (manufacture)
32990	36639	Gut scraping and spinning (manufacture)
22190	25130	Gutta percha goods (manufacture)
22230	25239	Gutter and fittings made of plastic (manufacture)
93110	92629	Gymnasium
46499	51479	Gymnasium and athletic articles and equipment (wholesale)
32300	36400	Gymnasium equipment and appliances (manufacture)
85510	92629	Gymnastics instruction
86220	85120	Gynaecologist (private practice)
86101	85111	Gynaecologist (public sector)
08110	14120	Gypsum mine or quarry
23520	26530	Gypsum plaster (manufacture)
23620	26620	Gypsum plaster products (manufacture)
28990	33202	Gyroscope (manufacture)
13960	17542	Haberdashery (narrow fabrics) (manufacture)
47510	52410	Haberdashery (retail)
46410	51410	Haberdashery (wholesale)
25730	28620	Hacksaw blades (manufacture)
07100	13100	Haematite quarry
86101	85111	Haematologist (public sector)
10130	15139	Haggis (manufacture)
10110	15112	Hair (animal by-product) from knackers (manufacture)
32910	36620	Hair brush (manufacture)
27510	29710	Hair clippers (electric) (manufacture)
25710	28610	Hair clippers (manufacture)
22290	36639	Hair comb made of plastic (manufacture)
22290	36639	Hair curler made of plastic (manufacture)
32910	36620	Hair dressing for brushes (manufacture)
13100	17170	Hair dressing for upholsterers (manufacture)
27510	29710	Hair dryer (electric) (manufacture)
13300	17300	Hair dyeing (textile) (manufacture)
25990	36639	Hair grips and pins made of metal (manufacture)
20420	24520	Hair lacquers (manufacture)
14190	18249	Hair nets (manufacture)
14190	18249	Hair nets made of lace (manufacture)
32990	36639	Hair pad making (manufacture)
22190	36639	Hair pins of hard rubber (manufacture)
32990	36639	Hair preparation for wig making (manufacture)
20420	24520	Hair preparations (manufacture)
22190	36639	Hair rollers and similar of hard rubber (manufacture)
32990	36639	Hair slides (manufacture)
13200	17210	Haircord weaving (manufacture)
46450	51450	Hairdressers' sundriesman (wholesale)
96020	93020	Hairdressing activities
29320	34300	Half shaft (manufacture)
87900	85311	Halfway group homes for persons with social or personal problems (charitable)
87900	85312	Halfway group homes for persons with social or personal problems (non-charitable)
87900	85311	Halfway homes for delinquents and offenders (charitable)
87900	85312	Halfway homes for delinquents and offenders (non-charitable)
31090	36140	Hall stand (manufacture)
55900	55239	Halls of residence
46120	51120	Halogen or sulphur compounds of non-metals (commission agent)
46750	51550	Halogen or sulphur compounds of non-metals (wholesale)
20130	24130	Halogens and halides (inorganic) (manufacture)
10130	15131	Ham boiling (manufacture)
10130	15131	Ham cooking or preparing in bulk (manufacture)
10130	15131	Ham curing (manufacture)
10130	15131	Ham production (manufacture)
10130	15131	Ham smoking (manufacture)
25730	28620	Hammer (manufacture)
28240	29410	Hammer (portable, powered) (manufacture)
25500	28400	Hammer forging of steel (manufacture)
46740	51540	Hammers (wholesale)
13940	17520	Hammocks (manufacture)
93290	92729	Hampton Court Gardens and Park
01490	01250	Hamster raising and breeding
13300	17300	Hand block printing of textiles (manufacture)
77390	71219	Hand cart hire
20420	24520	Hand cream (manufacture)
47510	52410	Hand knitting yarns (retail)
46410	51410	Hand knitting yarns (wholesale)
15120	19200	Hand luggage made of leather (manufacture)
17120	21120	Hand made paper (manufacture)
46410	51410	Hand mending yarns (wholesale)
46690	51870	Hand or foot operated air pumps (wholesale)
28131	29121	Hand or foot operated pumps (manufacture)
32990	36631	Hand printing sets (manufacture)
32990	36639	Hand riddles (manufacture)
32990	36639	Hand sieves (manufacture)
25730	28620	Hand tools (manufacture)
46740	51540	Hand tools (wholesale)
28240	29410	Hand tools with non-electric motor parts (manufacture)
28240	29410	Hand tools with self contained motor or pneumatic drive (manufacture)
28220	35500	Hand truck made of metal (manufacture)
47722	52432	Handbags (retail)
46499	51479	Handbags (wholesale)
15120	19200	Handbags made of leather or leather substitutes (manufacture)
30990	35500	Handcarts (manufacture)
26200	30020	Hand-held computers PDA (manufacture)
16290	20510	Handicraft articles made of wood (manufacture)
47789	52489	Handicrafts shop (retail)
14190	18249	Handkerchief folding (manufacture)
14190	18249	Handkerchief hemming (manufacture)
17220	21220	Handkerchief made of paper (manufacture)

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SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

14190 18249 Handkerchief made of textile material (manufacture)30910 35410 Handlebar for motorcycle (manufacture)
30920 35420 Handlebar for pedal cycle (manufacture)
16290 20510 Handles and bodies for brooms made of wood(manufacture)
16290 20510 Handles and bodies for brushes made of wood(manufacture)
16290 20510 Handles and bodies for tools made of wood(manufacture)
16290 36639 Handles for canes, umbrellas and similar (manufacture)
22290 25240 Handles for furniture made of plastic (manufacture)16290 20510 Handles made of wood (manufacture)
28220 29220 Handling plant (hydraulic and pneumatic) (manufacture)
28220 29220 Hand-operated lifting capstans (manufacture)
28220 29220 Hand-operated lifting hoists (manufacture)
28220 29220 Hand-operated lifting jacks (manufacture)
28220 29220 Hand-operated lifting pulley tackle (manufacture)28220 29220 Hand-operated lifting winches (manufacture)
25730 28620 Handsaw (manufacture)
13923 17403 Hand-woven tapestries (manufacture)
30300 35300 Hang glider (manufacture)
43330 45430 Hanging or fitting wooden wall coverings52220 63220 Harbour authority
42910 45240 Harbour construction
52220 63220 Harbour operation
19201 10103 Hard coal agglomeration (manufacture) 09900 10102 Hard coal mining (opencast) support services, provided on a fee or contract basis05101 10101 Hard coal mining (underground)
09900 10101 Hard coal mining (underground) support services, provided on a fee or contract basis
05102 10102 Hard coal recovery from tips19100 23100 Hard coke (manufacture)
19100 23100 Hard coke breeze (manufacture)
26200 30020 Hard disk drives (manufacture)
26800 24650 Hard drive media (manufacture)
32990 25240 Hard hats and other personal safety equipment ofplastics (manufacture)
25730 28620 Hard metal tipped tools (manufacture)20411 24511 Hard soap (manufacture)
16210 20200 Hardboard (manufacture)
19201 10103 Hard-coal briquettes (manufacture)
26513 33202 Hardness testing instrument (non-electronic)(manufacture)
46150 51150Hardware (commission agent)
47520 52460 Hardware (retail)
62020 72100 Hardware consultancy
62020 72100 Hardware disaster recovery services
46740 51540 Hardware equipment and supplies (wholesale)62020 72100 Hardware installation services
46740 51540 Hardware, plumbing and heating equipment (wholesale)
46740 51540 Hardware, plumbing and heating equipment andsupplies exporter (wholesale)
46740 51540 Hardware, plumbing and heating equipment andsupplies importer (wholesale)
16220 20300 Hardwood flooring strip (manufacture)
46730 51530 Hardwoods (wholesale)
32200 36300 Harmoniums (manufacture)

32200 36300 Harmoniums with free metal reeds (manufacture) 15120 19200 Harness (manufacture)

15110 19100 Harness and saddlery leather preparation (manufacture)

15120 19200 Harness front and rosette made of leather (manufacture)

32200 36300 Harpsichord (manufacture)

28302 29320 Harrow (manufacture)

28302 29320 Harvesters (manufacture)

46610 51880 Harvesters (wholesale)

28302 29320 Harvesting or threshing machinery harvesters, threshers, sorters (manufacture)

15110 19100 Hat and cap leather preparation (manufacture) 13960 17542 Hat bands (manufacture)

15120 19200 Hat box made of leather or leather substitute (manufacture)

14190 18241 Hat lining (manufacture)

46420 51429 Hat materials (wholesale)

14190 18241 Hat pad (manufacture)

14190 18241 Hat shape (manufacture)

28990 29560 Hatch cover (mechanically operated) (manufacture) 25730 28620 Hatchet (manufacture)

14190 18241 Hats made of cloth (manufacture) 14190 18241 Hats made of felt (manufacture) 14190 18241 Hats made of fur (manufacture)

14190 18241 Hats made of fur fabric (manufacture) 17290 36639 Hats made of paper (manufacture) 14190 18241 Hats made of silk (manufacture) 14190 18241 Hats made of wool (manufacture) 14200 18300 Hatters' fur (manufacture)

49410 60249 Haulage in tanker trucks by road 49410 60249 Haulage of automobiles by road 49410 60249 Haulage of logs by road

77120 71219 Haulage tractors rental (without driver)

28921 29521 Hauling engine for mining (stationary) (manufacture) 13922 17402 Haversack (manufacture)

46210 51210 Hay (wholesale)

28302 29320 Hay making equipment (manufacture)

77320 71320 Hazard warning lamp hire

38120 90020 Hazardous waste collection (e.g. Batteries, used cooking oils, etc.)

01250 01139 Hazelnut growing

70100 74154 Head office of catering company 70100 74153 Head office of construction company 70100 74155 Head office of motor trades company

70100 74159 Head office of other non-financial company 70100 74158 Head office of production company

70100 74157 Head office of retail company

70100 74156 Head office of service trades company 70100 74152 Head office of transport company 70100 74151 Head office of wholesale company 32300 36400 Headgear for sports (manufacture)

23990 26821 Headgear made of asbestos (manufacture) 14190 18241 Headgear made of furskins (manufacture) 22290 25240 Headgear made of plastic (manufacture) 28921 29521 Heading machine for mining (manufacture) 26400 32300 Headphones (manufacture)

26400 32300 Headset (not telecommunication type) (manufacture) 14190 18249 Headsquare (manufacture)

28940 29540 Heald (textile machinery accessory) (manufacture)

SIC 2007	SIC 2003	Activity
84220	75220	Health activities for military personnel in the field
71122	74206	Health and safety and other hazard protection and control consultancy activities
84120	75120	Health care services administration (public sector)
86900	85140	Health centre
93130	93040	Health clubs
96040	93040	Health farm
47290	52270	Health foods (retail)
65120	66031	Health insurance
86900	85140	Health visitor
26600	33100	Hearing aid (electronic) (manufacture)
47741	52321	Hearing aids (retail)
46460	51460	Hearing aids (wholesale)
30990	35500	Hearses drawn by animals (manufacture)
32910	36620	Hearth brush (manufacture)
23310	26300	Hearth or wall tiles made of non-refractory ceramic (manufacture)
23310	26300	Hearth tile made of clay (unglazed) (manufacture)
43220	45330	Heat and air-conditioning installation
27520	29720	Heat emitter (space heating equipment) (non-electric) (manufacture)
46690	51870	Heat exchange units and machinery for liquefying air and other gases (wholesale)
28250	29230	Heat exchange units for air conditioning (manufacture)
25300	28300	Heat exchanger for process plant (manufacture)
46740	51540	Heat insulated tanks for central heating (wholesale)
23200	26260	Heat insulating ceramic goods made of siliceous fossil meals (manufacture)
23990	26829	Heat insulating materials (other than asbestos) (manufacture)
26511	33201	Heat meters (electronic) (manufacture)
26513	33202	Heat meters (non-electronic) (manufacture)
23130	26130	Heat resisting glassware for cooking purposes (manufacture)
22290	25240	Heat sensitive adhesive tape made of plastic (manufacture)
28940	29540	Heat setting machinery for textiles (manufacture)
28210	29210	Heat treatment furnace (manufacture)
10390	15330	Heat treatment of fruit and vegetables (manufacture)
10511	15511	Heat treatment of milk (manufacture)
20590	24660	Heat treatment salts (manufacture)
27510	29710	Heater for motor vehicle (manufacture)
02100	02010	Heath collecting, cutting or gathering
27520	29720	Heating and cooking appliances for domestic use (oil fired) (manufacture)
43220	45330	Heating and plumbing contracting
27520	29720	Heating appliances for domestic use (non-electric) (manufacture)
43220	45330	Heating engineering (buildings)
46740	51540	Heating equipment and supplies (wholesale)
46719	51519	Heating oil (wholesale)
27510	29710	Heating resistors (electric) (manufacture)
43220	45330	Heating service contracting
71129	74204	Heating systems for buildings design activities
28140	29130	Heating taps (manufacture)
28140	29130	Heating valves (manufacture)
28210	29210	Heating/melting high frequency induction or dielectric equipment (manufacture)
25500	28400	Heavy forging (manufacture)
29100	34100	Heavy goods vehicle (manufacture)
49410	60249	Heavy haulage by road
50200	61102	Heavy lift vessel services
25930	28730	Heavy wire (manufacture)
28230	30010	Hectograph (manufacture)
28240	29410	Hedge trimmers (powered portable) (manufacture)
81300	01410	Hedge trimming on a fee or contract basis (except as an agricultural service activity)
28302	29320	Hedgecutter for agricultural use (manufacture)
22190	19300	Heel and sole made of rubber (manufacture)
95230	52740	Heel replacement services (while you wait)
15200	19300	Heels made of leather (manufacture)
28131	29121	Helical rotor pump (manufacture)
25930	28740	Helical springs (manufacture)
28490	29430	Helical-wire cutting machines for stone, ceramics, asbestos-cement or similar (manufacture)
28131	29121	Helicoidal pumps (manufacture)
30300	35300	Helicopter (manufacture)
51210	62209	Helicopter freight services (non-scheduled)
51102	62201	Helicopter passenger services (non-scheduled)
30300	35300	Helicopter rotors for aircraft (manufacture)
46690	51870	Helicopters (wholesale)
43999	45250	Helideck erection work
46210	51210	Hemp (unprocessed) (wholesale)
13100	17170	Hemp carding (manufacture)
13100	17170	Hemp dressing (manufacture)
13940	17520	Hemp rope, cord or line (manufacture)
13100	17170	Hemp sorting (manufacture)
13100	17170	Hemp spinning (manufacture)
13200	17250	Hemp weaving (manufacture)
18140	22230	Heraldic chasing and seal engraving (manufacture)
18140	22230	Heraldic engraving (manufacture)
90030	92319	Heraldic painting
46170	51170	Herb infusions (commission agent)
47210	52210	Herb seller (food) (retail)
10831	15861	Herb tea (manufacture)
47210	52210	Herbalist (food) (retail)
20200	24200	Herbicide (manufacture)
46750	51550	Herbicides and insecticides (wholesale)
01130	01120	Herbs (culinary) growing
46310	51310	Herbs (wholesale)
77390	71340	Herd leasing
01629	01429	Herd testing services
46330	51333	Herring oil (wholesale)
10410	15420	Herring oil refining (manufacture)
46380	51380	Herrings (wholesale)
13200	17250	Hessian (manufacture)
46410	51410	Hessian (wholesale)
46120	51120	Heterocyclic compounds (commission agent)
20140	24140	Heterocyclic compounds (manufacture)
46750	51550	Heterocyclic compounds (wholesale)
18129	22220	Hexachrome printing (manufacture)
46110	51110	Hide and skin broker (commission agent)
10110	15111	Hide degreasing (manufacture)
10110	15111	Hide pickling (manufacture)
46240	51249	Hides (wholesale)
28940	29540	Hides and skins preparation, tanning, working or repairing machinery (manufacture)
10110	15111	Hides and skins production from abattoirs (manufacture)

SIC 2007	SIC 2003	Activity
10110	15111	Hides and skins production from knackers (manufacture)
10110	15111	Hides and skins production from slaughterhouses(manufacture)
46240	51249	Hides, skins and leather exporter (wholesale)
46240	51249	Hides, skins and leather importer (wholesale)
26400	32300	Hi-fi equipment (manufacture)
47430	52450	Hi-fi equipment (retail)
24100	27100	High carbon ferro-manganese (carbon over 2%)(manufacture)
84230	75230	High Court of Justice
84230	75230	High court of Justice in Bankruptcy
84230	75230	High Court of Justiciary (Scotland)
24100	27100	High speed tool steel (manufacture)
20600	24700	High tenacity yarn made of viscose rayon (manufacture)
85410	80301	Higher education (sub degree level)
85422	80303	Higher education at post-graduate level
85421	80302	Higher education at the first degree level
81299	90030	Highway cleaning of snow and ice
42110	45230	Highway construction
25720	28630	Hinge (manufacture)
01430	01220	Hinny farming and breeding
64921	65221	Hire purchase company (other than in banks' sector)
94990	91330	Historical club
91020	92521	Historical museums
96090	93059	Historical research
91030	92522	Historical sites and buildings preservation
93290	92729	Hobby instructor (own account)
93120	92629	Hockey club
32300	36400	Hockey stick (manufacture)
93110	92619	Hockey, cricket, rugby stadiums operation
25730	28620	Hoe (manufacture)
28220	29220	Hoists (electric wire or chain) (manufacture)
28220	29220	Hoists (hand operated pulley and sheave block)(manufacture)
28220	29220	Hoists, hydraulic, mechanical, pneumatic (not builders, hand operated and electrical) (manufacture)
64205	65234	Holding company activities for banks
64201	74159	Holding company in agricultural sector
64209	74154	Holding company in catering sector
64203	74153	Holding company in construction sector
64205	65239	Holding company in financial services sector
64204	74155	Holding company in motor trades sector
64202	74158	Holding company in production sector
64209	74159	Holding company in property sector
64204	74157	Holding company in retail sector
64209	74152	Holding company in transport sector
64204	74151	Holding company in wholesale sector
64209	74159	Holding company n.e.c.
28230	30010	Hole punches (manufacture)
55201	55231	Holiday and other short stay accommodation, provided in holiday centres and holiday villages
55201	55231	Holiday camp
55201	55231	Holiday centres and villages
55209	55232	Holiday home (not charitable)
79909	63309	Holiday information centre
24200	27220	Hollow bars made of steel (manufacture)
24100	27100	Hollow drill bars made of steel (manufacture)
23130	26130	Hollow glass (manufacture)

23320 26400 Hollow partition made of clay (manufacture)24510 27210 Hollow profiles of cast-iron (manufacture)
24420 27420 Hollow sections made of aluminium (manufacture)
25990 28750 Hollow ware (domestic) made of metal (manufacture)
22290 25240 Hollow ware made of plastic (manufacture) 23200 26260 Hollow ware made of refractory (manufacture)87300 85311 Home for the blind (charitable)
87300 85312 Home for the blind (non-charitable) 87300 85311 Home for the disabled (charitable) 87300 85312 Home for the disabled (non-charitable)87300 85311 Home for the elderly (charitable)
87300 85312 Home for the elderly (non-charitable) 88100 85321 Home help service (charitable)
88100 85322 Home help service (non-charitable)
86900 85140 Home nurse (NHS)
86900 85140 Homeopath (not registered medical practitioner)86220 85120 Homeopath (registered medical practitioner)
21200 24421 Homeopathic preparations (manufacture)
87300 85311 Homes for the elderly with minimal nursing care(charitable)
87300 85312 Homes for the elderly with minimal nursing care(non-charitable)
87100 85140 Homes for the elderly with nursing care
10860 15880 Homogenised food preparations (manufacture) 10390 15330 Homogenised fruit and vegetables (manufacture)10511 15511 Homogenised milk production (manufacture)
28930 29530 Homogenisers (manufacture)
23910 26810 Hones (bonded) (manufacture)
46380 51380 Honey (wholesale)
01490 01250 Honey and beeswax production
01490 01250 Honey processing and packing
28410 29420 Honing machine (metal cutting) (manufacture)25990 28750 Hook and eye (manufacture)
30200 35200 Hooks and coupling devices (manufacture)16240 20400 Hoops made of wood (manufacture) 02100 02010 Hoopwood production
10110 15112 Hooves from knackers production (manufacture)11070 15980 Hop bitters (manufacture)
01280 01110Hop cones growing
10890 15899 Hop extracts (manufacture)
46210 51210Hops (wholesale)
09100 11200 Horizontal drilling services
21200 24421 Hormonal contraceptive medicaments (manufacture)21100 24410 Hormone (not plant hormone) (manufacture)
46180 51180Hormones and their derivatives (commission agent)46460 51460 Hormones and their derivatives (wholesale)
32990 36639 Horn and tortoise shell working (manufacture)32990 36639 Horn pressing (manufacture)
32200 36300 Horns (musical) (manufacture)
29310 31610Horns for motor vehicle (electric) (manufacture)29202 34202 Horse box trailers (manufacture)
94990 91330 Horse breeding society
96090 93059 Horse clipping
15120 19200 Horse collars made of leather (manufacture)30990 35500 Horse drawn trailer (manufacture)
30990 35500 Horse drawn truck (manufacture)
01430 01220 Horse farming and breeding 92000 92710 Horse race betting levy board

SIC 2007	SIC 2003	Activity
93199	92629	Horse training (racehorse)
15120	36639	Horse whips (manufacture)
02300	02010	Horse-chestnut gathering
46210	51210	Horsehair (wholesale)
13100	17170	Horsehair curling (manufacture)
13100	17170	Horsehair dressing (manufacture)
13100	17170	Horsehair hackling (manufacture)
13100	17170	Horsehair sorting (manufacture)
13100	17170	Horsehair teasing (manufacture)
92000	92710	Horserace totalisator board
46230	51230	Horses (wholesale)
46610	51880	Horticultural machinery (wholesale)
77310	71310	Horticultural machinery hire (without operator)
22210	25210	Hose and pipe fittings made of plastic (manufacture)
13300	17300	Hose bleaching, dyeing or otherwise finishing (manufacture)
22210	25210	Hose made of plastic (manufacture)
22190	25130	Hose made of rubber (manufacture)
13960	17542	Hosepiping made of textiles (manufacture)
14310	17710	Hosiery (knitted and crocheted) (manufacture)
46420	51429	Hosiery (wholesale)
14310	17710	Hosiery blank (manufacture)
13300	17300	Hosiery finishing (manufacture)
28940	29540	Hosiery knitting machinery (manufacture)
13300	17300	Hosiery printing (manufacture)
13300	17300	Hosiery scouring (manufacture)
13300	17300	Hosiery shrinking (manufacture)
13300	17300	Hosiery trimming
86101	85112	Hospice (private sector)
86101	85111	Hospice (public sector)
86101	85112	Hospital activities (private sector)
86101	85111	Hospital activities (public sector)
32500	33100	Hospital beds with mechanical fittings (manufacture)
65120	66031	Hospital contribution scheme
96010	93010	Hospital laundry
65120	66031	Hospital saving association
85100	80100	Hospital schools at nursery and primary level
85310	80210	Hospital schools at secondary level
87900	85311	Hostel for the homeless (charitable)
87900	85312	Hostel for the homeless (non-charitable)
55900	55239	Hostels (not social work)
30300	35300	Hot air balloons (manufacture)
25610	28510	Hot dip coating (metal finishing) (manufacture)
24100	27100	Hot dip metal coated sheet steel (manufacture)
24100	27100	Hot dip zinc coated sheet steel (manufacture)
56103	55304	Hot dog vendor
24200	27220	Hot finished steel tube (manufacture)
28990	29560	Hot glass working machinery (manufacture)
20520	24620	Hot melt adhesive (manufacture)
28910	29510	Hot metals handling machinery and equipment (manufacture)
27510	29710	Hot plates (electric) (manufacture)
25500	28400	Hot pressing of ferrous metals (manufacture)
24100	27100	Hot rolled steel angles (l-sections) (manufacture)
24100	27100	Hot rolled steel base plates (manufacture)
24100	27100	Hot rolled steel beams (manufacture)
24100	27100	Hot rolled steel bearing piling (manufacture)
24100	27100	Hot rolled steel channels (manufacture)
24100	27100	Hot rolled steel columns (manufacture)
24100	27100	Hot rolled steel cut lengths (manufacture)
24100	27100	Hot rolled steel fish plates (manufacture)
24100	27100	Hot rolled steel flat bars (manufacture)
24100	27100	Hot rolled steel heavy sections (manufacture)
24100	27100	Hot rolled steel hexagonal bars (manufacture)
24100	27100	Hot rolled steel h-sections (manufacture)
24100	27100	Hot rolled steel i-sections (manufacture)
24100	27100	Hot rolled steel joists (manufacture)
24100	27100	Hot rolled steel light sections (manufacture)
24100	27100	Hot rolled steel narrow strip (manufacture)
24100	27100	Hot rolled steel plate (manufacture)
24100	27100	Hot rolled steel quarto plate (manufacture)
24100	27100	Hot rolled steel railway materials (manufacture)
24100	27100	Hot rolled steel reversing mill plate (manufacture)
24100	27100	Hot rolled steel round bars (manufacture)
24100	27100	Hot rolled steel sections for mining frames (manufacture)
24100	27100	Hot rolled steel sheet (manufacture)
24100	27100	Hot rolled steel sheet piling (manufacture)
24100	27100	Hot rolled steel sole plates (manufacture)
24100	27100	Hot rolled steel special bars (manufacture)
24100	27100	Hot rolled steel special sections (manufacture)
24100	27100	Hot rolled steel square bars (manufacture)
24100	27100	Hot rolled steel t-sections (manufacture)
24100	27100	Hot rolled steel u-sections (manufacture)
24100	27100	Hot rolled steel wide strip (hot rolled wide coil) (manufacture)
28290	29430	Hot spraying electrical machines (metal or metal carbides) (manufacture)
25500	28400	Hot stamping of ferrous metals (manufacture)
22190	25130	Hot water bottles made of rubber (manufacture)
43220	45330	Hot water engineer
46740	51540	Hot water heaters (wholesale)
35300	40300	Hot water production and distribution
55100	55101	Hotel (licensed with restaurant)
55100	55102	Hotel (unlicensed with restaurant)
55100	55103	Hotel without restaurant
09100	11200	Hot-tap operation services
68310	70310	House agent
41202	45212	House building and repairing
47599	52440	House furnisher (retail)
65120	66031	House insurance
68209	70209	House letting (private)
68310	70310	House letting agency
15200	19300	House shoe (manufacture)
30120	35120	Houseboat (manufacture)
14132	18222	Housecoats (manufacture)
17220	21220	Household and personal hygiene paper (manufacture)
47599	52440	Household articles and equipment n.e.c. (retail)
25990	28750	Household articles made of metal (manufacture)
17220	21220	Household cellulose wadding paper products (manufacture)
47599	52440	Household furnishing articles made of textile materials (retail)
47599	52440	Household furniture (retail)
46150	51150	Household goods (commission agent)
77299	71409	Household goods hire
46499	51479	Household goods n.e.c. exporter (wholesale)
46499	51479	Household goods n.e.c. Importer (wholesale)

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SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

46410 51410 Household linen (wholesale)
47599 52440 Household non-electrical appliances (retail)
46499 51479 Household non-electrical appliances (wholesale)
47190 52120 Household stores (retail)
13923 17403 Household textile made-up articles (manufacture) 13923 17403 Household textiles (manufacture)
47510 52410 Household textiles (retail)
46410 51410 Household textiles (wholesale)
47599 52440 Household utensils (retail)
25990 28750 Household utensils made of metal (manufacture) 22290 25240 Household utensils made of plastic (manufacture) 16290 20510 Household utensils made of wood (manufacture) 77299 71409 Housewares rental and leasing
41100 70110 Housing association (building houses for later sale) 41202 45212 Housing association (building work)
68201 70209 Housing association (social housing for rental) 84120 75120 Housing services administration (public sector) 30110 35110 Hovercraft (manufacture)
50100 61101 Hovercraft operator between UK and international ports (passenger)
25400 29600 Howitzer (manufacture)
61100 64200 Hull telephone service
96030 93030 Human or animal corpse burial or incineration 21200 24421 Human plasma extract (manufacture)
70229 74149 Human resources management consultancy services
78300 74500 Human resources provision on a long term or permanent basis
37000 90010 Human waste water collection and transport by sewers, collectors, tanks and other means of transport
72200 73200 Humanities research and experimental development 28250 29230 Humidifier for air conditioning equipment (manufacture)
26513 33202 Humidistats (non-electronic) (manufacture)
93199 92629 Hunt kennels
93199 92629 Hunt stables
94990 01500 Hunting and trapping (commercial) promotion activities
93199 92629 Hunting for sport or recreation
01700 01500 Hunting or trapping of animals for food 01700 01500 Hunting or trapping of animals for fur 01700 01500 Hunting or trapping of animals for pets 01700 01500 Hunting or trapping of animals for skin
01700 01500 Hunting or trapping of animals for use in research 01700 01500 Hunting or trapping of animals for use in zoos 32300 36400 Hunting requisites (manufacture)
84130 75130 Hunting services administration and regulation (public sector)
01700 01500 Hunting, trapping and related service activities 16290 20510 Hurdles made of wood (manufacture)
16230 20300 Huts made of wood (manufacture)
26200 30020 Hybrid computer (manufacture)
26110 32100 Hybrid integrated circuits (electronic) (manufacture) 26200 30020 Hybrid machines (manufacture)
93290 92729 Hyde Park
23520 26520 Hydrated lime (manufacture)
28120 29122 Hydraulic and pneumatic components (manufacture) 28220 29220 Hydraulic and pneumatic conveying plant (manufacture)
28120 29122 Hydraulic and pneumatic cylinders (manufacture)

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28220 29220 Hydraulic and pneumatic handling plant (manufacture)
28120 29122 Hydraulic and pneumatic hoses and fittings (manufacture)
28120 29122 Hydraulic and pneumatic power engine and motorparts (manufacture)
46690 51870 Hydraulic and pneumatic power engines and motors (wholesale)
28120 29130 Hydraulic and pneumatic valves (manufacture) 20590 24660 Hydraulic brake fluid (less than 70% petroleum oil) (manufacture)
46120 51120Hydraulic brake fluids (commission agent)28410 29420 Hydraulic brakes (manufacture)
43999 45240 Hydraulic construction (subsurface work)
71129 74204 Hydraulic engineering design projects
28120 29122 Hydraulic equipment for aircraft (manufacture) 28120 29122 Hydraulic exhauster (manufacture)
22190 25130 Hydraulic hose made of rubber (manufacture)15110 19100 Hydraulic leather (manufacture)
23520 26520 Hydraulic lime (manufacture)
19209 23209 Hydraulic oil formulation outside refineries(manufacture)
28120 29122 Hydraulic power engines and motors (manufacture) 35300 40300 Hydraulic power production and distribution 72190 73100 Hydraulic research station
28120 29140 Hydraulic transmission equipment (manufacture)
20590 24660 Hydraulic transmission liquids (manufacture)
28110 29110 Hydraulic turbine (manufacture)
28110 29110 Hydraulic turbine and water wheel parts (manufacture)
28110 29110 Hydraulic turbines and parts thereof: (manufacture) 46690 51870 Hydraulic turbines and water wheels (wholesale) 55209 55239 Hydro (accommodation)
35110 40110 Hydro electric power station
28120 29122 Hydro pneumatic device (manufacture)
46120 51120Hydrocarbon derivatives (commission agent) 20140 24140 Hydrocarbon derivatives (sulphated, nitrated or nitrosated) (manufacture)
06200 11100Hydrocarbon liquids mining, by liquefaction orpyrolysis
20140 24140 Hydrocarbons (not fuels) (manufacture)
20130 24130 Hydrochloric acid (manufacture)
30110 35110 Hydrofoil (manufacture)
20110 24110 Hydrogen (manufacture)
46120 51120Hydrogen chloride (commission agent)
46750 51550 Hydrogen chloride (wholesale)
20130 24130 Hydrogen peroxide (manufacture)
46750 51550 Hydrogen peroxide (wholesale)
46120 51120Hydrogen, argon, nitrogen, oxygen and rare gases(commission agent)
26511 33201 Hydrographic instrument and apparatus (electronic)(manufacture)
26513 33202 Hydrographic instrument and apparatus (non-electronic) (manufacture) 71122 74206 Hydrographic surveying activities
71122 74206 Hydrologic surveying activities
26511 33201 Hydrological instrument (electronic) (manufacture)
26513 33202 Hydrological instrument (non-electronic) (manufacture)
26511 33201 Hydrometers (electronic) (manufacture)
26513 33202 Hydrometers (non-electronic) (manufacture)

SIC 2007	SIC 2003	Activity
46690	51870	Hydrometers, non-medical thermometers, pyrometers, barometers, hygrometers and the like (wholesale)
26513	33202	Hydronic limit controls (non-electronic) (manufacture)
28120	29122	Hydrostatic transmissions (manufacture)
20130	24130	Hydrosulphite (manufacture)
81299	90030	Hygiene contracting
22190	25130	Hygienic articles made of rubber (manufacture)
23190	26150	Hygienic glassware (other than containers) (manufacture)
17120	21120	Hygienic paper (uncut) (manufacture)
32500	33100	Hyperbaric chambers (manufacture)
09100	11200	Hyperbaric welding services
47110	52112	Hypermarket selling mainly foodstuffs with alcohol licence (retail)
47110	52113	Hypermarket selling mainly foodstuffs without alcohol licence (retail)
46750	51550	Hypochlorites, chlorates and perchlorates (wholesale)
32500	33100	Hypodermic syringe and equipment (manufacture)
35300	15980	Ice (for human consumption)
35300	40300	Ice (not for human consumption)
31090	36140	Ice box made of wood (manufacture)
52220	63220	Ice breaking services
31090	36140	Ice chest made of wood (manufacture)
10520	15520	Ice cream (manufacture)
46360	51360	Ice cream (wholesale)
28250	29230	Ice cream conservator (manufacture)
56103	55303	Ice cream parlour
10520	15520	Ice cream powder (manufacture)
56103	55303	Ice cream retailer (take away)
56103	55304	Ice cream vans
93120	92629	Ice hockey club
93110	92611	Ice skating rink
93110	92619	Ice-hockey arenas operation
32300	36400	Ice-skates (manufacture)
10810	15830	Icing sugar (manufacture)
08110	14110	Igneous rock quarry
29310	31610	Ignition coil (manufacture)
29310	31610	Ignition equipment (other than coils and magnetos) (manufacture)
29310	31610	Ignition magnetos (manufacture)
23190	26150	Illuminated glassware (manufacture)
27400	31500	Illuminated signs and nameplates (manufacture)
46690	51870	Illuminated signs and name-plates (wholesale)
22290	25240	Illuminated street furniture made of plastic (manufacture)
27400	31500	Illuminated traffic signs (manufacture)
90030	92319	Illuminating (illustrating)
26110	32100	Image converters and intensifiers (manufacture)
26702	33403	Image projectors (manufacture)
18130	22240	Image setting for letterpress processes (manufacture)
18130	22240	Image setting for offset printing processes (manufacture)
61100	64200	Image transmission via cables, broadcasting, relay or satellite
60200	72400	Image with sound internet broadcasting
13200	17210	Imitation fur (woven long pile fabrics) (manufacture)
13910	17600	Imitation fur obtained by knitting (manufacture)
13200	17220	Imitation fur of long pile fabrics made on the woollen system (manufacture)
32130	36610	Imitation jewellery (manufacture)
46480	51474	Imitation jewellery (wholesale)
46480	51474	Imitation jewellery exporter (wholesale)
46480	51474	Imitation jewellery importer (wholesale)
14110	18100	Imitation leather clothes for men and boys (manufacture)
14110	18100	Imitation leather clothes for women and girls (manufacture)
32130	36610	Imitation pearls (manufacture)
46480	51474	Imitation pearls (wholesale)
27510	29710	Immersion heater (electric) (manufacture)
46439	51439	Immersion heaters (wholesale)
16100	20100	Immersion treatment of wood (manufacture)
21200	24421	Immunoglobin (manufacture)
28131	29121	Impeller pumps (manufacture)
91020	92521	Imperial War Museum
20412	24512	Impregnated cleaning and polishing cloth (manufacture)
13300	17300	Impregnating purchased garments (manufacture)
90010	92311	Impresario
16210	20200	Improved wood (manufacture)
82200	74860	Inbound call centres
13960	17549	Incandescent mantle (manufacture)
20510	24610	Incendiary composition (manufacture)
38220	90020	Incineration of hazardous waste
28210	29210	Incinerator (manufacture)
81223	74705	Incinerator cleaning
47791	52501	Incunabula (retail)
82990	74879	Independent auctioneers
60100	92201	Independent Broadcasting Authority (radio broadcasting)
66190	67130	Independent financial advisors (not specialising in insurance or pensions advice)
29320	34300	Independent suspension units for motor vehicles (manufacture)
17230	21230	Index card (manufacture)
20590	24660	Indian ink (manufacture)
29310	31610	Indicating measuring instrument for vehicles and aircraft (electric) (manufacture)
27900	31620	Indicator panel (manufacture)
46750	51550	Indigo (wholesale)
32409	36509	Indoor game (manufacture)
28210	29210	Induction furnace (manufacture)
46690	51870	Induction or dielectric heating equipment for industrial or laboratory use (wholesale)
28250	29230	Induction unit for air conditioning equipment (manufacture)
26110	31100	Inductor (electronic) (manufacture)
20520	24620	Industrial adhesives (manufacture)
25300	28300	Industrial air heater for boilers (manufacture)
22190	25130	Industrial belting made of rubber (manufacture)
19201	23201	Industrial benzole (manufacture)
32910	36620	Industrial broom and mop (manufacture)
32910	36620	Industrial brush (manufacture)
56290	55520	Industrial canteen (run by catering contractor)
28990	29560	Industrial carpet sweeper (manufacture)
20590	24660	Industrial catalyst (manufacture)
46120	51120	Industrial chemicals (commission agent)
46750	51550	Industrial chemicals (wholesale)

SIC 2007	SIC 2003	Activity
81210	74701	Industrial cleaning
20590	24660	Industrial cleaning preparation (manufacture)
14120	18210	Industrial clothing (manufacture)
96010	93010	Industrial clothing hire from laundries
71121	74205	Industrial consultants
71121	74205	Industrial design consultants
71121	74205	Industrial design service
70229	74149	Industrial development consultancy services
46750	51550	Industrial dyes (wholesale)
28110	29110	Industrial engine parts (manufacture)
46140	51140	Industrial equipment (commission agent)
81299	74709	Industrial equipment cleaning (non-specialised)
68209	70209	Industrial estate letting
46120	51120	Industrial fatty acids (commission agent)
46750	51550	Industrial fatty alcohols (wholesale)
20110	24110	Industrial gases (manufacture)
46750	51550	Industrial gases (wholesale)
23190	26150	Industrial glassware (not container) (manufacture)
65120	66031	Industrial insurance
28140	29130	Industrial intake taps (manufacture)
15120	19200	Industrial leather (manufacture)
14110	18100	Industrial leather welders aprons (manufacture)
46900	51900	Industrial materials (general or undefined) (wholesale)
28990	29560	Industrial mixing equipment for the chemical industry (manufacture)
46120	51120	Industrial monocarboxylic fatty acids (commission agent)
46750	51550	Industrial monocarboxylic fatty acids and acid oils from refining (wholesale)
23440	26240	Industrial non-refractory ceramic products (manufacture)
25110	28110	Industrial ossature in metal (manufacture)
43999	45250	Industrial ovens erection
17120	21120	Industrial paper (manufacture)
14200	18300	Industrial polishing cloths made of fur (manufacture)
26512	33301	Industrial process control equipment (electronic) (manufacture)
26514	33302	Industrial process control equipment (non-electronic) (manufacture)
32990	18241	Industrial protective headgear (manufacture)
32120	36220	Industrial quality stones (manufacture)
28140	29130	Industrial regulating valves (manufacture)
28990	29560	Industrial robots for multiple uses (manufacture)
46750	51550	Industrial salt (wholesale)
20411	24511	Industrial soap (manufacture)
28110	29110	Industrial spark and compression ignition engine (manufacture)
28220	29220	Industrial special purpose trucks (manufacture)
19201	23201	Industrial spirit from petroleum (manufacture)
28140	29130	Industrial taps (manufacture)
26520	33500	Industrial timer (manufacture)
28220	29220	Industrial tractor (manufacture)
26110	31100	Industrial transformer (electronic) (manufacture)
16230	20300	Industrialised building component made of timber (manufacture)
10200	15209	Inedible flours, meal and pellets of fish, crustaceans and molluscs production (manufacture)
20110	24110	Inert gases such as carbon dioxide (manufacture)
10860	15880	Infant food (milk based) (manufacture)
10860	15880	Infant food (other than milk based) (manufacture)

10860 15880 Infant formulae (manufacture)
85200 80100 Infant schools
47710 52422 Infants' clothing (retail)
46420 51422 Infants' clothing (wholesale)
86101 85111 Infectious disease hospital (public sector)
86220 85120 Infectious disease specialist (private practice)
86101 85111 Infectious disease specialist (public sector)
86101 85112 Infirmary (private sector)
86101 85111 Infirmary (public sector)
22290 25240 Inflatable air bed made of plastic (manufacture)
30120 35120 Inflatable boats (manufacture)
46499 51479 Inflatable boats for pleasure or sports (wholesale)
22190 25130 Inflatable cushion made of rubber (manufacture)
30120 35120 Inflatable dinghy made of rubber (manufacture)
30120 35120 Inflatable liferaft made of rubber (manufacture)
22190 25130 Inflatable mattress made of rubber (manufacture)
30120 35120 Inflatable motor boats (manufacture)
22290 25240 Inflatable plastic products (excluding playballs)(manufacture)
30120 35120 Inflatable rafts (manufacture)
46499 51479 Inflatable vessels for pleasure or sports (wholesale)
28131 29121 Inflator for cycle type tyres (manufacture)
84210 75210 Information and cultural services abroad administration and operation (public sector)
82990 74879 Information bureau (not tourist)
79909 63309 Information bureau for tourists
26200 30020 Information processing equipment
63990 74879 Information search services on a fee or contract basis
62020 72220 Information systems strategic review and planning services
62020 72220 Information technology consultancy activities
27400 31500 Infrared lamps (manufacture)
26301 32201 Infrared remote controls (manufacture)
26701 33402 Infrared systems for night vision (manufacture)
28910 29510 Ingot mould and bottom (manufacture)
24440 27440 Ingots made of brass (manufacture)
24440 27440 Ingots made of copper (manufacture)
24100 27100 Ingots of stainless steel (manufacture)
24100 27100 Ingots of steel (manufacture)
64302 65232 In-house trust activities
28960 29560 Injection moulding equipment (for rubber or plastic)(manufacture)
65120 66031 Injury insurance
20590 24660 Ink for impregnating ink pads (manufacture)
32990 36631 Ink pad (manufacture)
16290 20510 Inlaid wood (manufacture)
50400 61209 Inland water transport (freight)
50300 61201 Inland water transport (passenger)
30200 35200 Inland waterways signalling, safety or traffic controlequipment (manufacture)
28110 29110 Inlet valves for internal combustion engines(manufacture)
22110 25110 Inner tube for tyre (manufacture)
94120 91120 Inns of Court
55209 55239 Inns with letting rooms (short-stay lodgings)
20130 24130 Inorganic acid (manufacture)
46120 51120 Inorganic acids (commission agent)
20130 24130 Inorganic bases (manufacture)
20130 24130 Inorganic chemical (manufacture)
20130 24130 Inorganic compounds (manufacture)

SIC 2007	SIC 2003	Activity
80300	74879	Inquiry agency
01490	01250	Insect raising
20200	24200	Insecticide (manufacture)
46750	51550	Insecticides (wholesale)
46120	51120	Insecticides, herbicides, plant growth regulators and anti-sprouting products (commission agent)
18130	22250	Inserting (manufacture)
15200	19300	Insoles made of leather (manufacture)
70221	74142	Insolvency management
43320	28120	Installation (erection) work of self-manufactured builders' ware of metal
43320	25239	Installation (erection) work of self-manufactured builders' ware of plastic
43320	20300	Installation (erection) work of self-manufactured builders' ware of wood
80200	74602	Installation and repair of electronic locking devices with monitoring
80200	74602	Installation and repair of electronic safes security vaults with monitoring
80200	74602	Installation and repair of mechanical locking devices with monitoring
80200	74602	Installation and repair of mechanical safes and security vaults with monitoring
43290	45340	Installation in buildings of fittings and fixtures n.e.c.
33200	31400	Installation of accumulators, primary cells and batteries (manufacture)
43210	45310	Installation of aerials and residential antennas
33200	29320	Installation of agricultural and forestry machinery (manufacture)
43220	45330	Installation of air conditioning equipment and ducts
43220	45330	Installation of air conditioning plant
43210	45340	Installation of airport runway lighting
33200	34100	Installation of assemblies and sub-assemblies and the like, into motor vehicles (manufacture)
43290	45310	Installation of automated and revolving doors
33200	29140	Installation of bearings, gears, gearing and driving elements (manufacture)
43290	45340	Installation of blinds and awnings
33200	36501	Installation of bowling alley equipment (manufacture)
43910	20300	Installation of builders carpentry and joinery (roofing materials)
43320	45420	Installation of built-in furniture
43210	45310	Installation of burglar alarm systems
43210	45310	Installation of cables
47421	52488	Installation of car telephones (retail)
33200	29530	Installation of catering equipment (manufacture)
43320	45420	Installation of ceilings
33200	26400	Installation of ceramic pipes, conduit, guttering and pipe fittings (manufacture)
33200	33500	Installation of clocks (manufacture)
43220	45330	Installation of coldrooms
33200	29122	Installation of compressors (manufacture)
43210	45310	Installation of computer network cabling and other telecommunications system cables
43220	45330	Installation of cooling towers
42110	45230	Installation of crash barriers
43320	45420	Installation of doors
33200	35110	Installation of drilling platforms and the like (manufacture)
43220	45330	Installation of duct work
33200	29522	Installation of earth-moving and excavating equipment (manufacture)
33200	31100	Installation of electric motors, generators and transformers (manufacture)
43220	45310	Installation of electric solar energy collectors
33200	31610	Installation of electrical equipment for engines and vehicles n.e.c. (manufacture)
43220	45310	Installation of electrical heating systems (except boiler and heating)
43210	45310	Installation of electrical systems in cable television wiring, including fibre optic
43210	45310	Installation of electrical systems in computer network, including fibre optic
43210	45310	Installation of electrical wiring and fittings
33200	31200	Installation of electricity distribution and control apparatus (manufacture)
33200	32100	Installation of electronic valves and tubes and other electronic components (manufacture)
43290	45310	Installation of elevators
33200	29110	Installation of engines and turbines (except aircraft, vehicle and cycle) (manufacture)
33200	29523	Installation of equipment for concrete crushing and screening and roadworks (manufacture)
43290	45310	Installation of escalators
33200	28750	Installation of fabricated metal products (manufacture)
33200	28520	Installation of factory assembly lines (manufacture)
43330	45430	Installation of false floors and computer floorsprimary
33200	28740	Installation of fasteners, screw machine products, chain and springs (manufacture)
43210	45310	Installation of fire alarm systems
80200	45310	Installation of fire and burglar alarm systems if together with monitoring of the same systems
43220	45330	Installation of fire sprinkler systems
43220	45330	Installation of furnaces
33200	29210	Installation of furnaces and furnace burners (manufacture)
43320	45420	Installation of furniture
43220	45330	Installation of gas fittings
43220	45330	Installation of gas heating systems
43220	45330	Installation of gas meters
33200	29240	Installation of general purpose machinery n.e.c. (manufacture)
43342	45440	Installation of glass
43220	45330	Installation of heating and ventilation apparatus
43210	45340	Installation of illuminated road signs and street furniture
43210	45340	Installation of illumination and signalling systems for roads, railways, airports and harbours
33200	33100	Installation of industrial irradiation and electromedical equipment (manufacture)
33200	28110	Installation of industrial machinery and equipment (manufacture)
33200	30020	Installation of industrial mainframe and similar computers (manufacture)
33200	33201	Installation of instruments and apparatus for measuring, checking, testing, navigating (manufacture)
33200	31300	Installation of insulated wire and cable (manufacture)
43210	45310	Installation of intelecommunications wiring
43320	45420	Installation of joinery
33200	28220	Installation of large scale central heating boilers e.g. For large residential blocks (manufacture)
43220	45330	Installation of lawn sprinkler systems
33200	29220	Installation of lifting and handling equipment (except lifts and escalators) (manufacture)

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SIC 2007	SIC 2003	Activity
43290	45310	Installation of lifts
43210	45310	Installation of lighting systems
43290	45310	Installation of lightning conductors
33200	28630	Installation of locks and hinges (manufacture)
33200	29420	Installation of machine tools (metal working) (manufacture)
33200	29430	Installation of machine tools (other than metalworking) (manufacture)
33200	29560	Installation of machinery for bookbinding (manufacture)
33200	29530	Installation of machinery for food, beverage andtobacco processing (manufacture)
33200	29510	Installation of machinery for metallurgy (manufacture)
33200	29521	Installation of machinery for mining (manufacture)
33200	29550	Installation of machinery for paper and paperboard production (manufacture)
33200	29560	Installation of machinery for printing (manufacture)
33200	29540	Installation of machinery for textile, apparel and leather production (manufacture)
33200	29560	Installation of machinery for working rubber or plastics and making products of these (manufacture)
33200	30020	Installation of mainframe and similar computers andperipheral equipment (manufacture)
33200	33100	Installation of medical and surgical equipment andapparatus (manufacture)
43320	45420	Installation of metal grilles and gates
43320	45420	Installation of metal partitioning
43320	45420	Installation of metal shutters
33200	28210	Installation of metal tanks (manufacture)
33200	26810	Installation of millstones, grindstones, polishing stones and the like (manufacturing)
43342	45440	Installation of mirrors
45200	50200	Installation of motor vehicle parts and accessories(not as part of production process)
45200	50200	Installation of motor vehicle parts and accessories,not part of the manufacturing process
43320	45420	Installation of movable wooden partitions
33200	29230	Installation of non-domestic cooling and ventilatingequipment (manufacture)
33200	29560	Installation of non-domestic machinery for dryingwood, paper pulp etc. (manufacture)
43220	45330	Installation of non-electric solar energy collectors
33200	33202	Installation of non-electronic instruments and appliances for measuring, testing, etc. (manufacture)
42110	45230	Installation of non-illuminated road signs, bollardsetc.
33200	30010	Installation of office machinery (manufacture)
43210	45310	Installation of office switchboards and telephone lines
42210	45213	Installation of offshore pipelines from oil or gas wells
43220	45330	Installation of oil heating systems
33200	33402	Installation of optical precision instruments (manufacture)
33200	31620	Installation of other electrical apparatus (manufacture)
43290	45340	Installation of outdoor pumping or filtrationequipment
43210	45340	Installation of outdoor transformer and otheroutdoor electrical distribution apparatus
62090	30020	Installation of personal computers and peripheralequipment
33200	33403	Installation of photographic and cinematographicequipment (manufacture)

43220 45330 Installation of plumbing
33200 32300 Installation of professional radio, television, soundand video equipment (manufacture)
33200 29121 Installation of pumps (manufacture)
33200 32202 Installation of radio and television transmitters(manufacture)
47430 52450 Installation of radios in motor vehicles (retail)43220 45330 Installation of refrigeration
43210 45340 Installation of roadway traffic monitoring andguidance equipment
43220 45330 Installation of sanitary equipment
43210 45310 Installation of satellite dishes
33200 36110Installation of seats in aircraft, ships, trains and thelike
43210 45310 Installation of security alarms
43290 45320 Installation of sound insulation
33200 29560 Installation of special purpose machinery n.e.c.(manufacture)
43220 45330 Installation of sprinkler systems
33200 28300 Installation of steam generators (not central heatingboilers) incl. related pipework (manufacture)
43220 45330 Installation of steam piping
33200 28710 Installation of steel drums and similar (manufacture) 43210 45340 Installation of street lighting and electrical signals 43320 45420 Installation of suspended ceilings
33200 29130 Installation of taps and valves (manufacture) 43210 45310 Installation of telecommunications wiring systems33200 32201 Installation of telecommunications equipment
43210 45310 Installation of telephone lines
43290 45320 Installation of thermal insulation
33200 28620 Installation of tools (manufacture)
33200 26150 Installation of tubes and pipes of glass, including installation of glass pipe (manufacture)
33200 25210 Installation of tubes, pipes and hoses, of plastics (manufacture)
33200 33401 Installation of unmounted lenses (manufacture)43290 45310 Installation of vacuum cleaning systems
43220 45330 Installation of ventilation
43290 45320 Installation of vibration insulation
33200 29600 Installation of weapons and weapon systems(manufacture)
43320 45420 Installation of windows made of any material33200 28730 Installation of wire products (manufacture) 43320 45420 Installation of wooden door-frames
43320 45420 Installation of wooden fitted kitchens43320 45420 Installation of wooden shop fittings 43320 45420 Installation of wooden staircases 43320 45420 Installation of wooden wall coverings
10832 15862 Instant coffee (manufacture)
20590 24640 Instant print film (manufacture)
46439 51439 Instantaneous or storage water heaters (electric)(wholesale)
46439 51479Instantaneous or storage water heaters (non-electric) (wholesale)
32500 33100 Instep support (manufacture)
94120 91120Institute of Actuaries
94120 91120Institute of British Water Colour Painters
94120 91120Institute of Chartered Accountants in England andWales
94120 91120Institute of Chartered Accountants of Scotland94120 91120 Institute of Civil Engineers

SIC 2007	SIC 2003	Activity
94120	91120	Institute of Cost and Management Accountants
94120	91120	Institute of Hygiene
94120	91120	Institute of Incorporated Photographers
94120	91120	Institute of Mechanical Engineers
85320	80220	Instruction for chefs, hoteliers and restauranteurs
85510	92629	Instructors of sport
16290	20510	Instrument case made of wood (manufacture)
26520	33500	Instrument panel clock (manufacture)
46520	51860	Instruments and apparatus for measuring electrical quantities (electronic) (wholesale)
32500	33100	Instruments and apparatus used for medical, surgical, dental or veterinary purposes (manufacture)
46460	51460	Instruments and appliances for dental science (wholesale)
46460	51460	Instruments and devices for doctors and hospitals (wholesale)
32990	36639	Instruments for educational or exhibition purposes (manufacture)
46520	51860	Instruments for measuring flow, level, pressure etc. of liquids or gassed (electronic) (wholesale)
46690	51870	Instruments for measuring or checking flow, level, pressure etc. of liquids or gases (wholesale)
26511	33201	Instruments for testing physical and mechanical properties of materials (electronic) (manufacture)
31090	36140	Insulated cabinets made of wood (manufacture)
23430	26230	Insulated ceramic fittings (manufacture)
27320	31300	Insulated electrical cable (manufacture)
23190	26150	Insulated fittings made of glass (manufacture)
27320	31300	Insulated mains cable for power distribution (manufacture)
26110	32100	Insulated monolithic, hybrid and passive circuit (manufacture)
22290	25240	Insulated plastic fittings (manufacture)
46690	51870	Insulated winding wire (wholesale)
27320	31300	Insulated wire (manufacture)
27320	31300	Insulated wire and cable made of aluminium (manufacture)
27320	31300	Insulated wire and cable made of copper (manufacture)
27320	31300	Insulated wire and cable made of steel (manufacture)
22230	25239	Insulating (heat and sound) sheet, tiles, blocks and granules made of plastic (manufacture)
22190	25130	Insulating cloth tape (manufacture)
43290	45320	Insulating contractor (buildings)
29310	31610	Insulating fittings (other than ceramic for vehicles aircraft) (manufacture)
23140	26140	Insulating material made of glass fibre (manufacture)
22190	25130	Insulating material made of rubber (manufacture)
16290	20520	Insulating materials made of cork (manufacture)
19201	23201	Insulating oil (at refineries) (manufacture)
19209	23209	Insulating oil formulation outside refineries (manufacture)
43290	45320	Insulating work activities
23990	26821	Insulation made of asbestos (manufacture)
23430	26230	Insulators made of ceramic (manufacture)
23190	26150	Insulators made of glass (manufacture)
65120	66031	Insurance (non-life)
66220	67200	Insurance agent (not employed by insurance company)
66220	67200	Insurance agents activities
66220	67200	Insurance broker (not employed by insurance company)
66220	67200	Insurance brokers activities
66220	67200	Insurance consultancy services
66210	67200	Insurance risk evaluators activities
26110	32100	Integrated circuits (analogue or digital) (manufacture)
46520	51860	Integrated circuits (wholesale)
71129	74209	Integrated engineering activities for turnkey projects
71200	74300	Integrated mechanical and electrical system testing and analysis
28120	29122	Intensifier for hydraulic equipment (manufacture)
20590	24640	Intensifier for photographic use (manufacture)
28120	29122	Intensifier for pneumatic control equipment (manufacture)
94910	91310	Inter Varsity Fellowship of Evangelical Unions
66190	67130	Interbank (worldwide financial telecommunications society)
25730	28620	Interchangeable tools for dies (manufacture)
22110	25110	Interchangeable tyre flaps for retreading tyres (manufacture)
22110	25110	Interchangeable tyre treads for retreading tyres (manufacture)
49390	60211	Inter-city coach services on scheduled routes
30300	29600	Intercontinental ballistic missiles (ICBM) (manufacture)
64991	65233	Inter-dealer brokers
26120	32100	Interface cards (manufacture)
74100	74872	Interior decor design
74100	74872	Interior decorator activities
74100	74872	Interior designers
43341	45440	Interior painting of buildings
43310	45410	Interior plaster application in buildings or other constructions incl. related lathing materials
31030	36150	Interior sprung mattress (manufacture)
43310	45410	Interior stucco application in buildings or other constructions incl. related lathing materials
13200	17210	Interlining weaving from yarn spun on the cotton system (manufacture)
22230	25239	Intermediate bulk containers (other than drums made of plastic) (manufacture)
23200	26260	Intermediate goods of mined or quarried non-metallic minerals e.g. Sand, gravel, clay (manufacture)
68310	70310	Intermediation in buying selling and renting of real estate
29100	34100	Internal combustion engine for motor vehiclesand (manufacture)
28110	29110	Internal combustion engines and parts (manufacture)
30910	35410	Internal combustion engines for motorcycles (manufacture)
29100	34100	Internal combustion engines for tractors (manufacture)
28110	29110	Internal combustion piston engines (manufacture)
28110	29110	Internal combustion piston marine engines (manufacture)
28110	29110	Internal combustion piston railway engines (manufacture)
99000	99000	International Labour Office
99000	99000	International Monetary Fund
99000	99000	International organisation (e.g. United Nations, International Labour Office)
84210	75210	International peace keeping forces contribution including assignment of manpower
80300	74601	Internet abuse monitoring

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

61200 64200 Internet access providers (wireless telecommunication
s) 47910 52630 Internet
auctions (retail)
45112 50102 Internet car auctions
60100 72400 Internet radio broadcasting
47910 52610 Internet retail sales (retail)
74300 74850 Interpreter
10620 15620 Inulin (manufacture)
30920 35430 Invalid carriage (electrically propelled) (manufacture) 30920 35430 Invalid carriage (manually propelled) (manufacture) 30920 35430 Invalid carriage (power operated) (manufacture) 30920 35430 Invalid carriage parts and accessories (manufacture) 47749
52329 Invalid carriages with or without motor (retail)
46460 51460 Invalid carriages with or without motor (wholesale) 10860 15880 Invalid food (milk based) (manufacture)
10860 15880 Invalid food (other than milk based) (manufacture) 10810 15830 Invert sugar (manufacture)
80300 74601 Investigation activities
66190 67130 Investment advisory services
66120 67122 Investment broking
28910 29510 Investment casting equipment (manufacture)
64301 65231 Investment fund activities
64301 65231 Investment trusts activities
95290 52740 Invisible mending
64992 65222 Invoice discounting
28230 30010 Invoicing machine (manufacture)
20130 24130 Iodine and iodides (manufacture) 28290 29240 Ion exchange plant for water treatment (manufacture)
20160 24160 Ion-exchangers based on polymers (manufacture) 24410 27410 Iridium (manufacture)
46120 51120 Iron (commission agent)
27510 29710 Iron (electric) (manufacture)
24100 27100 Iron (manufacture)
46720 51520 Iron (wholesale)
24510 27510 Iron foundry (manufacture)
24100 27100 Iron of exceptional purity production by electrolysis or other chemical processes (manufacture)
07100 13100 Iron ore beneficiation and agglomeration 07100 13100 Iron ore calcining
07100 13100 Iron ore crushing
07100 13100 Iron ore mine or quarry
09900 13100 Iron ore mining support services provided on a fee or contract basis
07100 13100 Iron ore preparation
07100 13100 Iron ore sintering
07100 13100 Iron ore washing
24100 27100 Iron powder production (manufacture)
08910 14300 Iron pyrites extraction (not for iron production) 20130 23300 Iron pyrites roasting (manufacture)
28921 29521 Iron roughnecks (manufacture)
24100 27100 Iron shot (manufacture)
46720 51520 Iron yard (wholesale)
27510 29710 Ironing machine for domestic use (electric) (manufacture)
28940 29540 Ironing machine for non-domestic use (manufacture) 47520 52460 Ironmonger (retail)
46740 51540 Ironmonger (wholesale)
46150 51150 Ironmongery (commission agent)

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26600 33100 Irradiation equipment (manufacture)
28930 29530 Irradiators (manufacture)
42210 45240 Irrigation system construction
01610 01410 Irrigation systems operation on a fee or contract basis
20590 24620 Isinglass (manufacture)
26110 31200 Isolating and make or break switches (electronic) (manufacture)
20110 24110 Isolating gases (manufacture)
86101 85111 Isolation hospital (public sector)
46120 51120 Isotopes and compounds thereof (commission agent) 28990 29560 Isotopic separation machinery or apparatus (manufacture)
66190 67130 Issuing house
32990 36639 Ivory working (manufacture)
28220 29220 Jack for motor vehicle (manufacture) 30110 35110 Jacket leg of steel plate for oil platform (manufacture)
71129 74204 Jacket substructure design and other foundation design services
14131 18221 Jackets for men and boys (manufacture) 14132 18222 Jackets for women and girls (manufacture)
28220 29220 Jacks (other than for motor vehicles) (manufacture)
46690 51870 Jacks and hoists of a kind used for raising vehicles (wholesale)
28940 29540 Jacquard machinery for carpet making (manufacture) 28940 29540 Jacquard textile machinery (manufacture)
10390 15330 Jam (manufacture)
22220 25220 Jam pot covers made of plastic (manufacture) 81210 74701 Janitorial services
25610 28510 Japanning (metal finishing)
23490 26250 Jars made of ceramic (manufacture) 23650 26650 Jars made of fibre-cement (manufacture) 23130 26130 Jars made of glass (manufacture)
22220 25220 Jars made of plastic (manufacture) 13200 17210 Jeans cloth weaving (manufacture) 14131 18221 Jeans for men and boys (manufacture) 14132 18222 Jeans for women and girls (manufacture) 56103 55303 Jellied eel shop
10390 15330 Jelly (table) (manufacture)
10390 15330 Jelly powder (manufacture)
22220 25220 Jerry can made of plastic (manufacture) 14390 17720 Jerseys (knitted) (manufacture)
01130 01120 Jerusalem artichoke growing
30300 35300 Jet engine (manufacture)
08910 14300 Jet mine
32120 36220 Jet ornaments and jewellery (manufacture) 28120 29121 Jet pump (manufacture)
23410 26210 Jet ware (pottery) (manufacture)
15120 19200 Jewel case (not wood or metal) (manufacture) 46499 51479 Jewellers' materials (wholesale)
20120 24120 Jewellers' rouge (manufacture)
46180 51120 Jewellery (commission agent)
32130 36610 Jewellery (gilded and silvered) (manufacture) 32120 36220 Jewellery (gold or silver plated) (manufacture) 47770 52484 Jewellery (retail)
46480 51473 Jewellery (wholesale)
32130 36610 Jewellery containing imitation gem stones (manufacture)
74100 74872 Jewellery designing

SIC 2007	SIC 2003	Activity
32120	36220	Jewellery engraving (not distributive trades) (manufacture)
46480	51473	Jewellery exporter (wholesale)
46480	51473	Jewellery importer (wholesale)
32130	36610	Jewellery made of ceramic (manufacture)
23190	26150	Jewellery made of glass (manufacture)
32120	36220	Jewellery made of platinum (manufacture)
32120	36220	Jewellery made of precious metal (manufacture)
32120	36220	Jewellery made of semi-precious stones (manufacture)
32120	36220	Jewellery of base metal clad with precious metal (manufacture)
32120	36220	Jewellery polishing (manufacture)
77299	71409	Jewellery rental and leasing
32120	36220	Jewellery with precious stones (manufacture)
88990	85321	Jewish board of family and children's services
94910	91310	Jewish synagogue
32409	36509	Jigsaw puzzle (manufacture)
28290	29430	Jigs (manufacture)
46620	51810	Jigs and gauges (wholesale)
96010	93010	Job dyeing
18129	22220	Job printing (manufacture)
96090	93059	Jobbing waiter
93199	92629	Jockey
93120	92629	Jockey club
94110	91110	Joint organisation of employers and trade unions
28290	29240	Jointing (precision component) (manufacture)
23990	26821	Joints made of asbestos (manufacture)
32990	36639	Jokes and novelties (manufacture)
58142	22130	Journal and periodical publishing
77210	71401	Journal rental
90030	92400	Journalists
94120	91120	Journalists associations
84230	75230	Judge
84230	75230	Judge advocates
93199	92629	Judges of sport
27510	29710	Juice squeezers (electric) (manufacture)
10822	15842	Jujube (manufacture)
77210	71401	Juke boxes leasing
26400	32300	Jukeboxes (manufacture)
14390	17720	Jumpers (knitted) (manufacture)
27330	31200	Junction box (manufacture)
85200	80100	Junior schools
10519	15519	Junket powder (manufacture)
84230	75230	Justice of the Peace
13300	17300	Jute calendering (manufacture)
13200	17250	Jute cloth (manufacture)
13300	17300	Jute fabrics bleaching, dyeing or otherwise finishing (manufacture)
13200	17250	Jute sacking (manufacture)
13100	17170	Jute sorting (manufacture)
13100	17170	Jute spinning (manufacture)
01160	01110	Jute textile bast fibre growing
13100	17170	Jute tow (manufacture)
13200	17250	Jute weaving (manufacture)
13100	17170	Jute winding (manufacture)
13100	17170	Jute yarn (manufacture)
87900	85311	Juvenile correction homes (charitable)
87900	85312	Juvenile correction homes (non-charitable)
47710	52422	Juvenile outfitter (retail)
08120	14220	Kaolin mining
10410	15410	Kapok seed crushing (manufacture)
10410	15420	Kapok seed oil refining (manufacture)
13100	17170	Kapok willowing (manufacture)
26400	32300	Karaoke machines (manufacture)
30120	35120	Kayak building (manufacture)
29100	34100	KD sets for cars at least 50% of value of complete vehicle (manufacture)
29100	34100	KD sets for commercial vehicles at least 50% of value of complete vehicle (manufacture)
29320	34300	KD sets for vehicles if the value is less than half the value of the complete vehicle (manufacture)
23510	26510	Keene's cement (manufacture)
25920	28720	Kegs made of aluminium (manufacture)
25910	28710	Kegs made of iron or steel (manufacture)
22220	25220	Kegs made of plastic (manufacture)
16240	20400	Kegs made of wood (manufacture)
03110	05010	Kelp collecting, cutting and gathering (uncultivated)
01160	01110	Kenaf and other textile bast fibre growing
93199	92629	Kennel master
96090	93059	Kennels (not racing)
93199	92629	Kennels and garages (racing)
93290	92729	Kensington Gardens
23610	26610	Kerbs and edging made of pre-cast concrete (manufacture)
23700	26700	Kerbstone (not concrete) (manufacture)
10410	15410	Kernel crushing (manufacture)
19201	23201	Kerosene (manufacture)
46719	51519	Kerosene (wholesale)
27400	31500	Kerosene lanterns (manufacture)
10840	15870	Ketchup (manufacture)
46120	51120	Ketone and quinone function compounds (commission agent)
46750	51550	Ketone and quinone function compounds (wholesale)
20140	24140	Ketones (manufacture)
27510	29710	Kettle (electric) (manufacture)
25990	28750	Kettles (non-electric) (manufacture)
91040	92530	Kew gardens
25720	28630	Key (manufacture)
25720	28630	Key blank (manufacture)
96090	52740	Key cutting services (while you wait)
15120	19200	Key tags and cases made of leather (manufacture)
32200	36300	Keyboard instruments (manufacture)
32200	36300	Keyboard pipe organs with free metal reeds (manufacture)
32200	36300	Keyboard stringed instruments (manufacture)
26200	30020	Keyboards for computers (manufacture)
23200	26260	Kiln furniture (manufacture)
23200	26260	Kiln lining (manufacture)
85100	80100	Kindergartens
10200	15209	Kipper (manufacture)
17220	21220	Kitchen cloth made of paper (manufacture)
24420	27420	Kitchen foil made of aluminium (manufacture)
25710	28610	Kitchen knife (manufacture)
13923	17403	Kitchen linen (manufacture)
31020	36110	Kitchen seating (fitted) (manufacture)
17220	21220	Kitchen towels made of paper (manufacture)
47599	52440	Kitchen units (retail)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

23410 26210 Kitchenware made of ceramics (manufacture)23130 26130 Kitchenware made of glass (manufacture) 22290 25240 Kitchenware made of plastic (manufacture) 16290 20510 Kitchenware made of wood (manufacture) 77299 71409 Kitchenware rental and leasing
30300 35300 Kite (not toy) (manufacture)
46160 51160Kits for embroidery, etc. (commission agent)01250 01139 Kiwi fruit growing
26110 32100 Klystron (manufacture)
14142 18232 Knickers (manufacture)
25710 28610 Knife (cutlery) (manufacture)
27510 29710 Knife sharpener (electric) (manufacture)
28140 29130 Knife valves (manufacture)
25710 28610 Knife with folding blade (manufacture)96090 93059 Knifegrinder (travelling)
14190 18241 Knitted bonnet (manufacture)
14190 18249 Knitted bootees (manufacture)
14132 18222 Knitted dress and jacket ensemble (manufacture) 14132 18222 Knitted dresses for women and girls (manufacture)13910 17600 Knitted fabrics (manufacture)
14190 18249 Knitted gloves (manufacture)
13300 17300 Knitted goods finishing (manufacture)
13300 17300 Knitted goods printing (manufacture)
13300 17300 Knitted goods scouring (manufacture)
13300 17300 Knitted goods shrinking (manufacture)
13300 17300 Knitted goods trimming (manufacture) 14190 18249 Knitted mittens and mitts (manufacture)
14141 18231 Knitted nightwear for men and boys (manufacture)
14142 18232 Knitted nightwear for women and girls (manufacture)
13910 17600 Knitted or netted elastic over 30 cm wide (manufacture)
14131 18221 Knitted outerwear for men and boys (manufacture)14132 18222 Knitted outerwear for women and girls (manufacture)
14190 18249 Knitted scarf (manufacture)
14190 18249 Knitted shawl (manufacture)
14132 18222 Knitted skirts (manufacture)
14132 18222 Knitted suits for women and girls (manufacture)14190 18249 Knitted swimwear (manufacture)
14190 18249 Knitted swimwear for infants (manufacture)14190 18249 Knitted ties (manufacture)
14190 18249 Knitted underclothing for infants (manufacture) 14141 18231 Knitted underwear for men and boys (manufacture)
14142 18232 Knitted underwear for women and girls (manufacture)
14141 18231 Knitted vests for men and boys (manufacture) 14142 18232 Knitted vests for women and girls (manufacture)28940 29540 Knitting machine (manufacture)
47540 52450 Knitting machines (retail)
46640 51830 Knitting machines (wholesale)
25930 28730 Knitting needles made of metal (manufacture) 22290 25240 Knitting needles made of plastic (manufacture)47510 52410 Knitting yarn (retail)
13100 17120Knitting yarn made of wool (manufacture) 13100 17130 Knitting yarn made of worsted (manufacture)13100 17110 Knitting yarns (cotton) (manufacture)
13100 17110Knitting yarns (man made fibres) (manufacture)14390 17720 Knitwear (manufacture)

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25730 28620 Knives for horticultural use (manufacture)25730 28620 Knives for industrial use (manufacture) 25730 28620 Knives for machines (manufacture)

25730 28620 Knives for tradesmen (manufacture)22290 25240 Knives made of plastic (manufacture)

22290 25240 Knobs for furniture made of plastic (manufacture)13939 17519 Knotted carpets (manufacture)

28940 29540 Knotted net, tulle, lace, braid etc. making machines(manufacture)

13940 17520 Knotted netting of twine, cordage or rope(manufacture)

17120 21120 Kraft wrapping and packaging paper (manufacture) 28230 30010 Labelling machine for office use (manufacture) 28290 29240 Labelling machinery (not for office use) (manufacture)

82920 74820 Labelling, stamping and imprinting on a fee orcontract basis

13960 17542 Labels (manufacture)

22290 25240 Labels (not self-adhesive) made of plastic (manufacture)

18121 21251 Labels (printed) made of gummed paper (manufacture)

18121 21251 Labels (printed) made of paper (manufacture)17290 21252 Labels (unprinted) made of gummed paper (manufacture)

17290 21252 Labels (unprinted) made of paper (manufacture) 13960 17542 Labels made of textiles (manufacture)

13960 17542 Labels made of woven fabric (manufacture)

26513 33202 Laboratory analytical instruments (non-electronic) (manufacture)

31010 36120 Laboratory benches, stools, and other laboratory seating (manufacture)

28210 29210 Laboratory furnace (manufacture)

31010 36120 Laboratory furniture, cabinets and tables (manufacture)

26513 33202 Laboratory incubators and sundry lab apparatus formeasuring, testing (non-electronic) (manufacture)

23440 26240 Laboratory non-refractory ceramic products(manufacture)

32500 29240 Laboratory sterilisers (manufacture)

32500 29240 Laboratory type distilling apparatus (manufacture)26511 33201 Laboratory type sensitive balances (electronic) (manufacture)

26513 33202 Laboratory type sensitive balances (non-electronic)(manufacture)

32500 29240 Laboratory ultrasonic cleaning machinery (manufacture)

84130 75130 Labour affairs services administration and regulation (public sector)

94200 91200 Labour organisations

94920 91320 Labour party

78109 74500 Labour recruitment

02300 02010 Lac gathering

13990 17541 Lace (manufacture)

13990 17541 Lace and embroidery in the piece, in strips or inmotifs (manufacture)

13990 17541 Lace bleaching (not on commission) (manufacture) 13300 17300 Lace bleaching, dyeing and dressing (on commission) (manufacture)

96010 93010 Lace cleaning and mending (not net mending)13990 17541 Lace clipping (manufacture)

13921 17401 Lace curtains (manufacture)

74100 74872 Lace designing

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SIC 2007	SIC 2003	Activity
13990	17541	Lace drawing (manufacture)
13990	17541	Lace dressing (manufacture)
13990	17541	Lace dyeing (not on commission) (manufacture)
13990	17541	Lace edging (manufacture)
13990	17541	Lace embroidery (manufacture)
13990	17541	Lace ending (manufacture)
13990	17541	Lace finishing (manufacture)
13990	17541	Lace flouncing (manufacture)
13990	17541	Lace mending (manufacture)
13990	17541	Lace net (manufacture)
13990	17541	Lace scalloping (manufacture)
13923	17403	Lace tablecloth (manufacture)
13990	17541	Lace trimming (manufacture)
13990	17542	Laces for boots and shoes (manufacture)
25610	28510	Lacquering (metal finishing) (manufacture)
31090	36140	Lacquering, varnishing and gilding of furniture (manufacture)
47520	52460	Lacquers (retail)
20140	24140	Lactones (coumarin, methylcoumarins and ethylcoumarins) (manufacture)
21100	24410	Lactones (other than coumarin, methylcoumarins ethylcoumarins) (manufacture)
46460	51460	Lactones (wholesale)
10519	15519	Lactose production (manufacture)
77320	71320	Ladder hire
13960	17542	Ladder tape (textile material) (manufacture)
25990	28750	Ladders made of metal (manufacture)
25990	28750	Ladders made of metal for fire-fighting vehicles (manufacture)
16290	20510	Ladders made of wood (manufacture)
14190	18249	Ladies fan (manufacture)
15120	19200	Ladies handbags made of leather (manufacture)
47710	52423	Ladies' outfitter (retail)
25710	28610	Ladle (manufacture)
28910	29510	Ladles for handling hot metals (manufacture)
11050	15960	Lager brewing (manufacture)
23990	26821	Lagging rope made of asbestos (manufacture)
20120	24120	Lake (pigment) (manufacture)
50300	61201	Lake steamer service
14200	18300	Lambskin clothing (manufacture)
32500	24422	Laminaria (manufacture)
22210	25210	Laminate made wholly of plastics and/or transparent regenerated cellulose film (manufacture)
23120	26120	Laminated glass (manufacture)
22210	25210	Laminated plastic film (manufacture)
22210	25210	Laminated thermosetting plastics sheet (manufacture)
16210	20200	Laminated veneer wood (manufacture)
16210	20200	Laminated wood products (manufacture)
17120	21120	Laminates and foils laminated with paper or paperboard (manufacture)
22210	25210	Laminates made of plastic (manufacture)
24420	27420	Laminates of aluminium foil with other materials (manufacture)
18130	22250	Laminating (manufacture)
28230	30010	Laminating machine for office use (manufacture)
28950	29550	Laminating machinery (paper working) (manufacture)
13300	17300	Laminating of textile material (manufacture)
16210	20200	Laminboard (manufacture)
23190	26150	Lamp chimneys made of glass (manufacture)
27330	31200	Lamp holder (electric) (manufacture)
28990	29560	Lamp making machine (manufacture)
27400	31500	Lamps (manufacture)
27400	31610	Lamps for cycles (manufacture)
23190	26150	Lamps made of glass (manufacture)
27400	31500	Lampshades (not of glass or plastics) (manufacture)
47599	52440	Lampshades (retail)
22290	25240	Lampshades, reflectors, covers and diffusers made of plastic (manufacture)
68310	70310	Land agent
41100	70110	Land and building company
68100	70120	Land buying and selling
28922	29522	Land clearing equipment and machinery (manufacture)
43120	45110	Land drainage contractor
41100	70110	Land investment company
68209	70209	Land letting
43120	45110	Land reclamation work
84130	75130	Land registry
42990	45230	Land subdivision with land improvement (e.g.and Adding of roads etc.)
71122	74206	Land surveying activities
71122	74206	Land surveyor (not valuer)
68310	70310	Land valuer or surveyor
43120	45110	Landfill for construction
38210	90020	Landfill for the disposal of refuse and waste
30300	35300	Landing gear for aircraft (manufacture)
32300	36400	Landing nets (manufacture)
52220	63220	Landing stage
30110	35110	Landing stage (floating) (manufacture)
55900	55239	Landlord (boarding house)
68209	70209	Landlord of real estate
71112	74202	Landscape architecture
81300	01410	Landscape contracting
81300	01410	Landscape gardening
81300	01410	Landscape measures for protecting the environment
85590	80429	Language instruction and conversational skills instruction
72200	73200	Languages research and experimental development
10410	15410	Lanolin recovery (manufacture)
28410	29420	Lapping machine (metal cutting) (manufacture)
13300	17300	Lapping of textiles (manufacture)
25730	28620	Lapping tools (manufacture)
26200	30020	Laptop computers (manufacture)
20301	24301	Lacquer (manufacture)
46330	51333	Lard (wholesale)
10110	15112	Lard from knackers (manufacture)
10410	15410	Lard oil (manufacture)
10110	15112	Lard refining (manufacture)
26701	33402	Laser (excluding complete equipment using laser components) (manufacture)
28410	29420	Laser cutting or welding machine tools (metal working) (manufacture)
46510	51840	Laser printers (wholesale)
32500	33100	Laser surgical apparatus (manufacture)
16290	20510	Lasts made of wood (manufacture)
25720	28630	Latch (manufacture)
22190	25130	Latex foam (manufacture)
28410	29420	Lathe (metal cutting) (manufacture)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

28410 29420 Lathe chuck (manufacture)
25730 28620 Lathe tool (manufacture)
50200 61102 Launch barge services
30300 35300 Launch vehicle for spacecraft (manufacture)
28990 35300 Launching gear for aircraft (manufacture)
96010 93010 Launderette
96010 93010 Laundry
20120 24120 Laundry blue (manufacture)
32910 36620 Laundry brush (manufacture)
28940 29540 Laundry machinery (manufacture)
96010 93010 Laundry receiving office
10620 15620 Laundry starch (manufacture)
46690 51870 Laundry-type washing and dry-cleaning machines (wholesale)
22230 25239 Lavatory pans made of plastic (manufacture)
13923 17403 Lavatory seat cover (manufacture)
03210 05020 Laver gathering (cultivated)
03210 05020 Laver growing
69109 74119 Law agent
84240 75240 Law and order administration and operation
85421 80302 Law college
58190 22150 Law publishing
72200 73200 Law research and experimental development
94120 91120 Law Society
69109 74119 Law writing
28302 29320 Lawn mower (manufacture)
47520 52460 Lawn mowers (retail)
46610 51880 Lawn mowers however operated (wholesale)
20150 24150 Lawn sand (manufacture)
69102 74113 Lawyer
43330 45430 Laying or fitting carpets and linoleum floor coverings including of rubber or plastic
43330 45430 Laying or fitting other wooden floor coverings
96030 93030 Laying out the dead
43330 45430 Laying tiling or fitting marble, granite or slate floor coverings
43330 45430 Laying tiling or fitting terrazzo, marble, granite or slate wall coverings
43330 45430 Laying, tiling, hanging or fitting ceramic wall or floor tiles
43330 45430 Laying, tiling, hanging or fitting concrete stone wall or floor tiles
43330 45430 Laying, tiling, hanging or fitting cut stone wall or floor tiles
43330 45430 Laying, tiling, hanging or fitting floor and wall covering
18130 22250 Layouts for presentation (manufacture)
24430 27430 Lead (manufacture)
46720 51520 Lead (wholesale)
27200 31400 Lead acid batteries (manufacture)
24100 27100 Lead coated steel sheet (manufacture)
07290 13200 Lead mining and preparation
07290 13200 Lead ore and concentrate extraction and preparation
20301 24301 Lead paint (manufacture)
24430 27430 Lead wire made by drawing (manufacture)
23190 26150 Leaded light (manufacture)
25930 28740 Leaf springs (manufacture)
58110 22110 Leaflet publishing
01130 01120 Leafy or stem vegetables growing
71200 74300 Leak testing and flow monitoring activities

58141 22130 Learned journal publishing
94120 91120 Learned societies
85590 80429 Learning centres offering remedial courses 77400 74879 Leasing of intellectual property and the like (not copyrighted works e.g. Books and software) 77400 74879 Leasing of non-financial intangible assets 46110 51110 Leather (commission agent)
46240 51249 Leather (wholesale)
15120 19200 Leather articles for use in machinery or mechanical appliances (manufacture)
15120 19200 Leather belting for use in machinery (manufacture) 14110 18100 Leather clothes (manufacture)
47710 52421 Leather clothing for adults (retail) 46420 51421 Leather clothing for adults (wholesale) 15110 19100 Leather dressing (manufacture)
15110 19100 Leather dying (manufacture)
15110 19100 Leather enamelling (manufacture)
15200 19300 Leather fillings (manufacture)
14110 18100 Leather garments for men and boys (manufacture) 14110 18100 Leather garments for women and girls (manufacture) 15110 19100 Leather gilding (manufacture)
46160 51160 Leather goods (commission agent)
15120 19200 Leather goods (not industrial) (manufacture) 47722 52432 Leather goods (retail)
46499 51479 Leather goods (wholesale)
14110 18100 Leather industrial work accessories (manufacture) 15110 19100 Leather proofing (manufacture)
15120 19200 Leather shoe-laces (manufacture)
15110 19100 Leather tanning and dressing (manufacture) 15110 19100 Leather trimmings (manufacture)
14110 18100 Leather wearing apparel (manufacture)
28940 29540 Leather working machine (manufacture) 46640 51830 Leather, hides and skins working machinery (wholesale)
13960 17549 Leathercloth (manufacture)
13960 17549 Leathercloth made of polyvinyl chloride (manufacture)
13990 17541 Leavers lace (manufacture)
25930 28740 Leaves for springs (manufacture)
31010 36120 Lectern (manufacture)
90010 92319 Lecturers
01130 01120 Leek growing
25990 28750 Left luggage lockers (manufacture)
69109 74119 Legal activities n.e.c.
94990 91330 Legal Aid Society
94120 91120 Legal associations
69109 74119 Legal documentation and certification activities 69109 74119 Legal examiner activities
72200 73200 Legal sciences research and experimental development
69109 74119 Legal services in connection with the disposal of assets by auction
99000 99000 Legation
15200 19300 Leggings and gaiters made of cloth (manufacture) 15200 19300 Leggings made of leather (manufacture)
01110 01120 Leguminous crops growing
93110 92619 Leisure centres
30120 35120 Leisure craft made of rubber (manufacture) 01230 01139 Lemon growing
11070 15980 Lemonade powder (manufacture)

SIC 2007	SIC 2003	Activity
11070	15980	Lemonade production (manufacture)
91011	92510	Lending and storage of books, periodicals
91011	92510	Lending and storage of CDs, DVDs
91011	92510	Lending and storage of maps music
13200	17210	Leno fabric weaving (manufacture)
32500	33401	Lens (mounted, (not photographic)) (manufacture)
23190	26150	Lens (pressed or moulded, unworked, (not coloured glass for traffic signals)) (manufacture)
32500	33401	Lens (unmounted) (manufacture)
23190	26150	Lens made of coloured glass for rail and road signals (not optically worked) (manufacture)
26701	33401	Lenses (except ophthalmic) (manufacture)
01110	01110	Lentil growing
10612	15612	Lentil splitting, grinding or milling (manufacture)
86101	85111	Leprosaria (public sector)
52219	63210	Lessee of tolls
17230	21230	Letter card (manufacture)
17219	21219	Letter file (manufacture)
28230	30010	Letter opening machine (manufacture)
82190	74850	Letter or resume writing
20302	24302	Letterpress ink (manufacture)
18129	22220	Letterpress printing (manufacture)
28990	29560	Letterpress printing machine (manufacture)
58190	22150	Letterpress publishing
01130	01120	Lettuce growing
30200	35200	Level crossing control gear (manufacture)
26511	33201	Level gauges (electronic) (manufacture)
26513	33202	Level gauges (non-electronic) (manufacture)
26511	33201	Level measuring and control instruments (electronic) (manufacture)
26513	33202	Level measuring and control instruments (non-electronic) (manufacture)
28922	29522	Levellers (manufacture)
43120	45110	Levelling and grading of construction sites
28290	33202	Levels (manufacture)
65120	66031	Liability insurance
94920	91320	Liberal democrat party
91011	92510	Libraries
91011	92510	Library access to IT facilities including internet
91011	92510	Library training courses (IT, information literacy, basic skills)
90030	92319	Librettist
56302	55402	Licensed bars (independent)
56302	55404	Licensed bars (managed)
56302	55403	Licensed bars (tenanted)
53201	64120	Licensed carriers
96090	93059	Licensed porter
56302	55402	Licensed victualler (independent)
56302	55404	Licensed victualler (managed)
56302	55403	Licensed victualler (tenanted)
58290	72210	Licensing for the right to reproduce, distribute and use computer software
02300	02010	Lichen gathering
65110	66011	Life assurance
65201	66012	Life re-insurance
72190	73100	Life sciences research and experimental development than biotechnological)
32990	25130	Life vests (manufacture)
32990	25130	Lifebelts (manufacture)
32990	20520	Lifebelts made of cork (manufacture)
30110	35110	Lifeboat (manufacture)
32990	20520	Lifebuoy made of cork (manufacture)
30110	35110	Lifebuoy made of rubber (manufacture)
85590	80429	Lifeguard training
32990	25130	Lifejacket (manufacture)
13922	17402	Lifejacket made of canvas (manufacture)
32990	20520	Lifejacket made of cork (manufacture)
30110	35110	Liferaft (not rubber inflatable) (manufacture)
28220	29220	Lift (manufacture)
28220	29220	Lift and escalator maintenance (manufacture)
28220	29220	Lift for motor vehicle (manufacture)
49390	60239	Lift operating company
49390	60239	Lift operator
28220	29220	Lifting and handling equipment (manufacture)
46690	51870	Lifting and handling equipment (wholesale)
28220	29220	Lifting and handling equipment parts (manufacture)
46690	51870	Lifts, skip hoists, escalators and moving walkways (wholesale)
27400	31500	Light bulb (manufacture)
27400	31500	Light bulbs including fluorescent and neon tubes (manufacture)
26110	32100	Light emitting diodes (LED) (manufacture)
46520	51860	Light emitting diodes (wholesale)
22290	25240	Light fittings made of plastic (manufacture)
19201	23201	Light fuel oil (manufacture)
46690	51870	Light metal containers (wholesale)
25920	28720	Light metal packaging (manufacture)
77110	71100	Light motor vehicle (not exceeding 3.5 tonnes) renting or leasing
14132	18222	Light outerwear for women and girls (manufacture)
26200	30020	Light pens (manufacture)
46120	51120	Light, medium and heavy petroleum oils (commission agent)
30110	35110	Lighter (ship) (manufacture)
32990	36639	Lighter fuel in containers not exceeding 300 cc (liquid or liquefied gas) (manufacture)
52220	63220	Lighter lessee or owner
52220	63220	Lighterage activities
52220	63220	Lighthouse activities
52220	63220	Lighthouse Authority
27400	31500	Lighting equipment (manufacture)
47599	52440	Lighting equipment (retail)
46470	51439	Lighting equipment (wholesale)
27400	31610	Lighting equipment for aircraft (manufacture)
27400	31610	Lighting equipment for boats (manufacture)
27400	31610	Lighting equipment for motor vehicles (manufacture)
27400	31500	Lighting fitting (other than glassware) (manufacture)
22290	25240	Lighting fittings parts made of plastic (manufacture)
27400	31500	Lighting fixture of table lamps (manufacture)
27330	31200	Lightning arresters (manufacture)
52220	63220	Lightship
30110	35110	Lightship (manufacture)
14132	18222	Lightweight jackets for women and girls (manufacture)
05200	10200	Lignite (brown coal) mining including mining through liquefaction methods (other
19201	10200	Lignite fuel briquettes (manufacture)
05200	10200	Lignite mining
09900	10200	Lignite mining support services provided on a fee or contract basis

SIC 2007	SIC 2003	Activity
46120	51120	Lignite or peat (commission agent)
19100	23100	Lignite tars production (manufacture)
05200	10200	Lignite washing, dehydrating, pulverising etc. To improve quality or facilitate transport or storage
86900	85140	Limb fitting centre
20150	24150	Lime (ammonium nitrate) (manufacture)
23520	26520	Lime (manufacture)
01230	01139	Lime growing
28210	29210	Lime processing kiln (manufacture)
23700	26700	Limestone (ground) (manufacture)
46730	51530	Limestone (wholesale)
08110	14120	Limestone including dolomite mine or quarry
08110	14120	Limestone quarrying, crushing and breaking for constructional purposes
23700	26700	Limestone working (manufacture)
09900	14120	Limestone, gypsum and chalk quarrying support services provided on a fee or contract basis
25940	28740	Linchpin (manufacture)
17240	21240	Lincrusta (manufacture)
26301	32201	Line apparatus (carrier, duplex and repeater) (manufacture)
24200	27220	Line pipe made of steel (manufacture)
26301	32201	Line telegraphy apparatus (manufacture)
46520	51860	Line telegraphy or telegraphy apparatus (wholesale)
26301	32201	Line telephony apparatus (manufacture)
13100	17140	Line yarn made of flax (manufacture)
13940	17520	Line yarn made of hard fibre (manufacture)
46690	51870	Linear acting (cylinders) hydraulic and pneumatic power engines and motors (wholesale)
32990	19200	Linemen's safety belts and other belts for occupational use (manufacture)
46410	51410	Linen and linen goods (wholesale)
13200	17250	Linen and union cloth (manufacture)
13300	17300	Linen bleaching (manufacture)
13960	17549	Linen buckram weaving (manufacture)
13300	17300	Linen dyeing (manufacture)
96010	93010	Linen hire (associated with laundry service)
13300	17300	Linen printing (manufacture)
13200	17250	Linen weaving (manufacture)
30110	35110	Liner (ship) (manufacture)
28921	29521	Liner hanger equipment (manufacture)
22220	25220	Liner made of non-woven polyethylene (manufacture)
14142	18232	Lingerie (manufacture)
72200	73200	Linguistics research and experimental development
14190	18241	Linings for hats (manufacture)
25930	28740	Link chain (welded) (manufacture)
47530	52481	Lino tiles (retail)
22230	36639	Linoleum (manufacture)
46730	51479	Linoleum (wholesale)
43330	45430	Linoleum laying
10410	15410	Linseed crushing (manufacture)
01110	01110	Linseed growing
10410	15410	Linseed oil production (manufacture)
10410	15420	Linseed oil refining (manufacture)
46180	51180	Lip make-up and eye make-up preparations (commission agent)
20420	24520	Lipstick (manufacture)
09100	11100	Liquefaction and regasification of natural gas for transport

46120 51120 Liquefied gas for motor purposes (commission agent)
20110 24110 Liquefied or compressed industrial gases (manufacture)
20110 24110 Liquefied or compressed industrial or medical refrigerant gases (manufacture)
20110 24110 Liquefied or compressed medical gases (manufacture)
46711 51511 Liquefied petroleum gases (wholesale)
11010 15910 Liqueurs (manufacture)
46342 51342 Liqueurs (wholesale)
46120 51120 Liquid and compressed air (commission agent) 46750 51550 Liquid and compressed air (wholesale)
19201 23201 Liquid butane gas (manufacture)
10832 15862 Liquid coffee (manufacture)
46690 51870 Liquid dielectric transformers (wholesale)
28120 29121 Liquid elevator parts (manufacture)
28131 29121 Liquid elevators (manufacture)
46719 51519 Liquid fuels (other than petroleum) (wholesale) 06200 11100 Liquid hydrocarbon fractions draining and separation 20301 24301 Liquid lustres (manufacture)
20110 24110 Liquid or compressed air (manufacture)
46499 51479 Liquid or liquefied-gas fuels for lighters in containers (300 cc or more) (wholesale)
46711 51511 Liquid petroleum fuels (wholesale)
19201 23201 Liquid propane gas (manufacture)
20411 24511 Liquid soap (manufacture)
24100 27100 Liquid steel (manufacture)
10810 15830 Liquid sugar (manufacture)
26513 33202 Liquid supply meter (non-electronic) (manufacture) 82920 74820 Liquids bottling on a fee or contract basis
49500 60300 Liquids transport via pipelines
10822 15842 Liquorice (manufacture)
28230 30010 Listing machine (manufacture)
74909 74879 Literary agency
94990 91330 Literature and book club
27200 31400 Lithium batteries (manufacture)
20590 24640 Litho plate making (sensitized) (manufacture) 18130 22240 Litho plate making (unsensitized) (manufacture) 23700 26700 Litho stone working (manufacture)
90030 92319 Lithographic artist (own account)
20302 24302 Lithographic ink (manufacture)
18129 22220 Lithographic printing (manufacture)
18121 21251 Lithographic printing on labels or tags (manufacture) 18130 22240 Lithographic stones and wood blocks (manufacture) 18130 22250 Lithography (manufacture)
32500 33100 Lithotriptors (manufacture)
38110 90020 Litter box refuse collection (public) 46230 51230 Live animal exporter (wholesale)
46230 51230 Live animal importer (wholesale)
46110 51110 Live animals (commission agent)
46230 51230 Live animals (wholesale)
46230 51230 Live poultry (wholesale)
28220 29220 Live storage rack (manufacture)
14120 18210 Livery (manufacture)
46230 51230 Livestock (wholesale)
65120 66031 Livestock insurance
71200 74300 Lloyd's Register of Shipping
65120 66031 Lloyd's underwriter (non-life)

SIC 2007	SIC 2003	Activity
26120	32100	Loaded electronic boards (manufacture)
26120	32100	Loaded printed circuit boards (manufacture)
28921	29521	Loader for mining (manufacture)
52243	63110	Loading and unloading of freight railway cars
52242	63110	Loading and unloading of goods travelling via air transport
52243	63110	Loading and unloading of goods travelling via rail transportation
52241	63110	Loading and unloading of goods travelling via water transport
52242	63110	Loading and unloading of passengers' luggage travelling via air transport
52241	63110	Loading and unloading of passengers' luggage travelling via water transport
52243	63110	Loading and unloading passengers' luggage travelling via rail transportation
28922	29522	Loading shovel (manufacture)
13940	17520	Loading slings (manufacture)
64921	65221	Loan company (other than in banks' sector)
70210	74141	Lobbying activities
28131	29121	Lobe pump (manufacture)
03220	05020	Lobsterling production, freshwater
03210	05020	Lobsterling production, marine
91020	92521	Local authority art galleries and museums
96040	93040	Local authority baths (hot water and sauna)
52220	63220	Local authority canal services
52219	63210	Local authority car parks
96030	93030	Local authority cemeteries
88990	85322	Local authority citizen's advice bureau
42990	45213	Local authority civil engineering department
87900	85312	Local authority community homes (children)
90040	92320	Local authority concert halls and theatres
96030	93030	Local authority crematoriums
52220	63220	Local authority docks and harbours
37000	90010	Local authority drainage services
42990	45213	Local authority engineer's department
84250	75250	Local authority fire brigade services
93110	92619	Local authority football and other sports grounds
50400	61209	Local authority freight ferry services on rivers, canals and lakes
96030	93030	Local authority funeral services
42110	45230	Local authority highways construction and maintenance
88100	85322	Local authority home help service
87300	85312	Local authority homes for the disabled and the elderly
41202	45212	Local authority house building and maintenance
93110	92619	Local authority leisure centres
52220	63220	Local authority lighthouse service
87900	85312	Local authority lodging houses
52230	63230	Local authority municipal airport
84230	75230	Local authority observation and assessment centres
41202	45212	Local authority or new town direct labour department (domestic dwellings)
93290	92729	Local authority parks and gardens
50300	61201	Local authority passenger ferry services on rivers, canals and lakes
81291	74703	Local authority pest control department
88990	85322	Local authority probation service
93110	92619	Local authority recreational facilities
38210	90020	Local authority refuse disposal
56102	55302	Local authority restaurants, cafes, snack bars, etc. (unlicensed)
42110	45230	Local authority road construction and major repairs
49319	60219	Local authority road passenger transport services
84240	75240	Local authority school crossing patrols
56290	55510	Local authority school meals service
37000	90010	Local authority sewage services
88990	85322	Local authority social services department
93110	92619	Local authority sports facilities (incl. Football and other sports grounds, swimming baths, etc.)
43210	45340	Local authority street lighting
93110	92619	Local authority swimming pool
84240	75240	Local authority traffic wardens
49319	60219	Local authority transport department
84110	75110	Local government administration
60100	92201	Local radio station (broadcasting)
25720	28630	Lock (manufacture)
42910	45240	Lock construction
25720	28630	Lock for motor vehicle (manufacture)
25110	28110	Lock gates (manufacture)
25940	28740	Lock washer (manufacture)
31010	36120	Locker (manufacture)
13910	17600	Locknit fabric (manufacture)
46740	51540	Locks (wholesale)
25720	28630	Locksmiths (manufacture)
30200	35200	Locomotive (manufacture)
30200	35200	Locomotive parts and accessories (manufacture)
46690	51870	Locomotives (wholesale)
01250	01139	Locust bean growing
94990	91330	Lodge activities
87900	85312	Lodging house (local authority)
55900	55239	Lodging house (private)
28490	29430	Log decorticators (manufacture)
16100	20100	Log sawing (manufacture)
16100	20100	Log slicing, peeling or chipping (manufacture)
02400	02020	Log transport within the forest
01250	01139	Loganberry growing
46730	51530	Logged timber (wholesale)
02200	02010	Logging
02400	02020	Logging service activities
91020	92521	London Museum
16290	20520	Loofah articles (manufacture)
28940	29540	Loom (manufacture)
16290	20510	Loom made of wood (manufacture)
28940	29540	Loom winder (manufacture)
13921	17401	Loose cover for furniture (manufacture)
23140	26140	Loose glass fibre (manufacture)
17230	22220	Loose leaf binder (manufacture)
84230	75230	Lord Chancellor's Department
94910	91310	Lord's Day Observance Society
45190	50101	Lorries (retail)
45190	50102	Lorries (used) (retail)
45190	50102	Lorries (used) (wholesale)
45190	50101	Lorries (wholesale)
29100	34100	Lorry (manufacture)
28220	29220	Lorry loader (manufacture)
66210	67200	Loss adjuster
92000	92710	Lottery ticket sales
26400	32300	Loudspeaker (manufacture)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

11050 15960 Low and non-alcoholic beer (manufacture)

11020 15932 Low and non-alcoholic wine based on concentrated grape must (manufacture)

11020 15931 Low and non-alcoholic wine from fresh grapes and grape juice (manufacture)

24100 27100 Low carbon ferro manganese (carbon 2% or less) (manufacture)

10860 15880 Low energy and energy-reduced foods (manufacture)

29202 34202 Low loader trailer (manufacture)

10860 15880 Low sodium foods (manufacture)

19100 23100 Low temperature carbonisation solid fuel (not ovoid or briquettes) (manufacture)

10860 15880 Low-sodium or sodium-free dietary salts (manufacture)

82990 74879 Loyalty programme administration

10822 15842 Lozenge (medicated) (manufacture)

10822 15842 Lozenge (not medicated) (manufacture)

46719 51519 Lubricants (wholesale)

19209 23209 Lubricating grease formulation outside refineries (manufacture)

19201 23201 Lubricating oil (at refinery) (manufacture)

20590 24660 Lubricating oil additive (manufacture)

19209 23209 Lubricating oil formulation outside refineries (manufacture)

46120 51120 Lubricating oils (commission agent)

46719 51519 Lubricating oils and greases (wholesale)

47300 50500 Lubricating products for motor vehicles

28131 29121 Lubricating pump (not for internal combustion engine) (manufacture)

28290 29240 Lubricator (manufacture)

15120 19200 Luggage and the like of leather (manufacture)

15120 19200 Luggage handbags made of paperboard (manufacture)

15120 19200 Luggage made of leather or leather substitute (manufacture)

30990 35500 Luggage trucks (hand propelled) (manufacture)

30200 35200 Luggage van for railway (manufacture)

15120 19200 Luggage, handbags made of plastic sheeting (manufacture)

15120 19200 Luggage, handbags made of textile materials (manufacture)

20120 24120 Luminophores (manufacture)

56101 55301 Luncheon bar (licensed)

56290 55510 Luncheon club

82990 74879 Luncheon voucher company

01110 01110 Lupin growing

20130 24130 Lyes (manufacture)

90030 92319 Lyric author

46460 51460 Lysine and glutamic acid and salts thereof (wholesale)

46180 51180 Lysine, glutamic acid and their salts (commission agent)

10730 15850 Macaroni (manufacture)

28930 29530 Macaroni, spaghetti or similar products machinery (manufacture)

46140 51140 Machine broker (commission agent)

13922 17402 Machine covers (manufacture)

25400 29600 Machine gun (manufacture)

16290 20510 Machine parts made of wood (manufacture)

13300 17300 Machine printing of textiles (manufacture)

33200 28520 Machine rigging (manufacture)

25730 28620 Machine tool interchangeable tools (manufacture) 28490 29430 Machine tool special attachments (excluding for metal working) (manufacture)
28410 29420 Machine tools (ultrasonic) (metal working) (manufacture)
46620 51810 Machine tools (wholesale)
46620 51810 Machine tools exporter (wholesale)
28490 29430 Machine tools for cork, bone, hard rubber, hard plastics or similar hard materials (manufacture)
28490 29430 Machine tools for working cold glass (manufacture) 28410 29420 Machine tools, for working metals (manufacture) 28410 29420 Machine tools, for working metal, plasma arc (manufacture)
28410 29420 Machine tools, for working metals, ultrasonic waves (manufacture)
28410 29420 Machine tools, for working metals, using a laser beam (manufacture)
28410 29420 Machine tools, for working metals, using a magnetic pulse (manufacture)
28490 29430 Machine tools, for working wood (manufacture) 46620 51810 Machine tools importer (wholesale)
77390 71340 Machine tools rental and operating leasing 46140 51140 Machinery (commission agent)
28290 29240 Machinery (not containing electrical connectors) n.e.c. parts (manufacture)
46900 51900 Machinery (undefined) (wholesale) 15120 19200 Machinery accessories made of leather (manufacture)
46690 51870 Machinery and apparatus for filtering or purifying gases (wholesale)
46660 51850 Machinery and equipment for offices (wholesale) 77299 71409 Machinery and equipment used by amateurs or as a hobby e.g. Home repair tools rental and leasing
71121 74205 Machinery and industrial plant design 13960 17542 Machinery belting (woven) (manufacture)
15120 19200 Machinery belting made of leather (manufacture)
28290 29240 Machinery for cleaning or drying bottles and for aerating beverages (manufacture)
77390 71340 Machinery for industrial use rental and operating leasing
28250 29230 Machinery for liquefying air or gas (manufacture) 28490 29430 Machinery for making wooden clogs, soles and heels for shoes (manufacture)
28921 29521 Machinery for treating minerals by screening, sorting, separating, washing, crushing (manufacture)
46690 51870 Machinery n.e.c., for use in trade, navigation and other services (wholesale)
46690 51870 Machinery n.e.c., for industrial use (except mining, construction, textile) (wholesale)
46690 51870 Machinery n.e.c., for industrial use (except mining, construction, textile) exporter (wholesale)
46690 51870 Machinery n.e.c., for industrial use (except mining, construction, textile) importer (wholesale)
46900 51900 Machinery stockist (undefined) (wholesale)
46690 51870 Machines and appliances for testing the mechanical properties of materials (wholesale)
28302 29320 Machines for cleaning, sorting or grading eggs, fruit (manufacture)
28990 29560 Machines for the assembly of electric or electronic lamps, tubes (valves) or bulbs (manufacture)
26200 30020 Machines for transcribing data media in coded form (manufacture)
28410 29420 Machining centre (metal working) (manufacture) 28290 33202 Machinists precision tools (manufacture)

SIC 2007	SIC 2003	Activity
14131	18221	Mackintoshes for men and boys (manufacture)
14132	18222	Mackintoshes for women and girls (manufacture)
62012	72400	Made-to-order software
13922	17402	Made-up filter cloth (manufacture)
13922	17402	Made-up goods of sailcloth (manufacture)
17120	21120	Magazine paper (manufacture)
18129	22220	Magazine printing (manufacture)
58142	22130	Magazine publishing
46499	51479	Magazines (wholesale)
77210	71401	Magazines rental
01490	01250	Maggot breeding
84230	75230	Magistrates' court
23200	26260	Magnesite chrome shape (manufacture)
24450	27450	Magnesium (manufacture)
08910	14300	Magnesium sulphates (natural kieserite) mining
26800	24650	Magnetic card (manufacture)
26200	30020	Magnetic card readers (manufacture)
26200	30020	Magnetic card storage units (manufacture)
26513	33202	Magnetic compass (manufacture)
26800	24650	Magnetic disc (unrecorded) (manufacture)
26200	30020	Magnetic disk drives (manufacture)
26200	30020	Magnetic flash drives (manufacture)
46690	51870	Magnetic lifting heads (wholesale)
26200	30020	Magnetic or optical readers (manufacture)
46510	51840	Magnetic or optical readers (wholesale)
26400	32300	Magnetic recording head (manufacture)
26600	33100	Magnetic resonance imaging (MRI) equipment (manufacture)
26200	30020	Magnetic storage devices for computers (manufacture)
26800	24650	Magnetic tape (unrecorded) (manufacture)
26400	32300	Magnetic tape recorders (manufacture)
29310	31610	Magneto (manufacture)
29310	31610	Magneto-dynamos (manufacture)
71122	74206	Magnetometric (subsurface) surveying activities
26110	32100	Magnetron (manufacture)
46520	51860	Magnetrons, klystrons and microwave tubes (wholesale)
26701	33402	Magnifying glass (manufacture)
24430	27430	Magnolia metal (manufacture)
53100	64110	Mail distribution and delivery
28230	30010	Mail handling machines (envelope stuffing, sealing, addressing; opening, sorting) (manufacture)
47910	52610	Mail order (retail)
45320	50300	Mail order sales of motor vehicle parts and accessories (retail)
82190	64110	Mailbox rental
18140	22230	Mailing finishing services such as customisation, preparation (manufacture)
58120	22110	Mailing lists (in print) publishing
82190	74850	Mailing pre-sorting
26200	30020	Mainframe computers (manufacture)
96030	93030	Maintenance of graves
96030	93030	Maintenance of mausoleums
45200	50200	Maintenance of motor vehicles
68209	70209	Maisonettes letting
10611	15611	Maize (flaked) production (manufacture)
10611	15611	Maize flour and meal production (manufacture)
10620	15620	Maize starch (manufacture)
96020	93020	Make-up and beauty treatment
20420	24520	Make-up preparation (manufacture)
71111	74201	Making of architectural maquettes
24510	27510	Malleable castings (manufacture)
11060	15970	Malt and malt products (manufacture)
10890	15899	Malt extract (manufacture)
11050	15960	Malt liquors (manufacture)
10890	15899	Malted milk production (manufacture)
10620	15620	Maltose (manufacture)
26600	33100	Mammographs (manufacture)
62030	72300	Management and operation on a continuing basis of data processing facilities belonging to others
70229	74143	Management audits consultancy services
70229	74143	Management consultancy activities
85320	80220	Management training establishment
93110	92619	Managing and providing the staff for sports facilities
01230	01139	Mandarin growing
24450	27450	Manganese alloys (manufacture)
27200	31400	Manganese dioxide cells (manufacture)
07290	13200	Manganese mining and preparation
20120	24120	Manganese oxide (manufacture)
24450	27450	Manganese production and refining (manufacture)
24450	27450	Manganese wire made by drawing (manufacture)
01220	01139	Mango growing
01190	01110	Mangold growing
22230	25239	Manhole or access covers made of plastic
46180	51180	Manicure and pedicure preparations (commission agent)
20420	24520	Manicure and pedicure preparations (manufacture)
25710	28610	Manicure and pedicure sets (manufacture)
15120	19200	Manicure case made of leather (manufacture)
96020	93020	Manicurist
28110	29110	Manifold for industrial engine (manufacture)
20600	24700	Man-made fibre (not glass fibre) (manufacture)
13100	17150	Man-made fibre bulking (other than in man-made fibre producing establishments) (manufacture)
13100	17150	Man-made fibre crimping (other than in man-made fibre producing establishments) (manufacture)
13300	17300	Man-made fibre fabric bleaching, dyeing, printing or otherwise finishing (manufacture)
13100	17150	Man-made fibre texturing (other than in man-made fibre producing establishments) (manufacture)
13100	17150	Man-made fibre texturing, bulking, crimping in man-made fibre producing establishments (manufacture)
46180	51180	Man-made fibre waste (commission agent)
13200	17210	Man-made fibre weaving from yarns spun on the cotton system (manufacture)
13200	17220	Man-made fibre weaving of fabrics from yarns spun on the woollen system (manufacture)
13200	17230	Man-made fibre weaving of fabrics from yarns spun on worsted and semi-worsted systems (manufacture)
13300	17300	Man-made fibre yarn bleaching, dyeing or otherwise finishing (manufacture)
46120	51120	Man-made fibres and yarns (commission agent)
13100	17110	Man-made fibres spinning on the cotton system (manufacture)
13100	17120	Man-made fibres spinning on the woollen system (manufacture)
13100	17130	Man-made fibres spinning on the worsted and semi-worsted systems (manufacture)

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

13100 17110 Man-made fibres twisting on the cotton system (manufacture)
13100 17120 Man-made fibres twisting on the woollen system (manufacture)
13100 17130 Man-made fibres twisting on the worsted and semi-worsted systems (manufacture)
13100 17110 Man-made fibres warping on the cotton system (manufacture)
13100 17120 Man-made fibres warping on the woollen system (manufacture)
13100 17130 Man-made fibres warping on the worsted and semi-worsted systems (manufacture)
13100 17110 Man-made fibres winding on the cotton system (manufacture)
13100 17120 Man-made fibres winding on the woollen system (manufacture)
13100 17130 Man-made fibres winding on the worsted and semi-worsted systems (manufacture)
20600 24700 Man-made staple fibres, not carded, combed or otherwise processed for spinning (manufacture)
28940 29540 Man-made textile fibre or yarn producing machinery (manufacture)
20600 24700 Man-made tow (manufacture)
26511 33201 Manometers (electronic) (manufacture)
26513 33202 Manometers (non-electronic) (manufacture)
68209 70209 Mansions letting
30990 35500 Manually propelled trucks (manufacture)
24100 27100 Manufacture of hot-rolled rods of steel
25990 28750 Manufacture of metal combs (manufacture)
14200 18300 Manufacturing furrier (manufacture)
84130 75130 Manufacturing services administration and regulation (public sector)
46750 51550 Manure (wholesale)
28302 29320 Manure spreader (manufacture)
46610 51880 Manure spreaders, seeders (wholesale)
18129 22220 Manuscript book (manufacture)
58110 22110 Map and plan publishing
91011 92510 Map lending and storage
18129 22220 Map printing (manufacture)
47620 52470 Map seller (retail)
10810 15830 Maple syrup (manufacture)
46730 51530 Marble (wholesale)
23700 26700 Marble masonry working (manufacture)
08110 14110 Marble quarrying (rough trimming and sawing)
23190 26150 Marbles made of glass (manufacture)
10420 15430 Margarine (manufacture)
46330 51333 Margarine (wholesale)
42910 45240 Marina construction
93290 92629 Marinas
03110 05010 Marine and freshwater crustaceans and molluscs gathering
10410 15410 Marine animal crude oil and fat production (manufacture)
03210 05020 Marine aquaculture
52220 63220 Marine cargo lighterage
52220 63220 Marine cargo superintendent
71200 74300 Marine cargo surveyor
74909 74206 Marine consultant (other than environmental consultancy)
03110 05010 Marine crustacean and mollusc gathering
19201 23201 Marine diesel oil (manufacture)
84250 75250 Marine fireboat services

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03110 05010 Marine fishing
03110 05010 Marine fishing vessels engaged in processing andpreserving of fish
65120 66031 Marine insurance
71200 74300 Marine insurance survey activities
28110 29110 Marine non-propulsion engines (manufacture) 25300 28300 Marine or power boiler parts (manufacture) 20301 24301 Marine paint (manufacture)
46690 51870 Marine propulsion engines (wholesale)
52220 63220 Marine salvage
25990 28750 Marine screw propeller (manufacture)
46770 51570Marine store waste (wholesale)
71200 74300 Marine surveyor
50200 61102Marine tow out services
93290 92349 Marionette show
52290 63400 Maritime agent
84220 75220 Maritime search and rescue (military)28230 36120 Marker boards (manufacture)
32990 36631 Marker pen (manufacture)
73200 74130Market research agency
73200 74130Market research consultant
73200 74130Market research organisation
73200 74130Market, social and economic research services73110 74402 Marketing campaigns
70229 74149Marketing management consultancy activities
20590 24660 Marking ink (manufacture)
08110 14120Marl mining
10390 15330 Marmalade (manufacture)
13922 17402 Marquee (manufacture)
77210 71401 Marquee hire
88990 85321 Marriage and family guidance (charitable) 88990 85322 Marriage and family guidance (non-charitable)96090 93059 Marriage bureau
10822 15842 Marshmallow (manufacture)
85510 92629 Martial arts instruction
10822 15842 Marzipan sweets (manufacture)
10310 15310 Mashed potatoes (dehydrated) production(manufacture)
26600 33100 Mask and respirator (not medical) (manufacture)43999 45250 Mason (building)
86900 85140 Mass radiography service
32500 33100 Massage apparatus (manufacture)
96040 93040 Massage salons
24440 27440 Master alloys of copper (manufacture)96090 93059 Master of Ceremonies
20301 24303 Mastics (manufacture)
46730 51530 Mastics and sealants (wholesale)
30120 35120Masts and spars for pleasure boats (manufacture)30110 35110 Masts and spars for ships (manufacture)
23140 26140 Mat made of glass fibre (manufacture)20510 36639 Match (manufacture)
46499 51479Matches (wholesale)
25730 28620 Matchet (manufacture)
01270 01139Maté growing
46210 51210Materials, residues and by-products used as animal feed (wholesale)
86900 85140 Maternity and child welfare services86900 85140 Maternity clinic
86101 85112Maternity hospital (private sector)

SIC 2007	SIC 2003	Activity
86101	85111	Maternity hospital (public sector)
26513	33202	Mathematical instrument (non-electronic) (manufacture)
72190	73100	Mathematical research and experimental development
59200	22140	Matrice for record production
13939	17519	Mats and matting made of coconut fibre (manufacture)
13939	17519	Mats and matting made of coir (manufacture)
13939	17519	Mats and matting made of sisal (manufacture)
14200	18300	Mats and rugs made of fur (manufacture)
16290	20520	Mats made of cork (manufacture)
13939	17519	Mats made of jute (manufacture)
22190	25130	Mats made of rubber (manufacture)
24440	27440	Mattes made of copper (manufacture)
24450	27450	Mattes of nickel production (manufacture)
16290	20520	Matting made of cane (manufacture)
16290	20520	Matting made of rushes (manufacture)
22230	25231	Matting made of woven plastic (manufacture)
25730	28620	Mattock (manufacture)
31030	36150	Mattress base (manufacture)
23140	26140	Mattress made of glass fibre (manufacture)
31030	36150	Mattress made of plastic foam (manufacture)
31030	36150	Mattress made of sponge (manufacture)
31030	36150	Mattress support made of metal (manufacture)
10720	15820	Matzos (manufacture)
10840	15870	Mayonnaise (manufacture)
93120	92629	MCC
11030	15949	Mead (manufacture)
10611	15611	Meal from grain (manufacture)
10612	15612	Meal of dried leguminous vegetables production (manufacture)
56290	55520	Meals on wheels catering
77390	71340	Measuring and controlling equipment rental and operating leasing
26511	33201	Measuring instruments and appliances (electronic) (manufacture)
26513	33202	Measuring instruments and appliances (non-electronic) (manufacture)
46690	51870	Measuring instruments and equipment (wholesale)
28290	33202	Measuring rods and tapes (manufacture)
28290	33202	Measuring rule (manufacture)
28290	33202	Measuring tape (manufacture)
10110	15111	Meat (except poultry meat) processing and preserving (manufacture)
46320	51320	Meat (wholesale)
10110	15112	Meat and bone meal from knackers (manufacture)
46390	51390	Meat and fish market porterage (wholesale)
47220	52220	Meat and meat products (retail)
46320	51320	Meat and meat products exporter (wholesale)
46320	51320	Meat and meat products importer (wholesale)
47220	52220	Meat and meat products in specialised stores (retail)
10130	15139	Meat and poultry meat processing (other than bacon and ham) (manufacture)
10130	15139	Meat and poultry meat products (manufacture)
10130	15139	Meat canning, cooking and preserving (manufacture)
10110	15111	Meat chilling or freezing for human consumption
47220	52220	Meat dealer (retail)
10130	15139	Meat extract (manufacture)
46380	51380	Meat for domestic animals (wholesale)
10130	15139	Meat juices (manufacture)
10110	15112	Meat meal (ground meat) (manufacture)
10130	15139	Meat pate (manufacture)
56103	55303	Meat pie shop
10130	15139	Meat pies and puddings (manufacture)
46320	51320	Meat porter (wholesale)
28930	29530	Meat processing machinery (manufacture)
10110	15111	Meat production (fresh, chilled or frozen) in carcasses or cuts (manufacture)
10130	15139	Meat pudding (manufacture)
10130	15139	Meat rillettes (manufacture)
46320	51320	Meat salesman (wholesale)
71129	74204	Mechanical and electrical installation for buildings design activities
28210	29210	Mechanical ash dischargers (manufacture)
38320	37100	Mechanical crushing of metal waste (cars, washing machines, etc.) with sorting and separation
38320	37100	Mechanical crushing of metal waste from used bikes
25620	28520	Mechanical engineering (general) (manufacture)
28220	29220	Mechanical industrial robots for lifting, handling (manufacture)
15110	19100	Mechanical leather preparation (manufacture)
28220	29220	Mechanical lifting manipulators (manufacture)
28220	29220	Mechanical manipulators (manufacture)
28150	29140	Mechanical power transmission bearing housings
28150	29140	Mechanical power transmission camshafts (manufacture)
28150	29140	Mechanical power transmission chain (manufacture)
28150	29140	Mechanical power transmission cranks (manufacture)
28150	29140	Mechanical power transmission crankshafts (manufacture)
28150	29140	Mechanical power transmission plain shaft bearings (manufacture)
28150	29140	Mechanical power transmission plant (manufacture)
28150	29140	Mechanical power transmission shafts (manufacture)
38320	37100	Mechanical reduction of large iron pieces such as railway wagons into secondary raw materials
28922	29522	Mechanical shovels (manufacture)
46630	51820	Mechanical shovels, shovel loaders, excavators, with 360 degree revolving superstructure (wholesale)
28210	29210	Mechanical stokers (manufacture)
17110	21110	Mechanical woodpulp (manufacture)
71129	74204	Mechanical, industrial and systems engineering design projects
32500	33100	Mechano-therapy appliances (manufacture)
47789	52485	Medals (new) (retail)
77291	71403	Media entertainment equipment renting and leasing
26800	24650	Media for sound or video recording (unrecorded) (manufacture)
73120	74401	Media representation
74202	74813	Medical and biological photography
32500	33100	Medical and dental instruments and supplies (manufacture)
77299	71409	Medical and paramedical equipment (e.g. crutches) rental and leasing
32500	33100	Medical appliances (manufacture)
94120	91120	Medical associations (manufacture)
86101	85111	Medical consultant (public sector)
21200	24421	Medical diagnostic preparations, including pregnancy tests (manufacture)
46180	51180	Medical goods (commission agent)

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SIC 2007	SIC 2003	Activity
47749	52329	Medical goods (retail)
46460	51460	Medical goods (wholesale)
86210	85120	Medical group practice
21200	24421	Medical impregnated bandages, dressings, gauze and wadding (manufacture)
32500	33100	Medical instrument (non-optical) (manufacture)
86900	85140	Medical laboratories
26600	33100	Medical laser equipment (manufacture)
32500	33100	Medical nucleonic apparatus (manufacture)
19201	23201	Medical paraffin (manufacture)
78200	74500	Medical personnel (supply) (temporary employment agency)
72190	73100	Medical research establishment not attached to hospital (other than biotechnological)
32500	25130	Medical rubber dressings (manufacture)
32500	25130	Medical rubber goods (not dressings) (manufacture)
85421	80302	Medical school
72190	73100	Medical sciences research and experimental development (other than biotechnological)
32500	33202	Medical thermometers (manufacture)
46460	51460	Medical, surgical, dental and veterinary furniture (wholesale)
32500	33100	Medical, surgical, dental or veterinary examination tables (manufacture)
32500	33100	Medical, surgical, dental or veterinary operating tables (manufacture)
21200	24421	Medicaments (manufacture)
46460	51460	Medicaments containing alkaloids or their derivatives (wholesale)
46460	51460	Medicaments containing hormones (wholesale)
46180	51180	Medicaments containing hormones but (not antibiotics) (commission agent)
46180	51180	Medicaments containing penicillins or other antibiotics (commission agent)
46460	51460	Medicaments containing penicillins or other antibiotics (wholesale)
10822	15842	Medicated confectionery (manufacture)
32500	24422	Medicated dressings (manufacture)
21100	24410	Medicinal active substances to be used for their pharmacological properties (manufacture)
21100	24410	Medicinal feed additives (veterinary) (manufacture)
28131	29121	Medicinal pumps (manufacture)
21200	24421	Medicine (manufacture)
47730	52310	Medicine dealer (retail)
16210	20200	Medium density fibreboard (MDF) and other fibreboard (manufacture)
19201	23201	Medium fuel oil (manufacture)
26400	32300	Megaphone (manufacture)
20140	24140	Melamine (manufacture)
20160	24160	Melamine resins (manufacture)
10420	15430	Melanges and similar spreads (manufacture)
01130	01120	Melon growing
28210	29210	Melting furnace (manufacture)
94990	91330	Membership organisations n.e.c.
26200	30020	Memory store for computers (manufacture)
91040	92530	Menagerie
13300	17300	Mending of textile articles, including wearing apparel (manufacture)
47710	52424	Men's bespoke tailor (retail)
47710	52424	Men's clothier and outfitter (retail)
47710	52424	Men's clothing (retail)
46420	51429	Men's clothing (wholesale)

47710 52424 Men's outfitter (retail)
47710 52424 Men's wear dealer (retail)
86101 85111 Mental disability (public sector)
86220 85120 Mental health specialist (private practice)
86101 85111 Mental health specialist (public sector)
86101 85112 Mental hospital (private sector)
86101 85111 Mental hospital (public sector)
85590 80429 Mentally disabled adult training
28940 29540 Mercerising machinery for textiles (manufacture)
13300 17300 Mercerising of textiles and textile articles, including wearing apparel (manufacture)
13300 17300 Mercerising yarn (manufacture)
18140 22230 Merchandising display finishing (manufacture)
46410 51410 Merchant converter (textiles) (wholesale)
50200 61102 Merchant Navy
27200 31400 Mercuric dioxide cells (manufacture)
27400 31500 Mercury vapour lamp (manufacture)
13100 17130 Merino yarn spinning (manufacture)
22220 25220 Mesh bags made of plastic (manufacture)
53201 64120 Messenger licensed
53201 64120 Messenger service licensed
53202 64120 Messenger service unlicensed
53202 64120 Messenger unlicensed
46770 51570 Metal and non-metal waste and scrap and materials for recycling (wholesale)
25990 28750 Metal badges and metal military insignia (manufacture)
46120 51120 Metal broker (not scrap) (commission agent)
22290 25240 Metal coating of plastics
28410 29420 Metal cutting machine (numerically controlled) (manufacture)
28410 29420 Metal cutting machine tool (manufacture)
26513 33202 Metal detectors (non-electronic) (manufacture)
25990 28750 Metal dinnerware bowls (manufacture)
25990 28750 Metal dinnerware platters (manufacture)
25910 28710 Metal drum reconditioning (manufacture)
18130 22240 Metal etching (manufacture)
25610 28510 Metal finishing
25500 28400 Metal forging, pressing, stamping and roll-forming (manufacture)
28410 29420 Metal forming machine (numerically controlled) (manufacture)
31090 36110 Metal framed upholstery for seating (manufacture)
25110 28110 Metal frameworks for blast furnaces (manufacture)
25110 28110 Metal frameworks for construction of bridges (manufacture)
25110 28110 Metal frameworks for construction of masts (manufacture)
25110 28110 Metal frameworks for construction of towers (manufacture)
25110 28110 Metal frameworks for lifting and handling equipment (manufacture)
25990 28750 Metal goods for office use (manufacture)
25990 28750 Metal hair curlers (manufacture)
25990 28750 Metal hollow ware pots (manufacture)
25990 28750 Metal hollowware kettles (manufacture)
25500 28400 Metal objects production directly from metal powders by heat treatment (manufacture)
46120 51120 Metal oxides, hydroxides and peroxides (commission agent)
46750 51550 Metal oxides, hydroxides and peroxides (wholesale)

SIC 2007	SIC 2003	Activity
20590	24660	Metal pickling substances (manufacture)
25990	28750	Metal plates (manufacture)
20412	24512	Metal polish (manufacture)
20301	24301	Metal pre-treatment paint (manufacture)
25990	28750	Metal road signs (manufacture)
46690	51870	Metal rolling mills (wholesale)
28910	29510	Metal rolling mills and rolls for such mills (manufacture)
24100	27100	Metal sand for sandblasting (manufacture)
25110	28110	Metal skeletons for bridges (manufacture)
25110	28110	Metal skeletons for masts (manufacture)
25110	28110	Metal skeletons for towers (manufacture)
25990	28750	Metal spinning
25610	28510	Metal spraying (manufacture)
28290	29240	Metal spraying machine (manufacture)
46720	51520	Metal stockholder (wholesale)
25110	28110	Metal structures and parts of structures (manufacture)
20590	24660	Metal treatment chemical (manufacture)
25990	28750	Metal umbrella handles and frames (manufacture)
25990	28750	Metal vacuum jugs and bottles (manufacture)
46120	51120	Metal waste and scrap (commission agent)
43320	45420	Metal window fixing
28410	29420	Metal working machine tool (physical process) (manufacture)
28410	29420	Metal working machine tool parts (manufacture)
25920	28720	Metallic closures (manufacture)
46120	51120	Metallic halogenates (commission agent)
46750	51550	Metallic halogenates (wholesale)
20301	24301	Metallic paint (manufacture)
15110	19100	Metallised leathers (manufacture)
13960	17549	Metallised yarn (manufacture)
46120	51120	Metalloids (commission agent)
46750	51550	Metalloids (wholesale)
19100	23100	Metallurgical coke (manufacture)
71200	74300	Metallurgist (private practice)
28910	29510	Metallurgy machinery (manufacture)
46120	51120	Metals (commission agent)
46720	51520	Metals (wholesale)
46720	51520	Metals and metal ores exporter (wholesale)
46720	51520	Metals and metal ores importer (wholesale)
46499	51440	Metalware for domestic use (wholesale)
26511	33201	Meteorological instruments (electronic) (manufacture)
26513	33202	Meteorological instruments (non-electronic) (manufacture)
26701	33201	Meteorological optical instruments (electronic) (manufacture)
26513	33202	Meteorological optical instruments (non-electronic) (manufacture)
22230	25239	Meter housing boxes made of plastic (manufacture)
82990	74879	Meter reading on a fee or contract basis
28131	29121	Metering pump (manufacture)
26511	33201	Meters (other than for electricity and parking) (electronic) (manufacture)
26513	33202	Meters (other than for electricity and parking) (non-electronic) (manufacture)
26511	33201	Meters for electricity (electronic) (manufacture)
26513	33202	Meters for electricity (non-electronic) (manufacture)
26511	33201	Meters for liquid supply (electronic) (manufacture)
26513	33202	Meters for liquid supply (non-electronic) (manufacture)
26511	33201	Meters for petrol pumps (electronic) (manufacture)
26513	33202	Meters for petrol pumps (non-electronic) (manufacture)
26511	33201	Meters for water (electronic) (manufacture)
26513	33202	Meters for water (non-electronic) (manufacture)
06200	11100	Methane extraction from natural gas
20140	24140	Methanol (manufacture)
46750	51550	Methanol (wholesale)
94910	91310	Methodist Church
20140	15920	Methylated spirits (manufacture)
32200	36300	Metronome (electronic or mechanical) (manufacture)
49311	60213	Metropolitan area passenger railway transportation by underground, metro and similar systems
84240	75240	Metropolitan Police Commissioners Office
49319	60219	Metropolitan scheduled passenger land transport other than underground, metro and similar systems
23990	26829	Mica goods (manufacture)
08990	14500	Mica mining and quarrying
23990	26829	Mica slab and sheet processing (manufacture)
26200	30020	Mice, joysticks and trackballs (manufacture)
21100	24410	Microbiological cultures, toxins, etc. (manufacture)
26110	32100	Microchip (manufacture)
46520	51860	Microchips (wholesale)
26110	32100	Microcircuit (manufacture)
26200	30020	Micro-computers (manufacture)
26702	33403	Microfiche readers (manufacture)
26702	33403	Microfilm equipment (manufacture)
26702	33403	Microfilm readers (manufacture)
74202	74813	Micro-filming activities
26513	33202	Micrometer (manufacture)
71122	74206	Micropalaeontogical analysis activities
26400	32300	Microphone (manufacture)
26702	33402	Microphotography equipment (manufacture)
26110	32100	Microprocessors (manufacture)
26702	33402	Microprojection equipment (manufacture)
46690	51870	Microscopes (except optical) and diffraction equipment (wholesale)
26513	33202	Microscopes (other than optical) (manufacture)
26110	32100	Microwave components (manufacture)
27510	29710	Microwave ovens (manufacture)
46439	51439	Microwave ovens (wholesale)
26110	32100	Microwave tube (manufacture)
85200	80100	Middle schools deemed primary
86900	85140	Midwife (NHS)
86900	85140	Midwife (private)
55900	55239	Migrant worker accommodation
84210	75210	Military aid missions accredited to foreign governments (public sector)
86101	85111	Military base hospitals
25400	29600	Military carbine (manufacture)
14120	18210	Military clothing (manufacture)
85421	80302	Military college
84220	75220	Military defence administration
30400	29600	Military fighting tanks (manufacture)
30400	29600	Military fighting vehicles (manufacture)
86101	85111	Military hospital (public sector)
84220	75220	Military logistics
91020	92521	Military museums

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

84220 75220 Military ports
25400 29600 Military rifle (manufacture)
85320 80220 Military school
84230 75230 Military tribunals administration and operation 46330 51331 Milk (wholesale)
56103 55303 Milk bar
10860 15880 Milk based baby food (manufacture) 10821 15841 Milk chocolate (manufacture)
25920 28720 Milk churns made of aluminium (manufacture) 25910 28710 Milk churns made of iron or steel (manufacture) 10821 15841 Milk cocoa (manufacture)
49410 60249 Milk collection by tanker
28930 29530 Milk converting machinery (manufacture)
11070 15980 Milk drinks (flavoured) (manufacture)
10511 15511 Milk homogenising (manufacture)
10519 15519 Milk or cream in solid form (manufacture) 25990 28750 Milk pan (manufacture)
28930 29530 Milk pasteurisation plant (manufacture)
10519 15519 Milk powder (manufacture)
28930 29530 Milk processing machinery (manufacture) 10511 15511 Milk production (evaporated, condensed, etc.) (manufacture)
10519 15519 Milk products other than liquid milk and cream, butter, cheese n.e.c. (manufacture)
47990 52630 Milk roundsman (not farmer) (retail) 11070 15980 Milk shake base (manufacture)
10511 15511 Milk sterilising (manufacture)
10511 15511 Milk ultra heat treatment (manufacture) 28302 29320 Milking machine (manufacture)
46610 51880 Milking machines (wholesale)
47990 52630 Milkman (not farmer) (retail)
17120 21120 Mill board (manufacture)
23990 26821 Millboard made of asbestos (manufacture) 01110 01110 Millet growing
46420 51429 Millinery (wholesale)
47710 52423 Millinery dealer (retail)
46420 51429 Millinery importer (wholesale)
14190 18241 Millinery made of felt (manufacture) 25730 28620 Milling cutter (manufacture)
28930 29530 Milling machine (food processing) (manufacture) 28410 29420 Milling machine (metal cutting) (manufacture) 28940 29540 Milling machinery for textiles (manufacture) 23910 26810 Millstone and grindstone cutting (manufacture)
23910 26810 Millstones made of bonded abrasives (manufacture) 10390 15330 Mincemeat (manufacture)
25400 29600 Mine case and component (manufacture) 26511 31620 Mine detectors (electronic) (manufacture)
26513 33202 Mine detectors (non-electronic) (manufacture)
26513 31620 Mine detectors, pulse (signal) generators; metal detectors (manufacture)
43999 45250 Mine sinking
39000 90030 Minefield clearance
21100 24410 Mineral and pharmaceutical nutritional ingredients for food and feeding stuff (manufacture)
20120 24120 Mineral colours (manufacture)
28921 29521 Mineral cutter (manufacture)
28921 29521 Mineral dressing plant (manufacture)
23990 26829 Mineral insulating materials (manufacture)
23990 26829 Mineral insulation products (manufacture)

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19209 23209 Mineral oil blending (manufacture)
06100 11100 Mineral oil extraction
19201 23201 Mineral oil refining (manufacture)
84130 75130 Mineral resource services administration and regulation (public sector)
71122 74206 Mineral surveyor
11070 15980 Mineral water bottling (manufacture)
46341 51341 Mineral water exporter (wholesale)
46341 51341 Mineral water importer (wholesale)
11070 15980 Mineral water production (manufacture)
46341 51341 Mineral waters (wholesale)
23990 26829 Mineral wool (manufacture)
28921 29521 Minerals treatment machinery (manufacture)
27400 31500 Miners' lamp (manufacture)
27120 31200 Miniature circuit breaker (manufacture)
29100 34100 Minibus (manufacture)
45111 50101 Minibuses with a weight not exceeding 3.5 tonnes(new) (retail)
45111 50101 Minibuses with a weight not exceeding 3.5 tonnes(new) (wholesale)
45112 50102 Minibuses with a weight not exceeding 3.5 tonnes(used) (retail)
45112 50102 Minibuses with a weight not exceeding 3.5 tonnes(used) (wholesale)
26200 30020 Mini-computers (manufacture)
09900 14500 Mining and quarrying of residual class 08990, support services provided on a fee or contract basis
71129 74204 Mining engineering design projects
77390 71340 Mining equipment rental and operating leasing 30200 35200 Mining locomotives and mining rail cars (manufacture)
28921 29521 Mining machinery (manufacture)
46630 51820 Mining machinery and equipment (wholesale) 07290 13200 Mining of non-ferrous metal ore
72190 73100 Mining research establishment
84130 75130 Mining services administration and regulation (public sector)
43120 45110 Mining site preparation and overburden removal 16100 20100 Mining timber (sawn) (manufacture)
28921 28620 Mining tool (bit) (manufacture)
28240 29410 Mining tool (powered portable) (manufacture) 84220 75220 Ministry of Defence (civilian personnel)
84220 75220 Ministry of Defence (forces personnel) 84220 75220 Ministry of Defence Headquarters
72190 73100 Ministry of Defence research and development (other than biotechnological)
10831 15861 Mint herb infusions maté (manufacture) 10840 15870 Mint sauce (manufacture)
16290 20510 Mirror frame made of wood (manufacture) 23120 26120 Mirror glass (manufacture)
32500 33100 Mirrors for medical use (manufacture) 23120 26120 Mirrors for motor vehicles (manufacture)
25400 29600 Missiles (guided weapons), except intercontinental ballistic missile (ICBM) (manufacture)
94910 91310 Missionary Society
26513 33202 Mitre (manufacture)
11030 15949 Mixed beverages containing fruit wines (manufacture)
47190 52120 Mixed business retailing both food and non food goods but non-food predominating (retail)
01500 01300 Mixed farming

SIC 2007	SIC 2003	Activity
20110	24110	Mixed industrial gases (manufacture)
28960	29560	Mixing machine for working rubber or plastic (manufacture)
29203	34203	Mobile bank (not self propelled) (manufacture)
29203	34203	Mobile canteen (not self propelled) (manufacture)
28220	29220	Mobile crane (manufacture)
56103	55304	Mobile food carts
68209	70209	Mobile home letting (residential)
29100	34100	Mobile library (not trailer) (manufacture)
28220	29220	Mobile lifting frames (manufacture)
26301	32202	Mobile telephone (manufacture)
61200	64200	Mobile telephone services
47421	52488	Mobile telephones (retail)
47421	52488	Mobile telephones for motor vehicles (retail)
33110	28520	Mobile welding repair of fabricated metal products (not of machinery) (manufacture)
29100	34100	Mobile x-ray unit (not trailer) (manufacture)
32409	36509	Model kit (manufacture)
93290	92349	Model railway installations
30110	35110	Model ship made by shipbuilder (manufacture)
46120	51120	Modelling pastes (commission agent)
20590	24660	Modelling pastes (manufacture)
32990	36639	Models for educational or exhibition purposes (manufacture)
32990	36639	Models for geographical use made of wax or plaster (manufacture)
32409	36509	Models for recreational use (manufacture)
22290	36639	Models for window display made of plastic (manufacture)
32990	36639	Models made of plaster (manufacture)
32990	36639	Models made of wax (manufacture)
26120	32100	Modem interface cards (manufacture)
26301	32201	Modems (manufacture)
25110	28110	Modular exhibition elements made of metal (manufacture)
30110	35110	Modules for oil platform (manufacture)
13100	17120	Mohair spinning on the woollen system (manufacture)
13100	17130	Mohair spinning on the worsted system (manufacture)
13200	17220	Mohair woollen weaving (manufacture)
13200	17230	Mohair worsted weaving (manufacture)
10910	15710	Molassed feeding stuff containing more than 30% molasses (manufacture)
10810	15830	Molasses (manufacture)
01610	01410	Mole catching by contractors
28921	29521	Moles for mining (manufacture)
14200	18300	Moleskin finishing (manufacture)
01490	01250	Mollusc farming, except aquatic molluscs
10200	15209	Mollusc preservation (other than by freezing) (manufacture)
10200	15201	Mollusc preservation by freezing (manufacture)
20200	24200	Molluscicides (manufacture)
47230	52230	Molluscs (retail)
03210	05020	Molluscs and other aquatic animals cultured in sea water
46380	51380	Molluscs distribution (wholesale)
24450	27450	Molybdenum (manufacture)
07290	13200	Molybdenum mining and preparation
94910	91310	Monastery
66120	67130	Money changer
64921	65221	Money lender
64191	65121	Money order activities
26110	31300	Monitor cables (manufacture)
80200	74602	Monitoring activities by mechanical or electrical protective devices
26309	32202	Monitoring equipment for radio and television (manufacture)
80200	74602	Monitoring of electronic security alarm systems
26200	30020	Monitors for computers (manufacture)
26400	32300	Monitors for videos (manufacture)
20140	24140	Mono and polycarboxyclic acids including acetic acid (manufacture)
26701	33402	Monocular (manufacture)
46120	51120	Monohydric alcohols (commission agent)
20140	24140	Monohydric alcohols (manufacture)
46750	51550	Monohydric alcohols (wholesale)
26110	32100	Monolithic integrated circuits (manufacture)
25110	28110	Monopod tower made of steel plate (manufacture)
28120	29121	Montejus (compressed air chamber elevators) (manufacture)
32910	36620	Mop (manufacture)
30910	35410	Moped (manufacture)
45400	50400	Moped sales (retail)
45400	50400	Moped sales (wholesale)
32910	36620	Mops for household use (manufacture)
13200	17210	Moquette (not woollen) weaving (manufacture)
13200	17220	Moquette woollen weaving (manufacture)
86220	85120	Morbid anatomy specialist (private practice)
86101	85111	Morbid anatomy specialist (public sector)
20120	24120	Mordant dye (manufacture)
25400	29600	Mortar (ordnance) (manufacture)
25400	29600	Mortar bomb (manufacture)
28923	29523	Mortar mixers (manufacture)
28923	29523	Mortar spreaders (manufacture)
23640	26640	Mortars (manufacture)
23640	26640	Mortars (powdered) (manufacture)
23200	26260	Mortars made of refractory (manufacture)
66190	67130	Mortgage agent
66190	67130	Mortgage broker activities
64929	65229	Mortgage corporation for agriculture
64922	65223	Mortgage finance companies' activities (other than banks and building societies)
28490	29430	Mortising machines (manufacture)
96030	93030	Mortuary
23310	26300	Mosaic cube (manufacture)
23190	26150	Mosaic cubes made of glass (manufacture)
23310	26300	Mosaic glazed tiles (manufacture)
94910	91310	Mosque
02300	02010	Moss collecting, cutting or gathering
23990	26829	Moss litter (manufacture)
46760	51560	Moss litter (wholesale)
71200	74300	MOT testing station
55100	55101	Motel (licensed with restaurant)
55100	55102	Motel (unlicensed with restaurant)
55100	55103	Motel without restaurant
28921	29521	Motion compensation equipment for oil drilling rigs (manufacture)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

26513 33202 Motion detectors (non-electronic) (manufacture)
74203 74814 Motion picture developing
59131 92120 Motion picture distribution activities 59120 92119 Motion picture film laboratory activities59111 92111 Motion picture production
77390 71340 Motion picture production equipment rental andleasing
59140 92130 Motion picture projection
59131 92120 Motion pictures distribution to other industries59120 92119 Motion pictures post-production activities
52219 63210 Motive power depot (railway)
45320 50300 Motor accessories dealer (retail)
45310 50300 Motor accessories dealer (wholesale)
46120 51120Motor and aviation spirit (commission agent)49320 60220 Motor bike taxi service
30120 35120Motor boats (manufacture)
49319 60219 Motor bus scheduled passenger transport29100 34100 Motor car (manufacture)
29100 34100 Motor coach (manufacture)
49390 60231 Motor coach service
49390 60231 Motor coach with driver (private hire)
28120 29122 Motor for hydraulic equipment (manufacture) 28120 29122 Motor for pneumatic equipment (manufacture)19201 23201 Motor fuel (manufacture)
27110 31100 Motor generator sets (manufacture)
45190 50102 Motor homes (used) (retail)
45190 50102 Motor homes (used) (wholesale)
65120 66031 Motor insurance
45200 50200 Motor repair depot
30910 35410 Motor scooter (manufacture)
19201 23201 Motor spirit (manufacture)
46711 51511Motor spirit distribution (wholesale)
27120 31200 Motor starting and controlling gear (manufacture)30910 35410 Motor tricycle and parts (manufacture)
45190 50102 Motor vehicle (used) exporter
22290 25240 Motor vehicle accessories, fittings and parts made ofplastic (manufacture)
49410 60249 Motor vehicle collection
71121 74205 Motor vehicle design
29310 31610Motor vehicle electrical generators (manufacture)29310 31610 Motor vehicle electrical ignition wiring harnesses (manufacture)
29310 31610Motor vehicle electrical power window and doorsystems (manufacture)
45200 50200 Motor vehicle painting and body repairing 45320 50300 Motor vehicle parts and accessories (retail) 45310 50300 Motor vehicle parts and accessories (wholesale)29310 31610 Motor vehicle purchased gauges into instrument panels (manufacture)
29100 34100 Motor vehicle reconditioning by manufacturer (manufacture)
45200 50200 Motor vehicle servicing
45200 50200 Motor vehicle spraying
45111 50101 Motor vehicle with a weight not exceeding 3.5 tonnes(new) exporter
45111 50101 Motor vehicle with a weight not exceeding 3.5 tonnes(new) importer
45112 50102 Motor vehicle with a weight not exceeding 3.5 tonnes(used) importer
29100 34100 Motor vehicles (manufacture)
71200 74300 Motor vehicles certification

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29100 34100 Motor vehicles for commercial use (manufacture) 45111 50101 Motor vehicles with a weight not exceeding 3.5 tonnes (new) (retail)
45111 50101 Motor vehicles with a weight not exceeding 3.5 tonnes (new) (wholesale)
45112 50102 Motor vehicles with a weight not exceeding 3.5 tonnes (used) (retail)
45112 50102 Motor vehicles with a weight not exceeding 3.5 tonnes (used) (wholesale) 30910 35410 Motorcycle (manufacture) 45400 50400 Motorcycle exporter (wholesale) 77390 71211 Motorcycle hire
45400 50400 Motorcycle importer (wholesale)
30910 35410 Motorcycle parts and accessories (manufacture) 45400 50400 Motorcycle parts and accessories (retail)
45400 50400 Motorcycle parts and accessories (wholesale) 77390 71211 Motorcycle rental
45400 50400 Motorcycle sales (retail)
45400 50400 Motorcycle sales (wholesale)
45190 50101 Motorhomes (retail)
45190 50101 Motorhomes (wholesale)
29100 34100 Motorised caravans (manufacture)
46690 51870 Motorised tanks and other armoured fighting vehicles (wholesale)
94990 91330 Motorists' organisation (not road patrol or touring service)
52219 50200 Motorists' organisation (road patrol)
79110 63301 Motorists' organisation touring department 30300 35300 Motors and engines of a kind typically found on aircraft (manufacture)
30300 35300 Motors for aircraft (manufacture)
42110 45230 Motorway and other dual carriageway construction 52219 63210 Motorway maintenance unit
56102 55302 Motorway services cafeteria (unlicensed) 47300 50500 Motorway services petrol filling station 25730 28620 Mould (engineers' small tools) (manufacture) 25730 29560 Mould for foundry (manufacture)
23200 26260 Mouldable refractory (manufacture)
27120 31200 Moulded case circuit breaker (manufacture) 22190 19300 Moulded rubber bottoms for footwear (manufacture)
16230 20300 Moulded skirting board made of wood (manufacture)
28930 29530 Moulders for bakery (manufacture)
28960 29560 Moulders for rubber or plastic (manufacture) 25730 29560 Moulding boxes for any material (manufacture) 20160 24160 Moulding compounds (plastics) (manufacture) 28960 29560 Moulding machine for rubber or plastic (manufacture)
28490 29430 Moulding machine for wood, etc. (manufacture) 25730 29560 Moulding machine for working rubber or plastics (manufacture)
28930 29530 Moulding machines for dairies (manufacture) 22190 25130 Mouldings for upholstery made of rubber (manufacture)
23200 26260 Mouldings made of magnesite (manufacture) 22290 25240 Mouldings made of plastic (manufacture) 16230 20300 Mouldings made of wood (manufacture) 23200 26260 Moulds made of silica (manufacture)
46690 51870 Moulds, moulding boxes for metal foundries, mould bases and moulding patterns (wholesale)

SIC 2007	SIC 2003	Activity
17290	21259	Mount cutting (manufacture)
93199	92629	Mountain guides
55202	55210	Mountain refuges
32300	36400	Mountaineering equipment (manufacture)
26110	32100	Mounted piezo-electric crystals (manufacture)
46520	51860	Mounted piezo-electric crystals (wholesale)
17290	21259	Mounting paper on linen (manufacture)
20520	24620	Moutant (manufacture)
32200	36300	Mouth blown signalling instruments (manufacture)
32200	36300	Mouth organ (manufacture)
26520	33500	Movements for clocks and watches (manufacture)
28220	29220	Moving walkways (manufacture)
28302	29320	Mowers for agricultural use (manufacture)
28302	29320	Mowers for lawns, parks and sports grounds (manufacture)
09100	11200	Mud logging services
28921	29521	Mudline suspension and tie-back equipment (manufacture)
23200	26260	Muffles (refractory product) (manufacture)
14200	18300	Muffs made of fur (manufacture)
01250	01139	Mulberry growing
01430	01220	Mule farming and breeding
23190	26150	Multicellular glass block (manufacture)
72190	73100	Multi-disciplinary research and development (not biotechnological or social sciences and humanities)
72200	73100	Multi-disciplinary research and development predominantly on social sciences and humanities
26200	30020	Multi-function office equipment (manufacture)
82190	74850	Multigraphing
17120	21120	Multi-layer paper obtained by compression (manufacture)
23120	26120	Multiple insulating glass (manufacture)
23120	26120	Multiple-walled insulating units of glass (manufacture)
26301	32201	Multiplexers for telephone exchanges (manufacture)
84130	75130	Multipurpose development project services administration (public sector)
17211	21211	Multi-wall paper sack (manufacture)
46760	51560	Mungo (carded or combed) (wholesale)
49319	60219	Municipal bus service
91020	92521	Museums of all kinds
91020	92521	Museums of furniture, costumes, ceramics, silverware
91020	92521	Museums of jewellery
02300	01120	Mushroom (wild) gathering
01130	01120	Mushroom growing (cultivated)
01300	01120	Mushroom spawn growing
47210	52210	Mushrooms (retail)
46310	51310	Mushrooms (wholesale)
59200	22140	Music (printed) publishing
32200	36300	Music box mechanisms (manufacture)
94990	91330	Music club
90030	92319	Music composer
90030	92319	Music copyist and transcriber (own account)
59200	72400	Music downloads (on-line publishing with provision of downloaded content)
90040	92320	Music hall
18130	22240	Music plate engraving (manufacture)
18129	22220	Music printing (manufacture)
47591	52450	Music shop (retail)
59200	22140	Music tape publishing
18201	22310	Music tape reproduction from master copies (manufacture)
85320	80220	Music teacher (own account)
32200	36300	Musical box (manufacture)
32200	36300	Musical instrument parts and accessories (manufacture)
77210	71401	Musical instrument rental
32200	36300	Musical instrument tuners (electronic) (manufacture)
46180	51180	Musical instruments (commission agent)
47591	52450	Musical instruments (retail)
46491	51475	Musical instruments (wholesale)
46491	51475	Musical instruments exporter (wholesale)
46491	51475	Musical instruments importer (wholesale)
32200	36300	Musical instruments including electronic (manufacture)
77299	71409	Musical instruments rental and leasing
47591	52450	Musical scores (retail)
90010	92311	Musicians
13300	17300	Muslin clipping (manufacture)
13300	17300	Muslin dressing (manufacture)
13300	17300	Muslin ending (manufacture)
13300	17300	Muslin finishing (manufacture)
13300	17300	Muslin gassing (manufacture)
13300	17300	Muslin mending (manufacture)
13200	17210	Muslin weaving (manufacture)
03110	05010	Mussel gathering
03220	05020	Mussel production, freshwater
03210	05020	Mussel production, marine
10840	15870	Mustard (manufacture)
10840	15870	Mustard flour and meal (manufacture)
10410	15410	Mustard oil production (manufacture)
28930	29530	Mustard processing machine (manufacture)
10410	15410	Mustard seed crushing (manufacture)
01110	01110	Mustard seed growing
66300	67121	Mutual funds management
32500	33100	Myograph (manufacture)
56290	55510	NAAFI canteen
56302	55404	NAAFI clubs
56290	55520	NAAFI headquarters
47110	52112	NAAFI shop with alcohol licence (retail)
47110	52113	NAAFI shop without alcohol licence (retail)
30300	35300	Nacelles for aircraft (manufacture)
25930	28730	Nail (not wire) (manufacture)
32910	36620	Nail brush (manufacture)
25710	28610	Nail file (manufacture)
20420	24520	Nail preparation (cosmetic) (manufacture)
28490	29430	Nailing machines (manufacture)
25930	28730	Nails made of steel wire (manufacture)
46740	51540	Nails, tacks, drawing pins and staples (wholesale)
25990	28750	Nameplates made of metal (manufacture)
22290	25240	Nameplates made of plastic (manufacture)
13990	17541	Napery lace (manufacture)
19201	23201	Naphtha (LDF) (manufacture)
20140	24140	Naphthalene (manufacture)
17220	21220	Napkin liners (manufacture)
17220	21220	Napkins made of paper (manufacture)
13960	17542	Narrow fabric (not elastic or elastomeric) (manufacture)

SIC 2007	SIC 2003	Activity

93290 92729 Narrow gauge railway (recreational)
24100 27100 Narrow slabs of semi-finished steel (manufacture)
13960 17542 Narrow woven fabrics, including weftless fabrics assembled by means of an adhesive (manufacture)
94990 91330 National council for civil liberties
72200 73200 National foundation for educational research
91020 92521 National galleries (Scotland)
91020 92521 National gallery
93120 92629 National greyhound racing club
85590 80429 National institute for adult continuing education
91011 92510 National library for the blind
91011 92510 National library of Scotland
91011 92510 National library of Wales
94120 91120 National maritime board
91020 92521 National maritime museum
72190 73100 National physical laboratory
91020 92521 National portrait gallery
64191 65121 National savings bank
88990 85321 National society for the prevention of cruelty to children
94990 91330 National trust (the)
91020 92521 National trust garden (property)
94990 91330 National union of students (not trading activities)
08910 14300 Native sulphur mining
46180 51180 Natural cork in plates, sheets, strips, crushed, granulated or ground (commission agent)
72190 73100 Natural environment research council
35220 40220 Natural gas booster/compression site
06200 11100 Natural gas condensates separation
35220 40220 Natural gas distribution
71122 74206 Natural gas exploration
06200 11100 Natural gas production well
35220 40220 Natural gas storage
91020 92521 Natural history museum
20530 24630 Natural material used in flavours or perfumes (manufacture)
03110 05010 Natural pearls gathering of
72190 73100 Natural sciences research and experimental development (other than biotechnological)
32990 36639 Natural sponge preparation

SIC 2007	SIC 2003	Activity

(manufacture)
46120 51120 Natural uranium and plutonium and their compounds (commission agent)
24460 23300 Natural uranium production (manufacture)
96090 93059 Naturalisation agent
91040 92530 Nature reserves including wildlife preservation
26513 33202 Nautical instrument (non-electronic) (manufacture)
85320 80220 Nautical school
71121 74205 Naval architect
30110 35110 Naval dockyard (shipbuilding and repairing) (manufacture)
30110 35110 Naval ships of all types (manufacture)
52220 63220 Navigation activities
46690 51870 Navigation machinery (wholesale)
26511 33201 Navigational instruments and appliances (electronic) (manufacture)
26513 33202 Navigational instruments and appliances (non-electronic) (manufacture)
10410 15420 Neatsfoot oil (manufacture)
14190 18249 Necktie (manufacture)
14190 18249 Neckwear for women (manufacture)

01240 01139Nectarine growing
28150 29140 Needle roller bearings (manufacture)
28140 29130 Needle valves (manufacture)
13990 17549 Needlefelt (other than carpet underlay) (manufacture)
13939 17519 Needlefelt carpet underlay (manufacture)
13939 17519 Needleloom and bonded fibre rugs (manufacture) 13939 17519 Needleloom and bonded fibre tiles (manufacture) 13939 17519 Needleloom carpet (manufacture)
13939 17519 Needleloom carpeting (manufacture)
13990 17549 Needleloom felt (other than carpet underlay) (manufacture)
13939 17519Needleloom felt carpet underlay (manufacture)47510 52410 Needles for sewing (retail)
28940 29540 Needles for sewing machines (manufacture)25930 28730 Needles made of metal (manufacture) 32500 33100 Needles used in medicine (manufacture) 46410 51410 Needles, etc. for sewing (wholesale)
26702 33403 Negatoscopes (manufacture)
94110 91110 Negotiations of business and employer organisations20200 24200 Nematocide (manufacture)
20110 24110 Neon (manufacture)
27400 31500 Neon tube (manufacture)
13910 17600 Net and window furnishing type fabrics (manufacture)
13910 17600 Net curtaining knitted or crocheted fabric (manufactur
e) 47530 52440 Net curtains (retail)
13990 17541 Net fabrics in the piece, in strips or in motifs(manufacture)
13940 17520 Nets for horticulture (manufacture)
13910 17600 Netted fabric (manufacture)
22290 25240 Netting made of plastic (not woven or knotted)(manufacture)
25930 28730 Netting made of steel wire (manufacture)25930 28730 Netting made of wire (manufacture) 13940 17520 Netting products (manufacture)
26200 30020 Network interface (manufacture)
26120 32100 Network interface cards (manufacture)
86900 85140 Neuropath
20140 15920 Neutral spirits production (manufacture)
93110 92619 Newmarket Heath
63910 92400 News agency activities
63990 92400 News clipping service
20302 24302 News ink (manufacture)
18110 22210 Newspaper printing (manufacture)
58130 22120 Newspaper publishing
47620 52470 Newspapers (retail)
46499 51479Newspapers (wholesale)
17120 21120 Newsprint (manufacture)
47890 52620 Newsvendor (retail)
27200 31400 NiCad batteries (manufacture)
24450 27450 Nickel (manufacture)
24450 27450 Nickel alloys (manufacture)
07290 13200 Nickel mining and preparation
24440 27440 Nickel silver (manufacture)
24450 27450 Nickel wire made by drawing (manufacture)20200 24200 Nicotine preparation (manufacture)
01110 01110 Niger seed growing
25990 28750 Night safe (manufacture)

SIC 2007	SIC 2003	Activity
56301	55401	Night-clubs (licensed to sell alcohol)
14142	18232	Night-dresses for women and girls (manufacture)
32990	36639	Nightlight (manufacture)
14190	18249	Nightwear for infants (manufacture)
14141	18231	Nightwear for men and boys (manufacture)
14142	18232	Nightwear for women and girls (manufacture)
27200	31400	NiMH batteries (manufacture)
25730	28620	Nippers (manufacture)
46750	51550	Nitrate of soda importer (wholesale)
20150	24150	Nitrates and nitrites of potassium (manufacture)
46120	51120	Nitrates of potassium (commission agent)
46120	51120	Nitric acid, sulphonitric acid and ammonia (commission agent)
20150	24150	Nitric and sulphonitric acid (manufacture)
20510	24610	Nitro glycerine (manufacture)
13960	17549	Nitro-cellulose coated textile fabric (manufacture)
20110	24110	Nitrogen (manufacture)
20150	24150	Nitrogen products (manufacture)
20301	24301	Nitrogen resin type paint (manufacture)
20140	24140	Nitrogen-function organic compounds including amine (manufacture)
20150	24150	Nitrogenous straight fertiliser (manufacture)
20150	24150	Nitrogenous, phosphatic or potassic fertilisers (manufacture)
20110	24110	Nitrous oxide (manufacture)
24100	27100	Nodular pig iron (manufacture)
46760	51560	Noil (wholesale)
13100	17120	Noils (woollen industry) (manufacture)
74901	74206	Noise control consultancy activities
66190	67130	Nominee company
28230	30010	Non electronic calculators (manufacture)
46170	51170	Non-alcoholic beverages (commission agent)
47250	52250	Non-alcoholic beverages (retail)
11070	15980	Non-alcoholic flavoured and/or sweetened waters (manufacture)
24100	27100	Non-alloy pig iron (manufacture)
24100	27100	Non-alloy steel (manufacture)
10910	15710	Non-compound animal and cattle feed (not from grain milling or oilseed cakes and meal) (manufacture)
27330	25240	Non-current carrying plastic junction boxes (manufacture)
27330	25240	Non-current carrying plastic pole line fittings (manufacture)
27330	25240	Non-current carrying plastic switch covers (manufacture)
10890	15899	Non-dairy milk and cheese substitutes (manufacture)
10410	15410	Non-defatted flour production (manufacture)
28250	29230	Non-domestic cooling and ventilation equipment parts (manufacture)
28210	29720	Non-electric household heating equipment (permanently mounted) (manufacture)
28210	29210	Non-electric household-type furnaces (manufacture)
26513	33202	Non-electrical apparatus for testing physical and mechanical properties of materials (manufacture)
46470	51479	Non-electrical lamps and light fittings (wholesale)
27400	31500	Non-electrical lighting equipment (manufacture)
28290	29430	Non-electrical welding and soldering equipment (manufacture)
24540	27540	Non-ferrous metal foundry (manufacture)
09900	13200	Non-ferrous metal ore mining of class 07290, support services provided on a fee or contract basis
07290	13200	Non-ferrous metal ore quarrying
07290	13200	Non-ferrous metal ores mining and preparation
24450	27450	Non-ferrous other metals production (manufacture)
65202	66032	Non-life reinsurance
65202	66020	Non-life reinsurance related to pension funding
38320	37200	Non-metal waste and scrap recycling into secondary raw materials
23990	26829	Non-metallic mineral substances, articles thereof (manufacture)
84210	75210	Non-military aid programmes to developing countries (public sector)
24100	27100	Non-oriented electrical steel sheet (manufacture)
68209	70209	Non-residential buildings letting
28140	29130	Non-return, reflux and check valves (manufacture)
51102	62201	Non-scheduled air transport of passengers
49390	60239	Non-scheduled passenger transport n.e.c.
43341	45440	Non-specialised painting of metal structures (including ships)
47990	52630	Non-store auctions (retail)
47990	52630	Non-store commission agents (retail)
20160	24160	Non-vulcanisable thermoplastic elastomers (manufacture)
02300	02010	Non-wood products, gathering from the wild
13950	17530	Non-woven bonded fibre fabrics (manufacture)
22220	25220	Non-woven liners made of polyethylene (manufacture)
22220	25220	Non-woven sacks made of polyethylene (manufacture)
13950	17530	Non-wovens (manufacture)
13950	17530	Non-wovens and articles made from non-wovens (manufacture)
10730	15850	Noodle (manufacture)
69109	74119	Notary activities
69109	74119	Notary public
24420	27420	Notched bars made of aluminium (manufacture)
17230	22220	Notepad (manufacture)
22290	25240	Notice plates made of plastic (manufacture)
13990	17541	Nottingham lace (manufacture)
10822	15842	Nougat (manufacture)
22290	36639	Novelties made of plastic (manufacture)
15120	19200	Novelty goods made of leather (manufacture)
30300	35300	Nozzle for gas turbine aero engine (manufacture)
23200	26260	Nozzles made of refractory ceramic (manufacture)
25300	28300	Nuclear fired boiler (manufacture)
24460	23300	Nuclear fuel (except enrichment of uranium or thorium) (manufacture)
25300	28300	Nuclear fuel plant (manufacture)
24460	23300	Nuclear fuel processing (except enrichment of uranium or thorium) (manufacture)
32500	33100	Nuclear magnetic resonance apparatus (manufacture)
35110	40110	Nuclear power station
71200	74300	Nuclear plant certification
25300	28300	Nuclear reactor parts (manufacture)
25300	28300	Nuclear reactors (manufacture)
26511	33201	Nucleonic instrument (manufacture)
32500	33100	Nucleonic medical apparatus (manufacture)
86101	85112	Nuffield Hospital Trust
32990	36631	Numbering stamps (manufacture)
26511	33201	Numerical control and indication equipment for machine tools (electronic) (manufacture)

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SIC 2007	SIC 2003	Activity
26513	33202	Numerical control and indication equipment for machine tools (non-electronic) (manufacture)
47789	52485	Numismatist (retail)
14120	18210	Nuns' clothing (manufacture)
86900	85140	Nurse (private)
01300	01120	Nursery (horticulture)
32300	36400	Nursery equipment (manufacture)
85100	80100	Nursery schools
13923	17403	Nursery square (manufacture)
14120	18210	Nurses' uniforms for men (manufacture)
14120	18210	Nurses' uniforms for women (manufacture)
78200	74500	Nursing agency (supplying nurses) (temporary employment agency)
87100	85140	Nursing care facilities
86900	85140	Nursing co-operative
86102	85113	Nursing home with medical care (under the direct supervision of medical doctors)
87100	85140	Nursing homes
94120	91120	Nursing society
25940	28740	Nut (manufacture)
10822	15842	Nut and bean confectionery (manufacture)
10390	15330	Nut foods and pastes (manufacture)
10822	15842	Nut preserving in sugar (manufacture)
10390	15330	Nut processing and preservation (except in sugar) (manufacture)
28930	29530	Nut processing machines and equipment (manufacture)
10390	15330	Nut shelling, grinding and preparing (manufacture)
01280	01139	Nutmeg, mace and cardamoms growing
10390	15330	Nuts preserved by freezing (manufacture)
02300	01139	Nuts, gathering from the wild
21100	24410	O-acetylsalicylic acids (manufacture)
10720	15820	Oat cake (manufacture)
10611	15611	Oat flour and meal (manufacture)
10611	15611	Oat grinding, rolling, crushing or flaking (manufacture)
10611	15611	Oats (manufacture)
01110	01110	Oats growing
26701	33402	Observation telescopes (manufacture)
88100	85322	Occupation and training centre for the mentally disordered (non-charitable)
88100	85321	Occupation and training centres for the mentally disordered (charitable)
86900	85140	Occupational therapist (private)
26511	33201	Oceanographic or hydrological instruments (electronic) (manufacture)
26513	33202	Oceanographic or hydrological instruments (non-electronic) (manufacture)
08910	14300	Ochre pit
20120	24120	Ochres (pigments) (manufacture)
20530	24630	Odoriferous products (manufacture)
47250	52250	Off licence (not public house) (retail)
10110	15111	Offal (edible) preparation (i.e. removal, freezing, packing, etc.) (manufacture)
46320	51320	Offal salesman (wholesale)
41201	45211	Office and shop construction
17219	21219	Office box files and similar articles (manufacture)
81210	74701	Office cleaning contractor
77390	71320	Office container renting
47410	52482	Office equipment (retail)
77330	71330	Office equipment hire

47599 52482 Office furniture (retail)

46650 51850 Office furniture (wholesale)

77330 71330 Office furniture hire

46140 51140 Office machinery (commission agent)

28230 30010 Office machinery (manufacture)

28230 30010 Office machinery and equipment (manufacture) 77330 71330 Office machinery and equipment leasing 77330 71330 Office machinery and equipment rental and operating leasing

99000 99000 Office of High Commissioner

32120 36220 Office or desk articles of base metals clad with precious metals (manufacture)

31010 36110 Office seating (manufacture)

47620 52470 Office supplies (retail)

22290 25240 Office supplies made of plastic (manufacture) 78200 74500 Office support personnel (supply) (temporary employment agency)

17219 21219 Office systems made of paper and board (manufacture) 56290

55510 Officers' messes

68209 70209 Offices letting

84230 75230 Official receiver

84230 75230 Official solicitor

45190 50101 Off-road motor vehicles with a weight exceeding 3.5 tonnes (new) (retail)

45190 50101 Off-road motor vehicles with a weight exceeding 3.5 tonnes (new) (wholesale)

45190 50102 Off-road motor vehicles with a weight exceeding 3.5 tonnes (used) (retail)

45190 50102 Off-road motor vehicles with a weight exceeding 3.5 tonnes (used) (wholesale)

45111 50101 Off-road motor vehicles with a weight not exceeding 3.5 tonnes (new) (retail)

45111 50101 Off-road motor vehicles with a weight not exceeding 3.5 tonnes (new) (wholesale)

45112 50102 Off-road motor vehicles with a weight not exceeding 3.5 tonnes (used) (retail)

45112 50102 Off-road motor vehicles with a weight not exceeding 3.5 tonnes (used) (wholesale)

28990 29560 Offset litho printing machine (manufacture) 18129 22220 Offset printing (manufacture)

46660 51850 Offset sheet fed printing machinery for offices (wholesale)

30110 35110 Offshore floating drilling rig (manufacture) 49500 60300 Offshore natural gas pipeline operation 42210 45213 Offshore oil pipeline laying

49500 60300 Offshore oil pipeline operation

52220 63220 Offshore positioning services

50200 61102 Offshore supply vessel services

30110 35110 Offshore support vessel (manufacture)

92000 92710 Off-track betting

26513 33202 Ohmmeter (manufacture)

10410 15420 Oil (edible) (manufacture)

20590 24660 Oil additive (manufacture)

09100 11200 Oil and gas exploration in connection with oil and gas extraction, including traditional prospecting

09100 11200 Oil and gas extraction service activities provided on a fee or contract basis

09100 11200 Oil and gas field fire fighting services

09100 11200 Oil and gas well casing, cementing, tubing and lining services

09100 11200 Oil and gas well cementing services

SIC 2007	SIC 2003	Activity
09100	11200	Oil and gas well coiled-tubing wellwork
09100	11200	Oil and gas well conductor driving services
09100	11200	Oil and gas well cutting, casing and abandonment services
09100	11200	Oil and gas well pipe refurbishment services
09100	11200	Oil and gas well sleeving repair services
19209	23209	Oil based lubricating oils (manufacture)
23990	26829	Oil based sealants (manufacture)
46210	51210	Oil cake (wholesale)
20411	24511	Oil dispersant (manufacture)
09100	11200	Oil extraction service activities
77390	71340	Oil field equipment rental and operating leasing
28290	29240	Oil filter for motor vehicle (manufacture)
28210	29210	Oil fuel burner (manufacture)
10410	15410	Oil kernel meal production (manufacture)
47789	52489	Oil merchant (retail)
46719	51519	Oil merchant (wholesale)
10410	15410	Oil nut meal production (manufacture)
01260	01110	Oil palms growing
49500	60300	Oil pipeline terminal operating (for petroleum)
30110	35110	Oil platform fabrication of steel plate (manufacture)
06100	11100	Oil platform operation
30110	35110	Oil platform structural sections (manufacture)
43999	45250	Oil production platform (fixed concrete or composite steel/concrete) construction
06100	11100	Oil production well or platform operating
19201	23201	Oil refinery (manufacture)
28290	29240	Oil refining industry machinery (other than plant) (manufacture)
28290	29240	Oil seal (manufacture)
10410	15410	Oil seed cake and meal (manufacture)
10410	15410	Oil seed crushing (manufacture)
46210	51210	Oil seeds (wholesale)
01110	01110	Oil seeds growing
06100	11100	Oil shale mine
06100	11100	Oil shale retorting
39000	90030	Oil spill clearance on land
39000	90030	Oil spill pollution control services
39000	90030	Oil spills at sea containment, dispersion and clean up services
06100	11100	Oil stabilisation plant operation
25290	28210	Oil storage tank made of metal for domestic use exceeding 300 litres (manufacture)
46120	51120	Oil trading (commodity broking) (commission agent)
10410	15410	Oilcakes and other residual products of oil production (manufacture)
46410	51410	Oilcloth (wholesale)
28131	29121	Oil-cushion pumps (manufacture)
50200	61102	Oil-rig transportation by towing or pushing
20590	24660	Oils and fats (chemically modified) (manufacture)
46750	51550	Oils and other products of distilling of high temperature coal tar, pitch and pitch tar (wholesale)
14131	18221	Oilskins for men and boys (manufacture)
14132	18222	Oilskins for women and girls (manufacture)
23910	26810	Oilstones (bonded) (manufacture)
21200	24421	Ointment (manufacture)
88100	85321	Old age and sick visiting (charitable)
88100	85322	Old age and sick visiting (non-charitable)
87300	85311	Old people's sheltered housing (charitable)
87300	85312	Old people's sheltered housing (non-charitable)
87300	85312	Old persons' home (local authority)
87300	85311	Old persons' warden assisted dwellings (charitable)
87300	85312	Old persons' warden assisted dwellings (non-charitable)
46210	51210	Oleaginous fruits (wholesale)
20140	24140	Oleic acid (manufacture)
20140	24140	Oleine (manufacture)
20301	24301	Oleo resinous paint (manufacture)
10410	15410	Oleo stearin (manufacture)
01260	01139	Olive growing
10410	15410	Olive oil (crude) production (manufacture)
10410	01139	Olive oil from self produced olives (if value of production exceeds that of growing) (manufacture)
10410	15420	Olive oil refining (manufacture)
10390	15330	Olive preserving in salt or brine (manufacture)
25990	28750	Omelette pan (manufacture)
45200	50200	Omnibus repair depot
49319	60219	Omnibus service
74203	74814	One hour photo shop (not part of camera shop)
01130	01120	Onion growing
58190	72400	On-line advertising material publishing
58110	72400	On-line book publishing
58190	72400	On-line catalogue publishing
58210	72400	On-line computer games publishing
58120	72400	On-line database publishing
58120	72400	On-line directory publishing
78109	74500	On-line employment placement agencies
58190	72400	On-line forms publishing
58190	72400	On-line greeting cards and postcards publishing
58142	72400	On-line journal (other than learned journals) and periodical publishing
58141	72400	On-line learned journal publishing
58120	72400	On-line mailing list publishing
58130	72400	On-line newspaper publishing
58190	72400	On-line publishing n.e.c.
58190	72400	On-line publishing of posters and reproductions of works of art
58190	72400	On-line publishing of statistics and other information
58190	72400	On-line publishing photos and engravings
58290	72400	On-line software publishing (except computer games on-line publishing)
20301	24301	Opacifiers and colours (manufacture)
21200	24421	Opacifying preparations for x-ray examinations (manufacture)
91020	92521	Open air museums
24330	27330	Open sections made of steel formed on a roll mill (manufacture)
85421	80302	Open University
05102	10102	Opencast coal disposal point
05102	10102	Opencast coal site
05102	10102	Opencast coal working
64304	65237	Open-ended investment companies
90040	92320	Opera house
90010	92311	Opera production
32500	33100	Operating tables (manufacture)
49319	60219	Operation of aerial cableways as part of urban, suburban or metropolitan transit
93290	92341	Operation of dance floors
35140	40130	Operation of electricity and transmission capacity exchanges for electric power

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

38220 90020 Operation of facilities for treatment of hazardous waste

49319 60219 Operation of funicular railways as part of urban, suburban or metropolitan transit

36000 41000 Operation of irrigation canals

38210 90020 Operation of landfills for the disposal of non-hazardous waste

52212 63210 Operation of rail passenger facilities at railway stations

93290 92629 Operation of recreational transport facilities e.g. marinas

93290 92729 Operation of ski hills

49390 60239 Operation of teleferics, funiculars 38110 90020 Operation of waste transfer facilities for non-hazardous waste

38120 90020 Operation of waste transfer stations for hazardous waste

81100 75140 Operational services of government owned or occupied buildings (public sector)

86900 85140 Ophthalmic clinic

32500 33401 Ophthalmic eyeglasses (manufacture)

86101 85112 Ophthalmic hospital (private sector)

86101 85111 Ophthalmic hospital (public sector)

32500 33100 Ophthalmic instrument (manufacture)

46690 51870 Ophthalmic instruments (wholesale)

32500 33401 Ophthalmic lenses ground to prescription, safety goggles (manufacture)

47789 52482 Optical and precision goods (retail) 20120 24120 Optical bleaching agent (manufacture)

26200 30020 Optical CD-RW, CD-ROM, DVD-ROM, DVD-RW disk drives (manufacture)

26701 33402 Optical comparators (manufacture)

26511 33201 Optical density measuring equipment (electronic) (manufacture)

26513 33202 Optical density measuring equipment (non-electronic) (manufacture)

26200 30020 Optical disk drives (manufacture)

32500 33401 Optical element (mounted, (not photographic)) (manufacture)

32500 33401 Optical element (unmounted) (manufacture) 23190 26150 Optical elements made of glass (not optically worked) (manufacture)

27310 31300 Optical fibre cables for coded data transmission (manufacture)

46690 51870 Optical fibre cables made up of individually sheathed fibres (wholesale)

27310 33402 Optical fibres, optical fibre bundles and cables (manufacture)

26701 33402 Optical fire control equipment (manufacture) 23190 26150 Optical glass (manufacture)

46439 51479 Optical goods (wholesale)

26701 33402 Optical gun sighting equipment (manufacture) 26701 33402 Optical instruments and appliances (other than photographic goods) (manufacture)

26701 33402 Optical machinist's precision tools (manufacture) 26701 33402 Optical magnifying instruments (manufacture)

26800 24650 Optical media (manufacture)

26701 33402 Optical microscope (manufacture)

26701 33401 Optical mirrors (manufacture)

26701 33402 Optical positioning equipment (manufacture)

26701 33402 Optical projector (meteorological) (manufacture) 26511 33201 Optical type measuring and checking appliances and instruments (electronic) (manufacture)

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26513 33202 Optical type measuring and checking appliances and instruments (non-electronic) (manufacture)
26600 33100 Optometer (manufacture)
46180 51180 Oral and dental hygiene preparations including denture fixative pastes and powders (commission agent)
21200 24421 Oral contraceptives (manufacture)
20420 24520 Oral hygiene preparations (manufacture)
86230 85130 Oral pathology
01230 01139 Orange growing
11070 15980 Orangeade production (manufacture)
30300 35300 Orbital stations (manufacture)
90010 92311 Orchestras
25400 29600 Ordnance (manufacture)
46120 51120 Ores (commission agent)
46720 51520 Ores (wholesale)
32200 36300 Organ tuning (manufacture)
13200 17210 Organdie weaving (manufacture)
20140 24140 Organic acids and their esters and halogenated, nitrosated and sulphonated derivatives (manufacture)
20140 24140 Organic base chemicals (manufacture)
23910 26810 Organic bonded abrasives (manufacture) 24100 27100 Organic coated steel sheet (manufacture) 20301 24301 Organic composite solvents (manufacture) 20140 24140 Organic compounds including wood distillation products (manufacture)
20411 24511 Organic surface-active agents (manufacture)
66190 67130 Organisation and development of electronic money circulation
99000 99000 Organisation for economic co-operation and development
99000 99000 Organisation of oil producing and exporting countries
85600 74149 Organisation of student exchange programmes 90010 92311 Organist (own account)
46750 51550 Organo-sulphur and other organo-inorganic compounds (wholesale)
20140 24140 Organo-sulphur compounds (manufacture)
47789 52489 Oriental goods (retail)
16210 20200 Oriented strand board (OSB) and other particleboard (manufacture)
09900 14110 Ornamental and building stone quarrying support services provided on a fee or contract basis
08110 14110 Ornamental and building stone, breaking and crushing
13960 17542 Ornamental braids (manufacture)
23410 26210 Ornamental ceramic ware (manufacture)
23310 26300 Ornamental earthenware glazed tiles (manufacture) 03220 05020 Ornamental fish farming, freshwater
03210 05020 Ornamental fish farming, marine 01300 01120 Ornamental tree and shrub growing 13960 17542 Ornamental trimmings (manufacture)
43390 45450 Ornamentation fitting work
23130 26130 Ornaments made of glass (manufacture) 22290 25240 Ornaments made of plastic (manufacture)
32120 36220 Ornaments made of precious metal (manufacture)
16290 20510 Ornaments made of wood (manufacture) 32120 36220 Ornaments that are gold or silver plated (manufacture)
87900 85311 Orphanages (charitable)
87900 85312 Orphanages (non-charitable)

SIC 2007	SIC 2003	Activity
86230	85130	Orthodontic activities
32500	33100	Orthopaedic appliances (not footwear) (manufacture)
47749	52329	Orthopaedic appliances (retail)
32500	33100	Orthopaedic footwear (manufacture)
46460	51460	Orthopaedic goods (wholesale)
86101	85112	Orthopaedic hospital (private sector)
86101	85111	Orthopaedic hospital (public sector)
32500	33100	Orthopedic and prosthetic devices (manufacture)
26511	33201	Oscilloscope (manufacture)
16290	20520	Osier articles (manufacture)
02200	02010	Osier growing
16290	20520	Osier preparation (manufacture)
25110	28110	Ossature in metal for construction (manufacture)
86900	85140	Osteopath (not registered medical practitioner)
86220	85120	Osteopath (registered medical practitioner)
01490	01250	Ostriches raising and breeding
85590	80429	Other adult and other education n.e.c.
24100	27100	Other alloy steel (manufacture)
46760	51560	Other intermediate products exporter (wholesale)
46760	51560	Other intermediate products importer (wholesale)
31090	36140	Other plastic furniture (manufacture)
56290	55510	Other ranks' messes
01220	01139	Other tropical and subtropical fruit growing
31090	36110	Ottoman (manufacture)
82200	74860	Outbound call centres
27400	31500	Outdoor and road lighting (manufacture)
31090	36140	Outdoor furniture (non-upholstered) (manufacture)
31090	36140	Outdoor furniture made of metal (manufacture)
43999	45450	Outdoor private swimming pools
31090	36110	Outdoor seating (manufacture)
81299	90030	Outdoor sweeping and watering of parking lots, streets, paths, public spaces etc.
14190	18249	Outerwear for infants (manufacture)
14131	18221	Outerwear for men and boys (manufacture)
14131	18221	Outerwear for men and boys made of stitched plastic (manufacture)
14132	18222	Outerwear for women and girls made of stitched plastic (manufacture)
29201	34201	Outfitting of all types of motor vehicles (except caravans) (manufacture)
29203	34203	Outfitting of caravans (manufacture)
29202	34202	Outfitting of tankers and removal trailers for transport of goods (manufacture)
29202	34202	Outfitting of trailers and semi-trailers for transport of goods (manufacture)
27330	31200	Outlet boxes for electrical wiring (manufacture)
96090	93059	Outside porter
28930	29530	Oven (food processing) machine (manufacture)
27510	29710	Ovens (electric) (manufacture)
28210	29210	Ovens for industrial use (except bakery) (manufacture)
46499	51479	Ovens, cookers, cooking plates, boiling rings, grills and roasters (non-electric) (wholesale)
46439	51439	Ovens, cookers, cooking plates, boiling rings, grills and roasters (electric) (wholesale)
23130	26130	Ovenware made of glass (manufacture)
70229	74143	Overall planning, structuring and control of organisation consultancy services
14120	18210	Overalls for boys (manufacture)
14120	18210	Overalls for domestic use (manufacture)

14120 18210 Overalls for girls (manufacture)
14120 18210 Overalls for men and boys (manufacture) 14120 18210 Overalls for women and girls (manufacture) 15200 19300 Overboot (manufacture)
43120 45110 Overburden removal and other development of mineral properties and sites
13200 17220 Overcoating woollen weaving (manufacture) 14131 18221 Overcoats for men and boys (manufacture) 14132 18222 Overcoats for women and girls (manufacture)
30300 35300 Overhaul and conversion of aircraft or aircraft engines (manufacture) 42220 45213
Overhead line construction
27320 31300 Overhead line fittings (manufacture)
18130 22250 Overhead media foils and other forms of presentation (manufacture)
18130 22250 Overhead projection foils production (manufacture) 28220 29220 Overhead runway (manufacture)
26702 33403 Overhead transparency projectors (manufacture) 15200 19300 Overshoes made of rubber (manufacture)
19201 10103 Ovoid solid fuel production (manufacture) 88990 85321 Oxfam (not shops)
20140 24140 Oxirane (ethylene oxide) (manufacture)
20110 24110 Oxygen (manufacture)
32500 33100 Oxygen breathing equipment for medical use (manufacture)
20130 24130 Oxygen compounds of non metals (excluding carbon dioxide) (manufacture)
32500 33100 Oxygen therapy apparatus (manufacture) 20140 24140 Oxygen-function compounds (dual or poly) (manufacture)
20140 24140 Oxygen-function compounds including aldehydes (manufacture)
56101 55301 Oyster bar (licensed)
03220 05020 Oyster cultivation, freshwater
03210 05020 Oyster cultivation, marine
03220 05020 Oyster fishery, freshwater
03210 05020 Oyster fishery, marine
03220 05020 Oyster spat production, freshwater
03210 05020 Oyster spat production, marine
46380 51380 Oysters (wholesale)
32500 33100 Ozone therapy apparatus (manufacture)
26600 33100 Pacemaker (electro medical) (manufacture)
46460 51460 Pace-makers (wholesale)
79110 63301 Packaged tour sales
82920 74820 Packaging activities on a fee or contract basis 28290 29240 Packaging machinery (manufacture)
77390 71340 Packaging machinery leasing
82920 74820 Packaging of solids
47789 52489 Packaging products for food e.g. aluminium foil, plastics foil, bags, etc. (retail)
23490 26250 Packaging products made of ceramic (manufacture) 22220 25220 Packaging products made of plastic (manufacture) 52290 63400 Packer and shipper
17219 21219 Packing cases made of fibre board (manufacture) 16240 20400 Packing cases made of wood (manufacture) 22220 25220 Packing goods made of plastic (manufacture) 28290 29240 Packing machinery (manufacture)
17120 21120 Packing made of cardboard (manufacture) 23990 26821 Packing made of woven asbestos (manufacture) 82920 74820 Packing of medicaments into edible capsules

SIC 2007	SIC 2003	Activity
17120	21120	Packing paper (manufacture)
46770	51570	Packing, repacking, storage and delivery of waste and scrap without transformation (wholesale)
52290	63400	Packing service incidental to transport
13100	17170	Padding for upholstery (manufacture)
25720	28630	Padlock (manufacture)
86230	85130	Paediatric dentistry
26301	32201	Pagers (manufacture)
61200	64200	Paging activities and maintenance
61200	64200	Paging services
25910	28710	Pails made of steel (manufacture)
20301	24301	Paint (not cement based) (manufacture)
47520	52460	Paint and varnish (retail)
46730	51530	Paint and varnish (wholesale)
32910	36620	Paint brush (manufacture)
32910	36620	Paint pads (manufacture)
20301	24301	Paint removers (manufacture)
28290	29240	Paint spraying machine (manufacture)
20301	24301	Paint with cement base (manufacture)
46730	51530	Paint, varnish and lacquer (wholesale)
24100	27100	Painted steel sheet (manufacture)
90030	92319	Painters (artistic)
94120	91120	Painters and other artists associations
43341	45440	Painting contractor
31090	36140	Painting of furniture (manufacture)
45200	50200	Painting of motor vehicles
33150	35110	Painting of ships
46130	51130	Paints and varnishes (commission agent)
72190	73100	Palaeontologist (consultant)
02200	02010	Pale fencing production
24410	27410	Palladium (manufacture)
28220	29220	Pallet hoist (manufacture)
77390	71219	Pallet rental
28220	29220	Pallet truck (manufacture)
28220	29220	Palletizer (manufacture)
25990	28750	Pallets made of metal (manufacture)
22290	25240	Pallets made of plastic (manufacture)
16240	20400	Pallets, box pallets and other load boards made of wood (manufacture)
46130	51130	Pallets, pallet boards and other load boards made of wood (commission agent)
10410	15410	Palm kernel crushing (manufacture)
10410	15420	Palm kernel oil refining (manufacture)
46330	51333	Palm oil (wholesale)
10410	15410	Palm oil production (manufacture)
10410	15420	Palm oil refining (manufacture)
96090	93059	Palmist
18129	22220	Pamphlet printing (manufacture)
58110	22110	Pamphlet publishing
10720	15820	Pancake making (manufacture)
45200	50200	Panel beating services
28490	29430	Panel forming machines (manufacture)
29320	34300	Panels for motor vehicle bodywork, made of metal or fibreglass (manufacture)
23990	26821	Panels made of asbestos (manufacture)
23610	26610	Panels made of concrete (manufacture)
23650	26650	Panels made of fibre-cement (manufacture)
23620	26620	Panels made of plaster (manufacture)
14142	18232	Panty (manufacture)

14310 17710 Pantyhose (manufacture)
01220 01139 Papaya growing
17120 21120 Paper (not sensitized) (manufacture)
47620 52470 Paper (retail)
17120 21120 Paper (uncut) for household use (manufacture)
17211 21211 Paper and paperboard (corrugated) (manufacture)
17240 21240 Paper and paperboard articles for interior decoration (manufacture)
17120 21120 Paper and paperboard coating, covering and impregnation (manufacture)
17120 21120 Paper and paperboard intended for further industrial processing (manufacture)
17120 21120 Paper and paperboard processing (manufacture)
28950 29550 Paper and paperboard production machinery (manufacture)
46690 51870 Paper and paperboard production machinery (wholesale)
28950 29550 Paper bag making machinery (manufacture)
46760 51560 Paper bags (wholesale)
46760 51560 Paper boards (wholesale)
25990 28750 Paper clips made of metal (manufacture)
17290 21259 Paper converting (unspecified) (manufacture)
17290 21259 Paper creping (manufacture)
17290 21259 Paper cut to size (not packaging products) (manufacture)
17290 21259 Paper embossing (manufacture)
25990 28750 Paper fasteners made of metal (manufacture)
46760 51560 Paper in bulk (wholesale)
17220 21220 Paper lace (manufacture)
23990 26821 Paper made of asbestos (manufacture)
17120 21120 Paper made of vegetable fibres for corrugated cardboard (manufacture)
28950 29550 Paper making machinery (manufacture)
46760 51560 Paper merchant (wholesale)
17290 36639 Paper novelties (manufacture)
17290 21259 Paper or paperboard cards for use on jacquard machines (manufacture)
17290 21259 Paper patterns (manufacture)
17290 21259 Paper perforating (manufacture)
17290 21259 Paper shavings (manufacture)
17240 21240 Paper staining (manufacture)
17290 21259 Paper transfer for embroidery, etc. (manufacture)
43330 45430 Paperhanging
17290 21259 Papier mache works (manufacture)
13922 17402 Parachute (manufacture)
46160 51160 Parachutes and rotochutes (commission agent)
19201 23201 Paraffin (manufacture)
47789 52489 Paraffin (retail)
46750 51550 Paraffin (wholesale)
19201 23201 Paraffin for medicinal use (manufacture)
19201 23201 Paraffin wax (manufacture)
28140 29130 Parallel slide valves (manufacture)
86900 85140 Para-medical practitioner activities
32990 36639 Parasol (manufacture)
10612 15612 Parboiled or converted rice (manufacture)
82920 74820 Parcel packing and gift wrapping on a fee or contract basis
53201 64120 Parcels delivery service (not post office) licensed
53202 64120 Parcels delivery service (not post office) unlicensed
53100 64110 Parcels, distribution and delivery of, by the post office

SIC 2007	SIC 2003	Activity
17120	21120	Parchment and imitation parchment paper (manufacture)
15110	19100	Parchment made of leather (manufacture)
28490	29430	Paring and slicing machines (manufacture)
93290	92729	Park (local authority or municipally owned)
81300	01410	Park laying out, planting and maintenance on a fee or contract basis
42110	45230	Parking lot markings painting
52219	63210	Parking lot operation
82990	74879	Parking meter coin collection services
52219	63210	Parking meter services
26520	33500	Parking meters (manufacture)
69109	74119	Parliamentary agent
43330	45430	Parquet floor laying (not by manufacturer)
16220	20300	Parquet flooring (manufacture)
01130	01120	Parsley growing
01130	01120	Parsnip growing
27900	31620	Particle accelerator (manufacture)
16210	20200	Particleboard agglomerated with non-mineral binding substances (manufacture)
25120	28120	Partitioning made of metal (manufacture)
31010	36120	Partitions (non-domestic) (manufacture)
74909	74879	Partnership agent
28490	31620	Parts and accessories for electroplating machinery (manufacture)
28490	29430	Parts and accessories for machine tools for working hard materials e.g. wood, stone (manufacture)
28490	29430	Parts and accessories for stationary drills, machines, riveters, sheet metal cutters (manufacture)
28490	29430	Parts and accessories for stationary machine tools nailing, stapling, glueing etc. (manufacture)
23190	26150	Parts for electric lamps and electronic valves made of glass (manufacture)
29320	34300	Parts for motor vehicles (not electric) (manufacture)
28240	29410	Parts for portable hand held power tools (manufacture)
28150	29140	Parts of bearings, gearing and driving elements (manufacture)
14131	18221	Parts of coats for men and boys (manufacture)
14132	18222	Parts of coats for women and girls (manufacture)
14132	18222	Parts of ensembles for women and girls (manufacture)
14131	18221	Parts of jackets for men and boys (manufacture)
14132	18222	Parts of jackets for women and girls (manufacture)
28302	29530	Parts of milking machines and dairy machinery, n.e.c. (manufacturing)
14132	18222	Parts of skirts for women and girls (manufacture)
14131	18221	Parts of suits for men and boys (manufacture)
14132	18222	Parts of suits for women and girls (manufacture)
14131	18221	Parts of trousers for men and boys (manufacture)
14132	18222	Parts of trousers for women and girls (manufacture)
79110	63301	Passage agent
79110	63301	Passenger agent (not transport authority)
51102	62201	Passenger air transport (non-scheduled)
51101	62101	Passenger air transport (scheduled)
51101	62101	Passenger air transport over regular routes
51102	62201	Passenger aircraft rental services with crew (non-scheduled)
30110	35110	Passenger cargo liner (manufacture)
30200	35200	Passenger carriage for railways (manufacture)
29100	34100	Passenger cars (manufacture)
28220	29220	Passenger conveyor (manufacture)
50300	61201	Passenger ferry (river or estuary)
50100	61101	Passenger ferry between UK and international ports
50100	61101	Passenger ferry on domestic or coastal routes
50300	61201	Passenger ferry transport (inland waterway)
77390	71211	Passenger land transport equipment self drive rental (other than motor vehicles)
49319	60219	Passenger scheduled land transport (other than interurban railways or inter-city coach services)
50100	61101	Passenger shipping service (sea and coastal)
52220	63220	Passenger terminal services
49390	60239	Passenger transport by animal-drawn vehicles
49100	60101	Passenger transport by inter-city rail services
49100	60109	Passenger transport by inter-urban railways (other than inter-city services)
49390	60239	Passenger transport by man-drawn vehicles
30110	35110	Passenger vessel building (manufacture)
77341	71221	Passenger water transport equipment leasing (without operator)
74201	74812	Passport photography
18129	22220	Passport printing (manufacture)
10730	15850	Pasta products, canned or frozen (manufacture)
10850	15850	Pasta, cooked, stuffed or otherwise prepared
10730	15850	Pastas (manufacture)
32910	36620	Paste brush (manufacture)
20301	24301	Paste made of aluminium (manufacture)
23990	26821	Paste made of asbestos (manufacture)
32990	36631	Pastel (manufacture)
10511	15511	Pasteurized fresh liquid milk (manufacture)
10822	15842	Pastille (manufacture) for
10130	15139	Pastrami and other salted, dried or smoked meats (manufacture)
47240	52240	Pastry (retail)
10720	15820	Pastry and buns (preserved) (manufacture)
32910	36620	Pastry brush (manufacture)
28930	29530	Pastry roller food preparation machinery (manufacture)
69109	74111	Patent agent
74909	74879	Patent broker
46719	51519	Patent fuel (wholesale)
19201	10103	Patent fuel production (manufacture)
15110	19100	Patent leather (manufacture)
46460	51460	Patent medicines (wholesale)
69109	74111	Patents preparation
10130	15139	Pâtés (manufacture)
86900	85140	Pathological laboratory
17290	21259	Pattern card (manufacture)
96090	93059	Pavement artist
23190	26150	Pavement light (manufacture)
23190	26150	Paving blocks made of glass (manufacture)
16230	20300	Paving blocks made of wood (manufacture)
42110	45230	Paving contractor
28923	29523	Paving machinery (manufacture)
23310	26300	Paving made of non-refractory ceramic (manufacture)
23610	26610	Paving slabs made of concrete (manufacture)
23700	26700	Paving stone (manufacture)
23310	26300	Paving tiles made of unglazed clay (manufacture)
64921	65221	Pawnbroker (principally lending money)
47799	52509	Pawnshops (principally dealing in second-hand goods) (retail)

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SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

84220 75220 Pay and personnel agency (armed forces)66190 67130 Paying agent
69202 74122Payroll bureau
56103 55303 Pea and pie vendor
01110 01120 Pea growing
28930 29530 Pea splitters (manufacture)
10612 15612Pea splitting, milling or grinding (manufacture)01240 01139 Peach growing
14190 18241 Peak cap (manufacture)
10390 15330 Peanut butter (manufacture)
01110 01110 Peanut growing
01240 01139Pear growing
32120 36220 Pearl drilling (manufacture)
03110 05010 Pearl gathering
32120 36220 Pearl stringing (manufacture)
32120 36220 Pearls production (manufacture)
46719 51519Peat (wholesale)
08920 10300 Peat agglomeration
19201 10300 Peat briquettes (manufacture)
08920 10300 Peat cutting and digging
08920 10300 Peat extraction
09900 10300 Peat extraction support services, provided on a feeor contract basis
23990 26829 Peat products (pots or for chemical use, etc.)(manufacture)
08920 10300 Peat, preparation to facilitate transport or storage08920 10300 Peat, preparation to improve quality
08120 14210 Pebble dredging
65120 66031 Pecuniary loss insurance
25990 28750 Pedal bins made of metal (manufacture)22290 25240 Pedal bins made of plastic (manufacture)30920 35420 Pedals for bicycles (manufacture)
42110 45230 Pedestrian ways construction
96020 93020 Pedicure
26511 33201 Pedometers (electronic) (manufacture)
26513 33202 Pedometers (non-electronic) (manufacture) 10390 01410 Peeled or cut vegetables, mixed fresh salads, packaged (manufacture)
10390 51310Peeled, cut fresh vegetables, mixed salads, packed(manufacture)
22290 25240 Pelmets made of plastic (manufacture)10110 15113 Pelt from fellmongery (manufacture)
32990 36631 Pen nibs (manufacture)
32990 36631 Pencil (manufacture)
32990 36631 Pencil leads (manufacture)
28490 29430 Pencil-making machinery (manufacture)
28230 30010 Pencil sharpeners (manufacture)
28230 30010 Pencil-sharpening machines (manufacture)
47620 52470 Pencils (retail)
46499 51479Pencils, crayons, leads, drawing charcoals, writing ordrawing chalks and tailors chalk (wholesale)
19209 23209 Penetrating oil (manufacture)
32990 36631 Penholder (manufacture)
13922 17402 Pennants (manufacture)
47620 52470 Pens (retail)
32990 36631 Pens for writing or drawing (manufacture)55900 55239 Pension (accommodation)
66290 67200 Pension consultancy services
66290 67200 Pension consultants (own account)

65300 66020 Pension fund (autonomous)
66300 67121 Pension fund management
65300 66020 Pension funding except compulsory social security
65300 66020 Pension funds and plans
84230 75230 Pensions appeal tribunal
25300 28300 Penstock made of steel (manufacture)
28140 29130 Penstock valves (manufacture)
75000 85200 People's dispensary for sick animals (not animal care units)
10840 15870 Pepper (ground) (manufacture)
01280 01120 Pepper growing
10840 15870 Pepper substitute (manufacture)
46170 51170 Peptic substances, mucilages and thickeners (commission agent)
20590 24660 Peptone derivatives (manufacture)
20590 24660 Peptones (manufacture)
46120 51120 Peptones/protein substances and derivatives (commission agent)
20140 24140 Peracetic acid (manufacture)
30920 36639 Perambulator (manufacture)
13922 17402 Perambulator awning (manufacture)
47789 52489 Perambulators (retail)
46499 51479 Perambulators (wholesale)
20510 24610 Perchlorate explosive (manufacture)
20140 24140 Perchloroethylene (manufacture)
27510 29710 Percolator (electric) (manufacture)
25990 28750 Percolators made of metal (non-electric) (manufacture)
20510 24610 Percussion cap (manufacture)
32200 36300 Percussion instrument (manufacture)
25500 28400 Perforated metal (manufacture)
71200 74300 Performance testing of complete machinery
94120 91120 Performers associations
85520 80429 Performing arts schools (except academic)
85421 80302 Performing arts schools providing tertiary education
90020 92311 Performing arts support activities
94120 91120 Performing Rights Society
20420 24520 Perfume (manufacture)
47750 52330 Perfume (retail)
46450 51450 Perfume (wholesale)
20530 24630 Perfume compounds (blended perfume concentrates) (manufacture)
20530 24630 Perfumery and flavour synthetic chemicals (manufacture)
46180 51180 Perfumery, cosmetic and toilet and bath preparations (commission agent)
46450 51450 Perfumes and cosmetics exporter (wholesale)
46450 51450 Perfumes and cosmetics importer (wholesale)
18129 22220 Periodical printing (manufacture)
58142 22130 Periodical publishing
91011 92510 Periodicals lending and storage
26200 30020 Peripheral equipment for computer uses including card punches and verifiers (manufacture)
26701 33402 Periscopes (manufacture)
10890 15810 Perishable food preparations of bread, pastry or cake (manufacture)
10390 15330 Perishable prepared fruit and vegetables (manufacture)
10390 15330 Perishable prepared salads; mixed salads (manufacture)
10390 15330 Perishable prepared tofu bean curd (manufacture)

SIC 2007	SIC 2003	Activity
10390	15330	Perishable prepared vegetables, packaged peeled or (manufacture)
28131	29121	Peristaltic pumps (manufacture)
03110	05010	Periwinkle gathering
23440	31620	Permanent magnets (ceramic and ferrite) (manufacture)
25990	31620	Permanent magnets (metallic) (manufacture)
46690	51870	Permanent magnets and electro-magnetic couplings, clutches and brakes (wholesale)
29203	34203	Permanent residential caravan (manufacture)
24100	27100	Permanent way material (except rails production) (manufacture)
20130	24130	Peroxides (inorganic) (manufacture)
11030	15941	Perry (manufacture)
26200	30020	Personal computers and workstations (manufacture)
65120	66031	Personal injury insurance
32990	28750	Personal safety devices of metal (manufacture)
18129	22220	Personal stationery printing (manufacture)
30120	35120	Personal watercraft (manufacture)
30400	29600	Personnel carrier (armoured fighting vehicle) (manufacture)
78200	74500	Personnel provision (temporary employment agency)
01610	01410	Pest control in connection with agriculture
81291	74703	Pest control services (except agricultural)
81291	74703	Pest destruction service (not especially for agriculture)
20130	24130	Pesticide inorganic chemicals (excluding formulated preparations) (manufacture)
20140	24140	Pesticide organic chemicals (excluding formulated preparations) (manufacture)
20200	24200	Pesticides and other agrochemical products (manufacture)
01490	01250	Pet animal breeding, other than fish
10920	15720	Pet animal feeds produced from slaughter waste (manufacture)
46380	51380	Pet animal food (wholesale)
47760	52489	Pet animals (retail)
01490	01250	Pet bird raising and breeding
10920	15720	Pet fish feeds (manufacture)
47760	52489	Pet food (retail)
10920	15720	Pet food including canned (manufacture)
10920	15720	Pet foods (manufacture)
26600	33100	Pet scanners (manufacture)
47760	52489	Pet shop (retail)
96090	93059	Pet sitting services
13960	17542	Petersham ribbon (manufacture)
28290	29240	Petro-chemical industry machinery (other than plant) (manufacture)
19201	23201	Petro-chemical industry products (manufacture)
19201	23201	Petrol (manufacture)
47300	50500	Petrol filling station
28110	29110	Petrol industrial engines (manufacture)
28131	29121	Petrol station pump (manufacture)
09100	11200	Petroleum and natural gas mining support activities
46711	51511	Petroleum and petroleum products exporter (wholesale)
46711	51511	Petroleum and petroleum products importer (wholesale)
19201	23201	Petroleum briquettes (manufacture)
19201	23201	Petroleum coke (manufacture)
46120	51120	Petroleum coke, bitumen and other residues ofcut petroleum (commission agent)
46750	51550	Petroleum coke, bitumen and other residues of petroleum oils (wholesale)
28921	29521	Petroleum drilling equipment (manufacture)
71122	74206	Petroleum exploration
19201	23201	Petroleum feedstock (manufacture)
19201	23201	Petroleum gas (manufacture)
46120	51120	Petroleum gases and gaseous hydrocarbons (excluding natural gas) (commission agent)
71122	74206	Petroleum geologist
19201	23201	Petroleum grease (at refinery) (manufacture)
19209	23209	Petroleum grease formulation outside refineries (manufacture)
46120	51120	Petroleum jelly and paraffin wax (commission agent)
19209	23209	Petroleum jelly formulation outside refineries (manufacture)
19201	23201	Petroleum product (at refineries) (manufacture)
46711	51511	Petroleum products distribution (wholesale)
19201	23201	Petroleum refining (manufacture)
19209	23209	Petroleum societies without refineries (manufacture)
09100	11200	Petroleum test well drilling
09100	11200	Petroleum well drilling
71122	74206	Petrophysical interpretation activities
14142	18232	Petticoat (manufacture)
31090	36110	Pew (manufacture)
24430	27430	Pewter (manufacture)
25990	28750	Pewter ware (manufacture)
26511	33201	Ph meters (electronic) (manufacture)
26513	33202	Ph meters (non-electronic) (manufacture)
26511	33201	Ph/gas blood analysers (electronic) (manufacture)
21100	24410	Pharmaceutical chemicals (manufacture)
47730	52310	Pharmaceutical chemist (retail)
46460	51460	Pharmaceutical chemist (wholesale)
01280	01110	Pharmaceutical crops growing
23190	26150	Pharmaceutical glassware (other than containers) (manufacture)
46180	51180	Pharmaceutical goods (commission agent)
46460	51460	Pharmaceutical goods exporter (wholesale)
46460	51460	Pharmaceutical goods importer (wholesale)
21200	24421	Pharmaceutical medicament products (manufacture)
32500	24422	Pharmaceutical non-medicament products (manufacture)
94120	91120	Pharmaceutical society
21200	24421	Pharmaceuticals for veterinary use (manufacture)
47730	52310	Pharmacy (retail)
20140	24140	Phenol (manufacture)
20160	24160	Phenolic resins (manufacture)
46750	51550	Phenols, phenol-alcohols and derivatives of phenols (wholesale)
46120	51120	Phenols, phenol-alcohols and phenol derivatives (commission agent)
47789	52485	Philatelist (retail)
26120	32100	Phonecards and similar cards containing integrated circuits (smart cards) (manufacture)
18129	22220	Phonetic printing (manufacture)
08910	14300	Phosphates (natural) mining
20150	24150	Phosphates of ammonium carbonates (manufacture)
46120	51120	Phosphates of triammonium (commission agent)
20150	24150	Phosphates of triammonium carbonates (manufacture)

SIC 2007	SIC 2003	Activity

20150 24150 Phosphatic straight fertiliser (manufacture)
46750 51550 Phosphides, carbides, hydrides, nitrides azides, silicides and borides (wholesale)
46120 51120 Phosphides, carbides, hydrides, nitrides, azides, silicides and borides (commission agent)
46120 51120 Phosphinates, phosphonates, phosphates and polyphosphates (commission agent)
46750 51550 Phosphinates, phosphonates, phosphates and polyphosphates (wholesale)
46750 51550 Phosphoric esters and esters of other inorganic acids and their derivatives (wholesale)
46120 51120 Phosphoric esters and esters of other inorganic acids, their salts and derivatives (commission agent)
20130 24130 Phosphorous compounds (excluding phosphatic fertiliser) (manufacture)
58190 22150 Photo and engraving publishing
26110 32100 Photo diode (manufacture)
26110 32100 Photo electric cell (manufacture)
26702 33201 Photo electric exposure meter (manufacture)
18130 22240 Photo engraving (manufacture)
18130 22250 Photo lithography (manufacture)
47789 52482 Photo pick-up services (retail)
26110 32100 Photo semi-conductor device (manufacture)
26110 32100 Photo-cathode valves or tubes (manufacture)
18129 22220 Photocopier printing (manufacture)
47410 52482 Photocopiers (retail)
82190 74850 Photocopying
46660 51850 Photo-copying apparatus (wholesale)
28230 30010 Photocopying machinery (manufacture)
28990 29560 Photo-engraving machine (manufacture)
27400 31500 Photoflash bulb (manufacture)
26511 33201 Photogrammetric equipment (electronic) (manufacture)
26513 33202 Photogrammetric equipment (non-electronic)(manufacture)
74203 74814 Photograph colouring
74203 74814 Photograph copying
74203 74814 Photograph developing
74203 74814 Photograph enlarging
74203 74814 Photograph finishing
17290 21259 Photograph mount (manufacture)
74203 74814 Photograph mounting
74203 74814 Photograph printing
17120 21120 Photographic base paper (manufacture)
20590 24640 Photographic chemicals (manufacture)
74203 74814 Photographic colour printing
20590 24640 Photographic developer (manufacture)
26702 33403 Photographic enlarger (manufacture)
46180 51180 Photographic equipment (commission agent)
26702 33403 Photographic equipment (manufacture)
77210 71401 Photographic equipment hire
20590 24640 Photographic film (sensitized) (manufacture)
22210 25210 Photographic film (unsensitized) (manufacture)
26702 33403 Photographic film instrument (manufacture)
20590 24640 Photographic film plate (sensitised) (manufacture)
59120 92119 Photographic film processing activities (for the motion picture and television industries)
46439 51476 Photographic flashbulbs and flashcubes (wholesale)
47789 52482 Photographic goods (retail)
46439 51476 Photographic goods (wholesale)
46439 51476 Photographic goods exporter (wholesale)

46439 51476 Photographic goods importer (wholesale)
26702 33201 Photographic light meters (manufacture)
96090 93051 Photographic machines (coin-operated)
46180 51180 Photographic paper (commission agent)
20590 24640 Photographic plates (manufacture)
46180 51180 Photographic plates and film and instant print film (commission agent)
74201 74812 Photographic studio
20590 24640 Photographic unexposed film (manufacture)
22210 25210 Photographic unsensitized film (manufacture)
74209 74819 Photographing of live events such as weddings, graduations, conventions, fashion shows, etc.
74209 74819 Photography for commercials, publishers or tourism purposes
85520 80429 Photography schools (except commercial)
28990 29560 Photogravure machine (manufacture)
18129 22220 Photogravure printing (manufacture)
74209 92400 Photojournalists
28990 29560 Photolitho machine (manufacture)
28990 33403 Photolithography equipment for the manufacture of semi-conductors (manufacturing)
26701 33201 Photometers (electronic) (manufacture)
26513 33202 Photometers (non-electronic) (manufacture)
74202 74813 Photomicrography
26110 32100 Photosensitive semi-conductor devices (manufacture)
18130 22240 Phototypesetting (manufacture)
20140 24140 Phthalic anhydride (manufacture)
93199 92629 Physical culture expert
46690 51870 Physical or chemical analysis instruments and apparatus (non-electronic) (wholesale)
26513 33202 Physical properties testing and inspection equipment (non-electronic) (manufacture)
72190 73100 Physical sciences research and experimental development
96040 93040 Physical well-being activities
71200 74300 Physicist
72190 73100 Physics research and experimental development
86220 85120 Physiologist
86900 85140 Physiotherapist (private)
86900 85140 Physiotherapy clinic
32200 36300 Piano (manufacture)
77210 71401 Piano hire
85520 80429 Piano teachers and other music instruction
95290 52740 Piano tuning
24340 27340 Piano wire made of steel (manufacture)
47591 52450 Pianofortes (retail)
10390 15330 Piccalilli production (manufacture)
25730 28620 Pick (manufacture)
26400 32300 Pick-up arm and cartridge for record player (manufacture)
28302 29320 Pick-up baler (manufacture)
02200 02010 Pickets (of wood) production
15120 19200 Picking bands made of leather (manufacture)
10390 15330 Pickle including beetroot and onion (manufacture)
10390 15330 Pickling of fruit and vegetables (manufacture)
46120 51120 Pickling preparations (commission agent)
20590 24660 Pickling preparations for metal treatment (manufacture)
74209 92400 Picture agency
16290 20510 Picture frame made of wood (manufacture)

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SIC 2007	SIC 2003	Activity
17290	21259	Picture frame mount (manufacture)
47789	52489	Picture framing (retail)
18129	22220	Picture postcard (manufacture)
47789	52489	Picture postcards (retail)
90030	92319	Picture restoring
26301	32201	Picture transmitter (manufacture)
47510	52410	Piece goods (retail)
46410	51410	Piece goods (wholesale)
13300	17300	Piece goods dyeing (manufacture)
22190	25130	Piece goods made of unsupported rubber sheeting (manufacture)
24100	27100	Pieces roughly shaped by forging (manufacture)
52220	63220	Pier operation (not amusement)
52220	63220	Pier owner or authority (not amusement)
25500	28400	Piercing of base metal (manufacture)
10720	15820	Pies (other than meat) (manufacture)
26110	32100	Piezo electric crystal (manufacture)
46120	51120	Piezo-electric quartz (commission agent)
20140	24140	Piezo-electric quartz (manufacture)
46750	51550	Piezo-electric quartz (wholesale)
01460	01230	Pig farming
46230	51230	Pig jobber (wholesale)
01460	01230	Pig raising and breeding
01110	01120	Pigeon pea growing
20301	24301	Pigments (prepared) (manufacture)
46230	51230	Pigs (wholesale)
10720	15820	Pikelet making (manufacture)
13931	17511	Pile carpet mat weaving (manufacture)
13931	17511	Pile carpet weaving (manufacture)
13931	17512	Pile carpets of cotton, tufted (manufacture)
13931	17511	Pile carpets of cotton, woven (manufacture)
13931	17512	Pile carpets of man-made fibres, tufted (manufacture)
13931	17511	Pile carpets of man-made fibres, woven (manufacture)
13931	17512	Pile carpets of wool, tufted (manufacture)
13931	17511	Pile carpets of wool, woven (manufacture)
43999	45250	Pile driving
28923	29523	Pile driving equipment (manufacture)
13300	17300	Pile fabric bleaching and finishing (manufacture)
13910	17600	Pile knitted fabric (manufacture)
13931	17511	Pile rugs and mats of cotton, woven (manufacture)
13931	17511	Pile rugs and mats of man-made fibres, woven (manufacture)
13931	17511	Pile rugs and mats of wool, woven (manufacture)
13931	17512	Pile rugs, mats and tiles of cotton, tufted (manufacture)
13931	17512	Pile rugs, mats and tiles of man-made fibres, tufted (manufacture)
13931	17512	Pile rugs, mats and tiles of wool, tufted (manufacture)
28923	29523	Pile-drivers (manufacture)
28923	29523	Pile-extractors (manufacture)
25920	28720	Pilfer-proof metal caps (manufacture)
43999	45250	Piling (building)
43999	45250	Piling contractor (civil engineering)
02200	02010	Pilings (of wood) production
25110	28110	Pilings (tubular welded) (manufacture)
23200	26260	Pillars made of ceramic (manufacture)
30910	35410	Pillion seats for motorcycles (manufacture)
13921	17401	Pillow (manufacture)
13923	17403	Pillow case (manufacture)
21200	24421	Pills (medicinal) (manufacture)
52220	63220	Pilotage activities
13923	17403	Pin cushion (manufacture)
25730	28620	Pincers (manufacture)
01220	01139	Pineapple growing
25710	28610	Pinking shears (manufacture)
25930	28730	Pins made of metal (manufacture)
32401	36501	Pin-tables (manufacture)
24440	27440	Pipe and pipe fittings made of brass (manufacture)
24440	27440	Pipe blanks made of copper (manufacture)
15120	19200	Pipe case (not leather or plastic) (manufacture)
23990	26821	Pipe covering sections made of asbestos (manufacture)
25730	28620	Pipe cutters (manufacture)
24420	27420	Pipe fittings made of aluminium (manufacture)
24440	27440	Pipe fittings made of copper (manufacture)
24510	27210	Pipe fittings of cast-iron (manufacture)
28990	29560	Pipe making machinery (manufacture)
32200	36300	Pipe organ (manufacture)
22190	36639	Pipe stems of hard rubber (manufacture)
25300	28300	Pipe system construction for steam generators (manufacture)
12000	16000	Pipe tobacco (manufacture)
08120	14220	Pipeclay pit
71200	74300	Pipeline and ancillary equipment testing activities
42210	45213	Pipeline construction
42210	45213	Pipeline contracting
71129	74204	Pipeline design activities
49500	60300	Pipeline operator
25110	28110	Pipeline supports (manufacture)
23320	26400	Pipes and conduits made of clay (manufacture)
23320	26400	Pipes and fittings made of ceramics (manufacture)
23990	26829	Pipes and fittings made of pitch fibre (manufacture)
22210	25210	Pipes and fittings made of plastic (manufacture)
29320	34300	Pipes for motor vehicles (manufacture)
24420	27420	Pipes made of aluminium (manufacture)
23650	26650	Pipes made of asbestos cement (manufacture)
23320	26400	Pipes made of clay (manufacture)
23610	26610	Pipes made of concrete (manufacture)
24440	27440	Pipes made of copper (manufacture)
23650	26650	Pipes made of fibre-cement (manufacture)
23200	26260	Pipes made of refractory ceramic (manufacture)
22190	25130	Pipes made of rubber (manufacture)
24200	27220	Pipes made of steel (manufacture)
24510	27210	Pipes of cast-iron (manufacture)
23190	26150	Pipettes made of glass (manufacture)
13200	17210	Pique weaving (manufacture)
28940	29540	Pirns (textile machinery accessory) (manufacture)
01250	01139	Pistachio growing
25400	29600	Pistol (manufacture)
28110	29110	Piston for industrial engine (manufacture)
28110	34300	Piston for motor vehicle engine (manufacture)
28110	29110	Piston ring for industrial engine (manufacture)
28110	34300	Piston ring for motor vehicle engine (manufacture)
28110	29110	Piston rings for all internal combustion engines (manufacture)
28110	29110	Pistons for all internal combustion engines (manufacture)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

28921 29521 Pit bottom machinery (manufacture)02200 02010 Pit props (of wood) production 46730 51530 Pit props (wholesale)
19100 24140 Pitch and pitch coke (manufacture)32200 36300 Pitch pipes (manufacture)
46630 51820 Pit-head winding gear (wholesale)
10720 15820 Pizza (manufacture)
10850 15820 Pizza, frozen or otherwise preserved (manufacture)94920 91320 Plaid Cymru
28150 29140 Plain bearing (manufacture)
28940 29540 Plaiting machinery for textiles (manufacture)16290 20520 Plaiting material preparation (manufacture)
13300 17300 Plaiting of textiles (manufacture)
16290 20520 Plaits and products of plaiting materials (manufacture)
25990 28750 Plan chests made of metal (manufacture)18129 22220 Plan printing (manufacture)
25730 28620 Plane (manufacture)
25730 28620 Planer tool (manufacture)
28923 29523 Planers for road surfacing (manufacture)30300 35300 Planetary probes (manufacture)
28410 29420 Planing machine (metal cutting) (manufacture)
28490 29430 Planing machine for wood (not portable powered)(manufacture)
16100 20100 Plank (manufacture)
28490 29430 Plank glueing machines (manufacture) 77390 71340 Plant and equipment for industrial use hire01300 01120 Plant growing for bulbs
01300 01120Plant growing for cuttings and slips01300 01120 Plant growing for roots
01300 01120Plant growing for tubers
20200 24200 Plant growth regulators (manufacture)
46750 51550 Plant growth regulators (wholesale)
77320 71320 Plant hire for construction rental (without operator)43999 45500 Plant hire for construction rental with operator 20200 24200 Plant hormone (manufacture)
10822 15842 Plant parts preserving in sugar (manufacture)01300 01120 Plant propagation
25110 28110 Plant support of fabricated steelwork (manufacture)28302 29320 Planter for agricultural use (manufacture)
81300 01410Planting, laying out and maintenance of gardens,parks and green areas for sports installations
47760 52489 Plants (retail)
46220 51220 Plants (wholesale)
01160 01110 Plants bearing vegetable fibres, retting of 01300 01120 Plants for planting or ornamental purposes
01280 01110Plants used chiefly in pharmacy or for insecticidal,fungicidal or similar purposes
23520 26530 Plaster (manufacture)
46730 51530 Plaster (wholesale)
23620 26620 Plaster articles for use in construction (manufacture)32500 24422 Plaster bandages (manufacture)
32990 36639 Plaster cast (manufacture)
23520 26530 Plaster of Paris (manufacture)
23620 26620 Plaster products for construction purposes (manufacture)
23620 26620 Plasterboard (manufacture)
46730 51530 Plasterboards (wholesale)
43310 45410 Plastering contractor

32409 36509 Plastic bicycles and tricycles designed to be ridden (manufacture)

32910 36620 Plastic brush (complete) (manufacture) 24100 27100 Plastic coated steel sheet (manufacture)

13940 17520 Plastic coated twine, cordage rope and cables of textile fibres (manufacture)

25610 28510 Plastic coating of metals (manufacture)

96090 52740 Plastic coating services of identity cards, etc. (while you wait)

27330 25239 Plastic electrical conduit tubing (manufacture) 32409 36509 Plastic game (manufacture)

22290 25240 Plastic headgear (other than hard hats) made of plastic (manufacture)

46760 51550 Plastic materials in primary forms (wholesale) 27330 25240 Plastic non-current carrying face plates (manufacture)

28230 30010 Plastic office-type binding equipment or tape binding (manufacture)

46760 51560 Plastic packaging (wholesale)

28960 29560 Plastic product making machines (manufacture) 22210 25210 Plastic semi-manufactures (manufacture)

31090 36110 Plastic shell upholstery (manufacture)

18140 22230 Plastic wire binding and finishing of books and brochures (manufacture)

20160 24160 Plastics in primary forms (manufacture) 28960 29560 Plastics working machinery (manufacture)

23110 26110 Plate glass (manufacture)

65120 66031 Plate glass insurance

18130 22240 Plate making for printing (manufacture) 20412 24512 Plate polish (manufacture)

18130 22240 Plate processes direct to plate (also photopolymer plates) (manufacture)

18130 22240 Plate setting for letterpress processes (manufacture) 18130 22240 Plate setting for offset printing processes (manufacture)

27510 29710 Plate warmers for domestic use (electric) (manufacture)

27520 29720 Plate warmers for domestic use (non-electric) (manufacture)

24420 27420 Plates made of aluminium (manufacture) 23410 26210 Plates made of ceramic for domestic use (manufacture)

17220 21220 Plates made of paper (manufacture)

22210 25210 Plates made of plastic (semi-manufactures) (manufacture)

22290 25240 Plates made of plastic (tableware) (manufacture) 22190 25130 Plates made of rubber (semi-manufactures) (manufacture)

24430 27430 Plates, sheets, strip and foil made of lead (manufacture)

24430 27430 Plates, sheets, strip and foil made of tin (manufacture)

24430 27430 Plates, sheets, strip and foil made of zinc (manufacture)

33110 28220 Platework repair of central heating boilers and radiators (manufacture)

30110 35110 Platform for drilling rig (manufacture)

29202 34202 Platform trailer (motor drawn) (manufacture) 25610 28510 Plating (metal finishing) (manufacture)

24410 27410 Platinum (manufacture)

24410 27410 Platinum group metals (manufacture)

07290 13200 Platinum mining and preparation 32409 36509 Playballs made of rubber (manufacture)

SIC 2007	SIC 2003	Activity
32300	36400	Playground equipment (manufacture)
88910	85321	Playgroup (charitable)
88910	85322	Playgroup (non-charitable)
32409	36509	Playing cards (manufacture)
46499	51477	Playing cards (wholesale)
90030	92319	Playwright
30120	35120	Pleasure and sporting boats (manufacture)
93290	92629	Pleasure boat hiring as an integral part of recreational facilities
50100	61101	Pleasure boat rental with crew (e.g. for fishing cruises) (except for inland waterway service)
77210	71401	Pleasure boats rental
93290	92729	Pleasure ground
93290	92729	Pleasure pier
42910	45240	Pleasure port construction
56290	55520	Pleasure steamer caterer
17290	21259	Pleated paper (manufacture)
13300	17300	Pleating and similar work on textiles (manufacture)
13300	17300	Pleating of textiles (manufacture)
25730	28620	Pliers (manufacture)
28302	29320	Plough (manufacture)
28302	29320	Plough disc (manufacture)
46610	51880	Ploughs (wholesale)
26110	31200	Plug (electronic) (manufacture)
27330	31200	Plug and socket (electric) (manufacture)
28140	29130	Plug valves (manufacture)
09100	11200	Plugging and abandoning oil and gas wells
46439	51439	Plugs, sockets and other apparatus for protecting electrical circuits for domestic use (wholesale)
46690	51870	Plugs, sockets and the like, for switching or protecting industrial electrical circuits (wholesale)
01240	01139	Plum growing
46740	51540	Plumbers' merchant (wholesale)
25990	28750	Plumbing and pipe fittings made of metal (not cast) (manufacture)
43220	45330	Plumbing contractor
46740	51540	Plumbing equipment and supplies (wholesale)
13200	17240	Plush silk (manufacture)
13200	17220	Plush woollen weaving (manufacture)
13200	17230	Plush worsted weaving (manufacture)
20130	23300	Plutonium processing (manufacture)
65120	66031	Pluvium insurance
16210	20200	Plywood (manufacture)
46730	51530	Plywood (wholesale)
28490	29430	Plywood press (manufacture)
28220	29220	Pneumatic and hydraulic conveying plant (manufacture)
28220	29220	Pneumatic and hydraulic handling plant (manufacture)
46690	51870	Pneumatic and other continuous action elevators and conveyors for goods or materials (wholesale)
28120	29122	Pneumatic equipment and systems for aircraft (manufacture)
26513	33202	Pneumatic gauges (non-electronic) (manufacture)
28240	29410	Pneumatic nailers (manufacture)
28120	29122	Pneumatic power engines and motors (manufacture)
28240	29410	Pneumatic power tools (portable) (manufacture)
28240	29410	Pneumatic rivet guns (manufacture)
28960	29560	Pneumatic tyre making or retreading machines (manufacture)
22110	25110	Pneumatic tyres (manufacture)
15120	19200	Pochette made of leather (manufacture)
15120	19200	Pocket book made of leather (manufacture)
25710	28610	Pocket knife (manufacture)
26520	33500	Pocket timer (manufacture)
26520	33500	Pocket watch (manufacture)
13200	17210	Pocketing weaving (manufacture)
90030	92319	Poet
94990	91330	Poetry club
30200	35200	Point locks (manufacture)
28230	30010	Point of sale unit (manufacture)
26200	30020	Point-of-sale (pos) computer terminals not mechanically operated (manufacture)
26511	33201	Polarimeters (electronic) (manufacture)
26513	33202	Polarimeters (non-electronic) (manufacture)
32500	33401	Polarising elements (manufacture)
02200	02010	Pole fencing production
02200	02010	Poles (of wood) production
84240	75240	Police authorities
88990	85322	Police court mission
71200	75240	Police laboratories
84240	75240	Police records maintenance
70229	74143	Policy formulation consultancy services
20412	24512	Polish (manufacture)
10612	15612	Polished rice (manufacture)
20412	24512	Polishes and creams (manufacture)
20412	24512	Polishes and creams for leather (manufacture)
20412	24512	Polishes and creams for wood (manufacture)
20412	24512	Polishes for coachwork (manufacture)
20412	24512	Polishes for glass (manufacture)
20412	24512	Polishes for metal (manufacture)
25610	28510	Polishing (metal finishing) (manufacture)
13923	17403	Polishing cloths and pads, made of unprepared, non-bonded fibre fabric (manufacture)
28990	29560	Polishing machine for glass (manufacture)
32910	36620	Polishing mop (manufacture)
20412	24512	Polishing paste and powder (manufacture)
23910	26810	Polishing stones made of bonded abrasives (manufacture)
94920	91320	Political organisations
71200	74300	Pollution measuring
84120	75120	Pollution standards, dissemination and information services (public sector)
10130	15139	Polony (manufacture)
20160	24160	Polyamide compounds (manufacture)
20600	24700	Polyamide man-made fibre (manufacture)
20160	24160	Polyamides (manufacture)
46120	51120	Polyamides in primary forms (commission agent)
46760	51550	Polyamides in primary forms (wholesale)
46120	51120	Polycarbonates, alkyd and epoxide resins (commission agent)
20520	24620	Polyester adhesive (manufacture)
20600	24700	Polyester man-made fibre (manufacture)
20301	24301	Polyester paint (manufacture)
20160	24160	Polyester resins (manufacture)
20160	24160	Polyesters (manufacture)
20160	24160	Polyethers (manufacture)
46120	51120	Polyethers and polyesters (commission agent)
46760	51550	Polyethers, polyesters, polycarbonates, alkyd and epoxide resins (wholesale)

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SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

20160 24160 Polyethylene (manufacture)
26513 33202 Polygraph machines (non-electronic) (manufacture)
80100 74602 Polygraph services
20160 24160 Polymers (manufacture)
46760 51550 Polymers of ethylene and styrene in primary forms (wholesale)
46120 51120 Polymers of ethylene in primary forms (commission agent)
46120 51120 Polymers of propylene and other olefins in primary forms (commission agent)
46120 51120 Polymers of styrene in primary forms (commission agent)
46120 51120 Polymers of vinyl acetate, other vinyl esters and vinyl polymers in primary forms (commission agent)
46120 51120 Polymers of vinyl chloride and other halogenated olefins in primary forms (commission agent)
46750 51550 Polymers of vinyl chloride and other halogenated olefins in primary forms (wholesale)
20160 24160 Polypropylene (manufacture)
13200 17250 Polypropylene fabrics (manufacture)
20160 24160 Polystyrene (manufacture)
85421 80302 Polytechnics
20160 24160 Polytetrafluoroethylene (PTFE) (manufacture)
20520 24620 Polyurethane adhesive (manufacture)
13960 17549 Polyurethane coated textile fabrics (manufacture) 20301 24301 Polyurethane paint (manufacture)
20160 24160 Polyurethanes (manufacture)
20160 24160 Polyvinyl acetate (PVA) (manufacture) 20520 24620 Polyvinyl acetate and co-polymer adhesives (manufacture)
20160 24160 Polyvinyl chloride (PVC) (manufacture)
01240 01139 Pome fruit growing
01230 01139 Pomelo growing
10822 15842 Pomfret (pontefract) cakes (manufacture)
13960 17542 Pompons (manufacture)
30110 35110 Pontoons construction (manufacture)
93120 92629 Pony Club
96090 93059 Poodle clipping
90010 92311 Pop group
13200 17210 Poplin weaving (manufacture)
10130 15131 Pork (salted or pickled) (manufacture) 47220 52220 Pork butcher (retail)
46320 51320 Pork butcher (wholesale)
10130 15139 Pork pie (manufacture)
26513 33202 Porosimeter (manufacture)
52220 63220 Port Authority
84240 75240 Port guards administration and operation 52220 63220 Port of London Authority
25110 28110 Portable building metalwork (manufacture)
25730 28620 Portable forges (manufacture)
27400 31500 Portable lamp (electric) (manufacture) 28240 29410 Portable power tool parts (manufacture) 77320 71320 Portable road sign hire for construction 27510 29710 Portable space heaters (manufacture)
16230 20300 Portable wooden buildings (manufacture)
28220 29220 Portal and pedestal jib cranes (manufacture) 11050 15960 Porter brewing (manufacture)
96090 93059 Porters
66300 67121 Portfolio management services
23510 26510 Portland cement (manufacture)

74201 74812 Portrait photographer
74201 74812 Portrait photography
28120 29122 Positioner for pneumatic control equipment(manufacture)
28131 29121 Positive displacement pump (reciprocating)(manufacture)
46180 51180Posphoaminolipids (commission agent)
46460 51460 Posphoaminolipids, amides and their salts andderivatives (wholesale)
53100 64110Post activities
53100 64110Post office regional headquarters
28490 29430 Post peeling machines (manufacture)
18140 22230 Post press services in support of printing activities(manufacture)
59120 92119Post production film activities 30200 35200 Post van for railways (manufacture)
28230 30010 Postage franking machines (manufacture)
28230 30010 Postage meters (manufacture)
18129 22220 Postage stamp perforating (manufacture)
18129 22220 Postage stamp printing (manufacture) 64191 65121 Postal giro and postal savings bank activities53100 64110 Postal headquarters
53100 64110Postal sorting office
58190 22150 Postcard publishing
17230 21230 Postcards (plain) (manufacture)
53100 64110Poste restante
73110 74402 Poster advertising
18130 22250 Poster aerographing (manufacture)
18129 22220 Poster printing (manufacture)
58190 22150 Poster publishing
18130 22240 Poster writing (manufacture)
85422 80303 Post-graduate college
01630 01410Post-harvest crop activities
02200 02010 Posts (of wood) production
23610 26610 Posts made of precast concrete (manufacture) 85410 80301 Post-secondary non-tertiary vocational education
08910 14300 Potash mine
20150 24150 Potassic straight fertiliser (manufacture)
20130 24130 Potassium compounds (manufacture)
20150 24150 Potassium salts (manufacture)
08910 14300 Potassium salts (natural) mining
10310 15310 Potato chip production (frozen, raw, steamed or boiled) (manufacture)
10310 15310 Potato crisp (manufacture)
10910 15710 Potato dehydrating for animal feed (manufacture) 10310 15310 Potato flour and meal (manufacture)
01130 01110 Potato growing
28302 29320 Potato harvester and sorter (manufacture)10310 15310 Potato peeling (industrial) (manufacture)
10310 15310 Potato processing and preserving (manufacture)46310 51380 Potato products (wholesale)
10310 15310 Potato puff (manufacture)
10310 15310 Potato snacks production (manufacture)
10620 15620 Potato starch (manufacture)
10310 15310 Potato stick (manufacture)
10310 15310 Potato straw (manufacture)
10310 15310 Potatoes (prepared frozen) production (manufacture) 47210 52210 Potatoes (retail)
46310 51310Potatoes (wholesale)

SIC 2007	SIC 2003	Activity
26511	33201	Potentiometric recorder (electronic) (manufacture)
26513	33202	Potentiometric recorder (non-electronic) (manufacture)
23490	26250	Pots made of ceramic (manufacture)
23130	26130	Pots made of glass (manufacture)
17220	21220	Pots made of paper (manufacture)
22220	25220	Pots made of plastic (not flower pots) (manufacture)
10130	15139	Potted meat. (manufacture)
10200	15209	Potted shrimp (manufacture)
08120	14220	Potters' clay mine or quarry
47599	52440	Pottery (retail)
46440	51440	Pottery (wholesale)
23410	26210	Pottery for domestic use (manufacture)
23410	26210	Pottery made of stone (manufacture)
28990	29560	Pottery making machinery (manufacture)
77299	71409	Pottery rental and leasing
20150	24150	Potting soil mixtures of natural soil, sand, clays and minerals (manufacture)
20150	24150	Potting soil with peat as main constituent (manufacture)
15120	19200	Pouch for tobacco (manufacture)
15120	19200	Pouch made of leather or leather substitute (manufacture)
17230	21230	Pouches containing an assortment of paper stationery (manufacture)
13921	17401	Pouffe (manufacture)
13200	17210	Poult weaving (manufacture)
10120	15120	Poultry (fresh, chilled or frozen) production (manufacture)
46320	51320	Poultry (wholesale)
47220	52220	Poultry and game (retail)
10130	15139	Poultry canning (manufacture)
01629	01429	Poultry caponising
10850	15139	Poultry dishes (manufacture)
10120	15120	Poultry dressing (manufacture)
01470	01240	Poultry farming
10120	15120	Poultry fat (edible) rendering (manufacture)
10910	15710	Poultry grit (manufacture)
01470	01240	Poultry hatcheries
16230	20300	Poultry house made of wood (manufacture)
28302	29320	Poultry keeping machinery (manufacture)
10120	15120	Poultry meat preparation (manufacture)
10120	15120	Poultry meat production and preserving (manufacture)
10120	15120	Poultry packing (manufacture)
10130	15139	Poultry potting (manufacture)
28930	29530	Poultry processing machines and equipment (manufacture)
01470	01240	Poultry raising and breeding
10120	15120	Poultry slaughtering (manufacture)
46210	51210	Poultry spice (wholesale)
46610	51880	Poultry-keeping machines (wholesale)
22290	36639	Powder compact made of plastic (manufacture)
24420	27420	Powder made of aluminium (manufacture)
24440	27440	Powder made of copper (manufacture)
20301	24301	Powder made of glass (manufacture)
25500	28400	Powder metallurgy (manufacture)
13990	36639	Powder puff (manufacture)
10890	15891	Powdered broth containing meat or vegetables or both (manufacture)
10890	15891	Powdered soup containing meat or vegetables or both (manufacture)
10810	15830	Powdered sugar (manufacture)
24430	27430	Powders and flakes made of lead (manufacture)
24430	27430	Powders and flakes made of tin (manufacture)
20590	24660	Powders and pastes used in soldering, brazing or welding (manufacture)
46180	51180	Powders for cosmetic or toilet use (commission agent)
30120	35120	Power boats of all types (manufacture)
30300	35300	Power control for aircraft (manufacture)
27110	31100	Power generators (manufacture)
42220	45213	Power line construction
35110	40110	Power station
25110	28110	Power structural steelwork (manufacture)
27110	31100	Power supply unit for electronic applications (manufacture)
27120	31200	Power switching equipment (manufacture)
28240	29410	Power tool (portable) (manufacture)
28240	29410	Power tools (portable electric) (manufacture)
28240	29410	Power-driven buffers (manufacture)
28220	29220	Power-driven cranes (manufacture)
28240	29410	Power-driven grinders (manufacture)
28240	29410	Power-driven impact wrenches (manufacture)
28220	29220	Power-driven lifting capstans (manufacture)
28220	29220	Power-driven lifting hoists (manufacture)
28220	29220	Power-driven lifting jacks (manufacture)
28220	29220	Power-driven lifting pulley tackle (manufacture)
28220	29220	Power-driven lifting winches (manufacture)
28220	29220	Power-driven loading and unloading derricks (manufacture)
28220	29220	Power-driven mobile lifting frames (manufacture)
28240	29410	Power-driven planers (manufacture)
28240	29410	Power-driven powder actuated nailers (manufacture)
28240	29410	Power-driven routers (manufacture)
28240	29410	Power-driven shears and nibblers (manufacture)
28240	29410	Power-driven staplers (manufacture)
28220	29220	Power-driven straddle carriers (manufacture)
28922	29522	Powered barrow (manufacture)
28921	29521	Powered roof support for mining (manufacture)
13923	17403	Pram blanket (outside knitting or weaving establishment) (manufacture)
23610	26610	Precast cement articles for use in construction (manufacture)
23610	26610	Precast concrete articles for use in construction (manufacture)
23610	26610	Precast concrete products (manufacture)
46730	51530	Precast concrete products (wholesale)
32120	36220	Precious and semi-precious stones in the worked state production (manufacture)
24410	27410	Precious metal foil laminates (manufacture)
07290	13200	Precious metal ores mining and preparation
24410	27410	Precious metals production (manufacture)
32120	36220	Precious stone cutting (manufacture)
46760	51560	Precious stones (wholesale)
26513	33202	Precision balance (non-electronic) (manufacture)
28150	29140	Precision chain (manufacture)
26513	33202	Precision drawing instrument (manufacture)
25940	28740	Precision screw (manufacture)
24200	27220	Precision tube made of steel (manufacture)

SIC 2007	SIC 2003	Activity
86101	85112	Pre-convalescent hospital (private sector)
86101	85111	Pre-convalescent hospital (public sector)
25110	28110	Prefabricated building metalwork (manufacture)
46730	51530	Prefabricated buildings (wholesale)
23610	26610	Prefabricated buildings and components made of concrete (manufacture)
25110	28110	Prefabricated buildings made of metal (manufacture)
22230	25239	Prefabricated buildings made of plastic (manufacture)
46130	51130	Prefabricated buildings made of wood (commission agent)
16230	20300	Prefabricated buildings made of wood (manufacture)
16230	20300	Prefabricated buildings or elements thereof made of wood (manufacture)
42990	45213	Prefabricated constructions (civil engineering) assembly and erection
41201	45211	Prefabricated constructions (commercial) assembly and erection
41202	45212	Prefabricated constructions (domestic) assembly and erection
16230	20300	Prefabricated roof timbers (manufacture)
23610	26610	Prefabricated structural parts for construction, of cement, concrete, artificial stone (manufacture)
10110	15112	Premier jus (manufacture)
18130	22240	Preparation and linkage of digital data (manufacture)
85200	80100	Preparatory schools
20590	24660	Prepared additives for cement (manufacture)
46120	51120	Prepared binders for foundry moulds or cores (commission agent)
20590	24660	Prepared culture media for micro-organisms (manufacture)
20301	24301	Prepared dyes (manufacture)
10910	15710	Prepared feeds for farm animals (manufacture)
46210	51210	Prepared feeds for farm animals (wholesale)
10850	15139	Prepared meat dishes (manufacture)
46130	51130	Prepared pigments, opacifiers and colours (commission agent)
46120	51120	Prepared rubber accelerators (commission agent)
32990	36631	Prepared typewriter ribbons (manufacture)
20412	24512	Prepared waxes (manufacture)
96030	93030	Preparing the dead for burial or cremation
18130	22240	Pre-press data input electronic make-up (manufacture)
18130	22240	Pre-press data input optical character recognition, electronic make-up (manufacture)
18130	22240	Pre-press data input scanning (manufacture)
85100	80100	Pre-primary education
18201	22310	Pre-recorded tape, except master copies for records or audio material (manufacture)
94910	91310	Presbyterian Church
94910	91310	Presbyterian Church of Wales
91030	92522	Preservation society for historic houses
10511	15511	Preserved cream (manufacture)
46310	51380	Preserved fruit (wholesale)
47210	52270	Preserved fruit and vegetables (retail)
10130	15139	Preserved meat (manufacture)
10720	15820	Preserved pastry goods and cakes (manufacture)
93210	92330	Preserved railway operation
20420	24520	Pre-shave lotion (manufacture)
28410	29420	Press (hydraulic) (metal forming) (manufacture)
28410	29420	Press (mechanical) (metal forming) (manufacture)
28410	29420	Press (metal forming) (manufacture)

28410 29420 Press (pneumatic) (metal forming) (manufacture)
63990 92400 Press clipping service
13200 17220 Press cloth (manufacture)
63990 92400 Press cutting agency
28490 29430 Press for chipboard (manufacture)
28930 29530 Press for food and drink (manufacture)
28960 29560 Press machinery for working rubber or plastics (manufacture)
74209 92400 Press photographers
25990 36639 Press stud (manufacture)
25730 28620 Press tool (manufacture)
28930 29530 Press used to make wine, cider, fruit juices, etc. (manufacture)
17120 21120 Pressboard (manufacture)
13990 17549 Pressed felt (not paper or roofing) (manufacture)
13990 17549 Pressed wool felt (manufacture)
28490 29430 Presses for the manufacture of particle board (manufacture)
32990 36639 Press-fasteners (manufacture)
25990 36639 Press-fasteners made of metal (manufacture)
96010 93010 Pressing and valeting
25500 28400 Pressing of base metal (manufacture)
96010 93010 Pressing of wearing apparel on a fee or contract basis
17120 21120 Presspahn (manufacture)
32990 36639 Press-studs (manufacture)
25990 28750 Pressure cooker (manufacture)
24540 27540 Pressure die casting of non-ferrous base metal (manufacture)
28960 29560 Pressure forming machines for rubber or plastic (manufacture)
26511 33201 Pressure measuring and control instrument (electronic) (manufacture)
26513 33202 Pressure measuring and control instrument (non-electronic) (manufacture)
23610 26610 Pressure pipes made of pre-stressed concrete (manufacture)
28140 29130 Pressure reducing valves (manufacture)
22290 25240 Pressure sensitive adhesive tape made of plastic (manufacture)
13990 17549 Pressure sensitive cloth-tape (manufacture)
26511 33201 Pressure switch (electronic) (manufacture)
16100 20100 Pressure treatment of wood (manufacture)
71200 74300 Pressurised containers certification
23610 26610 Pre-stressed concrete products (manufacture)
10720 15820 Pretzels whether sweet or salted (manufacture)
86101 85111 Preventoria providing hospital type care (public sector)
85200 80100 Primary and pre-primary education
27200 31400 Primary battery (manufacture)
27200 31400 Primary cells (manufacture)
46439 51439 Primary cells and primary batteries for domestic use (wholesale)
46690 51870 Primary cells and primary batteries for industrial use (wholesale)
24440 27440 Primary copper (manufacture)
85200 80100 Primary education
24100 27100 Primary products of stainless steel (manufacture)
85200 80100 Primary schools
41201 45211 Primary, secondary and other schools construction
27120 31200 Prime mover generator sets (manufacture)

SIC 2007	SIC 2003	Activity
25400	29600	Primer for cartridge (manufacture)
20301	24301	Primer paint (manufacture)
84220	75220	Princess Mary's RAFNS
13200	17210	Print cloth weaving (manufacture)
18130	22250	Print colouring (manufacture)
26110	32100	Printed circuit (manufacture)
46520	51860	Printed circuits (wholesale)
22230	25231	Printed felt base floorcovering (manufacture)
18121	21251	Printed labels (manufacture)
13960	17542	Printed labels of textile materials (manufacture)
17230	22220	Printed matter for accounting and technical use(manufacture)
58190	22150	Printed matter publishing
17211	21211	Printed paper bags (manufacture)
18140	22230	Printed paper or board finishing (manufacture)
18140	22230	Printed sheets finishing (manufacture)
26110	31300	Printer and monitor connectors (manufacture)
26110	31300	Printer cables (manufacture)
26200	30020	Printer ink cartridges (manufacture)
26200	30020	Printer ink cartridges (refilling)
26200	30020	Printer servers (manufacture)
26200	30020	Printers and plotters (manufacture)
22190	25130	Printers' blankets made of rubber (manufacture)
17230	21230	Printers' cards (manufacture)
18130	22250	Printers' designing (manufacture)
26200	30020	Printers for computers (manufacture)
20302	24302	Printers' varnish (manufacture)
13200	17210	Printers' weaving (manufacture)
18129	22220	Printing (undefined) (manufacture)
17230	21230	Printing and writing paper ready for use (manufacture)
46690	51870	Printing block and plates preparation and production machinery, equipment and apparatus(wholesale)
18129	22220	Printing by computer printers (manufacture)
18129	22220	Printing by duplication machines (manufacture)
18129	22220	Printing by embossers (manufacture)
18129	22220	Printing by quick printing (manufacture)
32990	36631	Printing devices (hand operated) (manufacture)
18129	22220	Printing directly onto ceramics (manufacture)
46120	51120	Printing ink (commission agent)
20302	24302	Printing ink (manufacture)
46750	51550	Printing ink (wholesale)
28990	29560	Printing machine or press (manufacture)
46690	51870	Printing machinery (wholesale)
28940	29540	Printing machinery for textiles (manufacture)
28230	30010	Printing machines (sheet fed office type offset) (manufacture)
18129	22220	Printing of banknotes
18129	22220	Printing of magazines appearing less than four timesa week (manufacture)
18129	22220	Printing of other security papers (manufacture)
18110	22210	Printing of periodicals appearing at least four times a week (manufacture)
18129	22220	Printing of smart cards (manufacture)
59200	92119	Printing of sound tracks
18121	21251	Printing on labels or tags (manufacture)
18129	22220	Printing onto glass (manufacture)
18129	22220	Printing onto metal (manufacture)
18129	22220	Printing onto plastic (manufacture)

18129 21220 Printing onto sanitary goods and toilet requisites of paper (manufacture)
18129 22220 Printing onto textiles (manufacture)
18129 22220 Printing onto wood (manufacture)
17120 21120 Printing paper (manufacture)
18130 22240 Printing plate engraving (manufacture)
18130 22240 Printing roller engraving (manufacture)
32500 33401 Prisms (mounted, (not photographic)) (manufacture)23190 26150 Prisms (pressed or moulded, unworked) (manufacture)
32500 33401 Prisms (unmounted) (manufacture)
84230 75230 Prison administration and operation
86101 85111Prison hospitals
84230 75230 Prisons (excluding naval and military) 26301 32201 Private branch exchange (PBX) equipment (manufacture)
86220 85120 Private consultants clinics
80300 74601 Private detective
49320 60220 Private hire car with driver86101 85112 Private hospital
80300 74601 Private investigator activities
55900 55239 Private lodging house
80100 74602 Private security activities
85590 80421 Private training providers
84230 75230 Probate registry
88990 85322 Probation and after care service 18130 22240 Process block making (manufacture)
26514 33302 Process control equipment (electric) (manufacture)
26512 33301 Process control equipment (electronic) (manufacture)
28140 29130 Process control valves (manufacture)
46690 51870 Process control valves, gate valves, globe valves andother valves (wholesale)
71129 74209 Process engineering contractor
18130 22240 Process engraving (manufacture)
25300 28300 Process heater (manufacture)
19201 23201 Process oil refining (manufacture)
19201 23201 Process oils (manufacture)
25300 28300 Process pipework (manufacture)
18130 22240 Process plate engraving (manufacture)
25300 28300 Process pressure sphere (manufacture)
25300 28300 Process pressure vessel (manufacture)
69109 74119Process server
26520 33500 Process timers (manufacture)
23990 26821 Processed asbestos fibre (manufacture)
10512 15512 Processed cheese (manufacture)
46380 51380 Processed fruit (wholesale)
46320 51320Processed meat and meat products (wholesale)46380 51380 Processed vegetables (wholesale)
38320 37200 Processing cleaning, melting, grinding of plastic orrubber waste to granulates
38320 37200 Processing of food, beverage and tobacco waste andresidual substances into secondary raw materials
38320 37200 Processing of used cooking oils and fats intosecondary raw materials
46690 51870 Producer gas or water gas generators (wholesale)35300 40300 Production and distribution of cooled air
46690 51870 Production line robot (wholesale)
70229 74149Production management consultancy services(other than for construction)

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

38210 90020 Production of compost from organic waste 24100 27100 Production of granular iron
35300 40300 Production of ice for cooling purposes (manufacture) 35300 15980 Production of ice for food (manufacture)
59113 92111 Production of theatrical and non-theatrical television programmes
28921 29521 Production riser tensioners (manufacture)
28921 29521 Production riser tie-back equipment (manufacture) 85590 80429 Professional examination review courses
94120 91120 Professional organisations
22210 25210 Profile shapes of plastic materials (rods, tubes, etc.)(manufacture)
22190 25130 Profile shapes of rubber (manufacture) 24330 27330 Profiled steel sheet (manufacture)
70229 74143 Profit improvement programmes consultancy services
28940 29540 Programmer for textile machinery (manufacture) 62012 72220 Programming services
71129 74209 Project management
26702 33403 Projection screen (manufacture)
26702 33403 Projector (photographic or cinematographic)(manufacture)
26702 33403 Projector for cinema (manufacture)
27400 31500 Projector lamp (manufacture)
93199 92629 Promotion of sporting events
82190 74850 Proof reading
01629 01429 Propagation, growth and output of animals, promotion service activities
19201 23201 Propane (manufacture)
06200 11100 Propane extraction from natural gas 46711 51511 Propane gas (wholesale)
20510 24610 Propellant powder (manufacture)
46120 51120 Propellant powders and prepared explosives (commission agent)
30300 35300 Propeller for aircraft (manufacture)
30300 35300 Propeller rotor blades (manufacture)
29320 34300 Propeller shaft for motor vehicle (manufacture) 46499 51479 Propelling or sliding pencils (wholesale)
32990 36631 Propelling pencil (manufacture)
20510 24610 Propergol fuels and other propellant powders (manufacture)
68310 70310 Property consultant (own account)
41100 70110 Property developer
65120 66031 Property insurance
41100 70110 Property investment company
68209 70209 Property leasing (other than conference centres and exhibition halls)
68320 70320 Property management (as agents for owners) 94110 91110 Property owners' association
64305 65238 Property unit trusts
23200 26260 Props made of ceramic (manufacture)
28110 29110 Propulsion engine for marine use (manufacture) 20140 24140 Propylene (manufacture)
20140 24140 Propylene oxide (manufacture)
20160 24160 Propylene polymers (manufacture)
18140 22230 Prospectus finishing (manufacture)
18129 22220 Prospectus printing (manufacture)
46460 51460 Prosthesis and orthopaedic appliances (wholesale) 14120 18210 Protective clothing for industrial use (manufacture) 43341 45440 Protective coatings application work

15200 19300 Protective footwear made of plastic (manufacture)32500 33401 Protective glasses (manufacture)

32990 18249 Protective gloves for industrial use (manufacture)32990 18241 Protective headgear (manufacture)

32990 18241 Protective headgear for industrial use (manufacture) 10910 15710 Protein (synthetic) for animal feed (manufacture) 10910 15710 Protein concentrates (animal food) (manufacture) 20590 24660 Protein substances (manufacture)

94990 91330 Protest movement activities

26511 33201 Proton microscope (manufacture)

46210 51210Provender (wholesale)

65110 66011 Provident fund (life)

65120 66031 Provident fund (non-life)

46170 51170Provision exchange (commission agent)

87300 85140 Provision of residential care and treatment for theelderly and disabled by paramedical staff

84240 75240 Provision of supplies for domestic emergency use incase of peacetime disasters

46390 51390 Provisions (wholesale)

46180 51180Provitamins, vitamins and their derivatives (commission agent)

21100 24410 Provitamins, vitamins and their derivatives (manufacture)

46460 51460 Provitamins, vitamins and their derivatives (wholesale)

25710 28610 Pruning knife (manufacture)

25730 28620 Pruning shears (manufacture)

86900 85140 Psychiatric clinic

86900 85140 Psychiatric day hospital

86101 85112Psychiatric unit (private sector)

86220 85120 Psychiatrist (private practice)

32500 33100 Psychological testing apparatus (manufacture)

86900 85140 Psychologist

72200 73200 Psychology research and experimental development32500 33100 Psychology testing apparatus (manufacture)

93290 92729 Psychometry

46690 51870 Public address equipment (wholesale)

26400 32300 Public address system (manufacture)

84120 75120Public administration of education programmes 84120 75120 Public administration of environment programmes 84120 75120 Public administration of health programmes 84120 75120 Public administration of housing programmes 84120 75120 Public administration of recreation programmes

84120 75120Public administration of research and developmentpolicies

84120 75120Public administration of social services programmes84120 75120 Public administration of sport programmes

71200 74300 Public analyst

96040 93040 Public baths

26400 32300 Public broadcasting equipment (manufacture)

84110 75110 Public debt services administration

84110 75110 Public fund services administration

86900 85140 Public health laboratory

56302 55402 Public houses (independent)

56302 55404 Public houses (managed)

56302 55403 Public houses (tenanted)

73200 74130Public opinion polling

84240 75240 Public order and safety administration, regulationand operation

93290 92729 Public park

SIC 2007	SIC 2003	Activity
82990	74879	Public record searching
70210	74141	Public relations and communication
70210	74141	Public relations consultant (not advertising agency)
85310	80210	Public schools
49319	60219	Public service vehicle operator
90010	92319	Public speaker
85590	80429	Public speaking training
82990	74850	Public stenography services
66190	67130	Public trust office
42990	45213	Public works contractor
74909	74879	Publicans' broker
58190	22150	Publishers (other than of newspapers, books and periodicals)
18140	22230	Publisher's case making (manufacture)
59200	22140	Publishing of music and sheet books
58290	72210	Publishing of software for business
58290	72210	Publishing of software for operating systems
58190	22220	Publishing of stamps, banknotes, advertising material, catalogues and other printed matter n.e.c.
58110	22110	Publishing on CD- ROM
10611	15611	Pudding mixture (manufacture)
10612	15612	Puffed rice (manufacture)
10612	15612	Puffed wheat (manufacture)
10110	15113	Pulled wool production (manufacture)
28150	29140	Pulley (manufacture)
28220	29220	Pulley block (manufacture)
16290	20510	Pulley made of wood (manufacture)
28220	29220	Pulley tackle (manufacture)
46690	51870	Pulley tackle and hoists (wholesale)
28150	29140	Pulley wheel (manufacture)
14390	17720	Pullovers (knitted or crocheted) (manufacture)
17110	21110	Pulp for paper (manufacture)
28950	29550	Pulp making machinery (manufacture)
17110	21110	Pulping recycled paper (manufacture)
31010	36120	Pulpit (manufacture)
02100	02010	Pulpwood production
26513	33202	Pulse (signal) generators (non-electronic) (manufacture)
46310	51310	Pulses (wholesale)
28923	29523	Pulverising machinery (not for mines) (manufacture)
28990	29560	Pulverising machinery for the chemical industry (manufacture)
08990	14500	Pumice extraction
23910	26810	Pumice stones (bonded) (manufacture)
28131	29121	Pump (not for hydraulic or for internal combustion engine) (manufacture)
28120	29121	Pump for hydraulic equipment (manufacture)
15120	19200	Pump leather (manufacture)
28131	29121	Pump parts (manufacture)
49500	60300	Pump stations operation
09100	11200	Pumping of oil and gas wells
46690	51870	Pumping plant (wholesale)
28131	29121	Pumps and parts (non-electric) for oil, gas, petrol or water on motor vehicles (manufacture)
46630	51820	Pumps for concrete (wholesale)
46690	51870	Pumps for liquids (excluding motor vehicles) (wholesale)
28131	29121	Pumps for liquids whether or not fitted with measuring devices (manufacture)
93290	92349	Punch and Judy show
28410	29420	Punch presses (manufacture)
26200	30020	Punchcard readers (manufacture)
17120	21120	Punched card and punched paper tape stock (manufacture)
28230	30010	Punched card machine (other than for computer use) (manufacture)
25730	28620	Punches for hand tools (interchangeable) (manufacture)
25730	28620	Punches for machine tools (interchangeable) (manufacture)
28410	29420	Punching machine (metal forming) (manufacture)
22190	25130	Puncture repair outfit made of rubber (manufacture)
16290	20520	Punnets made of cork, straw or plaiting materials (manufacture)
30120	35120	Punt (manufacture)
32409	36509	Puppet (manufacture)
93290	92349	Puppet shows
61200	64200	Purchase of wireless access and network capacity
28290	29240	Purifying machinery (manufacture)
15120	19200	Purses made of leather or leather substitute (manufacture)
30920	36639	Push chair (manufacture)
32409	36509	Push toy on wheels (manufacture)
20301	24303	Putty (manufacture)
32409	36509	Puzzles (manufacture)
46499	51477	Puzzles (wholesale)
20160	24160	PVC polyvinyl chloride as a raw material (manufacture)
13990	17542	Pyjama cord (manufacture)
14141	18231	Pyjamas for men and boys (manufacture)
14142	18232	Pyjamas for women and girls (manufacture)
43999	45250	Pylon erection
23610	26610	Pylons made of precast concrete (manufacture)
20140	24140	Pyridine base (manufacture)
08910	14300	Pyrites and pyrrhotite extraction and preparation
26513	33202	Pyrometer (non-electronic) (manufacture)
20510	24610	Pyrotechnics (manufacture)
74909	74149	Quality assurance consultancy activities
71200	74300	Quality control
74902	74203	Quantity surveying activities
23320	26400	Quarry floor brick (manufacture)
23320	26400	Quarry tile made of clay (manufacture)
26110	32100	Quartz crystal (manufacture)
08990	14500	Quartz mining and quarrying
21100	24410	Quaternary ammonium salts and fatty amines (manufacture)
46180	51180	Quaternary ammonium salts and hydroxides (commission agent)
46460	51460	Quaternary ammonium salts and hydroxides (wholesale)
84220	75220	Queen Alexandra's RANC
84220	75220	Queen Alexandra's RNNS
69101	74112	Queen's counsel
10390	15330	Quick freezing of fruit and vegetables (manufacture)
46390	51390	Quick frozen foods (wholesale)
23520	26520	Quicklime (manufacture)
13923	17403	Quilt (filled) (manufacture)
13923	17403	Quilt fringing (manufacture)
13200	17210	Quilt weaving (manufacture)
01240	01139	Quince growing
20140	24140	Quinones (manufacture)

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

01490 01250 Rabbit and other fur animal raising
01490 01250 Rabbit breeding
01610 01410 Rabbit destroying and trapping on agricultural land
10110 15120 Rabbit meat preparation (manufacture)
01490 01250 Rabbit skin sorting
10110 15120 Rabbit slaughtering (manufacture)
93110 92619 Racecourse operation
93191 92621 Racehorse owner
93199 92629 Racehorse trainer
92000 92710 Racing pool
93199 92629 Racing stables
92000 92710 Racing tipster
49319 60219 Rack railway
32300 36400 Racket and racket frames (manufacture)
31010 36120 Racking (manufacture)
25110 28110 Racking systems for large scale heavy duty use in shops, workshops and warehouses (manufacture)
93120 92629 Racquet club
46520 51860 Radar apparatus (wholesale)
26511 33201 Radar equipment (manufacture)
61900 64200 Radar station operation
28131 29121 Radial flow pump (manufacture)
23200 26260 Radiant for gas and electric fire (manufacture)
25210 28220 Radiant panel (space heating equipment) (manufacture)
26513 33202 Radiation equipment and detection instruments (non-electronic) (manufacture)
26511 33201 Radiation measuring and detection instruments (electronic) (manufacture)
27510 29710 Radiator (electric) (manufacture)
29320 34300 Radiator for motor vehicle (manufacture)
25210 28220 Radiator for space heating equipment (manufacture)
29320 34300 Radiator grill for motor vehicle (manufacture)
25210 28220 Radiators and boilers for central heating (manufacture)
77291 71403 Radio (domestic) hire
25110 28110 Radio and television masts made of metal (manufacture)
26309 32202 Radio beacons (manufacture)
60100 92201 Radio broadcasting station
26400 32300 Radio cabinets made of wood (manufacture)
15120 19200 Radio cases made of leather (manufacture)
26309 32202 Radio communications equipment (manufacture)
52219 63210 Radio despatch offices for taxis, bicycle couriers etc.
47910 52610 Radio direct sales (retail)
77390 71340 Radio equipment for professional use, rental and operating leasing
26309 32202 Radio frequency booster stations (manufacture)
26511 33201 Radio navigational aid apparatus (manufacture)
46520 51860 Radio navigational aid apparatus (wholesale)
60100 64200 Radio programme transmission
26400 32300 Radio receiving set (manufacture)
61200 64200 Radio relay service
26511 33201 Radio remote control apparatus (manufacture)
46520 51860 Radio remote control apparatus (wholesale)
47430 52450 Radio sets and equipment (retail)
60100 64200 Radio station (telecommunications)
60100 92201 Radio studio
46439 51439 Radio, television and electrical household equipment n.e.c. exporter (wholesale)

46439 51439 Radio, television and electrical household goods n.e.c. importer (wholesale)
20130 23300 Radioactive compounds production (manufacture)
21200 23300 Radioactive in-vivo diagnostic substances (manufacture)
20130 24130 Radioactive isotopes (other than of uranium, thorium or plutonium) (manufacture)
20130 23300 Radioactive isotopes of uranium, thorium and plutonium (manufacture)
46750 51550 Radioactive residues (wholesale)
71200 74300 Radioactivity measuring
86900 85140 Radiographer (private)
71200 74300 Radiographic testing of welds and joints 86101 85111 Radiologist (public sector)
46439 51439 Radios and televisions (wholesale)
26309 32202 Radio-telephony apparatus (manufacture)
86101 85111 Radiotherapist (public sector)
86220 85120 Radiotherapy treatment centre
16290 20520 Raffia goods (manufacture)
16230 20300 Rafters (manufacture)
46770 51570 Rag and bone dealer (wholesale) 13300 17300 Rag bleaching (manufacture)
18130 22250 Rag book making (manufacture)
13300 17300 Rag dyeing (manufacture)
46770 51570 Rag merchant
08110 14110 Ragstone quarry
52211 63210 Rail freight terminals operation
30200 35200 Rail locomotives (manufacture)
49100 60109 Rail transport (inter-urban)
30200 35200 Railbrakes (manufacture)
25120 28120 Railings made of metal (manufacture) 16230 20300 Railings made of wood (manufacture) 77390 71211 Railroad passenger vehicles rental
24100 27100 Rails of iron, steel or cast iron (manufacture) 52290 63400 Railway agent (not transport authority) 30200 35200 Railway and tramway coaches (manufacture)
30200 35200 Railway and tramway locomotives and specialised parts (manufacture)
30200 35200 Railway and tramway rolling stock (manufacture) 30200 36110 Railway car seats (manufacture)
30200 35200 Railway coach (manufacture)
42120 45230 Railway construction
56101 55301 Railway dining car or buffet (licensed)
49100 60101 Railway dining cars operated as an integrated operation of railway companies
77390 71219 Railway freight vehicle hire
30200 35200 Railway locomotives and rolling stock (manufacture) 46690 51870 Railway or tramway coaches, vans and wagons (wholesale)
30200 35200 Railway or tramway not self-propelled passenger coaches, goods vans and other wagons (manufacture)
77390 71211 Railway passenger vehicle hire
52219 63210 Railway running shed
30200 35200 Railway self-propelled car (manufacture)
27900 31620 Railway signalling equipment (electric) (manufacture) 30200 35200 Railway signalling equipment (mechanical) (manufacture)
23610 26610 Railway sleepers made of pre-cast concrete (manufacture)
16100 20100 Railway sleepers made of wood (manufacture)

SIC 2007	SIC 2003	Activity
49100	60101	Railway sleeping cars operated as an integrated operation of railway companies
55900	55239	Railway sleeping cars when operated by separate units from the transport provider
52219	63210	Railway station operation
30200	35200	Railway test wagon (manufacture)
30200	35200	Railway track equipment (mechanical) (manufacture)
25990	28750	Railway track fixtures of assembled metal (manufacture)
42120	45213	Railway tunnelling contractor
42120	45213	Railway tunnel construction
30200	35200	Railway wagon (manufacture)
52290	63400	Railway wagon agent
30200	35200	Railway wagon axle box and axle lubricator (manufacture)
20510	24610	Rain rocket (manufacture)
37000	90010	Rain water collection and transportation by sewers, collectors, tanks and other means of transport
14131	18221	Raincoats for men and boys (manufacture)
14132	18222	Raincoats for women and girls (manufacture)
14132	18222	Raincoats for women and girls made of stitched plastic (manufacture)
14131	18221	Rainproof garments for men and boys (manufacture)
14132	18222	Rainproof garments for women and girls (manufacture)
28940	29540	Raising machinery for textiles (manufacture)
25730	28620	Rakes for garden use (manufacture)
16290	20510	Rakes made of wood (manufacture)
01160	01110	Ramie and other vegetable textile fibre growing
13200	17250	Ramie weaving (manufacture)
23200	26260	Ramming material made of refractory (manufacture)
86101	85111	Rampton Hospital
26701	33201	Range finder (optical) (manufacture)
26513	33202	Range finders (non-electronic) (manufacture)
26513	33202	Range finders (optical non-electronic) (manufacture)
26701	33201	Range finders (optical) (manufacture)
28921	29521	Ranging drum shearer for mining (manufacture)
01110	01110	Rape growing
10410	15410	Rape oil production (manufacture)
10410	15420	Rape oil refining (manufacture)
10410	15410	Rape seed crushing (manufacture)
20110	24110	Rare gases (manufacture)
13990	17541	Raschel lace (manufacture)
25730	28620	Rasp (manufacture)
01250	01139	Raspberry growing
81291	74703	Rat catcher (not especially for agriculture)
01610	01410	Rat destroying and trapping on agricultural land
10730	15850	Ravioli (manufacture)
10110	15112	Raw bones from knackers (manufacture)
13300	17300	Raw cotton bleaching, dyeing or otherwise finishing (manufacture)
46120	51120	Raw earth metals (commission agent)
01490	01250	Raw fur skin production
13300	17300	Raw silk dyeing (manufacture)
46210	51210	Raw wool (wholesale)
20600	24700	Rayon (manufacture)
27510	29710	Razor (electric) (manufacture)
25710	28610	Razor (not electric) (manufacture)
25710	28610	Razor blade (manufacture)
25710	28610	Razor blade blanks in strips (manufacture)
25710	28610	Razor set (manufacture)
28940	29540	Reaching-in machinery for textiles (manufacture)
25300	28300	Reactor column (manufacture)
27110	31100	Reactor shunt and limiting (manufacture)
25300	28300	Reactor vessel (manufacture)
32500	33401	Reading glasses (manufacture)
91011	92510	Reading room (library)
62011	72220	Ready-made interactive leisure and entertainment software development
58290	72210	Ready-made software publishing (except computer games publishing)
23630	26630	Ready-mixed concrete (manufacture)
23640	26640	Ready-mixed wet mortars (manufacture)
68310	70310	Real estate agencies
68100	70120	Real estate buying and selling
68310	70310	Real estate escrow agents activities
64306	65231	Real estate investment trusts
68320	70320	Real estate management on a fee or contract basis
68100	70120	Real estate owner
74209	74819	Real estate photography
41100	70110	Real estate project development
82990	74879	Real-time closed captioning
25730	28620	Reamer (manufacture)
13940	17520	Reaper twine (manufacture)
28922	29522	Rear digger (manufacture)
28922	29522	Rear digger unit (manufacture)
16100	20100	Rebated wood (manufacture)
26110	32100	Receiver or amplifier valves or tubes (manufacture)
26400	32300	Receivers for radio broadcasting (manufacture)
26400	32300	Receivers for television (manufacture)
77400	74879	Receiving royalties or licensing fees for the use of brand names
77400	74879	Receiving royalties or licensing fees for the use of franchise agreements
77400	74879	Receiving royalties or licensing fees for the use of mineral exploration and evaluation
77400	74879	Receiving royalties or licensing fees for the use of patented entities
77400	74879	Receiving royalties or licensing fees for the use of trademarks or service marks
46520	51860	Reception apparatus for radio telephony or telegraphy for professional use (wholesale)
26309	32202	Reception apparatus for radio-telephony or radio-telegraphy (manufacture)
28132	29122	Reciprocating compressor (manufacture)
46690	51870	Reciprocating displacement compressors (wholesale)
46690	51870	Reciprocating positive displacement pumps for liquids (wholesale)
38320	37100	Reclaiming metals out of photographic waste, e.g. Fixer solution or photographic films and paper
38320	37200	Reclaiming of chemicals from chemical waste
38320	37200	Reclaiming of rubber to produce secondary raw materials
26110	32300	Record cutters (manufacture)
91011	92510	Record lending and storage
26400	32300	Record player accessories (manufacture)
26400	32300	Record player cabinets made of wood (manufacture)
26400	32300	Record players (manufacture)
47430	52450	Record players (retail)
46431	51431	Record players (wholesale)
26400	32300	Record playing mechanism (manufacture)

SIC 2007	SIC 2003	Activity
46431	51431	Recorded audio and video tapes, CDs, DVDs and the equipment on which these are played (wholesale)
32200	36300	Recorders made of plastic or wood (manufacture)
59200	92201	Recording studio (radio)
60200	92202	Recording studio (television)
77220	71404	Records rental
47630	52450	Records, compact discs and tapes (retail)
13100	17120	Recovered wool (mungo and shoddy) (manufacture)
30400	29600	Recovery vehicle (tracked military type) (manufacture)
93290	92729	Recreational activities n.e.c.
77210	71401	Recreational and sports goods renting and leasing
14131	18221	Recreational clothing for men and boys (waterproofed) (manufacture)
14132	18222	Recreational clothing for women and girls (waterproof) (manufacture)
94990	91330	Recreational organisations
84120	75120	Recreational services administration (public sector)
55300	55220	Recreational vehicle parks and trailer parks
77120	71219	Recreational vehicles renting and leasing
14131	18221	Recreational weatherproof clothing for men and boys (manufacture)
14132	18222	Recreational weatherproof clothing for women and girls (manufacture)
24200	27220	Rectangular hollow steel section (manufacture)
11010	15910	Rectified spirits (manufacture)
26110	31100	Rectifier plant (electronic) (manufacture)
27900	32100	Rectifier, solid state (manufacture)
28290	29240	Rectifying plant (manufacture)
27900	32100	Rectifying valve and tube (manufacture)
17110	21110	Recycled fibre pulp (manufacture)
88990	85321	Red Cross Society
01250	01139	Redcurrant growing
09100	11200	Redrilling oil and gas wells
32409	36509	Reduced-size (scale) models (manufacture)
32409	36509	Reduced-size scale model electrical trains (manufacture)
32409	36509	Reduced-size scale models construction sets (manufacture)
26702	33403	Reducer (photographic) (manufacture)
96040	93040	Reducing and slimming salon activities
28140	29130	Reducing valves (manufacture)
28990	29560	Reduction gear for marine use (manufacture)
28940	29540	Reed (textile machinery accessory) (manufacture)
16290	20520	Reed articles (manufacture)
02300	02010	Reed collecting, cutting and gathering
32200	36300	Reed for musical instrument (manufacture)
16290	20520	Reed preparation (manufacture)
13100	17150	Reeling and washing of silk (manufacture)
28940	29540	Reeling machinery for textiles (manufacture)
22220	25220	Reels made of printed polypropylene (manufacture)
16290	20510	Reels made of wood (manufacture)
69109	74119	Referees legal activities
20140	24140	Refined coal tar (manufacture)
46711	51511	Refined petroleum products (wholesale)
46120	51120	Refined sulphur (commission agent)
46750	51550	Refined sulphur (wholesale)
19201	23201	Refinery gas (manufacture)
30120	35120	Refitting of pleasure craft (manufacture)
30110	35110	Refitting of ships (manufacture)

32500 33100 Reflectors used in medicine (manufacture)25300 28300 Reformer (manufacture)
26511 33201 Refractometers (electronic) (manufacture)
26513 33202 Refractometers (non-electronic) (manufacture) 23200 26260 Refractory articles containing magnesite, dolomite or chromite (manufacture)
23200 26260 Refractory blocks (manufacture)
23200 26260 Refractory castable (manufacture)
23200 26260 Refractory cement (manufacture)
23200 26260 Refractory ceramic goods (manufacture)
08120 14220 Refractory clays mining
23200 26260 Refractory concretes (manufacture)
23200 26260 Refractory goods (manufacture)
23200 26260 Refractory hollow ware (manufacture)
23200 26260 Refractory jointing cement (manufacture)
23200 26260 Refractory mouldable (manufacture)
23200 26260 Refractory ramming material (manufacture)
23200 26260 Refractory tiles (manufacture)
56290 55510Refreshment club
56290 55520 Refreshment contracting
56102 55302 Refreshment room (unlicensed)
20110 24110 Refrigerant gases (manufacture)
49410 60249 Refrigerated haulage by road
29100 34100 Refrigerated lorry (manufacture)
28250 29230 Refrigerated service cabinet (manufacture) 30200 35200 Refrigerated wagon for railway (manufacture)
52102 63121 Refrigerated warehouses operation for air transport activities
52103 63121 Refrigerated warehouses operation for land transport activities
52101 63121 Refrigerated warehouses operation for water transport activities
46690 51870 Refrigerating and freezing equipment and heat pumps (commercial) (wholesale)
28250 29230 Refrigerating and freezing equipment parts(manufacture)
28250 29230 Refrigerating equipment (manufacture)
28250 29230 Refrigerating or freezing equipment for industrialuse (manufacture)
28250 29230 Refrigerator cabinets made of wood (manufacture) 28250 29230 Refrigerator for commercial use (manufacture) 27510 29710 Refrigerator for domestic use (electric) (manufacture) 27520 29720 Refrigerators (gas) (manufacture)
46439 51439 Refrigerators and freezers for domestic use(wholesale)
88990 75210 Refugee and hunger relief programmes abroad88990 85321 Refugee camp (charitable)
88990 85322 Refugee camp (non-charitable)
88990 85321 Refugee services (charitable)
88990 85322 Refugee services (non-charitable)
38110 90020 Refuse collection by local authority cleansingdepartment
28290 29240 Refuse disposal plant (manufacture)
38210 90020 Refuse disposal plant or tip (local authority ormunicipally owned)
38210 90020 Refuse disposal service (not especially for agriculture)38210 90020 Refuse disposal tip operator
29100 34100 Refuse disposal vehicle (manufacture)93290 92729 Regent's Park and Primrose Hill 84240 75240 Regional crime squad
18129 22220 Register printing (manufacture)

SIC 2007	SIC 2003	Activity
75000	85200	Registered veterinarian
84230	75230	Registrars Office (Courts of Justice)
29320	34300	Registration plate for motor vehicle (manufacture)
51102	62201	Regular charter flights for passengers
86101	85112	Rehabilitation hospital (private sector)
86101	85111	Rehabilitation hospital (public sector)
84230	75230	Rehabilitation services for prisoners
28210	29210	Re-heating furnace (manufacture)
43999	45250	Reinforced concrete engineer (civil engineering)
23610	26610	Reinforced concrete products (manufacture)
22190	25130	Reinforced hose made of rubber (manufacture)
65202	66032	Re-insurance company (non-life)
26309	32202	Relay link apparatus (manufacture)
26309	32202	Relay transmitters (manufacture)
26110	31200	Relays for electronic and telecommunications use (manufacture)
18140	22230	Relief stamping (manufacture)
28140	29130	Relief valves (manufacture)
94910	91310	Religious funeral service activities
47789	52489	Religious goods (retail)
85590	80429	Religious instruction
94910	91310	Religious organisations
94910	91310	Religious retreat activities
84120	75120	Religious services administration (public sector)
58110	22110	Religious tract publishing
10840	15870	Relish (manufacture)
84230	75230	Remand centres
45200	50200	REME workshop
39000	90030	Remediation activities and other waste management services
24420	27420	Remelt ingots made of aluminium (manufacture)
24100	27100	Remelting ferrous waste or scrap
24100	27100	Remelting scrap ingots of iron
41202	45212	Remodelling or renovating existing residential structures
49420	60241	Removal by road transport
49420	60241	Removal contractor
17110	21110	Removal of ink from waste paper and subsequent manufacture of pulp (manufacture)
10110	15112	Rendering of lard and other edible fats of animal origin (manufacture)
10519	15519	Rennet (not artificial) (manufacture)
95290	52740	Renovating of hats
68320	70320	Rent collecting agencies
81299	90030	Rental of lavatory cubicles
50300	61201	Rental of pleasure boats with crew for inland water transport
50200	61102	Rental of vessels with crew for coastal freight water transport
50200	61102	Rental of vessels with crew for sea freight water transport
68201	70209	Renting and operating of housing association real estate
68209	70209	Renting and operating of self-owned or leased real estate
43999	45500	Renting of cranes with operator
93290	92729	Renting of leisure and pleasure equipment as an integral part of recreational facilities
43999	45500	Renting of other building equipment with operator
43991	45250	Renting of scaffolds and work platforms with erection and dismantling
95290	52740	Repair and alteration of clothing
09100	11200	Repair and dismantling services of derricks
33110	28520	Repair and maintenance for pipes and pipelines (manufacture)
42220	45213	Repair and maintenance of above-ground telecommunication lines
33120	72500	Repair and maintenance of accounting machinery (manufacture)
33160	35300	Repair and maintenance of aero-engine parts and sub assemblies (manufacture)
33160	35300	Repair and maintenance of aero-space equipment (manufacture)
33120	29320	Repair and maintenance of agricultural machinery (manufacture)
33120	29310	Repair and maintenance of agricultural tractors (manufacture)
33160	35300	Repair and maintenance of air cushion vehicles (manufacture)
33160	35300	Repair and maintenance of aircraft (manufacture)
33130	33201	Repair and maintenance of aircraft engine instruments (manufacture)
33160	35300	Repair and maintenance of aircraft engines of all types (manufacture)
33170	35500	Repair and maintenance of animal-drawn buggies and wagons (manufacture)
45200	50200	Repair and maintenance of auto electricals
95110	30020	Repair and maintenance of automatic teller machines (ATMs)
33130	33201	Repair and maintenance of automotive emissions testing equipment (manufacture)
33110	28300	Repair and maintenance of auxiliary plant for steam collectors and accumulators (manufacture)
33110	28300	Repair and maintenance of auxiliary plant for use with steam condensers (manufacture)
33110	28300	Repair and maintenance of auxiliary plant for use with steam economisers (manufacture)
33110	28300	Repair and maintenance of auxiliary plant for use with steam generators (manufacture)
33110	28300	Repair and maintenance of auxiliary plant for use with steam superheaters (manufacture)
95110	30020	Repair and maintenance of bar code scanners
33150	35120	Repair and maintenance of boats (manufacture)
95120	32201	Repair and maintenance of carrier equipment modems
33120	72500	Repair and maintenance of cash registers (manufacture)
95120	52740	Repair and maintenance of cellular telephones
33190	26400	Repair and maintenance of ceramic pipes, etc. And systems thereof in industrial plants (manufacture)
33130	33500	Repair and maintenance of clocks in church towers and the like
95120	32202	Repair and maintenance of commercial TV cameras
45200	50200	Repair and maintenance of commercial vehicles
95120	32202	Repair and maintenance of commercial video cameras
33120	29240	Repair and maintenance of commercial-type general purpose machinery (manufacture)
95120	32201	Repair and maintenance of communications transmission bridges
95120	32201	Repair and maintenance of communications transmission modems
95120	32201	Repair and maintenance of communications transmission routers
33120	29122	Repair and maintenance of compressors (manufacture)

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SIC 2007	SIC 2003	Activity

95110 30020 Repair and maintenance of computer monitors 95110 30020 Repair and maintenance of computer projectors 95110 30020 Repair and maintenance of computer servers 95110 72500 Repair and maintenance of computing machinery 33120 29522 Repair and maintenance of construction machinery (earth moving type) (manufacture)

33120 29523 Repair and maintenance of construction machinery(except earth moving type) (manufacture)

33110 34202 Repair and maintenance of containers for freight(manufacture)

95110 30020 Repair and maintenance of dedicated computerterminals

95110 30020 Repair and maintenance of desktop computers 43220 45330 Repair and maintenance of domestic air conditioning43220 45330 Repair and maintenance of domestic boilers

95220 52740 Repair and maintenance of domestic cookers95220 52740 Repair and maintenance of domestic ovens 95220 52740 Repair and maintenance of domestic ranges

33120 29522 Repair and maintenance of earth-moving andexcavating equipment (manufacture)

33140 31500 Repair and maintenance of electric lightingequipment (manufacture)

33140 31620 Repair and maintenance of electrical signallingequipment (manufacture)

33140 31200 Repair and maintenance of electricity distributionand control apparatus (manufacture)

35130 33202 Repair and maintenance of electricity meters 33130 33100 Repair and maintenance of electrocardiographs (manufacture)

33130 33100 Repair and maintenance of electromedical endoscopic equipment (manufacture)

33130 33201 Repair and maintenance of electronic equipment formeasuring, checking, testing, etc. (manufacture)

43290 29220 Repair and maintenance of elevators and escalators33120 29110 Repair and maintenance of engines and turbines (except aircraft, vehicle and cycle) (manufacture)

33120 29523 Repair and maintenance of equipment for concrete crushing and screening and roadworks (manufacture)

95120 32201 Repair and maintenance of fax machines

33110 29600 Repair and maintenance of firearms and ordnance(manufacture)

33120 29122 Repair and maintenance of fluid power machinery(compressors) (manufacture)

33120 29121 Repair and maintenance of fluid power machinery (pumps) (manufacture)

33120 29320 Repair and maintenance of forestry and loggingmachinery (manufacture)

33120 29210 Repair and maintenance of furnaces and furnaceburners (manufacture)

35220 33202 Repair and maintenance of gas meters

35220 33202 Repair and maintenance of gas meters (non-electronic) (manufacture)

33120 29110Repair and maintenance of gas turbines (manufacture)33120 29240 Repair and maintenance of general purpose machinery n.e.c. (manufacture)

33190 26150 Repair and maintenance of glass tubes, etc. And systems thereof in industrial plants (manufacture)

95110 30020 Repair and maintenance of hand-held computers(PDA's)

33130 33100 Repair and maintenance of hearing aids (manufacture)

33160 35300 Repair and maintenance of helicopters (manufacture)33120 29210 Repair and maintenance of industrial process furnaces (manufacture)

33120 29230 Repair and maintenance of industrial refrigeration equipment, air purifying equipment (manufacture)

33130 33500 Repair and maintenance of industrial time measuring instruments and apparatus (manufacture)

33120 29230 Repair and maintenance of industrial type air conditioning (manufacture)

95110 30020 Repair and maintenance of internal and external computer modems

33170 35430 Repair and maintenance of invalid carriages (manufacture)

33130 33100 Repair and maintenance of irradiation apparatus (manufacture)

95110 30020 Repair and maintenance of keyboards

95110 30020 Repair and maintenance of laptop computers 33120 29220 Repair and maintenance of lifting and handling equipment (manufacture)

33120 29220 Repair and maintenance of lifting, handling equipment, elevators, moving walkways etc. (manufacture)

33120 29220 Repair and maintenance of lifts and escalators (not in buildings or civil engineering) (manufacture)

33120 29560 Repair and maintenance of machinery for bookbinding (manufacture)

33120 29530 Repair and maintenance of machinery for food, beverage and tobacco processing (manufacture)

33120 29510 Repair and maintenance of machinery for metallurgy (manufacture)

33120 29521 Repair and maintenance of machinery for mining (manufacture)

33120 29550 Repair and maintenance of machinery for paper and paperboard production (manufacture)

33120 29560 Repair and maintenance of machinery for printing (manufacture)

33120 29540 Repair and maintenance of machinery for textile, apparel and leather production (manufacture)

33120 29560 Repair and maintenance of machinery for working rubber or plastics (manufacture)

95110 30020 Repair and maintenance of magnetic disk drives 95110 30020 Repair and maintenance of magnetic flash drives and other storage devices

33130 33100 Repair and maintenance of magnetic resonance imaging equipment (manufacture)

33120 29110 Repair and maintenance of marine engines (manufacture)

33130 33201 Repair and maintenance of materials' properties testing and inspection equipment (manufacture)

33130 33100 Repair and maintenance of medical and surgical equipment and apparatus (manufacture)

33140 33100 Repair and maintenance of medical equipment, electrical (manufacture)

33130 33100 Repair and maintenance of medical ultrasound equipment (manufacture)

33120 29420 Repair and maintenance of metal cutting or metal forming machine tools and accessories (manufacture)

33120 29420 Repair and maintenance of metal working machine tools (manufacture)

33130 33201 Repair and maintenance of meteorological instruments (manufacture)

95110 30020 Repair and maintenance of mice, joysticks, and trackball accessories

33190 26810 Repair and maintenance of millstones, grindstones, polishing stones and the like (manufacture)

45400 50400 Repair and maintenance of motor cycles

33140 31100 Repair and maintenance of motor generator sets (manufacture)

SIC 2007	SIC 2003	Activity
33110	28220	Repair and maintenance of non-domestic central boilers (manufacture)
33120	29230	Repair and maintenance of non-domestic cooling and ventilating equipment (manufacture)
33120	29560	Repair and maintenance of non-domestic machinery drying wood, paper pulp, etc. (manufacture)
33140	33202	Repair and maintenance of non-electronic measuring, checking, testing etc. equipment (manufacture)
33110	28300	Repair and maintenance of nuclear reactors (manufacture)
33120	72500	Repair and maintenance of office machinery (other than computers)
43220	45330	Repair and maintenance of office, shop and computer centre air conditioning
33120	29521	Repair and maintenance of oil and gas extraction machinery (manufacture)
95110	30020	Repair and maintenance of optical disk drives (CD-RW, CD-ROM, DVD-ROM, DVD-RW)
33130	33402	Repair and maintenance of optical precision instruments (manufacture)
33120	29430	Repair and maintenance of other machine tools (except metal working) (manufacture)
33120	29420	Repair and maintenance of other machine tools (metal working) (manufacture)
33190	25130	Repair and maintenance of other rubber products (excluding tyres) (manufacture)
33130	33100	Repair and maintenance of pacemakers (manufacture)
33120	29550	Repair and maintenance of papermaking machinery (manufacture)
33110	28300	Repair and maintenance of parts for marine or power boilers (manufacture)
33120	72500	Repair and maintenance of photocopy machines (manufacture)
33120	29560	Repair and maintenance of plastic and rubber working machinery (manufacture)
33190	25210	Repair and maintenance of plastic tubes etc. And systems thereof in industrial plants (manufacture)
33150	35120	Repair and maintenance of pleasure and sporting craft (manufacture)
95110	30020	Repair and maintenance of point-of-sale (pos) terminals
33140	31400	Repair and maintenance of primary and storage batteries (manufacture)
95110	30020	Repair and maintenance of printers
33130	29710	Repair and maintenance of professional electric appliances (manufacture)
33130	33403	Repair and maintenance of professional photographic and cinematographic equipment (manufacture)
95120	32300	Repair and maintenance of professional radio, television, sound and video equipment
33120	29121	Repair and maintenance of pumps (manufacture)
33130	33201	Repair and maintenance of radiation detection and monitoring instruments (manufacture)
95120	32202	Repair and maintenance of radio and television transmitters
95120	32201	Repair and maintenance of radio telephony apparatus
33170	35200	Repair and maintenance of railway cars (manufacture)
33120	29110	Repair and maintenance of railway diesel engines (manufacture)
33170	35200	Repair and maintenance of railway locomotives (manufacture)
33170	35200	Repair and maintenance of railway rolling stock (major) (manufacture)
33140	31200	Repair and maintenance of relays and industrialheating controls (manufacture)
33120	72500	Repair and maintenance of reprographic machinery
33140	31620	Repair and maintenance of road and other non-domestic exterior lighting equipmentfor (manufacture)
52219	63210	Repair and maintenance of rolling stock (minor)
95110	30020	Repair and maintenance of scanners
33110	35500	Repair and maintenance of shopping carts (manufacture)
95110	30020	Repair and maintenance of smart card readers
33160	35300	Repair and maintenance of spacecraft (manufacture)
33120	29560	Repair and maintenance of special purpose machinery n.e.c. (manufacture)
33110	29600	Repair and maintenance of sporting and recreational guns (manufacture)
33110	28300	Repair and maintenance of steam generators (manufacture)
33110	28300	Repair and maintenance of steam or other vapour generators (manufacture)
33120	29110	Repair and maintenance of steam turbines (manufacture)
33130	33201	Repair and maintenance of surveying instruments (manufacture)
33140	31200	Repair and maintenance of switchgear and switchboard apparatus (manufacture)
33110	28210	Repair and maintenance of tanks, reservoirs and containers of metal (manufacture)
33120	29130	Repair and maintenance of taps (manufacture)
95120	32300	Repair and maintenance of telephone answering machines
95120	32201	Repair and maintenance of telephone sets
95120	32201	Repair and maintenance of telex machines and other line telephony or telegraphy equipment
45200	50200	Repair and maintenance of trailers and semi-trailers
33170	35200	Repair and maintenance of tramway rolling stock (manufacture)
33170	35200	Repair and maintenance of transmissions and other parts for locomotives (manufacture)
95120	32202	Repair and maintenance of two-way radios
42220	45213	Repair and maintenance of underground communication lines
33120	29130	Repair and maintenance of valves (manufacture)
33120	29240	Repair and maintenance of vending machines (manufacture)
95110	30020	Repair and maintenance of virtual reality helmets
33110	29600	Repair and maintenance of weapons and weapon systems (manufacture)
33120	29240	Repair and maintenance of weighing equipment (manufacture)
33140	31200	Repair and maintenance of wiring devices for wiring electrical circuits (manufacture)
33190	20510	Repair and maintenance of wooden products n.e.c. (manufacture)
33150	35110	Repair and maintenance or alteration of ships (manufacture)
33190	36300	Repair and rebuilding of organs (in factory) (manufacture)
95290	36300	Repair and reconditioning of musical instruments (except organs and historical musical instruments)
95240	36110	Repair and restoration of chairs and seats
95240	36140	Repair and restoration of furniture n.e.c.
95240	36150	Repair and restoration of mattresses
95240	36130	Repair and restoration of other kitchen furniture

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

95240 36120 Repair and restoration of other office and shop furniture

90030 92319 Repair and restoration of works of art

33140 31100 Repair and rewiring of armatures (manufacture)

33150 35120 Repair and routine maintenance performed on boats by floating dry docks (manufacture)

33150 35110 Repair and routine maintenance performed on ships by floating dry docks (manufacture)

45200 50200 Repair and servicing in garages, of motor vehicles

24200 27220 Repair clamps and collars, made of iron or steel (manufacture)

22190 25130 Repair materials made of rubber (manufacture)

43290 28120 Repair of automated and revolving doors in buildings and civil engineering works (manufacture)

95290 52740 Repair of bicycles

33130 33402 Repair of binoculars (manufacture)

95290 52740 Repair of books

95230 52710 Repair of boots

33120 72500 Repair of calculators (manufacture)

33190 17402 Repair of camping goods made of canvas (manufacture)

45200 50200 Repair of car bodies

45200 50200 Repair of car electrical systems

45200 50200 Repair of car electronics

33170 34203 Repair of caravans

95210 52720 Repair of CD players

95250 52730 Repair of clock cases and housings of all materials

95250 52730 Repair of clock movements and chronometers

95250 52730 Repair of clocks

95220 52720 Repair of clothes dryers

95110 30020 Repair of computers and peripheral equipment

95210 52720 Repair of consumer electronics:

95120 32201 Repair of cordless telephones

33110 28610 Repair of cutlery (manufacture)

95290 52740 Repair of cycles

95210 52720 Repair of domestic audio and video equipment

95220 52720 Repair of domestic electrical appliances

95290 52740 Repair of domestic lighting articles

95210 52720 Repair of dvd players

33130 33301 Repair of electronic industrial process control equipment (manufacture)

33130 33402 Repair of electronic optical equipment (manufacture)

33130 31100 Repair of electronic transformers (solid state), coils, chokes, and other inductors (manufacture)

33130 32100 Repair of electronic valves and tubes and other electronic components (manufacture)

33190 17520 Repair of fishing nets (manufacture)

95230 52710 Repair of footwear and leather goods

45200 50200 Repair of fuel injection systems for motor vehicles

95220 52720 Repair of garden edger

95220 52720 Repair of garden trimmers

33120 29140 Repair of gearing and driving elements (manufacture)

95230 52710 Repair of handbags

33130 32300 Repair of heads (pickup, recording, read/write, etc.), phonograph needles (manufacturing)

95290 52740 Repair of household textile articles

95210 52720 Repair of household-type video cameras

95250 52730 Repair of jewellery

33130 29240 Repair of laboratory distilling apparatus, centrifuges, ultrasonic cleaning machinery (manufacture)

95220 29320 Repair of lawnmowers
33110 28630 Repair of locks and hinges (manufacture)95230 52710 Repair of luggage
33110 28110 Repair of metal structures (manufacture)33130 33402 Repair of microscopes (manufacture) 33130 31620 Repair of mine detectors (manufacture)
95120 52740 Repair of mobile telephones
45200 50200 Repair of motor cars (except roadside assistance)45200 50200 Repair of motor vehicle parts
45200 50200 Repair of motor vehicle seats 45200 50200 Repair of motor vehicle windows
45200 50200 Repair of motor vehicle windscreens
45200 50200 Repair of motor vehicles (except roadside assistance)13940 17520 Repair of nets and ropework (manufacture)
33130 33302 Repair of non-electronic industrial process control equipment (manufacture)
95290 52740 Repair of non-professional photographic equipment
33120 29410 Repair of other power-driven hand-tools (manufacture)
33130 33403 Repair of photographic equipment (manufacture)33190 36300 Repair of pianos (in factory) (manufacture)
33190 36501 Repair of pinball machines and other coin-operatedgames (manufacture)
33190 25240 Repair of plexiglas plane windows (manufacture)33130 33401 Repair of prisms and lenses (manufacture) 95210 52720 Repair of radios
95220 52720 Repair of refrigerators
33190 17520 Repair of rigging (manufacture) 95220 52720 Repair of room air conditioners 33190 17520 Repair of ropes (manufacture)
33190 17402 Repair of sails (manufacture)
42210 45213 Repair of sewer systems
95230 52710 Repair of shoes
95220 52720 Repair of snow and leaf blowers
95290 52740 Repair of sporting and camping equipment(except tents)
33110 28710 Repair of steel shipping drums (manufacture)95220 52720 Repair of stoves
33190 17402 Repair of tarpaulins (manufacture)
33130 33402 Repair of telescopes (manufacture)
95210 52720 Repair of televisions
95290 17402 Repair of tents
33110 28620 Repair of tools (manufacture)
95290 52740 Repair of toys
33120 72500 Repair of typewriters (manufacture)
22110 25120 Repair of tyres and inner tubes by specialists(manufacture)
45200 50200 Repair of tyres and tubes (fitting or replacement)95290 52740 Repair of umbrellas
33120 29130 Repair of valves for machinery (manufacture)95210 52720 Repair of video cassette recorders (VCR) 95220 52720 Repair of washing machines
95250 52730 Repair of watch cases and housings of all materials95250 52730 Repair of watches and clocks
33190 20400 Repair or reconditioning of wooden pallets,shipping drums or barrels (manufacture)
45200 50200 Repair to bodywork of motor vehicles
33140 31100 Repair, maintenance and rewinding of electric motors, generators and transformers (manufacture)

SIC 2007	SIC 2003	Activity
90010	92311	Repertory company
52101	63129	Repository for water transport activities
82990	74879	Repossession services
18130	22240	Reproduction and composing (manufacture)
58190	22150	Reproduction of works of art publishing
82190	74850	Reprographic activities (other than printing)
18130	22250	Reprographic dummies production (manufacture)
18130	22250	Reprographic lay-outs production (manufacture)
18130	22250	Reprographic products production (manufacture)
18130	22250	Reprographic sketch production (manufacture)
15110	19100	Reptile leather (manufacture)
01700	01500	Reptile skin production (from hunting)
01490	01250	Reptile skin production from ranching operation
72190	73100	Research and development consultants (other than biotechnological)
72110	73100	Research and experimental development on bioinformatics
72110	73100	Research and experimental development on cell and tissue culture and engineering
72110	73100	Research and experimental development on DNA/RNA
72110	73100	Research and experimental development on gene RNA vectors
72110	73100	Research and experimental development on nanobiotechnology
72110	73100	Research and experimental development on process biotechnology techniques
72110	73100	Research and experimental development on proteins and other molecules
72190	73100	Research association (other than biotechnological)
72190	73100	Research chemist (private practice)
72190	73100	Research institution (other than biotechnological)
72190	73100	Research laboratory (other than biotechnological)
30110	35110	Research vessel (manufacture)
28120	29122	Reservoir (hydraulic) (manufacture)
28120	29122	Reservoir (pneumatic) (manufacture)
81222	74704	Reservoir and tank cleaning
42210	45240	Reservoir construction
23650	26650	Reservoirs made of fibre-cement (manufacture)
25290	28210	Reservoirs made of metal exceeding 300 litres (manufacture)
22230	25239	Reservoirs made of plastic (manufacture)
46690	51870	Reservoirs, tanks and containers of metal (not for central heating) (300 litres or more) (wholesale)
46740	51540	Reservoirs, tanks and containers of metal for central heating (300 litres or more) (wholesale)
87200	85140	Residential care (paramedical) in group homes for the emotionally disturbed (charitable)
87200	85140	Residential care (paramedical) in mental health halfway houses
87200	85140	Residential care (paramedical) in mental disability facilities
87200	85140	Residential care (paramedical) in psychiatric convalescent homes
87200	85311	Residential care (social) in group homes for the emotionally disturbed (charitable)
87200	85312	Residential care (social) in group homes for the emotionally disturbed (non charitable)
87200	85311	Residential care (social) in mental health halfway (charitable)
87200	85312	Residential care (social) in mental health halfway houses (non-charitable)
87200	85311	Residential care (social) in mental disability facilities (charitable)
87200	85312	Residential care (social) in mental disability facilities (non-charitable)
87200	85311	Residential care (social) in psychiatric convalescent homes (charitable)
87200	85312	Residential care (social) in psychiatric convalescent homes (non-charitable)
87200	85140	Residential care activities (paramedical) for mental health
87200	85140	Residential care activities (paramedical) for mental disability
87200	85140	Residential care activities (paramedical) for substance abuse (charitable)
87200	85312	Residential care activities (social) for mental health (non-charitable)
87200	85311	Residential care activities (social) for learning difficulties (charitable)
87200	85312	Residential care activities (social) for learning difficulties (non-charitable)
87200	85311	Residential care activities (social) for substance abuse (charitable)
87200	85312	Residential care activities (social) for substance abuseand (non-charitable)
87300	85311	Residential care activities for the elderly and disabled (charitable)
87300	85312	Residential care activities for the elderly and disabled (non-charitable)
87300	85311	Residential care home for epileptics (charitable)
87300	85312	Residential care home for epileptics (non-charitable)
87300	85311	Residential care home for disabled children (charitable)
87300	85312	Residential care home for disabled children (non-charitable)
87200	85311	Residential care home for the mentally disabled (charitable)
87200	85312	Residential care home for the mentally disabled (non-charitable)
87200	85311	Residential care home for the mentally ill (charitable)
87200	85312	Residential care home for the mentally ill (non-charitable)
87200	85112	Residential care in alcoholism or drug addiction treatment facilities (private sector)
87200	85111	Residential care in alcoholism or drug addiction treatment facilities (public sector)
87200	85112	Residential care in rehabilitation centres (private sector)
87200	85111	Residential care in rehabilitation health centres (public sector)
68209	70209	Residential chambers letting
68209	70209	Residential mobile home sites operation
87900	85311	Residential nurseries (charitable)
87900	85312	Residential nurseries (non-charitable)
87100	85140	Residential nursing care facilities
87100	85113	Residential nursing care facilities (not directly supervised by medical doctors)
81100	70320	Residents' property management
22290	25240	Resin bonded glass fibre mouldings (excluding for motor vehicles) (manufacture)
02300	02010	Resin gathering
20530	24630	Resinoids (manufacture)
20160	24160	Resins for paint (manufacture)
20160	24160	Resins made of urea formaldehyde (manufacture)
26511	33201	Resistance checking instruments (electronic) (manufacture)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

26110 32100 Resistor (electronic) (manufacture)
27900 32100 Resistors including rheostats and potentiometers(manufacture)
20520 24620 Resorcinol formaldehyde adhesive (manufacture) 32500 33100 Respirator and mask for medical use (manufacture)87100 85140 Rest homes with nursing care
87300 85311 Rest homes without nursing care (charitable) 87300 85312 Rest homes without nursing care (non-charitable)56101 55301 Restaurant (licensed)
56102 55302 Restaurant (unlicensed)
74203 74814 Restoration, copying and retouching of photographs 33190 36300 Restoring of organs and other historical musical instruments (manufacture)
84230 75230 Restrictive Practices Court
32500 33100 Resuscitation equipment (manufacture)
47799 52630 Retail auction house, second-hand goods other than antiques (except internet auctions) (retail)
47791 52630 Retail sale of antiques including antique books in retail auction houses (except internet auctions)
65300 66020 Retirement incomes provision
65300 66020 Retirement plans
46120 51120Retort carbon (commission agent)
43999 45250 Retort setting
23200 26260 Retorts made of fireclay, silica and siliceous (manufacture)
23200 26260 Retorts made of graphite (manufacture)
23200 26260 Retorts made of refractory ceramic (manufacture)18129 22220 Review printing (manufacture)
58142 22130 Review publishing
46690 51870 Revolution and production counters (wholesale) 26511 33201 Revolution counters (electronic) (manufacture)
26513 33202 Revolution counters (non-electronic) (manufacture)
25400 29600 Revolver (manufacture)
46690 51870 Revolvers, pistols and other firearms and similar devices (wholesale)
25120 28120 Revolving doors made of metal (manufacture)90010 92311 Revue company
33140 31100 Rewind electric motor (manufacture)
27110 31100 Rewinding of armatures on a factory basis (manufacture)
24410 27410Rhodium (manufacture)
32990 36631 Ribbon (inked) (manufacture)
13960 17542 Ribbon made of textile (manufacture)10612 15612 Rice cleaning (manufacture)
10612 15612Rice flaking (manufacture)
10612 15612Rice flour production (manufacture)
01120 01110 Rice growing
28930 29530 Rice hullers (manufacture)
10612 15612Rice husking (manufacture)
10612 15612Rice milling (manufacture)
10890 15899 Rice pudding (canned) (manufacture)
10612 15612Rice rolling (manufacture)
10620 15620 Rice starch (manufacture)
01610 01410 Rice transplanting
01610 01410 Rice transplanting, on a fee or contract basis93290 92729 Richmond Park
13922 17402 Rick cloths and covers (manufacture)32990 18241 Riding caps (manufacture)
15120 36639 Riding crops (manufacture)
85510 92629 Riding school

93199 92629 Riding stables
93110 92629 Rifle butts
25930 28730 Rigging for ships (manufacture)
28940 29540 Rigging machinery for textiles (manufacture)26800 24650 Rigid magnetic disk (manufacture)
22210 25210 Rigid plastic foam (manufacture)
22290 25240 Ring binders and folders made of plastic (manufacture)
25930 28740 Ring spring (manufacture)
28940 29540 Ring traveller for textile machinery (manufacture) 22190 25130 Rings and washers made of rubber (manufacture)23990 26821 Rings made of asbestos (manufacture)
32130 36610 Rings, bracelets, necklaces made from base metalsplated with precious metals (manufacture)
28922 29522 Ripper (manufacture)
28921 29521 Riser connector apparatus (manufacture)
36000 41000 River management
42910 45240 River work construction
25940 28740 Rivet (manufacture)
22290 25240 Road cones made of plastic (manufacture)42110 45230 Road construction and repair
19201 23201 Road coverings derived from crude petroleum orbituminous minerals (manufacture)
49410 60249 Road haulage contracting for general hire or reward49410 60249 Road haulage contractor
08120 14210 Road metal production (crushed and processed)28921 29521 Road ripper for mining (manufacture)
28923 29523 Road roller (manufacture)
46630 51820 Road rollers (wholesale)
22290 25240 Road signs made of plastic (manufacture)42110 45230 Road surface markings painting
29100 34100 Road tanker (not trailer) (manufacture)29202 34202 Road tractor trailer (manufacture)
29100 34100 Road tractor unit (manufacture)
77120 71219Road trailer hire
29320 34300 Road wheels for motor vehicle (manufacture)52219 63210 Roads operation
71200 74300 Road-safety testing of motor vehicles 52219 50200 Roadside assistance for motor vehicles08120 14210 Roadstone (coated) production
46120 51120Roasted iron pyrites (commission agent)46750 51550 Roasted iron pyrites (wholesale)
27510 29710 Roasters (electric) (manufacture)
10890 15899 Roasting of nuts (manufacture)
14120 18210 Robes for academic, legal and ecclesiastical use(manufacture)
28220 29220 Robots designed for lifting and handling in industry(manufacture)
28990 29560 Robots for multiple industrial uses (manufacture)32300 36400 Rock climbing equipment (manufacture)
28921 29521 Rock cutting machinery (manufacture)
28240 29410 Rock drill (portable) (manufacture)
25730 28620 Rock drilling and earth boring interchangeable tools(e.g. Augers, boring bits, drills) (manufacture)
28921 29521 Rock drilling machinery (manufacture)
43120 45110Rock removal
08930 14400 Rock salt production
28921 29521 Rocker shovel for mining (manufacture)30300 35300 Rocket (aerospace) (manufacture)
25400 29600 Rocket launch systems (manufacture)

SIC 2007	SIC 2003	Activity
30300	35300	Rocket motor (manufacture)
23410	26210	Rockingham ware (manufacture)
23990	26829	Rockwool (manufacture)
81291	74703	Rodent destroying (not agricultural)
01610	01410	Rodent destroying and trapping on agricultural land
20200	24200	Rodenticide (manufacture)
93290	92349	Rodeos
24420	27420	Rods made of aluminium (manufacture)
24440	27440	Rods made of brass (manufacture)
24440	27440	Rods made of copper (manufacture)
23190	26150	Rods made of glass (manufacture)
22190	25130	Rods made of rubber (manufacture)
24100	27100	Rods made of steel (in coils) (manufacture)
24100	27100	Rods of stainless steel (manufacture)
25930	28730	Rods or wires (coated/covered with flux) for gas welding, soldering or brazing (manufacture)
10200	15209	Roe production (manufacture)
28960	29560	Roll mill for rubber or plastic (manufacture)
23110	26110	Rolled glass (manufacture)
24420	27420	Rolled products made of aluminium (manufacture)
24440	27440	Rolled products made of copper (manufacture)
28940	29540	Roller (textile machinery accessory) (manufacture)
28150	29140	Roller bearing (manufacture)
13922	17402	Roller blinds made of canvas (manufacture)
16290	20510	Roller blinds made of wood (manufacture)
22190	25130	Roller coverings made of rubber (manufacture)
22190	25130	Roller covers made of rubber (manufacture)
28302	29320	Roller for agricultural use (manufacture)
32990	36631	Roller pens and refills (manufacture)
13300	17300	Roller printing of textiles (manufacture)
32300	36400	Roller skates (manufacture)
93110	92611	Roller skating rink
15120	19200	Roller skin (cut) made of leather (manufacture)
13923	17403	Roller towel (manufacture)
32910	36620	Rollers for paint (manufacture)
24420	27420	Rolling ingots and slabs made of aluminium (manufacture)
28910	29510	Rolling mill for metals (manufacture)
16290	20510	Rolling pins made of wood
30200	35200	Rolling stock (manufacture)
32200	36300	Rolls for automatic mechanical instruments (manufacture)
25500	28400	Rolls made of alloy or steel forgings (manufacture)
28910	29510	Rolls made of iron or steel (manufacture)
25990	28750	Rolls made of metal for cable, hose, etc. (manufacture)
13921	17401	Roman blinds (manufacture)
94910	91310	Roman Catholic Church
43910	45220	Roof covering
43910	45220	Roof covering erection
43290	45320	Roof insulation contractor
22230	25239	Roof lights made of plastic (manufacture)
16230	20300	Roof struts (manufacture)
28921	29521	Roof support (hydraulic) (manufacture)
25110	28110	Roof trusses made of metal (manufacture)
23610	26610	Roof units made of precast concrete (manufacture)
25940	28740	Roofbolts, plates and accessories (manufacture)
43910	45220	Roofing contractor
23320	26400	Roofing tiles made of ceramic (manufacture)
23610	26610	Roofing tiles made of precast concrete (manufacture)
23320	26400	Roofing tiles made of unglazed clay (manufacture)
31090	36140	Room divide system (manufacture)
25120	28120	Room partitions made of metal, for floor attachment (manufacture)
55900	55239	Rooming and boarding houses
28302	29320	Root crop harvesting and sorting machinery (manufacture)
01130	01120	Root vegetable growing
28922	29522	Rooter (not agricultural) (manufacture)
01130	01110	Roots and tubers growing
01130	01110	Roots and tubers with a high starch or inulin content
46410	51410	Rope (new) (wholesale)
13940	17520	Rope and cables of textile fibres (manufacture)
23990	26821	Rope lagging made of asbestos (manufacture)
13940	17520	Rope made of cotton (manufacture)
22190	25130	Rope made of rubber (manufacture)
25930	28730	Rope made of wire (manufacture)
28990	29560	Rope making machines (manufacture)
13940	17520	Rope or cable fitted with metal rings (manufacture)
13940	17520	Rope products (manufacture)
13940	17520	Rope slings (manufacture)
13940	17520	Rope walk (manufacture)
13940	17520	Rope, cord and line made of sisal (manufacture)
13940	17520	Rope, cord or line made of jute (manufacture)
13940	17520	Rope, cord or line made of manila (manufacture)
13940	17520	Rope, cord or line made of man-made fibre (manufacture)
20140	24140	Rosin and resin acid (manufacture)
94990	91330	Rotary clubs
46690	51870	Rotary displacement compressors (single or multi shaft) (wholesale)
28131	29121	Rotary piston lobe-type pumps (manufacture)
46690	51870	Rotary positive displacement pumps for liquids (wholesale)
28921	29521	Rotary tables (manufacture)
28132	29122	Rotating compressors (manufacture)
30300	35300	Rotor blades for aircraft (manufacture)
28220	29220	Rough terrain industrial trucks (manufacture)
08110	14110	Rough trimming and sawing of building and monumental stone
94990	91330	Round Table
28990	36639	Roundabout for fairground (manufacture)
24100	27100	Rounds of semi-finished steel for seamless tube production (manufacture)
02200	02010	Roundwood production (untreated)
02200	02010	Roundwood production for forest-based manufacturing industries
26301	32201	Routers for telecommunications (manufacture)
28940	29540	Roving frames (manufacture)
30120	35120	Rowing boat (manufacture)
93120	92629	Rowing club
94120	91120	Royal Academy of Arts
85320	80220	Royal Academy of Dramatic Art
94120	91120	Royal Aeronautical Society
94120	91120	Royal Agricultural Society of England
84220	75220	Royal Air Force Establishments (civilian personnel)
84220	75220	Royal Air Force Establishments (service personnel)
94990	91330	Royal Automobile Club headquarters
52219	50200	Royal Automobile Club road patrols

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

79110 63301 Royal Automobile Club touring department91040 92530 Royal Botanical Gardens
94120 91120Royal College of Midwives
94120 91120Royal College of Nursing
94120 91120Royal College of Physicians
94120 91120Royal College of Surgeons
50200 61102Royal Fleet Auxiliary
94120 91120Royal Geographical Society
94990 91330 Royal Horticultural Society
94120 91120Royal Institute of Chartered Surveyors94120 91120 Royal Institute of Public Health
84220 75220 Royal Marines
88990 85321 Royal Masonic Benevolent Institute
32110 36210 Royal Mint (manufacture)
84220 75220 Royal Navy establishments (civilian personnel) 84220 75220 Royal Navy establishments (service personnel) 72190 73100 Royal Observatory
93290 92729 Royal Park
94990 91330 Royal Scottish Automobile Club
91020 92521 Royal Scottish Museum (Edinburgh)
94120 91120Royal Society
94120 91120Royal Society for Health
94990 91330 Royal Society for the Prevention of Accidents 94990 91330 Royal Society for the Prevention of Cruelty to Animals (not animal hospitals or homes)94120 91120 Royal Society of Medicine
94120 91120Royal Statistical Society
94120 91120Royal United Services Institution
22190 25130 Rubber (vulcanized, unvulcanized or hardened)(manufacture)
46760 51550 Rubber (wholesale)
20590 24660 Rubber accelerators (manufacture)
20520 24620 Rubber based glues and adhesives (manufacture) 20301 24301 Rubber based paint (chlorinated) (manufacture) 13940 17520 Rubber coated twine, cordage rope and cables of textile fibres (manufacture)
25610 28510 Rubber coating of metals (manufacture)22190 25130 Rubber compounds (manufacture)
32500 25130 Rubber gloves (medical) (manufacture)
46690 51870 Rubber or plastics working machinery (wholesale)20590 24660 Rubber processing chemicals (manufacture)
22190 25130 Rubber products (manufacture)
22190 25130 Rubber thread (uncovered) (manufacture)
13960 17542 Rubber thread and cord, textile covered, coated orsheathed with rubber or plastics (manufacture)
13960 17542 Rubber thread or cord covered with textile material(manufacture)
01290 01110Rubber trees growing for harvesting of latex22110 25110 Rubber tyres for furniture and other uses (manufacture)
22110 25110 Rubber tyres for mobile machinery (manufacture)22110 25110 Rubber tyres for toys (manufacture)
28960 29560 Rubber working machinery (manufacture)
22190 25130 Rubberised fabrics (manufacture)
22190 25130 Rubberised hair (manufacture)
22190 25130 Rubberised textile fabric (manufacture)
13300 17300 Rubberising of purchased garments (manufacture)20170 24170 Rubber-like gums (balata, etc.) (manufacture) 08990 14500 Rubbing stone mine, pit or quarry
38110 90020 Rubbish collection

47510 52410 Rug making materials (retail)
96010 93010 Rug shampooing
13931 17512 Rug tufting (manufacture)
13931 17511 Rug weaving (not travelling rug) (manufacture) 93199 92629 Rugby League
93199 92629 Rugby Union
13939 17519 Rugs (other than woven or tufted) (manufacture) 47530 52481 Rugs (retail)
46470 51479 Rugs (wholesale)
13939 17519 Rugs made of coir (manufacture) 13939 17519 Rugs made of rag (manufacture) 14200 18300 Rugs made of sheepskin (manufacture) 14200 18300 Rugs made of skins (manufacture) 28290
33202 Rule (measuring) (manufacture)
22290 25240 Rulers made of plastic (manufacture)
28990 29560 Ruling machinery for printing (manufacture) 11010 15910 Rum distilling (manufacture)
29320 34300 Running gear for motor vehicles (manufacture) 16290 20520 Rush matting (manufacture)
10720 15820 Rusk making (manufacture)
96040 93040 Russian baths
31090 36140 Rustic furniture (manufacture)
10611 15611 Rye (manufacture)
10611 15611 Rye flaking (manufacture)
10611 15611 Rye flour and meal (manufacture) 01110 01110 Rye growing
10611 15611 Rye milling (manufacture)
10611 15611 Rye rolling (manufacture)
20140 24140 Saccharin tablet (manufacture)
22220 25220 Sachets made of plastic (manufacture) 13922 17402 Sacks (woven) (manufacture)
46410 51410 Sacks and bags (wholesale)
13922 17402 Sacks and bags made of noil (manufacture) 17211 21211 Sacks and bags made of paper (manufacture) 46160 51160 Sacks and bags used for packing of goods (commission agent)
13922 17402 Sacks for coal (manufacture)
13922 17402 Sacks made of canvas (manufacture) 13922 17402 Sacks made of jute (manufacture)
17120 21120 Sacks made of kraft paper (manufacture)
22220 25220 Sacks made of non-woven polyethylene (manufacture)
17211 21211 Sacks made of paper (manufacture) 22220 25220 Sacks made of plastic (manufacture)
25990 28750 Sacrificial anodes made of zinc, magnesium or othernon-ferrous metal (manufacture)
15120 19200 Saddle horse (manufacture)
15120 19200 Saddlery (manufacture)
47722 52432 Saddlery (retail)
15120 19200 Saddlery and harness made of leather (manufacture) 46499 51479 Saddlery and leather goods (wholesale)
30910 35410 Saddles for motorcycles (manufacture) 30920 35420 Saddles for pedal cycles (manufacture) 25990 28750 Safe (manufacture)
52103 63129 Safe deposit company
30300 35300 Safety belt or harness for aircraft crew or passengers(manufacture)
29320 34300 Safety belts for cars
(manufacture) 15200 19300 Safety boots (manufacture)

SIC 2007	SIC 2003	Activity
28301	29310	Safety frame for tractors (manufacture)
20510	24610	Safety fuse (manufacture)
46120	51120	Safety fuses, detonating fuses, caps, igniters and electric detonators (commission agent)
23120	26120	Safety glass (manufacture)
32990	28750	Safety headgear made of metal (manufacture)
32990	25240	Safety helmets made of plastic (manufacture)
25930	28730	Safety pins (manufacture)
25710	28610	Safety razors (manufacture)
28140	29130	Safety valves (manufacture)
01110	01110	Safflower seed growing
23200	26260	Saggar (manufacture)
10612	15612	Sago grinding or milling (manufacture)
32300	36400	Sailboards (manufacture)
30120	35120	Sailboat building (manufacture)
46499	51479	Sailboats for pleasure or sports (wholesale)
13200	17250	Sailcloth weaving (manufacture)
30120	35120	Sailing boats less than 100 gross tons (manufacture)
14131	18221	Sailing clothing for men and boys (weatherproof) (manufacture)
14132	18222	Sailing clothing for women and girls (weatherproof) (manufacture)
85530	80410	Sailing schools not issuing commercial certificates and permits
30300	35300	Sailplane (manufacture)
13922	17402	Sails (manufacture)
46499	51479	Sails (wholesale)
46180	51180	Sails for boats, sailboards or landcraft (commission agents)
01190	01110	Sainfoin growing
11030	15949	Sake (manufacture)
10840	15870	Salad cream (manufacture)
10840	15870	Salad dressing (manufacture)
10130	15139	Salami (manufacture)
47810	52620	Sale of food beverages and tobacco via stalls and markets (retail)
35230	40220	Sale of gas to the user through mains
96030	93030	Sale of graves
47890	52620	Sale via stalls and markets of books (retail)
47890	52620	Sale via stalls and markets of carpets and rugs (retail)
47820	52620	Sale via stalls and markets of clothing
47890	52620	Sale via stalls and markets of consumer electronics (retail)
47820	52620	Sale via stalls and markets of footwear (retail)
47890	52620	Sale via stalls and markets of games and toys (retail)
47890	52620	Sale via stalls and markets of household appliances (retail)
47890	52620	Sale via stalls and markets of music and video recordings (retail)
47820	52620	Sale via stalls and markets of textiles (retail)
78109	74500	Sales management recruitment consultant
46180	51180	Salicylic acids, o-acetylsalicylic acid and their salts and esters (commission agent)
21100	24410	Salicylic medicaments (manufacture)
21100	24410	Salines (manufacture)
03220	05020	Salmon and trout fishery (hatchery), freshwater
03210	05020	Salmon and trout fishery (hatchery), marine
03110	05010	Salmon netting
08930	14400	Salt crushing, purification and refining by the producer
08930	14400	Salt extraction
08930	14400	Salt, extraction of, from underground including by dissolving and pumping
08930	14400	Salt mine
08930	14400	Salt preparation (not at salt mine or brine pit)
08930	14400	Salt production
08930	14400	Salt production by evaporation of sea water or other saline waters
09900	14400	Salt production support services provided on a fee or contract basis
08930	14400	Salt works
10840	14400	Salt, processing of into food-grade salt, iodised salt (manufacture)
10720	15820	Salted crackers (manufacture)
46120	51120	Salts of oxometallic or perometallic acids (commission agent)
52220	63220	Salvage activities supporting water transport activities
30110	35110	Salvage vessel (manufacture)
94910	91310	Salvation army
96090	93059	Salvation army emigration department
87900	85311	Salvation army shelter (charitable)
23410	26210	Samian ware (manufacture)
18140	22230	Sample card finishing (manufacture)
15120	19200	Sample case made of leather (manufacture)
18140	22230	Sample mounting in support of printing activities (manufacture)
86101	85112	Sanatoria providing hospital type care (private sector)
86101	85111	Sanatoria providing hospital type care (public sector)
46730	51530	Sand (wholesale)
46730	51530	Sand and gravel merchant (wholesale)
43999	45250	Sand blasting for building exteriors
28290	29240	Sand blasting machines (manufacture)
25610	28510	Sand blasting of metals (manufacture)
24540	27540	Sand casting of non-ferrous base metal (manufacture)
08120	14210	Sand dredging
08120	14210	Sand extraction and dredging for industrial use
28990	29560	Sand handling, mixing, treatment or reclamation plant for foundries (manufacture)
08120	14210	Sand pit
08120	14210	Sand quarry
15200	19300	Sandals (manufacture)
43390	45450	Sandblasting of buildings
28490	29430	Sanding and polishing machines for wood (not portable) (manufacture)
81299	90030	Sanding or salting of highways, etc.
28240	29410	Sanding tool (powered portable) (manufacture)
23910	26810	Sandpaper (manufacture)
08110	14110	Sandstone mine, pit or quarry
56103	55303	Sandwich bar
10720	15820	Sandwich cake baking (manufacture)
24330	28110	Sandwich panels of coated steel sheet (manufacture)
10840	15870	Sandwich spread (manufacture)
10890	15512	Sandwiches with cheese filling (manufacture)
10890	15899	Sandwiches with egg filling (manufacture)
10890	15209	Sandwiches with fish, crustacean and mollusc filling (manufacture)
10890	15139	Sandwiches with ham or bacon filling (manufacture)
10890	15139	Sandwiches with meat or poultry filling, other than ham or bacon (manufacture)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

10890 15330 Sandwiches with vegetable filling (manufacture) 13300 17300 Sanforising of textiles and textile articles, including wearing apparel (manufacture) 20412 24512 Sanitary cleanser (manufacture)
43220 45330 Sanitary engineering for buildings
47520 52460 Sanitary equipment (retail)
23420 26220 Sanitary fixtures made of ceramic (manufacture) 46740 51540 Sanitary installation connections, rubber pipes (wholesale)
46740 51540 Sanitary installation equipment (wholesale) 46740 51540 Sanitary installation taps, t-pieces (wholesale)
46740 51540 Sanitary installation tubes, pipes, fittings (wholesale) 46730 51530 Sanitary porcelain (wholesale)
28140 29130 Sanitary taps (manufacture)
17220 21220 Sanitary towels made of paper (manufacture) 17220 17549 Sanitary towels made of textile wadding (manufacture)
28140 29130 Sanitary valves (manufacture)
46730 51530 Sanitary ware (wholesale)
25990 28750 Sanitary ware and fittings made of metal (manufacture)
23420 26220 Sanitary ware made of ceramics (manufacture) 23420 26220 Sanitary ware made of fireclay (manufacture) 22230 25239 Sanitary ware made of plastic (manufacture)
23420 26220 Sanitary ware made of vitreous china (manufacture) 13940 17520 Sash line (manufacture)
15120 19200 Satchels made of leather (manufacture) 13200 17210 Sateen weaving (manufacture)
61300 64200 Satellite circuit rental services
51220 62300 Satellite launching
46520 51860 Satellite navigation (wholesale)
26309 32202 Satellite relay (manufacture)
61900 64200 Satellite terminal stations
61900 64200 Satellite tracking
30300 35300 Satellites (manufacture)
13200 17240 Satin weaving (manufacture)
17120 21120 Saturated and impregnated base paper (manufacture)
10840 15870 Sauce (manufacture)
25990 28750 Saucepan (manufacture)
25990 28750 Saucepans made of aluminium (manufacture) 96040 93040 Saunas
47520 52460 Saunas (retail)
16230 20300 Saunas made from wood (manufacture)
10720 15820 Sausage filler made of cereal (manufacture) 10130 15139 Sausage meat (manufacture)
10130 15139 Sausage rolls (manufacture)
46320 51320 Sausage skins (wholesale)
10110 15112 Sausage skins and casings (natural) (manufacture) 10130 15139 Sausages (manufacture)
10130 15139 Saveloys (manufacture)
64191 65121 Savings bank
28490 28620 Saw blades for machines including wood cutting (manufacture)
46770 51570 Sawdust (wholesale)
28410 29420 Sawing machine (metal cutting) (manufacture) 28490 29430 Sawing machine for wood (manufacture) 28490 29430 Sawing machines for stone, ceramics, asbestos-cement or similar materials (manufacture)
02200 02010 Sawlog production

16100 20100 Sawmilling (manufacture)
16100 20100 Sawn fencing (manufacture)
25730 28620 Saws (hand tools) (manufacture)
28240 29410 Saws (powered portable) (manufacture)
25730 28620 Saws and sawblades (manufacture)
46740 51540 Saws and sawblades (wholesale)
46740 51540 Saws, screwdrivers and similar hand tools (wholesale)
25110 28110 Scaffolding (manufacture)
77320 71320 Scaffolding hire (without staff)
43991 45250 Scaffolding hiring and erecting
24200 27220 Scaffolding tubes made of steel (manufacture)43991 45250 Scaffolds and work platform erecting and dismantling
46499 51477 Scale models (wholesale)
28290 29240 Scales (platform) (manufacture) 28290 29240 Scales for domestic use (manufacture)28290 29240 Scales for postal use (manufacture) 28290 29240 Scales for shop use (manufacture)
46120 51120Scandium, yttrium and mercury (commission agent)28990 29560 Scanner (printing machinery) (manufacture)
26200 30020 Scanners for computer use (manufacture)14190 18249 Scarf (lace or knitted) (manufacture) 14190 18249 Scarf (not lace or knitted) (manufacture) 90030 92319 Scenario writer
46690 51870 Scene lighting, road lighting and other lighting (notdomestic) (wholesale)
90020 92311 Scene shifters and lighting engineers77210 71401 Scenery rental
51102 62201 Scenic and sightseeing flights
90030 92319 Scenic artist
32990 36639 Scent sprays (manufacture)
46750 51550 Scents (wholesale)
49390 60211 Scheduled long-distance bus services
13990 17541 Schiffli embroidery (manufacture)
85600 93059 Scholastic agent
85600 93059 School agent
49390 60219 School bus service
56290 55510School canteen
56290 55520 School canteen (run by catering contractor)84240 75240 School crossing patrols
86900 85140 School dental nurse
55900 55239 School dormitories
85310 80210 School examination board
86900 85140 School health service
86900 85140 School medical clinic
86210 85120 School medical officer 85320 80220 School of arts and crafts85410 80301 School of languages
85530 80410 School of motoring
85320 80220 School of speech and drama74201 74812 School photography
17230 22220 School stationery (manufacture)
22290 25240 School supplies made of plastic (manufacture)91020 92521 Science museums
72190 73100 Science research council
26513 33202 Scientific laboratory equipment (non-electrical ornon-optical) (manufacture)
77390 71340 Scientific machinery rental and operating leasing

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32990 36639 Scientific models for educational and exhibition purposes (manufacture)
94120 91120 Scientific organisation
32500 33100 Scintigraphy apparatus (manufacture)
26600 33100 Scintillation scanners (manufacture)
28220 29220 Scissor lift (manufacture)
25710 28610 Scissors (manufacture)
10720 15820 Scone baking (manufacture)
32409 36509 Scooters for children (manufacture)
86900 85140 Scottish Ambulance Service
94920 91320 Scottish Nationalist Party
41202 45212 Scottish Special Housing Association (building work)
25990 28750 Scourers made of metal (manufacture)
28940 29540 Scouring machinery for textiles (manufacture)
25990 28750 Scouring pads made of metal (manufacture)
20412 24512 Scouring paste or powder coated paper (manufacture)
20412 24512 Scouring pastes (manufacture)
20412 24512 Scouring powder (manufacture)
94990 91330 Scout Association
46770 51570 Scrap (wholesale)
46770 51570 Scrap iron (wholesale)
46770 51570 Scrap leather (wholesale)
46770 51570 Scrap merchant (general dealer) (wholesale)
46770 51570 Scrap metal (wholesale)
38320 37100 Scrap metal recycling into new raw materials (except remelting of ferrous waste and scrap)
28922 29522 Scraper (earth moving equipment) (manufacture)
25730 28620 Scraper (hand tool) (manufacture)
46630 51820 Scrapers (wholesale)
15110 18300 Scraping of fur skins and hides with the hair on (manufacture)
43999 45250 Screed laying
26702 33403 Screen for cinema (manufacture)
18129 22220 Screen printing (except silk screen printing on textiles and apparel) (manufacture)
18129 22220 Screen printing (manufacture)
18129 22220 Screen printing of logos (manufacture)
13300 17300 Screen printing of textiles (manufacture)
18129 22220 Screen printing on glass or pottery (manufacture)
20302 24302 Screen process ink (manufacture)
28290 29240 Screening plant (not for mines) (manufacture)
28290 29240 Screening plant for effluent treatment (manufacture)
31010 36120 Screens (non-domestic) (manufacture)
16290 20520 Screens made of plaiting materials (manufacture)
25920 28720 Screw caps made of metal (manufacture)
28132 29122 Screw compressor (manufacture)
25940 28740 Screw machine products (manufacture)
28131 29121 Screw pump (manufacture)
25730 28620 Screwdrivers (manufacture)
46740 51540 Screwdrivers (wholesale)
28410 29420 Screwing machines (metal cutting) (manufacture)
25940 28740 Screws (self tapping) (manufacture)
22290 25240 Screws made of plastic (manufacture)
25940 28740 Screws of all types made of metal (manufacture)
13200 17250 Scrim weaving from flax, hemp, ramie and man-made fibres processed on the flax system (manufacture)
69109 74119 Scrivenery
28250 29230 Scrubber for air conditioning equipment (manufacture)

32910 36620 Scrubbing brush (manufacture)
46499 51479 Scuba diving breathing equipment (wholesale)
90030 92319 Sculptors
13100 17140 Scutching of flax (manufacture)
25730 28620 Scythe (manufacture)
50100 61101 Sea ferry (passenger)
52290 63400 Sea freight forwarder activities
30110 35110 Sea going luxury yachts of 100 gross tons or more (manufacture)
01700 01500 Sea mammal catching
08930 14400 Sea salt production
94990 91330 Sea scout association
03110 05010 Sea urchin hunting
36000 41000 Sea water desalination
47230 52230 Seafood and seafood products (retail)
28930 29530 Sea-food processing machines and equipment (manufacture)
01700 01500 Seal catching
23990 26829 Sealants (bituminous) (manufacture)
23990 26829 Sealants (oil based) (manufacture)
20301 24303 Sealants (other than bituminous or oil based) (manufacture)
28290 29240 Sealing machinery (manufacture)
09100 11200 Sealing of oil and gas wells
46499 51479 Sealing or numbering stamps (wholesale)
32990 36631 Sealing stamps (manufacture)
32990 36631 Seals for use with sealing wax (manufacture)
22190 25130 Seals made of rubber (manufacture)
24520 27520 Seamless pipes of steel by centrifugal casting (manufacture)
24520 27520 Seamless tubes of steel by centrifugal casting (manufacture)
27400 31500 Search light (manufacture)
10840 15870 Seasoning (manufacture)
03110 05010 Sea-squirt hunting
31090 36110 Seating (manufacture)
31010 36110 Seating for office or school (manufacture)
31090 36110 Seating made of metal (not for road vehicle or aircraft) (manufacture)
30300 36110 Seats for aircraft (manufacture)
31010 36110 Seats for cinema (manufacture)
29320 36110 Seats for motor vehicles (manufacture)
30110 36110 Seats for ships and floating structures (manufacture)
31010 36110 Seats for theatre (manufacture)
32990 36639 Seat-sticks (manufacture)
03110 05010 Seaweed collecting, cutting and gathering (uncultivated)
10200 15209 Seaweed processing (manufacture)
25730 28620 Secateurs (manufacture)
27200 31400 Secondary battery (manufacture)
24440 27440 Secondary copper (manufacture)
85310 80210 Secondary level education
85310 80210 Secondary modern schools
85310 80210 Secondary schools
47799 52509 Second-hand books (retail)
47799 52509 Second-hand clothing (retail)
47799 52509 Second-hand furniture (retail)
47799 52509 Second-hand general goods (retail)
85320 80220 Secretarial college
28250 29230 Sectional coldroom (manufacture)

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

24330 27330 Sections cold formed from flat steel products(manufacture)
30110 35110 Sections for ships and floating structures (manufacture)
24420 27420 Sections made of aluminium (manufacture)24440 27440 Sections made of brass (manufacture) 24440 27440 Sections made of copper (manufacture) 24100 27100 Sections of stainless steel (manufacture) 66120 67122 Securities broking
64991 65233 Securities dealer on own account 66120 67122 Securities dealing on behalf of others66110 67110 Securities exchanges administration
64999 65239 Securitization activities
80100 74602 Security activities (not government)
26301 31620 Security alarms and systems (manufacture)
66120 67122 Security and commodity contracts dealing activities 74909 74602 Security consultancy for industrial, household and public services
80100 74602 Security delivery of prisoners
80100 74602 Security guard services
82920 74820 Security packaging of pharmaceutical preparations17120 21120 Security paper (manufacture)
18129 22220 Security printing (manufacture)
25110 28110 Security screens made of metal (manufacture) 80100 74602 Security shredding of information on any media80200 74602 Security systems service activities
80100 74602 Security transport of valuables and money
28290 29240 Sedimentation plant for effluent treatment (manufacture)
10410 15410 Seed and nut crushing (manufacture)
28302 29320 Seed cleaner or pre-cleaner for agricultural use(manufacture)
01640 01110Seed cleaning and treating (cereals and other crops) 01640 01410 Seed cleaning and treating (fee or contract basis) 01640 01139 Seed cleaning and treating (fruit, nuts, beverage and spice crops)
01640 01120Seed cleaning and treating (vegetables, horticultural specialties and other nursery products)
28302 29320 Seed cleaning, sorting or grading machines (manufacture)
20200 24200 Seed dressing (manufacture)
01640 01110Seed drying (cereals and other crops)01640 01410 Seed drying (fee or contract basis)
01640 01139Seed drying (fruit, nuts, beverage and spice crops)
01640 01120Seed drying (vegetables, horticultural specialties andother nursery products)
01640 01110Seed genetically modified, treatment of these(cereals and other crops)
01640 01410Seed genetically modified, treatment of these (fee orcontract basis)
01640 01139Seed genetically modified, treatment of these (fruit,nuts, beverage and spice crops)
01640 01120Seed genetically modified, treatment of these (vegetables, horticultural and other nursery products)
01640 01110Seed grading (cereals and other crops)01640 01410 Seed grading (fee or contract basis)
01640 01139Seed grading (fruit, nuts, beverage and spice crops)
01640 01120Seed grading (vegetables, horticultural specialtiesand other nursery products)
01640 01110Seed post harvest processing (cereals and othercrops)
01640 01410Seed post harvest processing (fee or contract basis)

01640 01139 Seed post harvest processing (fruit, nuts, beverage and spice crops)
01640 01120 Seed post harvest processing (vegetables, horticultural specialties and other nursery products)
46210 51210 Seed potatoes (wholesale)
01640 01110 Seed processing for propagation (cereals and other crops)
01640 01410 Seed processing for propagation (fee or contract basis)
01640 01139 Seed processing for propagation (fruit, nuts, beverage and spice crops)
01640 01120 Seed processing for propagation (vegetables, horticultural specialties and other nursery products)
01190 01120 Seed production for flowers, fruit or vegetables (not for oil)
22290 25240 Seed trays made of plastic (manufacture)
28302 29320 Seeders (manufacture)
47760 52489 Seeds (retail)
46210 51210 Seeds (wholesale)
23910 26810 Segment bonded abrasive (manufacture)
71122 74206 Seismic surveying for petroleum
26511 33201 Seismometers (electronic) (manufacture)
26513 33202 Seismometers (non-electronic) (manufacture)
30200 35200 Self-propelled railway car (manufacture)
10611 15611 Self-raising and patent flour (manufacture)
22290 25240 Self-adhesive tapes made of plastic (manufacture)
17230 21230 Self-copy paper ready for use (manufacture)
30200 35200 Self-propelled railway or tramway coaches, vans, maintenance or service vehicles (manufacture)
56101 55301 Self-service restaurant (licensed)
56102 55302 Self-service restaurant (unlicensed)
17110 21110 Semi-bleached paper pulp made by chemical dissolving (manufacture)
17110 21110 Semi-bleached paper pulp made by mechanical processes (manufacture)
17110 21110 Semi-bleached paper pulp made by non-dissolving processes (manufacture)
17110 21110 Semi-bleached paper pulp made by semi-chemical processes (manufacture)
17110 21110 Semi-chemical woodpulp (manufacture)
19100 23100 Semi-coke (manufacture)
26110 32100 Semi-conductor (not power) (manufacture)
26110 31100 Semi-conductor control equipment (converters) (manufacture)
46520 51860 Semi-conductor devices (wholesale)
26110 24660 Semi-finished dice or wafers, semiconductor (manufacture)
22190 25130 Semi-finished products made of rubber (manufacture)
24100 27100 Semi-finished products of stainless steel (manufacture)
24440 27440 Semi-manufactures made of copper (manufacture)
24450 27450 Semi-manufacturing of chrome (manufacture)
24450 27450 Semi-manufacturing of manganese (manufacture)
24450 27450 Semi-manufacturing of nickel (manufacture)
85320 80220 Seminary
08990 14500 Semi-precious stones extraction
29202 34202 Semi-trailers (manufacture)
45190 50101 Semi-trailers (retail)
45190 50102 Semi-trailers (used) (retail)
45190 50102 Semi-trailers (used) (wholesale)
45190 50101 Semi-trailers (wholesale)

SIC 2007	SIC 2003	Activity
13100	17130	Semi-worsted yarn spinning (manufacture)
10611	15611	Semolina milling (manufacture)
20590	24640	Sensitized cloth (manufacture)
20590	24640	Sensitized emulsions for photographic use (manufacture)
20590	24640	Sensitized paper (manufacture)
26514	33302	Sensor for electric process control equipment (manufacture)
09100	11200	Separation terminal operation (natural gas)
28930	29530	Separators for the grain milling industry (manufacture)
37000	90010	Septic tanks emptying and cleaning
21200	24421	Sera (manufacture)
56290	55510	Sergeants' messes
21200	24421	Serum albumin (manufacture)
26200	30020	Servers and network servers (manufacture)
52230	63230	Service activities incidental to air transportation
52230	62300	Service activities incidental to space transportation
68209	70209	Service flat letting
28302	29320	Servicing of agricultural machinery (manufacture)
95220	52720	Servicing of clothes dryers
95220	52720	Servicing of domestic electrical appliances
95220	52720	Servicing of garden edger
95220	52720	Servicing of garden trimmers
95220	29320	Servicing of lawnmowers
45200	50200	Servicing of motor vehicles
95220	52720	Servicing of refrigerators
95220	52720	Servicing of room air conditioners
95220	52720	Servicing of snow and leaf blowers
95220	52720	Servicing of stoves
95220	52720	Servicing of washing machines
17220	21220	Serviettes made of paper (manufacture)
25990	28750	Serving dishes made of base metal (manufacture)
10410	15420	Sesame oil refining (manufacture)
10410	15410	Sesame seed crushing (manufacture)
01110	01110	Sesame seed growing
08110	14110	Sett quarry
31090	36110	Settee (manufacture)
28290	29240	Settlement plant for water treatment (manufacture)
37000	90010	Sewage farm
71122	74206	Sewage treatment consultancy activities
28290	29240	Sewage treatment plant (manufacture)
37000	90010	Sewage works
42210	45213	Sewerage construction
37000	90010	Sewerage system maintenance and operation
28940	29540	Sewing machine (manufacture)
28940	29540	Sewing machine heads (manufacture)
28990	29560	Sewing machinery for bookbinding (manufacture)
47540	52450	Sewing machines (retail)
46640	51830	Sewing machines (wholesale)
25930	28730	Sewing needles (manufacture)
47510	52410	Sewing thread (retail)
13100	17160	Sewing thread made of cotton (manufacture)
16290	20510	Sewing thread reels and similar articles of turned wood (manufacture)
46410	51410	Sewing thread, etc. (wholesale)
22190	36639	Sex articles of rubber (manufacture)
26511	33201	Sextant (electronic) (manufacture)
26513	33202	Sextant (non-electronic) (manufacture)
25990	28750	Shackle (manufacture)
23190	26150	Shades made of glass (manufacture)
28150	29140	Shaft bearings (manufacture)
28150	29140	Shaft couplings (manufacture)
43999	45250	Shaft drilling (civil engineering)
43999	45250	Shaft sinking
19201	23201	Shale oil refining (manufacture)
01130	01120	Shallot growing
20420	24520	Shampoo (manufacture)
46180	51180	Shampoos, hair lacquers and permanent waving or straightening preparations (commission agent)
11070	15980	Shandy (manufacture)
24100	27100	Shapes of stainless steel (manufacture)
28410	29420	Shaping machine (metal cutting) (manufacture)
66120	67122	Share dealer on behalf of others
64991	65233	Share dealer on own account
61100	64200	Shared business telephone network services (wired telecommunications)
23910	26810	Sharpening stones made of bonded abrasives (manufacture)
25730	28620	Shave hook (manufacture)
27510	29710	Shaver (electric) (manufacture)
46439	51439	Shavers and hair clippers with self-contained motors (wholesale)
32910	36620	Shaving brush (manufacture)
20420	24520	Shaving cream (brushless) (manufacture)
20420	24520	Shaving cream (manufacture)
20420	24520	Shaving preparations (manufacture)
46180	51180	Shaving preparations, personal deodorants and antiperspirants (commission agent)
20420	24511	Shaving soap (manufacture)
14190	18249	Shawls (manufacture)
10410	15420	Shea butter (manufacture)
10410	15410	Shea nut crushing (manufacture)
15110	18300	Shearing and plucking of fur skins and hides with the hair on (manufacture)
28410	29420	Shearing machine (metal forming) (manufacture)
28940	29540	Shearing machinery for textiles (manufacture)
25730	28620	Shears for agricultural or horticultural use (manufacture)
25730	28620	Shears for garden use (manufacture)
22190	25130	Sheath contraceptives made of rubber (manufacture)
25710	28610	Sheath knife (manufacture)
25110	28110	Sheds made of metal (manufacture)
16230	20300	Sheds made of wood (manufacture)
46230	51230	Sheep (wholesale)
01629	01429	Sheep agisting (grazing)
32500	24422	Sheep and cattle dressings (manufacture)
10110	15113	Sheep and lambskin pulling (manufacture)
20200	24200	Sheep dip (manufacture)
01450	01220	Sheep farming
01450	01220	Sheep milk (raw) production
13940	17520	Sheep net (manufacture)
01450	01220	Sheep raising and breeding
01629	01429	Sheep shearing on a fee or contract basis
25730	28620	Sheep shears (not power) (manufacture)
15110	19100	Sheep skin preparation (manufacture)
46730	51530	Sheet glass merchant (wholesale)
13923	17403	Sheet hemming (textiles) (manufacture)
28410	29420	Sheet metal forming machine (manufacture)

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SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

18129 22220 Sheet metal printing (manufacture)
25620 28520 Sheet metal working (manufacture)
47591 52450 Sheet music (retail)
18129 22220 Sheet music printing (manufacture)
24100 27100 Sheet piling production (manufacture)
23990 26821 Sheeting made of non-woven asbestos/rubbercomposite (manufacture)
22230 25239 Sheeting made of plastic for roofing and cladding(manufacture)
13200 17250 Sheeting weaving from flax and man-made fibresprocessed on the flax system (manufacture)
13200 17210Sheeting weaving from yarn spun on the cottonsystem (manufacture)
23990 26821 Sheets and sheeting made of woven asbestos(manufacture)
24420 27420 Sheets made of aluminium (manufacture) 24440 27440 Sheets made of brass (manufacture) 22210 25210 Sheets made of cellophane (manufacture)23610 26610 Sheets made of concrete (manufacture) 24440 27440 Sheets made of copper (manufacture)
16290 20520 Sheets made of cork (manufacture)
23650 26650 Sheets made of fibre cement (manufacture)23140 26140 Sheets made of glass fibre (manufacture)
22210 25210 Sheets made of laminated thermosetting plastic(manufacture)
23620 26620 Sheets made of plaster (manufacture) 22210 25210 Sheets made of plastic (manufacture) 22210 25210 Sheets made of polyethylene (manufacture)
22210 25210 Sheets made of polypropylene (manufacture)
22210 25210 Sheets made of polyvinyl chloride (PVC) (manufacture)
22190 25130 Sheets made of rubber (manufacture)47510 52410 Sheets made of textiles (retail)
24330 27330 Sheets of square corrugated steel (manufacture)25300 28300 Shell boiler (manufacture)
25400 29600 Shell case (manufacture)
28930 29530 Shell fish processing machines and equipment(manufacture)
20301 24301 Shellac varnish (manufacture)
47230 52230 Shellfish (retail)
46380 51380 Shellfish (wholesale)
10200 15201 Shellfish freezing (manufacture)
10200 15209 Shellfish preserving (not freezing) (manufacture)
87900 85311 Shelter (the charity)
31010 36120 Shelving (non-domestic) (manufacture)
84230 75230 Sheriff's Court (Scotland)
69109 74119Sheriff's officer
08120 14210 Shingle dredging
16230 20300 Shingles and shakes (manufacture)
81291 74703 Ship disinfecting and exterminating activities
81291 74703 Ship fumigating and scrubbing
77342 71229 Ship hire for freight (without crew)
77341 71221 Ship hire for passengers (without crew)
85530 80410 Ship licence tuition (not commercial certificates)
64922 65223 Ship mortgage finance company
25990 28750 Ship propellers (manufacture)
25990 28750 Ship propeller blades of metal (manufacture)
77341 71221 Ship rental for passengers (without operator)
71200 74300 Ship surveyor
30110 35110 Shipbuilding (manufacture)

22230 25239 Shiplap cladding made of plastic (manufacture)52290 63400 Shipping agent or broker

85530 80410 Shipping schools not issuing commercial certificatesand permits

46140 51140Ships (commission agent)

46690 51870 Ships and boats for the carriage of passengers orgoods (wholesale)

46690 51870 Ships and boats propellers and blades (wholesale)20301 24301 Ship's bottom composition (manufacture)

71200 74300 Ships certification

46900 51900 Ships chandler (wholesale)

13940 17520 Ship's fenders (manufacture)

27320 31300 Ship's wiring (manufacture)

94990 91330 Shire Horse Association

96010 93010 Shirt and collar pressing

14190 18249 Shirt front (manufacture)

14190 18249 Shirt neckband (manufacture)

13200 17250 Shirting weaving from flax and man made fibreprocessed on the flax system (manufacture)

13200 17210Shirting weaving from yarn spun on the cottonsystem (manufacture)

14120 18210 Shirts for industrial use (manufacture) 14141 18231 Shirts for men and boys (manufacture)

14142 18232 Shirts for women and girls (manufacture)

29320 34300 Shock absorber for motor vehicle (manufacture)

30200 35200 Shock absorbers; bodies; etc. of railway or tramwaylocomotives or of rolling stock (manufacture)

46760 51560 Shoddy (carded or combed) (wholesale)32910 36620 Shoe brush (manufacture)

20412 24512Shoe dye (manufacture)

13990 17542 Shoe laces (braided) (manufacture) 22290 25240 Shoe lasts made of plastic (manufacture)16290 19300 Shoe parts made of wood (manufacture)20412 24512 Shoe polish (manufacture)

96090 93059 Shoe shiners

13960 17542 Shoe trimmings made of textile materials (manufacture)

15200 19300 Shoes (manufacture)

47721 52431 Shoes (retail)

46420 51423 Shoes (wholesale)

15200 19300 Shoes made of wood (manufacture) 16290 20510 Shoetrees made of wood (manufacture)93120 92629 Shooting clubs

93290 92349 Shooting galleries

28990 36639 Shooting galleries (manufacture)

43320 45420 Shop fitter

31010 36120 Shop fixtures for display and storage of goods (manufacture)

25120 28120 Shop fronts and entrances made of aluminium(manufacture)

16230 20300 Shop fronts made of wood (manufacture)68209 70209 Shop letting

15120 19200 Shopping bags made of plastic (designed forprolonged use) (manufacture)

15120 19200 Shopping bags made of stitched plastic (manufacture)

30990 35500 Shopping carts (hand-propelled) (manufacture)

52220 63220 Shore base (sea transport)

82190 74850 Shorthand writing

28230 30010 Shorthand writing machines (manufacture)

49200 60109 Shortline freight railways

SIC 2007	SIC 2003	Activity
14131	18221	Shorts for men and boys (manufacture)
25610	28510	Shot peening of metals (manufacture)
43390	45450	Shotblasting of buildings
28922	29522	Shovel loaders (manufacture)
25730	28620	Shovels (manufacture)
31010	36120	Show case (manufacture)
18129	22220	Showcard (manufacture)
22230	25239	Shower baths made of plastic (manufacture)
25990	28750	Shower cabinets made of metal (manufacture)
73110	74402	Showroom design
38320	37100	Shredding of metal waste, end-of-life vehicles
10200	15209	Shrimp preserving (not freezing) (manufacture)
03220	05020	Shrimp production (post-larvae), freshwater
03210	05020	Shrimp production (post-larvae), marine
03110	05010	Shrimping
46380	51380	Shrimps (wholesale)
28940	29540	Shrinking machines for textiles (manufacture)
13300	17300	Shrinking of textiles and textile articles, including wearing apparel (manufacture)
32500	17403	Shroud and cerement (manufacture)
13922	17402	Shutes made of canvas (manufacture)
25110	28110	Shuttering made of steel (manufacture)
16230	20300	Shuttering made of wood (manufacture)
25120	28120	Shutters made of metal (manufacture)
22230	25239	Shutters made of plastic (manufacture)
16230	20300	Shutters made of wood (manufacture)
28940	29540	Shuttle (textile machinery accessory) (manufacture)
28940	29540	Shuttle changing machinery (manufacture)
25730	28620	Sickles (manufacture)
28220	29220	Side loader (manufacture)
31090	36140	Sideboard (manufacture)
30910	35410	Sidecars for motorcycles (manufacture)
28930	29530	Sieving belts (manufacture)
28930	29530	Sifters (manufacture)
26701	33402	Sight telescopes (manufacture)
49390	60231	Sightseeing buses
43210	45340	Sign (electric) erection and maintenance
25990	28750	Sign plates made of metal (manufacture)
30200	35200	Signal box equipment (manufacture)
27900	31620	Signal generator (manufacture)
20510	24610	Signal rocket (manufacture)
30200	35200	Signalling equipment for airports, inland waterways, ports, roads and tramways (manufacture)
30200	31620	Signalling equipment for railways (electro mechanical) manufacture
27900	31620	Signalling equipment for road traffic (electric) (manufacture)
46120	51120	Signalling flares, rain rockets, fog signals and other pyrotechnic articles (commission agent)
23190	26150	Signalling glassware (manufacture)
30200	35200	Signalling, safety and traffic control equipment for railways (manufacture)
30200	31620	Signalling, safety or traffic control equipment (electrical) (manufacture)
22290	25240	Signs made of plastic (manufacture)
16290	20510	Signs made of wood (manufacture)
73110	74402	Signwriting
28302	29320	Silage making machinery (manufacture)
29320	34300	Silencer for motor vehicle (manufacture)
08990	14500	Silica stone extraction or quarrying

46750 51550 Silicates, borates, perborates and other salts of inorganic acids or peroxoacids (wholesale)
08990 14500 Siliceous fossil meals mining
24100 27100 Silico manganese steel (manufacture)
46120 51120 Silicon and sulphur dioxide (commission agent) 46750 51550 Silicon and sulphur dioxide (wholesale)
20160 24160 Silicones (manufacture)
46120 51120 Silicones in primary forms (commission agent) 46760 51550 Silicones in primary forms (wholesale)
13300 17300 Silk bleaching (manufacture)
13100 17150 Silk creping (manufacture)
13300 17300 Silk dyeing (manufacture)
13300 17300 Silk finishing and weighting (manufacture) 13300 17300 Silk printing (manufacture)
13300 17300 Silk screen-printing on wearing apparel (manufacture)
13100 17150 Silk throwing (manufacture)
13100 17150 Silk twisting (manufacture)
13200 17240 Silk type fabrics (manufacture)
13100 17150 Silk warping (manufacture)
13100 17150 Silk waste noil spinning (manufacture) 13100 17150 Silk winding (manufacture)
01490 01250 Silk worm cocoon production
01490 01250 Silk worm raising
13200 17240 Silk woven cloth (manufacture)
13100 17150 Silk yarn (manufacture)
46410 51410 Silk yarn and fabrics (wholesale)
25290 28210 Silos made of steel exceeding 300 litres (manufacture)
16230 20300 Silos made of wood (manufacture) 20160 24160 Siloxanes (manufacture)
24410 27410 Silver (manufacture)
32120 36220 Silver burnishing (manufacture)
07290 13200 Silver mining and preparation
07290 13200 Silver ore and concentrate extraction and preparation
27200 31400 Silver oxide cells (manufacture)
24410 27410 Silver rolled onto base metals production (manufacture)
32120 36220 Silversmiths' work (manufacture)
47789 52489 Silverware (retail)
02100 02010 Silviculture and other forestry activities 27900 31620 Simulator (battle) (manufacture)
27900 31620 Simulator (driving) (manufacture)
27900 31620 Simulator (other training (except flying trainers))(manufacture)
28940 29540 Singeing machinery for textiles (manufacture) 90010 92311 Singer (own account)
10910 15710 Single feeds, unmixed, for farm animals (manufacture)
24340 27340 Single strand wire made of steel (manufacture) 20600 24700 Single yarn of man-made continuous fibres, including high tenacity and textured yarn (manufacture) 28921 29521 Sinking machine for mining (manufacture) 23420 26220 Sinks made of ceramic fireclay (manufacture) 23650 26650 Sinks made of fibre cement (manufacture)
25990 28750 Sinks made of metal (other than cast iron) (manufacture)
22230 25239 Sinks made of plastic (manufacture) 25500 28400 Sintering of metals (manufacture)

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

29310 31610 Sirens for motor vehicles (manufacture)
01160 01110 Sisal growing and other textile fibre of the genus agave growing
43120 45110 Site preparation
85310 80210 Sixth form colleges
28990 29560 Size reduction equipment for the chemical industry (manufacture)
28990 29560 Size separation equipment for the chemical industry (manufacture)
28940 29540 Sizing machinery for textiles (manufacture)
32300 36400 Skateboards (manufacture)
29202 34202 Skeletal trailer (motor drawn) (manufacture)
18130 22250 Sketches for presentation (manufacture)
49390 60239 Ski and cable lifts operation
32300 36400 Ski bindings and poles (manufacture)
85510 92629 Ski instructor (own account)
28220 29220 Ski lifts (manufacture)
14190 18249 Ski suits (manufacture)
20412 24512 Ski wax (manufacture)
32300 36400 Ski-boots (manufacture)
25930 28740 Skid chain (manufacture)
30120 35120 Skiff building (manufacture)
32300 36400 Skiing equipment (manufacture)
20420 24520 Skin care preparations (manufacture)
10110 15111 Skin drying (manufacture)
10110 15111 Skin pickling (manufacture)
10110 15111 Skin production from slaughterhouses (manufacture)
10110 15111 Skin sorting (manufacture)
46240 51249 Skins (wholesale)
38110 90020 Skip hire (waste transportation)
28921 29521 Skip plant for mining (manufacture)
15120 19200 Skips made of leather (manufacture)
22230 25239 Skirting boards made of plastic (manufacture)
16100 20100 Skirting boards made of unmoulded wood (manufacture)
14132 18222 Skirts for women and girls (dressmade) (manufacture)
32300 36400 Skis (manufacture)
77210 71401 Skis renting and leasing
93110 92629 Skittle alley
25120 28120 Skylights made of metal (manufacture)
24440 27440 Slabs made of brass (manufacture)
24440 27440 Slabs made of copper (manufacture)
16290 20520 Slabs made of cork (manufacture)
23140 26140 Slabs made of glass fibre (manufacture)
14132 18222 Slacks for women and girls (manufacture)
23510 26510 Slag cement (manufacture)
23990 26829 Slag wool (manufacture)
23520 26520 Slaked lime (manufacture)
46730 51530 Slate (wholesale)
08110 14130 Slate mine or quarry
23700 26700 Slate polishing (manufacture)
09900 14130 Slate quarrying support services provided on a fee or contract basis
23700 26700 Slate slab and sheet cutting and preparation (manufacture)
46730 51530 Slate slabs (wholesale)
23700 26700 Slate working (manufacture)
46730 51479 Slates and boards (wholesale)
32990 36631 Slates for writing (manufacture)

16290 20510 Slats for the manufacture of pencils (manufacture) 10110 15111 Slaughterhouse (manufacture)
28930 29530 Slaughterhouse machinery (manufacture)
10110 15111 Slaughterhouses killing, dressing or packing meat(manufacture)
10120 15120Slaughterhouses killing, dressing or packing poultry(manufacture)
30990 35500 Sledges (hand-propelled) (manufacture)
24100 27100 Sleepers (cross ties) made of iron or steel (hot rolled)(manufacture)
46730 51530 Sleepers (wholesale)
16100 20100 Sleepers made of wood (manufacture)13923 17403 Sleeping bag (manufacture)
46180 51180Sleeping bags (commission agent) 24200 27220 Sleeves made of steel (manufacture)28930 29530 Slicers for bakeries (manufacture)
74203 74814 Slide and negative duplicating
32990 36639 Slide fasteners (manufacture)
25990 36639 Slide fasteners made of metal (manufacture) 22290 36639 Slide fasteners made of plastic (manufacture)74203 74814 Slide mounting
26702 33403 Slide projector (manufacture)
26513 33202 Slide rules (manufacture)
15200 19300 Slipper soles (manufacture)
15200 19300 Slippers (manufacture)
14142 18232 Slips (manufacture)
28950 29550 Slitting machine for paper (manufacture) 28940 29540 Slitting machinery for textiles (manufacture)25730 28620 Slitting saw (manufacture)
28940 29540 Sliver can (textile machinery accessory)
(manufacture)13100 17120 Sliver dyeing of wool (manufacture)
13910 17600 Sliver knitted fabric (manufacture)
01240 01139Sloe growing
77390 71340 Slot machine rental
28410 29420 Slotting machine (metal working) (manufacture)28110 29110 Slow speed diesel engine for marine use (manufacture)
13300 17300 Slub dyeing (manufacture)
13100 17120Slubbing dyeing of wool (manufacture)30110 35110 Sludge vessel (manufacture)
24420 27420 Slugs made of aluminium (manufacture) 25110 28110 Sluice gates made of steel (manufacture) 49500 60300 Slurry transport via pipelines
25400 29600 Small arms (manufacture)
25990 28750 Small metal hand-operated kitchen appliances andaccessories (manufacture)
13300 17300 Small ware bleaching (manufacture)
13300 17300 Small ware dyeing (manufacture)
13990 17542 Small ware made of textiles (manufacture)86101 85111 Smallpox hospital (public sector)
26200 30020 Smart card readers (manufacture)
26120 32100 Smart cards (manufacture)
28210 29210 Smelting furnace (manufacture)
26511 33201 Smoke detection equipment (electronic) (manufacture)10130 15139 Smoked meat (other than bacon and ham) (manufacture)
10200 15209 Smoked salmon, trout and herring production(manufacture)
32990 36639 Smokers' requisites (manufacture)
47260 52260 Smokers' requisites (retail)

SIC 2007	SIC 2003	Activity
32990	36639	Smoking pipes (manufacture)
46499	51479	Smoking pipes and cigarette and cigar holders (wholesale)
46439	51439	Smoothing irons (electric) (wholesale)
27510	29710	Smoothing irons (manufacture)
56103	55303	Snack bar
10720	15820	Snack products of puffed or extruded farinaceous or proteinaceous materials (manufacture)
10720	15820	Snack products whether sweet or salted (manufacture)
01490	01250	Snail farming
32990	36639	Snap fasteners (manufacture)
93120	92629	Snooker club
81299	90030	Snow and ice clearing of highways, etc.
28923	29523	Snow blowers (manufacture)
29100	34100	Snow mobiles (manufacture)
28923	29523	Snow ploughs (manufacture)
46499	51479	Snow skis, ice skates and roller skates (wholesale)
46690	51870	Snow-ploughs and blowers (wholesale)
12000	16000	Snuff (manufacture)
20411	24511	Soap (manufacture)
46450	51450	Soap (wholesale)
46180	51180	Soap and organic surface-active products and preparations for use as soap (commission agent)
20411	24511	Soap chips (manufacture)
20411	24511	Soap flakes (manufacture)
28990	29560	Soap making machinery (manufacture)
20411	24511	Soap or detergent coated felt, paper and wadding (manufacture)
20411	24511	Soap powder (manufacture)
94990	91330	Social club (not licensed to sell alcohol)
56301	55401	Social clubs (licensed to sell alcohol)
94920	91320	Social Democratic and Labour Party
86220	85120	Social medicine specialist (private practice)
86101	85111	Social medicine specialist (public sector)
72200	73200	Social Science Research Council
72200	73200	Social sciences research and experimental development
88990	85322	Social Services Department
88990	85321	Social welfare society (charitable)
88990	85321	Social work activities for immigrants (charitable)
88990	85322	Social work activities for immigrants (non-charitable)
87900	85311	Social work activities with accommodation (charitable)
87900	85312	Social work activities with accommodation (non-charitable)
88990	85321	Social work activities without accommodation (charitable)
88990	85322	Social work activities without accommodation (non-charitable)
88990	85321	Social worker (charitable)
88990	85322	Social worker (non-charitable)
94120	91120	Society of Apothecaries
94120	91120	Society of Arts
94910	91310	Society of Friends
72200	73200	Sociology research and experimental development
25730	28620	Socket set (manufacture)
27330	31200	Sockets (electric) (manufacture)
14310	17710	Socks and stockings (knitted) (manufacture)
14310	17710	Socks for children (manufacture)
14310	17710	Socks for men (manufacture)
14310	17710	Socks for women and girls (manufacture)
23990	26821	Socks made of asbestos (manufacture)
15200	19300	Socks made of leather (manufacture)
46750	51550	Soda (wholesale)
11070	15980	Soda water (manufacture)
20130	24130	Sodium and sodium compounds (manufacture)
46120	51120	Sodium nitrate (commission agent)
46750	51550	Sodium nitrate (wholesale)
27400	31500	Sodium vapour lamp (manufacture)
31090	36110	Sofa (manufacture)
31090	36110	Sofa sets (manufacture)
31090	36110	Sofabeds (manufacture)
11070	15980	Soft drinks (manufacture)
10519	15519	Soft drinks (milk based) (manufacture)
47250	52250	Soft drinks (retail)
46341	51341	Soft drinks (wholesale)
46341	51341	Soft drinks exporter (wholesale)
46341	51341	Soft drinks importer (wholesale)
28930	29530	Soft drinks machinery (manufacture)
13921	17401	Soft furnishing articles, made-up, of knitted or crocheted fabrics (manufacture)
13921	17401	Soft furnishing articles, made-up, of textile material (manufacture)
13921	17401	Soft furnishings (manufacture)
47599	52440	Soft furnishings (retail)
46180	51180	Soft goods (commission agent)
32409	36509	Soft toys (manufacture)
46510	51840	Software (non customised) (wholesale)
47410	52482	Software (non-customised) (retail)
58290	72210	Software (ready-made) publishing (except computer games publishing)
62020	72220	Software consultancy
69109	74111	Software copyright consultancy activities
62090	72220	Software disaster recovery services
62012	72220	Software house
62090	72220	Software installation services
18203	22330	Software reproduction from master copies (manufacture)
62012	72220	Software systems maintenance services
20200	24200	Soil fumigant (manufacture)
26110	32100	Solar panels (photovoltaic cell type) (manufacture)
28210	29720	Solar panels, domestic (other than photovoltaic cell type) (manufacture)
28210	29720	Solar panels, non-domestic (other than photovoltaic cell type) (manufacture)
96040	93040	Solariums
24450	27450	Solder (manufacture)
27900	29430	Soldering irons (electrical, hand-held) (manufacture)
27900	29430	Soldering machines (electric) (manufacture)
28290	29430	Soldering machines (gas) (manufacture)
15110	19100	Sole leather preparation (manufacture)
24100	27100	Sole plates (hot rolled) (manufacture)
26110	32100	Solenoids for electronic apparatus (manufacture)
69102	74113	Solicitor (own account)
19201	10103	Solid fuel briquettes production (manufacture)
46719	51519	Solid fuels (wholesale)
19201	10103	Solid fuels production (manufacture)
24420	27420	Solid sections made of aluminium (manufacture)
19201	10103	Solid smokeless ovoids and briquettes preparation (manufacture)

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

27900 31100 Solid state battery chargers (manufacture)
26110 32100 Solid state circuit (manufacture)
27900 31100 Solid state fuel cells (manufacture)
27900 31100 Solid state inverters (manufacture)
10832 15862 Soluble coffee (manufacture)
10620 15620 Soluble starch (manufacture)
10831 15861 Soluble tea (manufacture)
20120 24120 Solvent dye (manufacture)
28290 29240 Solvent extraction equipment for the chemical industry (manufacture)
28290 29240 Solvent recovery equipment for the chemical industry (manufacture)
26511 33201 Sonar (manufacture)
90030 92319 Song writer
10520 15520 Sorbet production (manufacture)
01110 01110 Sorghum growing
38320 37200 Sorting and pelleting of plastics to produce secondary raw material for tubes, flower pots, pallets
38320 37200 Sorting and pelleting of plastics to produce secondary raw materials
28923 29523 Sorting, grinding and mixing machinery for earth, stones and other mineral substances (manufacture)
23990 26829 Sound absorbing materials (manufacture)
77210 71401 Sound equipment rental
26400 32300 Sound heads (manufacture)
23990 26829 Sound insulating materials (manufacture)
26120 32100 Sound interface cards (manufacture)
29310 31610 Sound or visual signalling equipment for cycles and motor vehicles (manufacture)
26400 32300 Sound recording and reproducing equipment (manufacture)
59200 22140 Sound recording publishing
18201 22310 Sound recording reproduction (manufacture)
59200 92119 Sound recording studios
61100 64200 Sound transmission via cables, broadcasting, relay or satellite
10890 15891 Soup containing meat or vegetables or both (manufacture)
01240 01139 Sour cherry growing
47789 52489 Souvenirs (retail)
10410 15410 Soya bean crushing (manufacture)
10612 15612 Soya bean grinding (manufacture)
10612 15612 Soya bean milling (manufacture)
10410 15410 Soya bean oil (crude) (manufacture)
10410 15420 Soya bean oil refining (manufacture)
10612 15612 Soya flour and meal (manufacture)
01110 01110 Soya growing
27520 29720 Space heaters (gas) (manufacture)
27520 29720 Space heaters (oil) (manufacture)
27510 29710 Space heaters for domestic use (electric) (manufacture)
46439 51439 Space heating and soil heating apparatus (electric) (wholesale)
30300 35300 Space shuttles (manufacture)
51220 62300 Space transport
51220 62300 Space transport of freight
51220 62300 Space transport of passengers
51220 62300 Space vehicle launching
30300 35300 Spacecraft (manufacture)

25730 28620 Spade (manufacture)
10730 15850 Spaghetti (manufacture)
10730 15850 Spaghetti canning (manufacture)
25730 28620 Spanner (manufacture)
28410 29420 Spark erosion machines (metal working) (manufacture)
46690 51870 Spark ignition and compression ignition engines (except motor vehicle and outboard) (wholesale)
28110 29110 Spark ignition engines for industrial use (manufacture)
29310 31610 Sparking plug (manufacture)
11020 15931 Sparkling wine (manufacture)
96040 93040 Spas
15200 19300 Spats made of leather (manufacture) 26400 32300 Speaker systems (manufacture)
90010 92319 Speakers (after dinner etc.)
86101 85112 Special hospital (private sector)
86101 85111 Special hospital (public sector)
29203 34203 Special purpose caravans (manufacture) 46690 51870 Special purpose machinery n.e.c. (wholesale) 17120 21120 Special purpose paper (manufacture)
30200 35200 Special purpose railway wagon (manufacture) 85200 80100 Special schools at primary and pre-primary level 85310 80210 Special schools at secondary level
46499 51479 Special sports footwear such as ski boots (wholesale) 28220 29220 Special steelworks crane (manufacture)
81222 74704 Specialised cleaning of tanks and reservoirs 39000 90030 Specialised pollution control activities
86220 85120 Specialist (not employed full time by a hospital) 86220 85120 Specialist medical consultant (private practice) 86220 85120 Specialist medical consultation and treatment 86220 85120 Specialist physician and surgeon (private practice) 15120 19200 Spectacle cases made of leather (manufacture) 32500 33401 Spectacle frames (manufacture)
23190 26150 Spectacle glass (manufacture)
32500 33401 Spectacle lens (manufacture)
32500 33401 Spectacle mounts (manufacture)
32500 33401 Spectacles (manufacture)
47782 52487 Spectacles (retail)
26511 33201 Spectrofluorimeter (electronic) (manufacture)
26513 33202 Spectrofluorimeter (non-electronic) (manufacture)
26511 33201 Spectrograph (electronic) (manufacture)
26513 33202 Spectrograph (non-electronic) (manufacture)
26511 33201 Spectrometers (electronic) (manufacture)
26513 33202 Spectrometers (non-electronic) (manufacture)
26511 33201 Spectrophotometer (manufacture)
26511 33201 Spectrum analysers (manufacture)
86900 85140 Speech therapist (NHS)
86900 85140 Speech therapist (own account)
28150 29140 Speed changers (manufacture)
46690 51870 Speed indicators and tachometers (wholesale) 85590 80429 Speed reading instruction
26511 33201 Speedometers (electronic) (manufacture)
26513 33202 Speedometers (non-electronic) (manufacture)
93199 92629 Speedway racing
46720 51520 Spelter (wholesale)
38120 40110 Spent (irradiated) fuel elements (cartridges) of nuclear reactors
20130 23300 Spent nuclear fuel re-processing (manufacture)

SIC 2007	SIC 2003	Activity
86900	85140	Sperm banks
10410	15420	Sperm oil refining (manufacture)
28150	29140	Spherical roller bearings (manufacture)
24100	27100	Spheroidal graphite pig iron (manufacture)
10840	15870	Spice (ground) (manufacture)
10840	15870	Spice (purifying) (manufacture)
46370	51370	Spice (wholesale)
46170	51170	Spice broker (commission agent)
01280	01139	Spice crops growing
24100	27100	Spiegeleisen (manufacture)
16290	20510	Spills made of wood (manufacture)
27510	29710	Spin dryer
01130	01120	Spinach growing
28940	29540	Spindles (textile machinery accessories) (manufacture)
28940	29540	Spindles and spindle flyers (manufacture)
13100	17160	Spinning and manufacture of yarn for weaving, for the trade or for further processing (manufacture)
13100	17160	Spinning and manufacture of yarn or sewing thread, for the trade or further processing (manufacture)
28410	29420	Spinning lathes (metal working) (manufacture)
28940	29540	Spinning machinery for textiles (manufacture)
28940	29540	Spinning machines (manufacture)
13100	17110	Spinning on the cotton system (manufacture)
13100	17140	Spinning on the flax system (manufacture)
13100	17120	Spinning on the woollen system (manufacture)
13100	17130	Spinning on the worsted and semi-worsted systems (manufacture)
16290	20510	Spinning wheels made of wood (manufacture)
18140	22230	Spiral binding and finishing of books and brochures (manufacture)
11010	15910	Spirit distilling and compounding (manufacture)
26513	33202	Spirit level (manufacture)
20140	24140	Spirit of turpentine (manufacture)
46342	51342	Spirits (wholesale)
94910	91310	Spiritualist church
96090	93059	Spiritualists' activities
32500	33100	Splints (manufacture)
02200	02010	Split pole production
16100	02010	Split poles, pickets and other products (manufacture)
28490	29430	Splitting or cleaving machines for stone, ceramics, asbestos-cement or similar (manufacture)
28490	29430	Splitting, stamping and fragmenting machines (manufacture)
02200	02010	Splitwood production
25730	28620	Spoke shave (manufacture)
32990	36639	Sponge bleaching (manufacture)
13990	36639	Sponge dressing (manufacture)
03110	05010	Sponge gathering
46210	51210	Sponge importer (wholesale)
24100	27100	Sponge iron (manufacture)
32990	36639	Sponge trimming (manufacture)
22190	25130	Sponges made of rubber (manufacture)
28940	29540	Spool (textile machinery accessory) (manufacture)
28940	29540	Spooling machinery for carpet making (manufacture)
17290	21259	Spools made of paper (manufacture)
16290	20510	Spools made of wood (manufacture)
25710	28610	Spoons made of metal (manufacture)
22290	25240	Spoons made of plastic (manufacture)
16290	20510	Spoons made of wood (manufacture)
14190	18249	Sporran (manufacture)
85510	92629	Sport and game schools
42990	45230	Sport facilities construction
32300	36400	Sport fishing requisites (manufacture)
46160	51160	Sport nets (commission agent)
25400	29600	Sporting carbine (manufacture)
46180	51180	Sporting goods (commission agent)
25400	29600	Sporting gun (manufacture)
25400	29600	Sporting rifle (manufacture)
32300	36400	Sports and outdoor and indoor games, articles and equipment (manufacture)
85510	92629	Sports and recreation education
42990	45230	Sports and recreation grounds, laying out
93110	92629	Sports arenas
15120	19200	Sports bags made of fabric (manufacture)
15120	19200	Sports bags made of leather (manufacture)
46420	51429	Sports clothes (wholesale)
93120	92629	Sports club
32300	36400	Sports equipment made of plastic (manufacture)
77210	71401	Sports equipment rental
93110	92619	Sports facilities operation
15200	19300	Sports footwear (manufacture)
32300	36400	Sports gloves (specialist) (manufacture)
32300	36400	Sports goods (manufacture)
47640	52485	Sports goods (retail)
46499	51479	Sports goods (wholesale)
15120	19200	Sports goods carrier (manufacture)
65120	66031	Sports insurance
93199	92629	Sports leagues and regulating bodies
13940	17520	Sports nets (manufacture)
47640	52485	Sports outfitter (retail)
93199	92629	Sports referees
93199	92629	Sportsmen and sportswomen
14131	18221	Sportswear for men and boys (manufacture)
14132	18222	Sportswear for women and girls (manufacture)
27400	31500	Spotlight (manufacture)
28940	29540	Spotting table (manufacture)
28290	29240	Spray guns (manufacture)
29100	34100	Spraying lorry (manufacture)
28302	29320	Spraying machine for agricultural use (manufacture)
28290	29240	Spraying machinery parts (manufacture)
31090	36140	Spraying of furniture (manufacture)
28290	29240	Spring balance (manufacture)
25930	28740	Spring presswork (manufacture)
29320	34300	Spring suspension for motor vehicles (manufacture)
25930	28740	Spring washer (manufacture)
31030	36150	Spring wire mattress (manufacture)
25930	28740	Springs (manufacture)
25930	28740	Springs for upholstery (manufacture)
25930	28740	Springs made of steel for upholstery (manufacture)
28290	29240	Sprinklers for fire extinguishing (manufacture)
28150	29140	Sprocket chain (manufacture)
09100	11200	Spudding in for oil wells
93120	92629	Squash club
11070	15980	Squash drink (manufacture)
32300	36400	Squash racket (manufacture)
32910	36620	Squeegees (manufacture)
28490	29430	Squeeze presses (manufacture)

SIC 2007	SIC 2003	Activity

86900 85140 St Andrew's ambulance brigade
93290 92729 St James's park
86900 85140 St John's ambulance brigade
28990 29560 Stabiliser for ship (manufacture)
20590 24660 Stabilisers and extenders for PVC processing (manufacture)
20590 24660 Stabilisers for rubber or plastics (manufacture)26110 32100 Stabilising valve (manufacture)
28220 29220 Stacking machines (manufacture)
42990 45230 Stadium construction
93110 92629 Stadium operation
56290 55520 Staff canteen (run by catering contractor)27400 31500 Stage lighting (manufacture)
90010 92311 Stage productions
90020 92311 Stage set designers and builders
93110 92629 Staging of sports events by organizations with theirown facilities
20301 24301 Stain (manufacture)
23120 26120 Stained glass (manufacture)
24100 27100 Stainless steel (manufacture)
25720 28630 Stair rods made of metal (manufacture) 16230 20300 Stair rods made of wood (manufacture) 16230 20300 Staircase made of wood (manufacture) 02200 02010 Stakes (of wood) production
47789 52485 Stamp dealer (retail)
18129 22220 Stamp embossed paper (manufacture)
17290 21259 Stamp hinges (manufacture)
25500 28400 Stamping of base metal (manufacture)
28410 29420 Stamping or pressing machine tools (manufacture)47789 52485 Stamps (retail)
32990 36631 Stamps made of rubber (manufacture)50200 61102 Standby vessel services
20600 24700 Staple fibre of acetate, synthetic or viscoseproduction (manufacture)
28230 30010 Staple removers (manufacture)
28230 30010 Staplers (manufacture)
25930 28730 Staples (not wire) (manufacture) 25990 28750 Staples for office use (manufacture)
20600 24700 Staples of man-made fibre (manufacture)
28490 29430 Stapling machines (machine tools) (manufacture) 28490 29430 Stapling machines for industrial use (manufacture)28230 30010 Stapling machines for office use (manufacture) 10620 15620 Starch (manufacture)
46380 51380 Starch (wholesale)
20520 24620 Starch based adhesives (manufacture)
46750 51550 Starch derivatives (wholesale)
29310 31610Starter motor for vehicle (manufacture)68100 70120 Static caravan sales
46690 51870 Static converters (wholesale)
25110 28110 Static drilling derricks (manufacture)
29100 34100 Station wagon (manufacture)
28490 29430 Stationary machines for nailing, glueing or otherwiseassembling wood, cork bone, etc. (manufacture)
28490 29430 Stationary rotary or rotary percussion drills, filingmachines, sheet metal cutters (manufacture)
46499 51479Stationers' sundries (wholesale)
46180 51180Stationery (commission agent)
47620 52470 Stationery (retail)
46499 51479Stationery (wholesale)

17230 21230 Stationery paper (manufacture)
84110 75110 Statistical services (public sector)
23690 26660 Statuary made of concrete, plaster, cement orartificial stone (manufacture)
25990 28750 Statuettes and other ornaments made of base metal(manufacture)
46150 51150Statuettes and other ornaments made of wood(commission agent)
23410 26210 Statuettes made of ceramic (manufacture)22290 25240 Statuettes made of plastic (manufacture) 16290 20510 Statuettes made of wood (manufacture)
28490 29430 Stave and cask croze cutting machines (manufacture)
28490 29430 Stave jointing, planing, bending machinery(manufacture)
16240 20400 Staves made of wood (manufacture)56101 55301 Steak houses (licensed)
25300 28300 Steam accumulator (manufacture)
28110 29110 Steam and other vapour turbine parts (manufacture)46690 51870 Steam and sand blasting machinery and appliances (excluding agricultural) (wholesale)96040 93040 Steam baths
25300 28300 Steam boiler (manufacture)
43999 45250 Steam cleaning for building exteriors 28290 29240 Steam cleaning machines (manufacture)
43390 45450 Steam cleaning of buildings
25300 28300 Steam collector (manufacture)
28110 29110 Steam engine (manufacture)
25300 28300 Steam generator (manufacture)
25300 28300 Steam generator parts (manufacture)
46690 51870 Steam generators (wholesale)
35300 40300 Steam production, collection and distribution28120 29121 Steam pulsators (pulsometers) (manufacture)
30200 35200 Steam rail locomotives (manufacture)
28110 29110 Steam turbine (not marine or for electricitygeneration) (manufacture)
28110 29110 Steam turbine for marine use (manufacture)28110 29110 Steam turbines and other vapour turbines (manufacture)
28940 29540 Steaming machinery for textiles (manufacture) 13300 17300 Steaming of textiles and textile articles, including wearing apparel (manufacture)
20140 24140 Stearic acid (manufacture)
20590 24660 Stearin (manufacture)
08990 14500 Steatite (talc) mining and quarrying46720 51520 Steel (wholesale)
43999 45250 Steel bending
43999 45250 Steel elements (not self-manufactured) erection24520 27520 Steel founders (manufacture)
24100 27100 Steel in primary form, from ore or scrap, production(manufacture)
24100 27100 Steel making pig iron (manufacture)
23200 26260 Steel moulder's composition (manufacture)
24100 27100 Steel powders (manufacture)
24100 27100 Steel sheet (not finally annealed) (manufacture)24100 27100 Steel shot (manufacture)
46720 51520 Steel stockholder (wholesale)
25990 28750 Steel wool for domestic use (manufacture)28210 29210 Steelmaking furnace (manufacture)
43999 45250 Steelwork erection (building)
43999 45250 Steelwork erection (civil engineering)

SIC 2007	SIC 2003	Activity
25110	28110	Steelwork for agricultural buildings (manufacture)
25110	28110	Steelwork for bridges (manufacture)
25110	28110	Steelwork for buildings (manufacture)
25110	28110	Steelwork for commercial buildings (manufacture)
25110	28110	Steelwork for distribution depots (manufacture)
25110	28110	Steelwork for docks (manufacture)
25110	28110	Steelwork for domestic buildings (manufacture)
25110	28110	Steelwork for exhibition centres (manufacture)
25110	28110	Steelwork for factory buildings (manufacture)
25110	28110	Steelwork for glass roofs (manufacture)
25110	28110	Steelwork for harbours (manufacture)
25110	28110	Steelwork for hospital buildings (manufacture)
25110	28110	Steelwork for jetties (manufacture)
25110	28110	Steelwork for school buildings (manufacture)
25110	28110	Steelwork for tunnels (manufacture)
25110	28110	Steelwork for viaducts (manufacture)
43999	45250	Steeplejacking
29320	34300	Steering box for motor vehicle (manufacture)
30920	35430	Steering column and gear for powered invalid carriage (manufacture)
29320	34300	Steering column for motor vehicle (manufacture)
29320	34300	Steering equipment components for motor vehicles (manufacture)
28990	29560	Steering gear for marine use (manufacture)
29320	34300	Steering wheels for motor vehicle (manufacture)
23130	26130	Stemmed drinking vessels made of glass (manufacture)
17120	21120	Stencil basepaper (manufacture)
17230	21230	Stencil duplicating (manufacture)
28230	30010	Stencil duplicating machines (manufacture)
17120	21120	Stencil paper in large sheets (manufacture)
17120	21120	Stencil paper in rolls (manufacture)
28230	30010	Stenography machines (manufacture)
28940	29540	Stentering machinery for textiles (manufacture)
16290	20510	Step ladders made of wood (manufacture)
25990	28750	Steps made of metal (manufacture)
16290	20510	Steps made of wood (manufacture)
26400	32300	Stereo systems (manufacture)
18130	22240	Stereotyping (manufacture)
28930	29530	Sterilisation equipment for food and drink (manufacture)
81222	74704	Sterilisation of objects or premises (e.g. operating theatres)
10110	15112	Sterilised bone flour (not for fertilisers) (manufacture)
10511	15511	Sterilised cream (manufacture)
46460	51460	Sterilisers for medical, surgical or laboratory use (wholesale)
32500	33100	Sterilising equipment for medical use (manufacture)
32500	33100	Sterilizers (manufacture)
28990	29560	Stern gear (manufacture)
46180	51180	Steroids used primarily as hormones (commission agent)
46460	51460	Steroids used primarily as hormones (wholesale)
24450	27450	Sterro metal (manufacture)
52241	63110	Stevedoring
25990	28750	Stewpans (manufacture)
32500	24422	Sticking plaster (surgical) (manufacture)
13960	17549	Stiffened textile fabrics (manufacture)
25990	28750	Stillage made of metal (manufacture)
16240	20400	Stillage made of wood (manufacture)
28220	29220	Stillage truck (manufacture)
23200	26260	Stilts made of ceramic (manufacture)
84230	75230	Stipendiary magistrates
46640	51830	Stitch bonding machinery (wholesale)
28990	29560	Stitching machine for bookbinding (manufacture)
18140	22230	Stitching of books, brochures, etc. (manufacture)
18129	22220	Stochastic printing (manufacture)
82990	74879	Stock control activities
66110	67110	Stock exchange activities
64991	65233	Stock exchange money broker activities
59120	92119	Stock footage, film library activities
49410	60249	Stock haulage by road
63910	92400	Stock market reporting service
66110	67110	Stock or commodity options exchanges administration
28950	29550	Stock preparation plant for paper and board (manufacture)
14310	17710	Stockings for women and girls (manufacture)
14200	18300	Stoles made of fur (manufacture)
23610	26610	Stone articles for use in construction (manufacture)
43999	45250	Stone carving
08120	14210	Stone chippings production
08120	14210	Stone dust production
01240	01139	Stone fruit growing
23700	26700	Stone furniture (manufacture)
43999	45250	Stone setting
43999	45250	Stone walling
23700	26700	Stone working (manufacture)
43999	45250	Stonemasonry (building)
46730	51530	Stones (wholesale)
23910	26810	Stones for sharpening or polishing (manufacture)
23410	26210	Stoneware for domestic use (manufacture)
43390	45450	Stonework cleaning and renovation
26520	33500	Stop watch (manufacture)
28140	29130	Stopcocks for domestic use (manufacture)
16290	20520	Stopper insets made of cork (manufacture)
16290	20520	Stoppers made of cork (manufacture)
23130	26130	Stoppers made of glass (manufacture)
25920	28720	Stoppers made of metal (manufacture)
31090	36140	Storage cabinets for domestic use (manufacture)
52102	63129	Storage facilities n.e.c. for air transport activities
52103	63129	Storage facilities n.e.c. for land transport activities
52101	63129	Storage facilities n.e.c. for water transport activities
27510	29710	Storage heaters (manufacture)
52102	63129	Storage of goods in foreign trade zones for air transport activities
52103	63129	Storage of goods in foreign trade zones for land transport activities
52101	63129	Storage of goods in foreign trade zones for water transport activities
22230	25239	Storage tanks made of plastic (manufacture)
52102	63122	Storage tanks operation for air transport activities
52103	63122	Storage tanks operation for land transport activities
52101	63122	Storage tanks operation for water transport activities
80100	74602	Store detective activities
13300	17300	Storing yarn (manufacture)

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SIC 2007	SIC 2003	Activity

11050 15960 Stout brewing (manufacture)
27520 29720 Stove (gas) (manufacture)
27520 29720 Stove (oil) (manufacture)
27520 29720 Stove (solid fuel) (manufacture)
81223 74705 Stove cleaning
25610 28510 Stove painting (manufacture)
27520 29720 Stoves for domestic use (non-electric) (manufacture)28921 29521 Stowing machine for mining (manufacture)
28220 29220 Straddle carrier (manufacture)
46690 51870 Straddle carriers and works trucks fitted with a crane (wholesale)
10390 15330 Strained fruit (manufacture)
10390 15330 Strained vegetables (manufacture)
13960 17549 Straining cloth (manufacture)
25930 28730 Stranded un-insulated wire made of copper (manufacture)
46690 51870 Stranded wires, cables, plaited bands, slings and thelike (not electrically insulated) (wholesale)
19209 23209 Strap paste for transmission belts (manufacture)15120 19200 Straps made of leather (manufacture)
70229 74143Strategic business plan consultancy services 46210 51210 Straw (wholesale)
46420 51429 Straw and felt hats (wholesale)16290 20520 Straw articles (manufacture)
14190 18241 Straw hat blocking (manufacture)
14190 18241 Straw hats (manufacture)
01250 01139Strawberry growing
17120 21120 Strawboard (manufacture)
17120 21120 Strawpaper (manufacture)
49319 60219 Street car (scheduled passenger transport)81299 90030 Street cleaning and watering
42110 45230 Street construction
25990 28750 Street furniture (manufacture)
27400 31500 Street lighting fixtures (manufacture)
90010 92311 Street musician or singer
80100 74602 Street patrol
74209 74819 Street photographer
29100 34100 Street sweepers (manufacture)
29100 34100 Street sweeping lorry (manufacture)
71200 74300 Strength and failure testing
13921 17401 Stretch covers for furniture (manufacture) 13922 17402 Stretchers made of canvas (manufacture) 25990 28750 Striking of medals (manufacture)
13940 17520 String (manufacture)
13940 17520 String bag (manufacture)
23990 26821 String made of asbestos (manufacture)
32200 36300 Stringed instruments (manufacture)
32200 36300 Strings for musical instruments (manufacture) 16220 20300 Strip flooring made of hardwood (manufacture)28210 29210 Strip processing line furnace (manufacture) 24420 27420 Strips made of aluminium (manufacture)
24440 27440 Strips made of brass (manufacture) 24440 27440 Strips made of copper (manufacture)22210 25210 Strips made of plastic (manufacture) 22190 25130 Strips made of rubber (manufacture) 26513 33202 Stroboscope (manufacture)
46690 51870 Stroboscopes (wholesale)
25990 28750 Strong box (manufacture)
25990 28750 Strong room (manufacture)

25990 28750 Strong room door
(manufacture) 15120 19200 Strops made
of leather (manufacture)24100 27100
Structural steel (manufacture)
43999 45250 Structural steelwork erection (building)
43999 45250 Structural steelwork erection (civil
engineering) 25110 28110 Structural steelwork
for buildings (manufacture) 23610 26610
Structural wall panels made of precast concrete
(manufacture)
25110 28110 Structures for buildings made of
aluminium(manufacture)
25110 28110 Structures for civil engineering made
of aluminium(manufacture)
43310 45410 Stucco application in buildings
01430 01220 Stud farming
25930 28740 Stud link chain (manufacture)
01629 01429 Stud services on a fee or
contract basis94990 91330 Student
associations
94910 91310Student Christian Movement
55900 55239 Student house accommodation
55900 55239 Student residences
94990 91330 Student Union
31090 36110Studio couch (manufacture)
85421 80302 Study leading to a one year post
graduate certificateof education
(PGCE)
32409 36509 Stuffed toy (manufacture)
10840 15870 Stuffing (manufacture)
32990 36631 Stylographic pen
(manufacture) 26400 32300 Stylus for
record player (manufacture)20140
24140 Styrene (manufacture)
20160 24160 Styrene polymers (manufacture)
53100 64110Sub post office (principally devoted to
post officebusiness)
30110 35110 Submarine (manufacture)
27320 31300 Submarine cable (manufacture)
28131 29121 Submersible motor pump (manufacture)
26301 32201 Subscriber apparatus (telephone)
(manufacture)27110 31100 Substation
transformers for electric power
distribution
(manufacture) 71122 74206
Sub-surface surveying activities
43999 45240 Subsurface work
49311 60213 Suburban area passenger railway
transportation byunderground, metro and
similar systems
49319 60219 Suburban scheduled passenger land
transport other than by underground, metro
and similar systems
42120 45213 Subway construction
22190 25130 Suction and discharge hose made of
rubber(manufacture)
10110 15112 Suet (manufacture)
46360 51360 Sugar (wholesale)
46360 51360 Sugar and chocolate and sugar
confectioneryexporter (wholesale)
46360 51360 Sugar and chocolate and sugar
confectioneryimporter (wholesale)
01130 01110 Sugar beet growing
28302 29320 Sugar beet harvester (manufacture)
01130 01110 Sugar beet seed production
01140 01110 Sugar cane growing
10822 15842 Sugar confectionery (manufacture)
47240 52240 Sugar confectionery (retail)
28930 29530 Sugar confectionery making machinery
(manufacture)

SIC 2007	SIC 2003	Activity
46180	51180	Sugar ethers, sugar esters and their salts and chemically pure sugar (commission agent)
28930	29530	Sugar making and refining machinery (manufacture)
10810	15830	Sugar milling (manufacture)
10810	15830	Sugar refining (manufacture)
10810	15830	Sugar substitutes refining and production (manufacture)
10810	15830	Sugar sucrose and sugar substitutes from cane, manufacture or refining (manufacture)
10810	15830	Sugar sucrose and sugar substitutes from maple, manufacture or refining (manufacture)
10810	15830	Sugar sucrose and sugar substitutes from palm, manufacture or refining (manufacture)
10810	15830	Sugar syrups (manufacture)
25720	28630	Suitcase fittings made of metal (manufacture)
15120	19200	Suitcases made of leather or leather substitute (manufacture)
16240	20400	Suitcases made of wood (manufacture)
13200	17220	Suiting woollen weaving (manufacture)
13200	17230	Suiting worsted weaving (manufacture)
14131	18221	Suits for men and boys (manufacture)
14132	18222	Suits for women and girls (dressmade) (manufacture)
17110	21110	Sulphate and soda woodpulp (manufacture)
19100	23100	Sulphate of ammonia from coke ovens (manufacture)
35210	40210	Sulphate of ammonia from gas works
46750	51550	Sulphides, sulphites and sulphates (wholesale)
17110	21110	Sulphite woodpulp (manufacture)
17120	21120	Sulphite wrapping paper (manufacture)
46180	51180	Sulphonamides (commission agent)
21100	24410	Sulphonamides (manufacture)
46460	51460	Sulphonamides (wholesale)
20130	24130	Sulphur (manufacture)
46750	51550	Sulphur (wholesale)
20120	24120	Sulphur dye (manufacture)
20130	24130	Sulphuric acid (manufacture)
13922	17402	Sun blinds (manufacture)
32990	36639	Sun car (manufacture)
46499	51479	Sun umbrellas and garden umbrellas (wholesale)
20420	24520	Sunburn prevention and sun tan preparations (manufacture)
10410	15420	Sunflower oil refining (manufacture)
10410	15410	Sunflower seed crushing (manufacture)
01110	01110	Sunflower seed growing
01110	01110	Sunflower seed production
10410	15410	Sunflower-seed oil production (manufacture)
23190	26150	Sunglass blank (manufacture)
32500	33401	Sunglasses (manufacture)
13100	17170	Sunn hemp (manufacture)
32990	36639	Sunshade (manufacture)
32990	36639	Sun-umbrellas (manufacture)
65300	66020	Superannuation fund (autonomous)
25300	28300	Super-heaters (manufacture)
47110	52112	Supermarket (selling mainly foodstuffs) with alcohol licence (retail)
47110	52113	Supermarket (selling mainly foodstuffs) without alcohol licence (retail)
20150	24150	Superphosphate (manufacture)
23510	26510	Superphosphate cements (manufacture)
47110	52112	Superstore (selling mainly foodstuffs) with alcohol licence (retail)

47110 52113 Superstore (selling mainly foodstuffs) without alcohol licence (retail)

56102 55302 Supper bar or room (unlicensed)

78200 74500 Supply and provision of personnel (temporary employment agency)

42120 45213 Supply line (third rail) for railway construction 90020 92320 Support activities to performing arts e.g. stage set-up, costume and lighting design etc.

84220 75220 Support for defence plans and exercises for civilians 84230 75230 Supreme court of judicature

20590 24660 Surface active chemicals (excluding finished detergents and scouring powder) (manufacture)

20411 24511 Surface active preparations (manufacture) 05102 10102 Surface mining of hard coal

28410 29420 Surface tempering machines (manufacture)

26511 33201 Surface tension instruments (electronic) (manufacture)

26513 33202 Surface tension instruments (non-electronic) (manufacture)

42110 45230 Surface work on elevated highways, bridges and in tunnels

42110 45230 Surface work on streets, roads, highways, bridges or tunnels

32300 36400 Surfboard (manufacture)

28990 29560 Surge damper for hydraulic equipment (manufacture) 27900 31200 Surge suppressors (manufacture)

86220 85120 Surgeon (private practice)

86101 85111 Surgeon (public sector)

86210 85120 Surgery (doctor's)

46460 51460 Surgical and dental instruments and appliances (wholesale)

47749 52329 Surgical appliances (retail)

32500 24422 Surgical bandage (manufacture)

32500 33100 Surgical belts (manufacture)

32500 33100 Surgical boot (manufacture)

32500 33100 Surgical corset (manufacture)

32500 17403 Surgical drapes and sterile string and tissue (manufacture)

32500 24422 Surgical dressing (manufacture)

32500 33100 Surgical equipment (manufacture)

32500 24422 Surgical gauze (manufacture)

32500 25130 Surgical goods made of rubber (manufacture) 32500 24422 Surgical gut string (manufacture)

32500 33100 Surgical hosiery (manufacture)

32500 33100 Surgical implants (manufacture)

32500 33100 Surgical instrument (manufacture)

32500 24422 Surgical lint (manufacture)

32500 24422 Surgical sutures (manufacture)

32500 33100 Surgical truss (manufacture)

32500 24422 Surgical wadding (manufacture)

14120 18210 Surplice (manufacture)

80100 74602 Surveillance activities

73200 74130 Survey analysis and other social and economic intelligence services

73200 74130 Survey design services

71122 74206 Surveying activities (industrial and engineering) 26511 33201 Surveying instruments (electronic) (manufacture)

26513 33202 Surveying instruments (non-electronic) (manufacture)

26513 33202 Surveying instruments (optical non-electronic) (manufacture)

SIC 2007	SIC 2003	Activity	SIC 2007	SIC 2003	Activity

26701 33201 Surveying instruments (optical) (manufacture)
46690 51870 Surveying, hydrographic, oceanographic, hydrological and meteorological instruments (wholesale)
71122 74206 Surveyor (other than valuer) 68310 70310 Surveyor and valuer (real estate)85590 80429 Survival training
14142 18232 Suspender (manufacture)
14142 18232 Suspender belt (manufacture)
28220 29220 Suspension railway (manufacture)
29320 34300 Suspension shock absorbers for motor vehicle(manufacture)
29320 34300 Suspension springs for motor vehicle (manufacture)28410 29420 Swaging machine (metal forming) (manufacture) 64999 65239 Swaps, options and other hedging arrangements 01130 01120 Swede growing
10720 15820 Sweet crackers (manufacture)
01130 01120 Sweet marjoram growing
01130 01110 Sweet potato growing
10519 15519Sweetened skimmed whey production (manufacture)47240 52240 Sweets (retail)
10822 15842 Sweets (sugar confectionery) (manufacture)46499 51479 Swimming and paddling pools (wholesale) 93110 92619 Swimming baths
93120 92629 Swimming clubs
85510 92629 Swimming instruction
81299 74709 Swimming pool cleaning and maintenance activities93110 92619 Swimming pools
41201 45230 Swimming pools construction
14190 18249 Swimwear (manufacture)
01460 01230 Swine farming
01460 01230 Swine raising and breeding
28990 36639 Swings (fairground equipment) (manufacture)
32300 36400 Swings for playgrounds (manufacture)
13990 17541 Swiss embroidery (manufacture)
27330 31200 Switch (electric) (manufacture)
27330 31200 Switch boxes for electrical wiring (manufacture)93210 92330 Switchback (fairground)
26301 32201 Switchboard for telecommunications (manufacture)
46690 51870 Switches (wholesale)
26110 31200 Switches and transducers for electronic applications(manufacture)
27120 31200 Switchgear (power) (manufacture)
52219 60109 Switching and shunting
52219 60101 Switching and shunting on railways
26301 32201 Switching equipment for telegraph and telex (manufacture)
25710 28750 Sword (manufacture)
46690 51870 Swords, cutlasses, bayonets, lances and similar arms(wholesale)
71200 74300 Sworn timber measurer
71200 74300 Sworn weigher
94910 91310Synagogue
20140 24140 Synthetic alcohol (manufacture)
46120 51120Synthetic and organic colouring matter, colouring lakes and preparations (commission agent)
10910 15710 Synthetic animal feed protein (manufacture)20140 24140 Synthetic aromatic products (manufacture)
20411 24511Synthetic detergent (manufacture)
20120 24120Synthetic dyestuffs (manufacture)

20140 24140 Synthetic ethyl alcohol (manufacture)
20600 24700 Synthetic fibre (manufacture)
17110 21110 Synthetic fibre woodpulp (manufacture)
20140 24140 Synthetic glycerol (manufacture)
20120 24120 Synthetic iron oxide (manufacture)
20140 24140 Synthetic or reconstructed precious or semi-precious stones (manufacture)
46120 51120 Synthetic or reconstructed precious or semi-precious unworked stones (commission agent)
46760 51550 Synthetic or reconstructed precious or semi-precious unworked stones (wholesale)
46750 51550 Synthetic organic colouring matter and colouring lakes and preparations based on them (wholesale)
20120 24120 Synthetic organic pigment (manufacture) 32120 36220 Synthetic precious and semi-precious stones (manufacture)
46750 51550 Synthetic resin (wholesale)
20520 24620 Synthetic resin adhesive (manufacture)
20160 24160 Synthetic resin adhesive (unformulated) (manufacture)
20160 24160 Synthetic resins (manufacture)
46120 51120 Synthetic rubber (commission agent)
20170 24170 Synthetic rubber (manufacture)
46760 51550 Synthetic rubber (wholesale)
20170 24170 Synthetic rubber and natural rubber mixtures (manufacture)
46120 51120 Synthetic, organic or inorganic tanning extracts and preparations (commission agent)
23130 26130 Syphons made of glass (manufacture) 32500 33100 Syringes (manufacture)
46460 51460 Syringes, needles, catheters and cannulae (wholesale)
10810 15830 Syrup (sugar) (manufacture)
62012 72220 System maintenance and support services 62020 72220 System software acceptance testing consultancy services
62012 72220 Systems analysis (computer)
62020 72220 Systems and technical consultancy services 10390 15330 Table jelly (manufacture)
13923 17403 Table linen (manufacture)
47510 52410 Table linen (retail)
13923 17403 Table mats made of textiles (manufacture) 32409 36509 Table or parlour games (manufacture) 13923 17403 Table runner (manufacture)
32300 36400 Table tennis ball (manufacture)
32300 36400 Table tennis equipment (manufacture)
11070 15980 Table water (manufacture)
47510 52410 Table-cloths (retail)
17220 21220 Table-cloths made of paper (manufacture) 32401 36501 Tables for casino games (manufacture) 31090 36140 Tables for domestic use (manufacture) 31010 36120 Tables for office or school (manufacture) 26400
32300 Tables for turn-tables (manufacture)
25730 29560 Tableting and pelleting press for the chemical industry (manufacture)
46150 51150 Tableware and kitchenware made of wood (commission agent)
25990 28750 Tableware made of base metal (manufacture) 23410 26210 Tableware made of ceramic (manufacture) 23130 26130 Tableware made of glass (manufacture) 23130 26130 Tableware made of lead crystal (manufacture)

SIC 2007	SIC 2003	Activity
22290	25240	Tableware made of plastic (manufacture)
32120	36220	Tableware made of precious metal (manufacture)
77299	71409	Tableware rental and leasing
17290	21259	Tabulating machine cards (manufacture)
28230	30010	Tabulating machines (manufacture)
63110	72300	Tabulating service
26511	33201	Tachometer (electronic) (manufacture)
26513	33202	Tachometer (non-electronic) (manufacture)
25930	28730	Tack made of metal (not wire) (manufacture)
13200	17240	Taffeta made of silk (manufacture)
13200	17220	Taffeta woollen weaving (manufacture)
19201	23201	Tar gas (manufacture)
28220	29220	Tarboard lift (manufacture)
14131	18221	Tailored outerwear for men and boys (manufacture)
14132	18222	Tailored outerwear for women and girls (manufacture)
14132	18222	Tailored skirts (manufacture)
32990	36631	Tailors' chalk (manufacture)
32990	36639	Tailors' dummy (not plastic) (manufacture)
22290	36639	Tailors' dummy made of plastic (manufacture)
14190	18249	Tailors' pad (manufacture)
25710	28610	Tailors' shears (manufacture)
46770	51570	Tailors' trimmings (wholesale)
56103	55303	Take away food shop
56103	55304	Take-out eating places
08990	14500	Talc mine or quarry
20420	24520	Talcum powder (manufacture)
46760	51560	Tallow (wholesale)
26513	33202	Tally counters (non-electronic) (manufacture)
46630	51820	Tamping machines (wholesale)
17220	21220	Tampons made of paper and cellulose wadding (manufacture)
17220	17549	Tampons made of textile wadding (manufacture)
30920	35420	Tandems (manufacture)
01230	01139	Tangerine growing
30110	35110	Tanker (ship) (manufacture)
29202	34202	Tanker trailer (motor drawn) (manufacture)
30200	35200	Tanker wagon for railway (manufacture)
30400	29600	Tanks (tracked armoured fighting vehicles) (manufacture)
30400	29600	Tanks and other fighting vehicles (manufacture)
25290	28210	Tanks made of galvanised steel exceeding 300 litres (manufacture)
23190	26150	Tanks made of glass (manufacture)
25290	28210	Tanks made of metal exceeding 300 litres (manufacture)
25290	28210	Tanks made of metal for domestic storage exceeding 300 litres (manufacture)
22230	25239	Tanks made of plastic (open and closed) (manufacture)
46690	51870	Tanks, casks, drums, cans, boxes and similar containers (excluding for gas) (wholesale)
20120	24120	Tanning agents (synthetic) (manufacture)
28990	31620	Tanning beds (manufacture)
15110	19100	Tanning leather (manufacture)
15110	18300	Tanning of fur skins and hides with the hair on (manufacture)
15110	19100	Tanning of hairless skins and hides (manufacture)
46750	51550	Tanning preparations (wholesale)
24450	27450	Tantalum (manufacture)
07290	13200	Tantalum mining and preparation
28140	29130	Tap parts (manufacture)
13300	17300	Tape bleaching (manufacture)
28230	30010	Tape dispensers (manufacture)
28290	33202	Tape measure (manufacture)
28230	30010	Tape office-type binding equipment (manufacture)
26400	32300	Tape player and recorder (audio and visual) (manufacture)
18201	22310	Tape pre-recording, except master copies for records or audio material (manufacture)
26200	30020	Tape reader for computers (manufacture)
26400	32300	Tape recorder cabinets made of wood (manufacture)
47430	52450	Tape recorders (retail)
26200	30020	Tape streamers and other magnetic tape storage units (manufacture)
59200	92201	Taped radio programming production
28150	29140	Tapered roller bearings (manufacture)
32990	36639	Tapers and the like (manufacture)
91011	92510	Tapes (music and video) lending and storage
46431	51431	Tapes (recorded) (wholesale)
23990	26821	Tapes made of asbestos (manufacture)
13960	17542	Tapes made of non-elastic and non-elastomeric textile materials (manufacture)
13200	17210	Tapestry (not woollen or worsted) (manufacture)
47510	52410	Tapestry making materials (retail)
13200	17220	Tapestry woollen weaving (manufacture)
10620	15620	Tapioca (manufacture)
10620	15620	Tapioca grinding (manufacture)
28140	29130	Taps (manufacture)
22230	25239	Taps and valves made of plastic (manufacture)
28140	29130	Taps for domestic use (manufacture)
20140	24140	Tar acids (manufacture)
28923	29523	Tar laying plant (manufacture)
28923	29523	Tar processing plant (manufacture)
42110	45230	Tar spraying contractor (civil engineering)
42110	45230	Tarmacadam laying contracting
28923	29523	Tarmacadam laying plant (manufacture)
28923	29523	Tarmacadam processing plant (manufacture)
08120	14210	Tarmacadam (coated) production
13922	17402	Tarpaulins (manufacture)
47510	52410	Tarpaulins (retail)
46410	51410	Tarpaulins (wholesale)
46160	51160	Tarpaulins, awnings, sunblinds and circus tents (commission agent)
01130	01120	Tarragon growing
10710	15810	Tarts (manufacture)
13960	17542	Tassels made of textile material (manufacture)
91020	92521	Tate Gallery
96090	93059	Tattooist
56302	55402	Taverns (independent)
56302	55404	Taverns (managed)
56302	55403	Taverns (tenanted)
69203	74123	Tax consultancy
84110	75110	Tax violation investigation services
84110	75110	Taxation schemes
18129	22220	Taxation stamps printing (manufacture)
29100	34100	Taxi (manufacture)
49320	60220	Taxi cab service
32990	36639	Taxidermy activities (manufacture)

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SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

26511 33201 Taximeters (electronic) (manufacture)
26513 33202 Taximeters (non-electronic) (manufacture)
46690 51870 Taximeters (wholesale)
10831 15861 Tea (packing into tea bags) (manufacture)46370 51370 Tea (wholesale)
47290 52270 Tea and coffee grocer (retail)
10831 15861 Tea and maté blending (manufacture)56103 55304 Tea bar
10831 15861 Tea blending (manufacture)
16240 20400 Tea chests made of wood (manufacture)46170 51170 Tea exchange (commission agent) 10831 15861 Tea extract and essence (manufacture) 56102 55302 Tea garden (unlicensed)
01270 01139Tea growing
47290 52270 Tea merchant (retail)
46370 51370Tea merchant (wholesale)
10831 15861 Tea or maté based extracts and preparations (manufacture)
28930 29530 Tea processing machinery and plant (manufacture)56102 55302 Tea room or shop (unlicensed)
25990 28750 Tea sets made of base metal (manufacture)13923 17403 Tea towels (manufacture)
52102 63129 Tea warehouse for air transport activities 52103 63129 Tea warehouse for land transport activities 52101 63129 Tea warehouse for water transport activities85590 80429 Teacher n.e.c.
85510 92629 Teachers of sport
94120 91120Teachers' Registration Council
32990 36639 Teaching aids (electronic) (manufacture)
78200 74500 Teaching personnel (supply) (temporary employmentagency)
25990 28750 Teapots made of base metal (manufacture)23410 26210 Teapots made of ceramic (manufacture)
32120 36220 Teapots made of precious metal (manufacture)02300 02010 Teasel growing
28940 29540 Teasel rod (textile machinery accessory) (manufacture)
22190 25130 Teats made of rubber (manufacture)
71200 74300 Technical and non-destructive testing services90030 92319 Technical and training manual authors
85320 80429 Technical and vocational adult education (excl. cultural, sports, recreation education and the like)
85320 80220 Technical and vocational education
85320 80220 Technical and vocational secondary education84210 75210 Technical assistance and training programmes abroad (public sector)
71200 74300 Technical automobile inspection activities
23440 26240 Technical ceramic products (manufacture)
85320 80220 Technical college
71200 74300 Technical inspection services of buildings94120 91120 Technical organisations
10410 15410 Technical tallow (manufacture)
71200 74300 Technical testing of bridges and other engineeringstructures
71200 74300 Technical testing of lifting and handling equipment32409 36509 Technical toy (manufacture)
19201 23201 Technical white oil (manufacture)
91020 92521 Technological museums
46520 51860 Telecommunication instruments and apparatus (wholesale)

61100 64200 Telecommunication network maintenance (wired telecommunications)
71122 74206 Telecommunications consultancy activities
46520 51860 Telecommunications equipment (wholesale) 47429 52482 Telecommunications equipment other than mobile telephones (retail)
46520 51860 Telecommunications machinery, equipment and materials for professional use (wholesale)
61900 64200 Telecommunications resellers
61300 64200 Telecommunications satellite relay station
27320 31300 Telecommunications wire (manufacture)
61100 64200 Teleconferencing services (wired telecommunications)
28220 29220 Teleferics (manufacture)
61100 64200 Telegram service
26301 32201 Telegraph apparatus (manufacture)
61100 64200 Telegraph communication
16100 20100 Telegraph poles (manufacture)
26511 33201 Telemetering instruments (manufacture)
26511 33201 Telemetric equipment (manufacture)
26301 32201 Telephone (manufacture)
46520 51860 Telephone and communications equipment (wholesale)
61900 64200 Telephone and internet access in public facilities 26301 32300 Telephone answering machines (manufacture)
26301 32201 Telephone apparatus (manufacture)
63990 74879 Telephone based information services 58120 22110 Telephone books (in print) publishing
25110 28110 Telephone booths made of metal (manufacture) 81222 74704 Telephone cleaning and sterilising service
61100 64200 Telephone communication (wired telecommunications)
47910 52610 Telephone direct sales (retail)
61100 64200 Telephone exchange
26301 32201 Telephone exchange equipment (manufacture)
26301 32201 Telephone exchanges (manufacture)
26301 32201 Telephone handset (manufacture)
77390 71340 Telephone hire (other than by public telephone undertakings)
61100 64200 Telephone service (wired telecommunications)
61100 64200 Telephone service operation of 0898 numbers
81222 74704 Telephone sterilising
26301 32201 Teleprinter (manufacture)
26701 33402 Telescope (manufacture)
26701 33402 Telescopic sights (manufacture)
61100 64200 Teletext and other electronic message and information services (wired telecommunications)
77291 71403 Television (domestic) hire
60200 92202 Television broadcasting station
26400 32300 Television cabinets made of wood (manufacture) 26309 32202 Television camera (manufacture)
26702 33403 Television camera lens (manufacture)
26110 32100 Television camera tubes (manufacture)
46439 51439 Television cameras for domestic use (wholesale) 46520 51860 Television cameras for professional use (wholesale) 60200 92202 Television channel programme creation from purchased and/or self produced programme components
47910 52610 Television direct sales (retail)
59133 92202 Television distribution rights acquisition
77390 71340 Television equipment (not domestic) rental and operating leasing

SIC 2007	SIC 2003	Activity
47430	52450	Television goods (retail)
26400	32300	Television monitors and displays (manufacture)
26110	32100	Television picture tube (manufacture)
59120	92202	Television post-production activities
59133	92120	Television programme distribution activities
59113	92202	Television programme production activities
60200	64200	Television programmes transmission
26309	32300	Television receiver (manufacture)
60200	64200	Television relay service
26110	32100	Television scan coil (manufacture)
60200	92202	Television service
47430	52450	Television sets and equipment (retail)
59113	92202	Television studio
26309	32202	Television transmitter (manufacture)
26301	32201	Telewriter (manufacture)
26301	32201	Telex machine (manufacture)
61100	64200	Telex service (wired telecommunications)
88990	85321	Temperance association
56102	55302	Temperance buffet
26513	33202	Temperature measuring and control instrument (non-electronic) (manufacture)
28140	29130	Temperature regulators (manufacture)
94910	91310	Temple (for worship)
87900	85311	Temporary accommodation for the homeless (charitable)
87900	85312	Temporary accommodation for the homeless (non-charitable)
78200	74500	Temporary employment agency activities
87900	85311	Temporary homeless shelters (charitable)
87900	85312	Temporary homeless shelters (non-charitable)
30200	35200	Tenders (manufacture)
22190	25130	Tennis ball core (manufacture)
32300	36400	Tennis balls (finished) (manufacture)
93120	92629	Tennis club
93110	92619	Tennis court
42990	45230	Tennis courts construction
32300	36400	Tennis racket (manufacture)
25730	28620	Tension strapping tool (manufacture)
25990	28750	Tensional steel strapping (manufacture)
16290	20510	Tent poles made of wood (manufacture)
13922	17402	Tents (manufacture)
46499	51479	Tents (wholesale)
46180	51180	Tents and other camping goods (commission agent)
26301	32201	Terminal equipment for telegraphic and data communications (manufacture)
52230	63230	Terminal facilities operation (air transport)
52213	63210	Terminal facilities operation (land transport)
52220	63220	Terminal facilities operation (water transport)
26110	31200	Terminals for electronic apparatus (manufacture)
28230	30010	Terminals for issuing of tickets and reservations (manufacture)
24100	27100	Terneplate (manufacture)
23410	26210	Terracotta ware (manufacture)
43330	45430	Terrazzo work (building)
84220	75220	Territorial Army
13910	17600	Terry fabrics (manufacture)
13200	17210	Terry towelling (manufacture)
85320	80220	Tertiary college
23310	26300	Tessellated glazed pavement tiles (manufacture)
23310	26300	Tesserae made of earthenware (manufacture)
26511	33201	Test benches (electronic) (manufacture)
26513	33202	Test benches (non-electronic) (manufacture)
43130	45120	Test boring for construction
09100	11200	Test boring incidental to oil and gas extraction
43130	45120	Test drilling for construction
23190	26150	Test tube (manufacture)
30200	35200	Test wagons for railway (manufacture)
71200	74300	Testing and measuring of environmental indicators: air and water pollution
26511	33201	Testing instruments and appliances (electronic) (manufacture)
26513	33202	Testing instruments and appliances (non-electronic) (manufacture)
26511	33201	Testing machines and equipment (electronic) (manufacture)
71200	74300	Testing of calculations for building elements
71200	74300	Testing of composition and purity of minerals
71200	74300	Testing of physical characteristics and performance of materials
71200	74300	Testing or analysing laboratory
20140	24140	Tetrachloroethylene (manufacture)
13300	17300	Textile binding and mending (manufacture)
13300	17300	Textile bleaching (manufacture)
13300	17300	Textile calendering (manufacture)
20590	24660	Textile chemical auxiliaries (manufacture)
46410	51410	Textile converter (wholesale)
28940	29540	Textile dressing or impregnating machinery (manufacture)
13300	17300	Textile dyeing (manufacture)
13300	17300	Textile embossing (manufacture)
13300	17300	Textile ending and mending (manufacture)
28940	29540	Textile fabric making machinery (manufacture)
28940	29540	Textile fibre preparation machinery (manufacture)
46640	51830	Textile fibre preparation machinery (wholesale)
46760	51560	Textile fibres (wholesale)
13300	17300	Textile finishing (manufacture)
46640	51830	Textile industry machinery (wholesale)
13300	17300	Textile lacquering (manufacture)
28940	29540	Textile machinery (manufacture)
13940	17520	Textile material cordage (manufacture)
74100	74872	Textile or wallpaper printing designing
52290	63400	Textile packing incidental to transport
13923	17403	Textile part of electric blankets (manufacture)
01160	01110	Textile plants growing
28940	29560	Textile printing machinery (manufacture)
46110	51110	Textile raw materials (commission agent)
20411	24511	Textile soap (manufacture)
20411	24511	Textile softeners (manufacture)
46640	51830	Textile spinning, doubling or twisting machinery (wholesale)
28940	29540	Textile unreeling, folding, or pinking machinery (manufacture)
17220	17549	Textile wadding and articles of wadding (manufacture)
17240	21240	Textile wall coverings (manufacture)
17240	21240	Textile wallpaper (manufacture)
46770	51570	Textile waste (wholesale)
46640	51830	Textile weaving machinery (wholesale)
13960	17542	Textile wicks (manufacture)
46640	51830	Textile winding or reeling machinery (wholesale)

SIC 2007	SIC 2003	Activity
13960	17549	Textile yarn impregnated, coated or sheathed with rubber or plastic (manufacture)
28940	29540	Textile yarn preparation machinery (manufacture)
46160	51160	Textiles (commission agent)
47510	52410	Textiles (retail)
46410	51410	Textiles (wholesale)
20590	24660	Textiles and leather finishing materials (manufacture)
46410	51410	Textiles exporter (wholesale)
46410	51410	Textiles importer (wholesale)
77299	71409	Textiles rental and leasing
20600	24700	Textured single yarn (manufacture)
28940	29540	Texturing and softening machinery for textiles (manufacture)
43910	45220	Thatching
93191	92621	The seeking of sponsorship, appearance money and prize money for horse racing
58110	22110	The Stationery Office
90040	92320	Theatre halls operation
79909	92320	Theatre ticket agency
74909	74879	Theatrical agency
14190	18249	Theatrical costumes (manufacture)
77299	71409	Theatrical costumes leasing
77210	71401	Theatrical costumes rental
90010	92311	Theatrical presentations (live production)
77299	71409	Theatrical scenery leasing
90010	92311	Theatrical touring company
93210	92330	Theme park operation
26511	33201	Theodolite (electronic) (manufacture)
26513	33202	Theodolite (non-electronic) (manufacture)
85421	80302	Theological college specialising in higher education course
94910	91310	Theosophical Society
46690	51870	Therapeutic instruments and appliances (wholesale)
23140	26140	Thermal and sound insulating material made of glass fibre (manufacture)
26110	32100	Thermionic valves or tubes (manufacture)
28990	29560	Thermo forming machines (manufacture)
18129	22220	Thermocopier printing (manufacture)
26600	33100	Thermographs (manufacture)
26511	33201	Thermometer (electronic) (manufacture)
26513	33202	Thermometer (non-electronic) (manufacture)
20160	24160	Thermoplastic resins (manufacture)
20160	24160	Thermosetting resins (manufacture)
26511	33201	Thermostat (electronic) (manufacture)
26513	33202	Thermostat (non-electronic) (manufacture)
20301	24301	Thinners for paint and varnish (manufacture)
20160	24160	Thiourea resins (manufacture)
07210	12000	Thorium ores mining
46410	51410	Thread (wholesale)
26701	33402	Thread counters (manufacture)
13100	17160	Thread for sewing and embroidery, made of cotton (manufacture)
28940	29540	Thread guide (textile machinery accessory) (manufacture)
13100	17160	Thread made of hemp (manufacture)
13100	17160	Thread made of jute (manufacture)
13100	17160	Thread made of linen (manufacture)
13100	17160	Thread made of silk (manufacture)
28410	29420	Thread rollers or machines for working wires (manufacture)

28410 29420 Thread rolling machines (manufacture)
46740 51540 Threaded and non-threaded fasteners (wholesale) 25940 28740 Threaded fasteners (manufacture)
25730 28620 Threading die (manufacture)
28410 29420 Threading machine (metal cutting) (manufacture) 25730 28620 Threading tap (manufacture)
46610 51880 Threshers (wholesale)
01610 01410 Threshing by contractor
28302 29320 Threshing machine (manufacture)
26110 32100 Thyratron (manufacture)
27900 32100 Thyristor (manufacture)
92000 92710 Tic tac person
79909 92349 Ticket agencies for other entertainment activities 79909 92320 Ticket agencies for theatre
79110 63301 Ticket agencies for travel
17290 21259 Ticket cutting and punching (manufacture) 28230 30010 Ticket issuing machine (manufacture)
77330 71330 Ticket machine hire
18129 22220 Ticket printing (manufacture)
28230 30010 Ticket punch (manufacture)
79909 92629 Ticket sales activities for sports events 79909 92729 Ticket sales for other recreational activities 13200 17210 Ticking weaving (manufacture)
32130 36610 Tie pin (not of, or clad in, precious metal, or of precious/semi precious stones) (manufacture)
13200 17240 Tie silk (manufacture)
47710 52424 Ties (retail)
46420 51429 Ties (wholesale)
14190 18249 Ties made of silk (manufacture) 14310 17710 Tights (manufacture)
28990 29560 Tile making machine (not plastic working) (manufacture)
22230 25239 Tiles (other than floor tiles made of plastic) (manufacture)
46730 51530 Tiles (wholesale)
23320 26400 Tiles and construction products, made of baked clay (manufacture)
47520 52460 Tiles for wall or floor made of ceramic (retail) 43330 45430 Tiles laying or fitting
22230 25231 Tiles made of asphalt thermoplastic (manufacture) 23310 26300 Tiles made of ceramics (manufacture)
23610 26610 Tiles made of concrete (manufacture) 16290 20520 Tiles made of cork (manufacture) 13939 17519 Tiles made of felt (manufacture)
23650 26650 Tiles made of fibre cement (manufacture) 23190 26150 Tiles made of glass (manufacture)
23310 26300 Tiles made of glazed earthenware (manufacture) 13939 17519 Tiles made of needleloom carpet (manufacture) 23620 26620 Tiles made of plaster (manufacture)
23700 26700 Tiles made of slate (manufacture)
13931 17512 Tiles made of tufted carpet (manufacture) 22230 25231 Tiles made of vinyl asbestos (manufacture) 23990 26821 Tiles made of woven asbestos (manufacture) 43330 45430 Tiling contractor (floors and walls)
22190 25130 Tiling made of rubber (manufacture) 18140 22230 Tillot and seal making (manufacture) 46130 51130 Timber (commission agent)
46130 51130 Timber broker (commission agent)
02400 02020 Timber evaluation

SIC 2007	SIC 2003	Activity
02200	02010	Timber felling
02100	02010	Timber growing
46730	51530	Timber importer (wholesale)
71200	74300	Timber measurer
46730	51530	Timber merchant (wholesale)
46730	51530	Timber yard (wholesale)
26520	33500	Time clock (manufacture)
26520	33500	Time lock (manufacture)
26520	33500	Time recorder (manufacture)
63110	72300	Time sharing services (computer)
26520	33500	Time switch (manufacture)
26520	33500	Time/date stamps (manufacture)
93199	92629	Timekeepers of sport
26520	33500	Timer for industrial use (manufacture)
79909	63309	Time-share exchange services
68209	70209	Timeshare operations (real estate)
18129	22220	Timetable printing (manufacture)
58190	22150	Timetable publishing
22190	25130	Timing belt for motor vehicles (manufacture)
24430	27430	Tin (manufacture)
24430	27430	Tin foil (manufacture)
07290	13200	Tin mining and preparation
27510	29710	Tin openers (electric) (manufacture)
07290	13200	Tin ore and concentrate extraction and preparation
18129	22220	Tin printing (manufacture)
24430	27430	Tin wire made by drawing (manufacture)
25730	28620	Tinman's snips (manufacture)
10890	15891	Tinned broth (manufacture)
10130	15131	Tinned ham (manufacture)
10130	15139	Tinned meat (other than tinned ham) (manufacture)
10890	15891	Tinned soup (manufacture)
24100	27100	Tinplate (manufacture)
46720	51520	Tinplate (wholesale)
25920	28720	Tins for food products (manufacture)
23110	26110	Tinted glass (manufacture)
25730	28620	Tip for cutting tool (manufacture)
28220	29220	Tipper (manufacture)
29320	34300	Tipping gear and parts thereof for motor vehicles (not hydraulic) (manufacture)
16290	20520	Tips made of cork (manufacture)
23140	26140	Tissue made of glass fibre (manufacture)
17120	21120	Tissue paper (uncut) (manufacture)
24450	27450	Titanium (manufacture)
20120	24120	Titanium dioxide (manufacture)
46750	51550	Titanium oxide (wholesale)
18129	22220	Title document printing (manufacture)
25990	28750	Toast racks made of base metal (manufacture)
27510	29710	Toaster (electric) (manufacture)
96090	93059	Toastmaster
46170	51170	Tobacco (commission agent)
47260	52260	Tobacco (retail)
46210	51250	Tobacco (unmanufactured) (wholesale)
46170	51170	Tobacco broker (commission agent)
46210	51250	Tobacco exporter (unmanufactured) (wholesale)
12000	16000	Tobacco for use in pipes and rolled cigarettes (manufacture)
01150	01110	Tobacco growing
46210	51250	Tobacco importer (unmanufactured) (wholesale)
01630	01110	Tobacco leaves, drying and preparation
46350	51350	Tobacco merchant (wholesale)
46690	51870	Tobacco preparation and making-up machinery (wholesale)
28930	29530	Tobacco processing machinery (manufacture)
12000	16000	Tobacco products (manufacture)
46350	51350	Tobacco products exporter (wholesale)
46350	51350	Tobacco products importer (wholesale)
46110	51110	Tobacco refuse (commission agent)
12000	16000	Tobacco stemming and redrying (manufacture)
12000	16000	Tobacco substitute products (manufacture)
12000	16000	Tobacco, homogenised or reconstituted (manufacture)
47260	52260	Tobacconist (retail)
46350	51350	Tobacconist (wholesale)
46350	51350	Tobacconists' sundriesman (wholesale)
22290	19300	Toe puff (manufacture)
10822	15842	Toffee (manufacture)
23410	26210	Toilet articles made of ceramic (manufacture)
22290	25240	Toilet articles made of plastic (manufacture)
32120	36220	Toilet articles of base metals clad with precious metals (manufacture)
32910	36620	Toilet brush (manufacture)
15120	19200	Toilet case (fitted) made of leather (manufacture)
47750	52330	Toilet goods (retail)
13923	17403	Toilet linen (manufacture)
17220	21220	Toilet paper (cut to size) (manufacture)
17120	21120	Toilet paper (uncut) (manufacture)
20420	24520	Toilet preparations (manufacture)
46450	51450	Toilet preparations (wholesale)
20420	24511	Toilet soap (manufacture)
20420	24520	Toilet water (manufacture)
20420	24520	Toiletries (manufacture)
46730	51530	Toilets (wholesale)
52219	63210	Toll bridge, road or tunnel
20140	24140	Toluene (manufacture)
01130	01120	Tomato growing
26600	33100	Tomographs (manufacture)
26400	32300	Tone arms (manufacture)
20120	24120	Toner (pigment) (manufacture)
28230	30010	Toner cartridges (manufacture)
20590	24640	Toner for photographic use (manufacture)
16100	20100	Tongued wood (manufacture)
11070	15980	Tonic water production (manufacture)
11020	15932	Tonic wine production (manufacture)
28302	29320	Tool bar for agricultural use (manufacture)
16290	20510	Tool handles made of wood (manufacture)
28490	29430	Tool holder (manufacture)
15120	19200	Toolbags made of leather (manufacture)
47520	52460	Tools (not machine tools) (retail)
25730	28620	Tools (precision) (manufacture)
46740	51540	Tools (wholesale)
25730	28620	Tools except power driven hand tools (manufacture)
77320	71320	Tools for construction hire (without operator)
77390	71340	Tools for mechanics or engineers hire
16290	20510	Tools made of wood (manufacture)
27510	29710	Tooth brush (electric) (manufacture)
32910	36620	Tooth brush (not electric) (manufacture)
46499	51479	Tooth brushes (wholesale)
20420	24520	Tooth powder (manufacture)

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SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

20420 24520 Toothpaste (manufacture)
32990 36639 Toothpicks made of bone (manufacture)
43120 45110 Top soil stripping work
13100 17130 Topmaking (wool) (manufacture)
46760 51560 Tops (wholesale)
27400 31500 Torch (manufacture)
25400 29600 Torpedo (manufacture)
25930 28740 Torsion bar spring (manufacture)
92000 92710 Totalisator
23120 26120 Toughened glass (manufacture)
79120 63302 Tour operator activities
29203 34203 Touring caravan (manufacture)
94990 91330 Touring clubs
70229 74149 Tourism development consultancy services
79909 63309 Tourism promotion activities
84130 75130 Tourism services administration and regulation (public sector)
79909 63309 Tourist assistance activities n.e.c.
79909 63309 Tourist board or information service
79901 63303 Tourist guide activities
85320 80220 Tourist guide instruction
13100 17140 Tow of flax (manufacture)
13940 17520 Tow yarn made of hard fibres (manufacture)
13923 17403 Towel (manufacture)
96010 93010 Towel hire
27510 29710 Towel rail (electric) (manufacture)
96010 93010 Towel supply company
13200 17210 Towelling weaving (manufacture)
47510 52410 Towels (retail)
17220 21220 Towels made of paper (manufacture)
25110 28110 Tower made of steel (manufacture)
16230 20300 Tower made of wood (manufacture)
52219 50200 Towing and road side assistance
52219 63210 Towing away of vehicles
13940 17520 Towing rope (manufacture)
52220 61209 Towing services for distressed freight vessels in inland waters
52220 61102 Towing services for distressed freight vessels on sea and coastal waters
52220 61201 Towing services for distressed passenger vessels in inland waters
52220 61101 Towing services for distressed passenger vessels on sea and coastal waters
71112 74202 Town and city planning
96090 93059 Town crier
35220 40220 Town gas distribution
35210 40210 Town gas production
49319 60219 Town-to-airport transport by bus
49311 60213 Town-to-airport transport by rail
49319 60219 Town-to-station transport by bus
49311 60213 Town-to-station transport by rail
38220 90020 Toxic waste treatment service
32409 36509 Toy animal (manufacture)
32409 36509 Toy balloon (manufacture)
32409 36509 Toy car circuit (electric) (manufacture)
32409 36509 Toy cars (electric) (manufacture)
32409 36509 Toy cars (pedal) (manufacture)
32409 36509 Toy furniture (manufacture)
32409 36509 Toy guns (not operated by compressed air) (manufacture)

32409 36509 Toy musical instruments including electronic(manufacture)
32409 36509 Toy perambulators and pushchairs (manufacture)32409 36509 Toy push cart (manufacture)
32409 36509 Toy trains (electric) (manufacture) 46499 51477 Toy trains and accessories (wholesale) 32409 36509 Toy wheelbarrow (manufacture)
32409 36509 Toys (mechanical) (manufacture)
47650 52485 Toys (retail)
46499 51477 Toys (wholesale)
32409 36509 Toys and games (electronic) with fixed (non replaceable software) (manufacture)46499 51477 Toys and games exporter (wholesale) 46499 51477 Toys and games importer (wholesale)
32409 36509 Toys and games made of paper (manufacture) 32409 36509 Toys and games made of wood (manufacture) 32401 36501 Toys for professional and arcade use (manufacture)32409 36509 Toys made of cardboard (manufacture)
32409 36509 Toys made of metal (manufacture) 32409 36509 Toys made of plastic (manufacture)32409 36509 Toys made of rubber (manufacture)
13300 17300 Tracing cloth (textile finishing) (manufacture)13960 17549 Tracing cloth (woven) (manufacture)
13960 17549 Tracing cloth weaving (manufacture)
17120 21120 Tracing paper (manufacture)
28923 29523 Track laying and other tractors used in construction(manufacture)
28921 29521 Track laying tractors and other tractors used inmining (manufacture)
29320 34300 Track rods for motor vehicles (manufacture)14190 18249 Tracksuits (manufacture)
27200 31400 Traction battery (rechargeable) (manufacture)
27110 31100 Traction motors with or without associated controlequipment (manufacture)
32500 33100 Traction or suspension devices for medical beds(manufacture)
28301 29310 Tractor (half track) (manufacture)
28301 29310 Tractor (pedestrian controlled) (manufacture)
28301 29310 Tractor (skidded unit) (manufacture)
28301 29310 Tractor (wheeled) (manufacture)
28301 29310 Tractor for agricultural use (manufacture) 28301 29310 Tractor for forestry use (manufacture) 77310 71310 Tractor hire for agriculture (without driver)28302 29320 Tractor hoe (manufacture)
28301 29310 Tractor parts for wheeled and half-track tractors (manufacture)
28302 29320 Tractor plough (manufacture)
28922 29522 Tractor shovel (manufacture)
28922 29522 Tractor winch (manufacture)
46610 51880 Tractors (wholesale)
46610 51880 Tractors for agricultural use (wholesale)29100 34100 Tractors for semi-trailers (manufacture)
46690 51870 Tractors of a type used on railway station platforms (wholesale)
46610 51880 Tractors used in forestry (wholesale)94110 91110 Trade association
18140 22230 Trade binding (manufacture)
82301 74873 Trade centre
18129 22220 Trade journal printing (manufacture)
58142 22130 Trade journal publishing
69109 74111Trade mark agent

SIC 2007	SIC 2003	Activity
94200	91200	Trade unions
82301	74873	Trades exhibition organiser
94200	91200	Trades union congress
25730	28620	Tradesmen's knife (manufacture)
82990	74879	Trading stamp activities
18129	22220	Trading stamp printing (manufacture)
30200	31620	Traffic control equipment for roads and inland waterways (manufacture)
71129	74204	Traffic engineering design projects
29310	31610	Traffic indicators for motor vehicles (manufacture)
84240	75240	Traffic regulation administration and operation
84240	75240	Traffic wardens
29202	34202	Trailer (motor drawn) (manufacture)
45190	50101	Trailers (new) (wholesale)
45190	50101	Trailers (retail)
45190	50102	Trailers (used) (retail)
45190	50102	Trailers (used) (wholesale)
29202	34202	Trailers and semi-trailers (manufacture)
28302	29320	Trailers and semi-trailers for agricultural use (manufacture)
77120	71219	Trailers and semi-trailers rental
81299	74709	Train cleaning (non-specialised)
81291	74703	Train disinfecting and exterminating activities
32990	36639	Trainer (electronic training equipment) (manufacture)
93199	92629	Trainer (racehorse or greyhound)
59111	92111	Training film production
96090	93059	Training of pet animals
93199	92629	Training stables
59112	92111	Training video production
49319	60219	Tramway (scheduled passenger transport)
42120	45230	Tramways construction
74300	74850	Transcribing services from tapes, discs, etc.
82190	74850	Transcription of documents, and other secretarial services
28960	29560	Transfer moulding press for rubber or plastics (manufacture)
18129	22220	Transfer printing (manufacture)
27110	31100	Transformer (generator, transmission system and distribution) (manufacture)
26110	31100	Transformer for electronic apparatus (manufacture)
27110	31100	Transformer for industrial use (manufacture)
19201	23201	Transformer oil (at refineries) (manufacture)
19209	23209	Transformer oil formulation outside refineries (manufacture)
46690	51870	Transformers (wholesale)
32500	33100	Transfusion apparatus (manufacture)
32500	33100	Transfusion pods (manufacture)
26110	32100	Transistors (manufacture)
74300	74850	Translation activities
27110	31100	Transmission and distribution voltage regulators (manufacture)
26309	32202	Transmission apparatus for radio-broadcasting (manufacture)
22190	25130	Transmission belting made of rubber (manufacture)
22290	25240	Transmission belts made of plastic (manufacture)
28150	29140	Transmission chain (manufacture)
26301	32201	Transmission equipment for telephone and telegraph (manufacture)
46520	51860	Transmission kit for radio-telephony and telegraphy, radio or television broadcasting (wholesale)

42120 45213 Transmission line construction
60100 92201 Transmission of aural programming via over-the-airbroadcasts, cable or satellite
13960 17542 Transmission or conveyor belts or belting, made oftextiles (manufacture)
27330 31200 Transmission pole and line hardware (manufacture)28150 29140 Transmission shafts (manufacture)
22190 25130 Transmission v-belts made of rubber (manufacture)26309 32202 Transmitter-receivers (manufacture)
26309 32300 Transmitting and receiving antenna (manufacture)86900 85140 Transplant organ banks
28302 29320 Transplanter for agricultural use (manufacture)26309 32202 Transponders (manufacture)
50200 61102Transport by towing or pushing of barges (exceptinland waterway)
52290 63400 Transport documents issue and procurement46690 51870 Transport equipment (except motor vehicles, motorcycles and bicycles) (wholesale)
81299 74709 Transport equipment cleaning (non-specialised)
65120 66031 Transport insurance
50200 61102Transport of freight over seas and coastal waters(whether scheduled or not)
50400 61209 Transport of freight via canals50400 61209 Transport of freight via lakes 50400 61209 Transport of freight via ports 50400 61209 Transport of freight via rivers
49500 60300 Transport of gases slurry via pipelines
50100 61101Transport of passengers over seas and coastal waters50100 61101 Transport of passengers over water (except for inland waterway service)
50300 61201Transport of passengers over water (inland waterwayservice)
50300 61201Transport of passengers via canals
50300 61201Transport of passengers via inside harbours50300 61201 Transport of passengers via lakes
50300 61201Transport of passengers via ports 50300 61201 Transport of passengers via rivers 49410 60249 Transport of waste and waste materials49500 60300 Transport of water via pipelines
52290 63400 Transport operations arranging or carrying out by air
52290 63400 Transport operations arranging or carrying out byroad
52290 63400 Transport operations arranging or carrying out by sea84130 75130 Transport services administration and regulation (public sector)
49500 60300 Transport via pipeline
28220 29220 Transporter (manufacture)
38110 90020 Trash collection
27510 29710 Trash compactor for domestic use (electric)(manufacture)
46499 51478Travel accessories (wholesale)
47722 52432 Travel accessories made of leather and leathersubstitutes (retail)
79110 63301 Travel agency activities
46499 51478 Travel and fancy goods exporter (wholesale) 46499 51478 Travel and fancy goods importer (wholesale) 47722 52432 Travel goods (retail)
15120 19200 Travel goods made of leather or leather substitute(manufacture)
65120 66031 Travel insurance
26520 33500 Travelling clock (manufacture)

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SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

28220 29220 Travelling crane (manufacture)
29100 34100 Travelling libraries, banks, etc. (not trailers) (manufacture)
13923 17403 Travelling rug making-up (outside weaving establishment) (manufacture)
13923 17403 Travelling rugs made of wool (manufacture)
90010 92349 Travelling show
16240 20400 Travelling trunks made of wood (manufacture)
26110 32100 Travelling wave tube (manufacture)
28990 29560 Trawl door (manufacture)
30110 35110 Trawler (manufacture)
25990 28750 Trays made of base metal (manufacture)
17220 21220 Trays made of paper (manufacture)
22290 25240 Trays made of plastic (manufacture)
16290 20510 Trays made of wood (manufacture)
10810 15830 Treacle (manufacture)
25730 28620 Treadle operated and other non power-operated tools (manufacture)
25610 28510 Treatment and coating of metals (manufacture)
38220 90020 Treatment and disposal of foul liquids (e.g. leachate)
38220 90020 Treatment and disposal of hazardous waste
38210 90020 Treatment and disposal of non-hazardous waste
38220 23300 Treatment and disposal of nuclear waste
38220 90020 Treatment and disposal of radioactive waste from hospitals, etc.
38220 90020 Treatment and disposal of toxic live or dead animals and other contaminated waste
38220 23300 Treatment and disposal of transition radioactive waste
37000 90010 Treatment of human waste water by means of physical, chemical and biological processes
38210 90020 Treatment of organic waste for disposal
37000 90010 Treatment of waste water (human, industrial, from swimming pools etc.) by various processes
36000 41000 Treatment of water for industrial and other purposes
38220 23300 Treatment, disposal and storage of radioactive nuclear waste
01290 01110 Tree growing for extraction of sap
01300 01120 Tree nurseries
02100 02010 Tree nursery (not fruit or ornamental trees)
81300 01410 Tree pruning, replanting, on a fee or contract basis (except as an agricultural service activity)
02200 02010 Treefelling (own account)
25990 28750 Trellis work made of metal (manufacture)
16230 20300 Trellis work made of wood (manufacture)
43120 45110 Trench digging
28922 29522 Trencher (manufacture)
84230 75230 Tribunals
96020 93020 Trichologist
30920 35420 Tricycles (including delivery tricycles) (manufacture)
30920 35420 Tricycles and parts (manufacture)
32409 36509 Tricycles for children (manufacture)
18140 22230 Trimming of books, brochures, etc. (manufacture)
14200 18300 Trimmings made of fur (manufacture)
15110 19100 Trimmings made of leather (manufacture)
20510 24610 Trinitrotoluene (TNT) (manufacture)
52220 63220 Trinity House
47220 52220 Tripe (retail)
10110 15112 Tripe dressing (manufacture)
49390 60239 Trishaw (cycle rickshaw) taxi service
29100 34100 Trolley bus (manufacture)

49319 60219 Trolley bus (scheduled passenger transport)30400 29600 Troop carrier (armoured) (manufacture)
14190 18241 Tropical helmet (manufacture)
93120 92629 Trotting Club
23650 26650 Troughs made of fibre cement (manufacture) 14132 18222 Trouser suits for women and girls (manufacture)14120 18210 Trousers for industrial use (manufacture)
14131 18221 Trousers for men and boys (manufacture) 14132 18222 Trousers for women and girls (manufacture)25730 28620 Trowel (not garden) (manufacture)
29100 34100 Truck (commercial vehicle) (manufacture)
49410 60249 Truck rental (with driver)
77120 71219Truck rental (without driver)
77120 71219Trucks and other heavy vehicles exceeding 3.5 tonnes renting and leasing01160 01110 True hemp growing
28490 29430 Trueing and grinding machines for cold working ofglass (manufacture)
01130 01120 Truffles growing
02300 01120Truffles, gathering from the wild
25400 29600 Truncheons and night sticks (manufacture) 15120 19200 Trunk handles made of leather (manufacture)15120 19200 Trunks made of leather (manufacture)
16230 20300 Truss rafter (manufacture)
84110 75110 Trust territory programme administration (public sector)
66190 67130 Trustee, fiduciary and custody services on a fee orcontract basis
66120 67122 Trustees
69109 74119Trusts preparation
14141 18231 T-shirts for men and boys
(manufacture)26110 32100 Tube (electronic) (manufacture)
24440 27440 Tube blanks made of copper (manufacture) 22220 25220 Tube containers made of plastic (manufacture)
28120 29122 Tube coupling and equipment for pneumatics (manufacture)
24420 27420 Tube fittings made of aluminium (manufacture) 24440 27440 Tube fittings made of copper (manufacture) 23190 26150 Tube fittings made of glass for electric lights (manufacture)
17290 21259 Tube fittings made of paper (manufacture) 24200 27220 Tube fittings made of steel (manufacture) 24200 27220 Tube hollows made of steel (manufacture)28910 29510 Tube mill plant (manufacture)
24440 27440 Tube shells made of copper (manufacture)86101 85111 Tuberculosis hospital (public sector)
01130 01110 Tuberous vegetable growing
28990 29560 Tubes (valves) or bulbs producing machinery(manufacture)
24510 27210 Tubes and fittings made of cast iron (manufacture) 25920 28720 Tubes made of aluminium for packaging (collapsible) (manufacture)
24440 27440 Tubes made of brass (manufacture)
13922 17402 Tubes made of canvas for ventilating purposes(manufacture)
17290 21259 Tubes made of cardboard (not for packing)(manufacture)
24510 27210 Tubes made of centrifugally cast steel (manufacture) 24200 27220 Tubes made of cold drawn steel (manufacture) 23610 26610 Tubes made of concrete (manufacture)
24440 27440 Tubes made of copper (manufacture)

SIC 2007	SIC 2003	Activity
23650	26650	Tubes made of fibre cement (manufacture)
23190	26150	Tubes made of glass (manufacture)
25920	28720	Tubes made of metal (collapsible) (manufacture)
22210	25210	Tubes made of plastic (manufacture)
23200	26260	Tubes made of refractory ceramic (manufacture)
22190	25130	Tubes made of rubber (manufacture)
24200	27220	Tubes made of seamless steel (manufacture)
24200	27220	Tubes made of steel (manufacture)
24430	27430	Tubes, pipes, tube and pipe fittings made of lead (manufacture)
24430	27430	Tubes, pipes, tube and pipe fittings made of tin (manufacture)
24430	27430	Tubes, pipes, tube and pipe fittings made of zinc (manufacture)
23190	26150	Tubing made of glass (manufacture)
22210	25210	Tubing made of plastic (manufacture)
22190	25130	Tubing made of rubber (manufacture)
24200	27220	Tubing made of steel (manufacture)
22220	25220	Tubs made of plastic (manufacture)
16240	20400	Tubs made of wood (manufacture)
25920	28720	Tubular containers made of aluminium (manufacture)
23130	26130	Tubular containers made of glass (manufacture)
25920	28720	Tubular containers made of metal (manufacture)
30110	35110	Tubular modules for oil rigs (manufacture)
25940	28740	Tubular rivets (manufacture)
13931	17512	Tufted carpet (manufacture)
13990	17549	Tufted fabrics (other than household textiles) (manufacture)
13923	17403	Tufting blankets (manufacture)
13923	17403	Tufting household textiles (manufacture)
46640	51830	Tufting machinery (wholesale)
28940	29540	Tufting machinery for carpet making (manufacture)
30110	35110	Tug (manufacture)
52220	63220	Tug boat service for inland waterways
52220	63220	Tug boat service for offshore installations
52220	63220	Tug boat service for sea barge or off-shore well
52220	63220	Tug boat service for sea barges on domestic coastal routes
52220	63220	Tug lessee or owner for inland waterways service
52220	63220	Tug owner or lessee for in port service or salvage
46690	51870	Tugs and pusher craft (wholesale)
85320	63220	Tuition for ships' licences for commercial certificates and permits
46210	51210	Tulip bulbs (wholesale)
13990	17541	Tulles and other net fabrics (manufacture)
13990	17541	Tulles in motifs (manufacture)
13990	17541	Tulles in one piece (manufacture)
13990	17541	Tulles in strips (manufacture)
27510	29710	Tumble dryer for domestic use (manufacture)
23130	26130	Tumblers made of glass (manufacture)
26400	32300	Tuner (audio separate) (manufacture)
26400	32300	Tuner for radio and television (other than audio separates) (manufacture)
10410	15410	Tung oil extraction (manufacture)
24450	27450	Tungsten (manufacture)
03110	05010	Tunicate hunting
32200	36300	Tuning fork (manufacture)
95290	52740	Tuning of musical instruments
23200	26260	Tunnel oven refractory (manufacture)
28921	29521	Tunnelling machine for mining (manufacture)
52219	63210	Tunnels operation
16240	20400	Tuns made of wood (manufacture)
09100	11200	Turbine drilling services
27110	31100	Turbine for electricity generation (manufacture)
77390	71340	Turbine rental and operating leasing
28110	29110	Turbine-generator sets (manufacture)
28110	29110	Turbines and parts thereof (manufacture)
27110	31100	Turbo alternator (manufacture)
46690	51870	Turbo-compressors (wholesale)
30300	35300	Turbo-jets and parts for aircraft (manufacture)
30300	35300	Turbo-propellers and parts for aircraft (manufacture)
92000	92710	Turf accountant
92000	92710	Turf commission agency
01300	01120	Turf for transplanting
01470	01240	Turkey farming
01470	01240	Turkey raising and breeding
96040	93040	Turkish baths
10822	15842	Turkish delight (manufacture)
16290	20510	Turned wood products (manufacture)
28410	29420	Turning machine (metal cutting) (manufacture)
28490	29430	Turning, engraving, carving, etc. machines for stone, ceramics, and similar (manufacture)
01130	01120	Turnip growing
26400	32300	Turn-tables (record decks) (manufacture)
03110	05010	Turtle hunting
13200	17210	Twill weaving (manufacture)
14390	17720	Twin sets (knitted) (manufacture)
13940	17520	Twine (manufacture)
46410	51410	Twine (wholesale)
13100	17170	Twine made of paper (manufacture)
13960	17542	Twist cord (fabric) (manufacture)
25730	28620	Twist drill (manufacture)
28940	29540	Twisting machinery for textiles (manufacture)
24430	27430	Type metal (manufacture)
28990	29560	Type setting machine (manufacture)
18130	22240	Typesetting and phototypesetting (manufacture)
46690	51870	Type-setting machinery, equipment and apparatus (wholesale)
28230	30010	Typewriter (manufacture)
15120	19200	Typewriter case made of leather (manufacture)
77330	71330	Typewriter rental and operating leasing
32990	36631	Typewriter ribbons (manufacture)
46499	51479	Typewriter ribbons (wholesale)
47410	52482	Typewriters (retail)
46660	51850	Typewriters (wholesale)
82190	74850	Typing, word processing and desk top publication service
28990	29560	Tyre alignment and balancing equipment (except wheel balancing) (manufacture)
13100	17110	Tyre cord (cotton system) (manufacture)
13960	17549	Tyre cord fabric made of high-tenacity man-made yarn (manufacture)
13960	17549	Tyre cord fabric of high-tenacity man-made yarn (manufacture)
45320	50300	Tyre dealer (retail)
13960	17549	Tyre fabric woven from yarn spun on the cotton system (manufacture)
22110	25110	Tyre flaps (manufacture)
22110	25120	Tyre rebuilding and retreading (manufacture)

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

22190 25130 Tyre repair materials and kits (manufacture)22110 25120 Tyre retreading (manufacture)
22110 25110 Tyres (manufacture)
22110 25110 Tyres for aircraft (manufacture) 22110 25110 Tyres for cars or vans (manufacture)
22110 25110 Tyres for commercial vehicles (manufacture)22110 25110 Tyres for cycles (manufacture)
22110 25110 Tyres for industrial use (manufacture)
22110 25110 Tyres for motorcycles and mopeds (manufacture)22110 25110 Tyres for scooters (manufacture)
22110 25110 Tyres for tractors (manufacture) 22110 25110 Tyres made of rubber (manufacture)
22110 25110 Tyres made of solid rubber (manufacture)
27900 31620 Ultrasonic cleaning machines (except laboratory anddental) (manufacture)
26600 33100 Ultrasonic diagnostic equipment (manufacture)
26511 33201 Ultrasonic sounding instruments (electronic)(manufacture)
26513 33202 Ultrasonic sounding instruments (non-electronic)(manufacture)
46460 51460 Ultra-violet and infra-red apparatus for medical use(wholesale)
27400 31500 Ultra-violet lamps (manufacture)
32990 36639 Umbrella (manufacture)
13960 17542 Umbrella trimmings made of textile material(manufacture)
47789 52489 Umbrellas (retail)
46420 51429 Umbrellas (wholesale)
17110 21110 Unbleached paper pulp made by chemical dissolving(manufacture)
17110 21110 Unbleached paper pulp made by mechanicalprocesses (manufacture)
17110 21110 Unbleached paper pulp made by non-dissolvingprocesses (manufacture)
17110 21110 Unbleached paper pulp made by semi-chemicalprocesses (manufacture)
10890 15899 Uncooked pizza (manufacture)
11010 15920 Undenatured ethyl alcohol (manufacture)
14190 18249 Underclothing for infants (manufacture)
49311 60213 Underground railways (scheduled passengertransport)
81299 74709 Underground train cleaning (non-specialised)
14142 18232 Underskirt (manufacture)
96030 93030 Undertaking
74202 74813 Underwater photography services
22190 25130 Underwater swimming suit made of rubber (manufacture)
14141 18231 Underwear for men and boys (manufacture) 14142 18232 Underwear for women and girls (manufacture)17220 21220 Underwear made of paper (manufacture) 65110 66011 Underwriter (life insurance)
65120 66031 Underwriter (non-life insurance)
64999 65239 Underwriter (stock and share issues)66220 67200 Underwriting brokers
98100 96000 Undifferentiated goods producing activities ofprivate households for own use
98200 97000 Undifferentiated services producing activities ofprivate households for own use
20590 24640 Unexposed materials (manufacture)
23320 26400 Unglazed building brick (manufacture)14190 18241 Uniform hats and caps (manufacture)

32990 18241 Uniform helmets (manufacture)
14120 18210 Uniforms for men and boys (manufacture) 14120 18210 Uniforms for women and girls (manufacture) 25930 28730 Uninsulated metal cable or insulated cable not useable as a conductor of electricity (manufacture) 27900 31620 Uninterruptible power supplies (UPS) (manufacture) 13200 17250 Union cloth (cotton/linen) (manufacture)
94920 91320 Unionist parties
28410 29420 Unit construction and transfer machine (metalworking) (manufacture)
31090 36140 Unit furniture (non-upholstered) (manufacture) 31090 36110 Unit seating for domestic use (upholstered) (manufacture)
64302 65232 Unit trust activities
94910 91310 Unitarian Church
99000 99000 United Nations and affiliated organisations (not United Nations Association)
94990 91330 United Nations associations
94910 91310 United Reform Church
94910 91310 United Society for Christian Literature 27110 31100 Universal ac/dc motors (manufacture)
29320 34300 Universal joints for motor vehicles (manufacture) 85421 80302 Universities' Central Council on Admissions 85421 80302 University
56290 55510 University canteen
85421 80302 University college
56290 55510 University dining halls
55900 55239 University halls of residence
85421 80302 University medical or dental school 53202 64120 Unlicensed carriers
13940 17520 Unloading cushions (manufacture)
46180 51180 Unrecorded media for sound recording or similar recording of other phenomena (commission agent)
24420 27420 Unwrought aluminium (manufacture)
24440 27440 Unwrought brass (manufacture)
24440 27440 Unwrought bronze (manufacture)
24440 27440 Unwrought cadmium copper (manufacture)
24440 27440 Unwrought copper (manufacture)
24440 27440 Unwrought cupro-nickel (manufacture)
24440 27440 Unwrought delta metal (manufacture)
24440 27440 Unwrought German silver (manufacture)
24440 27440 Unwrought gun metal (manufacture)
24440 27440 Unwrought manganese bronze (manufacture)
24440 27440 Unwrought naval brass (manufacture)
24440 27440 Unwrought red metal (manufacture)
31030 36150 Upholstered base for mattress (manufacture) 31090 36140 Upholstered furniture (other than chairs and seats) (manufacture)
31090 36110 Upholsterer (not repair and maintenance) (manufacture)
95240 36110 Upholsterer (repair and restoration)
13960 17542 Upholsterers' trimmings (textile material) (manufacture)
46770 51570 Upholsterers' trimmings (wholesale)
13100 17170 Upholstery hair fibre and filling (manufacture) 15110 19100 Upholstery leather preparation (manufacture) 31090 36110 Upholstery of chairs and seats (manufacture)
15110 19100 Upper leather (manufacture)
20130 23300 Uranium (enriched) (manufacture) 07210 12000 Uranium and thorium ore concentration

SIC 2007	SIC 2003	Activity
09900	12000	Uranium and thorium ore mining support services provided on a fee or contract basis
24460	23300	Uranium metal production from pitchblende or other ores (manufacture)
07210	12000	Uranium ore mining
24460	23300	Uranium smelting and refining (manufacture)
49311	60213	Urban area passenger railway transportation by underground, metro and similar systems
49319	60219	Urban area scheduled passenger land transport other than by underground, metro and similar systems
42220	45213	Urban communication and powerlines construction
42210	45213	Urban pipelines construction
71112	74202	Urban planning activities
20140	24140	Urea (not for use as fertiliser) (manufacture)
20150	24150	Urea for use as fertiliser (manufacture)
46120	51120	Urea, thiourea and melamine resins in primary forms (commission agent)
46750	51550	Urea, thiourea and melamine resins in primary forms (wholesale)
20140	24140	Ureines (manufacture)
23420	26220	Urinals made of ceramic, fireclay, etc. (manufacture)
32500	33100	Urine bottle holders and other accessories for beds (manufacture)
21200	24421	Urological reagents (manufacture)
86220	85120	Urologist (private practice)
86101	85111	Urologist (public sector)
26110	31300	USB cables (manufacture)
16100	20100	V-jointed wood (manufacture)
21200	24421	Vaccine (manufacture)
27510	29710	Vacuum cleaners for domestic use (manufacture)
28990	29560	Vacuum cleaners for industrial and commercial use (manufacture)
32990	36639	Vacuum flask (complete) (manufacture)
23130	26130	Vacuum flask fillers (manufacture)
28990	29560	Vacuum forming machine (manufacture)
32990	36639	Vacuum jar (manufacture)
28131	29121	Vacuum pump (manufacture)
46690	51870	Vacuum pumps (wholesale)
16100	20100	Vacuum treatment of wood (manufacture)
32990	36639	Vacuum vessels for personal or household use (manufacture)
13923	17403	Valances (manufacture)
96090	93059	Valet car parkers
96010	93010	Valet service
74909	74879	Valuer (any trade except real estate)
68310	70310	Valuer (real estate)
28140	29130	Valve actuators (electrical (other than electric motors)) (manufacture)
28120	29130	Valve actuators (hydraulic and pneumatic) (manufacture)
28140	29130	Valve parts (manufacture)
26110	32100	Valves (electronic) (manufacture)
22290	25240	Valves for aerosols (moulded components) (manufacture)
28120	29130	Valves for hydraulic equipment (manufacture)
28140	29130	Valves for industrial use (manufacture)
28110	34300	Valves for motor vehicle engines (manufacture)
28120	29130	Valves for pneumatic control equipment (manufacture)
28140	29130	Valves for tyres (manufacture)
29100	34100	Van (manufacture)
77120	71219	Van hire (exceeding 3.5 tonnes without driver)
77110	71100	Van rental (self drive not exceeding 3.5 tonnes)
24450	27450	Vanadium (manufacture)
07290	13200	Vanadium mining and preparation
28131	29121	Vane pump (manufacture)
01280	01139	Vanilla growing
19201	23201	Vaporising oil (manufacture)
25300	28300	Vapour generators (manufacture)
74909	74879	Variety agency
90010	92311	Variety artiste (own account)
20301	24301	Varnish (manufacture)
20301	24301	Varnish removers (manufacture)
47520	52460	Varnishes (retail)
46730	51530	Varnishes (wholesale)
18130	22250	Varnishing (manufacture)
32500	33100	Vascular prostheses (manufacture)
19201	23201	Vaseline (at refinery) (manufacture)
23410	26210	Vases made of ceramic (manufacture)
23690	26660	Vases made of concrete, plaster, cement or artificial stone (manufacture)
23130	26130	Vases made of glassware (manufacture)
22290	25240	Vases made of plastic (manufacture)medical
20120	24120	Vat dye (manufacture)
16240	20400	Vats made of wood (manufacture)
20590	24660	Vegetable-based bio diesel (manufacture)
20590	24660	Vegetable-based biodiesel (manufacture)
10390	15330	Vegetable dehydrating for human consumption
10850	15330	Vegetable dishes (manufacture) (manufacture)
13100	17170	Vegetable down (manufacture)
28930	29530	Vegetable fats or oils extraction or preparation machinery (manufacture)
17110	21110	Vegetable fibre pulp (manufacture)
01130	01120	Vegetable growing (except potatoes)
02300	02010	Vegetable hair gathering
28302	29320	Vegetable harvesting and sorting machinery (manufacture)
10320	15320	Vegetable juice (manufacture)
02100	02010	Vegetable materials used for plaiting growing
10612	15612	Vegetable milling (manufacture)
10410	15420	Vegetable oil processing: blowing, boiling, dehydration, hydrogenation (manufacture)
10410	15420	Vegetable oil refining (manufacture)
46120	51120	Vegetable or resin product derivatives (commission agent)
46750	51550	Vegetable or resin product derivatives (wholesale)
10390	15330	Vegetable pickling (manufacture)
01290	01110	Vegetable plaiting material growing
10390	15330	Vegetable preparation and preserving (manufacture)
28930	29530	Vegetable processing machines and equipment (manufacture)
10390	15330	Vegetable quick freezing (manufacture)
46170	51170	Vegetable saps and extracts (commission agent)
01130	01120	Vegetable seed growing
20120	24120	Vegetable tanning and dyeing extracts (manufacture)
47210	52210	Vegetables (retail)
46310	51310	Vegetables (unprocessed) (wholesale)
46310	51310	Vegetables (wholesale)
47290	52270	Vegetarian foods (retail)

SIC 2007	SIC 2003	Activity
64921	65221	Vehicle fuel credit card services
27400	31500	Vehicle lamps (bulb and sealed beam unit) (manufacture)
82990	75130	Vehicle licence issuing on a fee or contract basis
26513	33202	Vehicle motors testing and regulating apparatus(non-electronic) (manufacture)
30990	35500	Vehicles drawn by animals (manufacture)
13990	17541	Veiling (not silk) (manufacture)
13200	17240	Veiling made of silk (manufacture)
15110	19100	Vellum (manufacture)
26511	33201	Velocity measuring instruments (electronic)(manufacture)
26513	33202	Velocity measuring instruments (non-electronic)(manufacture)
13200	17210	Velvet (manufacture)
13300	17300	Velvet cutting and shearing (manufacture)
13300	17300	Velvet dyeing (manufacture)
13200	17210	Velveteen (manufacture)
13300	17300	Velveteen cutting and shearing (manufacture)
13300	17300	Velveteen dyeing (manufacture)
28290	29240	Vending machine (manufacture)
47990	52630	Vending machine sales (retail)
46690	51870	Vending machines (wholesale)
16210	20200	Veneer (manufacture)
16100	20100	Veneer log sawing (manufacture)
28490	29430	Veneer press (manufacture)
28490	29430	Veneer shearing machines (manufacture)
16210	20200	Veneer sheet (manufacture)
28490	29430	Veneer splicing machines (manufacture)
28250	29230	Ventilating fans (manufacture)
27510	29710	Ventilating or recycling hoods (manufacture)
28250	29230	Ventilating unit (manufacture)
81222	74704	Ventilation ducts cleaning
46740	51540	Ventilation equipment (wholesale)
28250	29710	Ventilation equipment for domestic use (manufacture)
28250	29230	Ventilation equipment for non-domestic use(manufacture)
90010	92311	Ventriloquist
64303	65235	Venture and development capital companies andfunds activities
10730	15850	Vermicelli (manufacture)
81291	74703	Vermin destroying (not agricultural)
01610	01410	Vermin destroying and trapping on agricultural land
11040	15950	Vermouth (manufacture)
25300	28300	Vertical boiler (manufacture)
10831	15861	Vervain herb infusions (manufacture)
52220	63220	Vessel laying up and storage services
52220	63220	Vessel registration services
46499	51479	Vessels for pleasure or sports (wholesale)
10200	15209	Vessels only engaged in processing and preserving fish (other than by freezing) (manufacture)
10200	15201	Vessels only engaged in processing and preserving fish by freezing (manufacture)
14120	18210	Vestments for clerical use (manufacture)
14141	18231	Vests for men and boys (manufacture)
14142	18232	Vests for women and girls (manufacture)
75000	85200	Veterinary activities
75000	85200	Veterinary assistants or other auxiliary veterinary personnel
21100	24410	Veterinary biologicals (manufacture)

46460 51460 Veterinary drugs (wholesale)
32500 33100 Veterinary equipment (manufacture)
21100 24410 Veterinary feed additives (medicinal) (manufacture)
75000 85200 Veterinary laboratory
21200 24421 Veterinary medicines (manufacture)
21200 24421 Veterinary pharmaceuticals (manufacture)
75000 85200 Veterinary surgery
42130 45213 Viaduct construction
23130 26130 Vial (manufacture)
64999 65239 Viatical settlement company activities
25730 28620 Vices (manufacture)
91020 92521 Victoria and Albert Museum
26309 32202 Video conferencing equipment (manufacture)
18202 22320 Video disc reproduction (manufacture)
47430 52450 Video equipment (retail)
26400 36509 Video game consoles (manufacture)
47410 52482 Video game consoles (retail)
46499 51477 Video games (wholesale)
32409 36509 Video games machines (manufacture)
46499 51477 Video games of a kind used with a television receiver (wholesale)
26120 32100 Video interface cards (manufacture)
59120 92119 Video post-production activities
59112 92111 Video producer (own account)
59112 92111 Video production
26400 32300 Video projector (manufacture)
77291 71403 Video recorder/player (domestic) hire
47430 52450 Video recorders (retail)
26400 32300 Video recording or reproducing apparatus including camcorders (manufacture)
26309 32202 Video signalling equipment (manufacture)
59112 92111 Video studios
59132 92120 Video tape and dvd distribution rights acquisition
59140 92130 Video tape projection
18202 22320 Video tape recordings reproduction (manufacture)
77220 71405 Video tape rental
47630 52450 Video tapes (retail)
59132 92120 Video tapes distribution to other industries
74209 74819 Videoing of live events such as weddings, graduations, conventions, fashion shows, etc.
46431 51431 Videos (recorded) (wholesale)
47110 52112 Village general store (selling mainly foodstuffs) with alcohol licence (retail)
47110 52113 Village general store (selling mainly foodstuffs) without alcohol licence (retail)
28930 29530 Vinegar processing machinery (manufacture)
10840 15870 Vinegars (malt, spirit, wine, acetic acid) (manufacture)
01210 01131 Vineyards
20140 24140 Vinyl acetate (manufacture)
20160 24160 Vinyl acetate polymers (manufacture)
20160 24160 Vinyl chloride polymers (manufacture)
22230 25231 Vinyl floor covering (homogeneous and printed) (manufacture)
20301 24301 Vinyl paint (manufacture)
17240 21240 Vinyl-coated wall coverings (manufacture)
17240 21240 Vinyl-coated wallpaper (manufacture)
32200 36300 Viola (manufacture)
32200 36300 Violin (manufacture)
15120 19200 Violin case (not wooden) (manufacture)

SIC 2007	SIC 2003	Activity
16290	20510	Violin cases made of wood (manufacture)
92000	92710	Virtual gambling web site operation
26200	30020	Virtual reality helmets (manufacture)
26511	33201	Viscometers (electronic) (manufacture)
26513	33202	Viscometers (non-electronic) (manufacture)
28230	30010	Visible record computer (tabulator) (manufacture)
79909	63309	Visitor assistance services
55201	55231	Visitor flats and bungalows provided in holiday centres and holiday villages
26200	30020	Visual display unit for computer (manufacture)
20301	24301	Vitreous enamel frits (manufacture)
20301	24301	Vitrifiable enamels (manufacture)
46130	51130	Vitrifiable enamels and glazes, englobes, liquid lustres and glass frit (commission agent)
23910	26810	Vitrified bonded abrasives (manufacture)
85410	80301	Vocational education at post-secondary non-tertial
88100	85321	Vocational rehabilitation (charitable)
88100	85322	Vocational rehabilitation (non-charitable)
11010	15910	Vodka distilling (manufacture)
13200	17210	Voile weaving (manufacture)
61900	64200	VOIP (voice over internet protocol) provision
26511	33201	Voltage checking instruments (manufacture)
27120	31200	Voltage limiters (manufacture)
29310	31610	Voltage regulators for vehicles (manufacture)
26511	33201	Voltmeter (electronic) (manufacture)
26513	33202	Voltmeter (non-electronic) (manufacture)
23190	26150	Volumetric glassware (manufacture)
28230	30010	Voting machines (manufacture)
46120	51120	Vulcanized and unvulcanized rubber and articles thereof (commission agent)
22210	25210	Vulcanized fibre (manufacture)
28960	29560	Vulcanizing machines for working rubber and (manufacture)
17220	17549	Wadding made from yarn spun on the cotton system (manufacture)
10720	15820	Wafer biscuits (manufacture)
27510	29710	Waffle irons (manufacture)
10710	15810	Waffles (manufacture)
30200	35200	Wagon and locomotive frames (manufacture)
13922	17402	Wagon cover (manufacture)
16100	20100	Wagon timber (sawn) (manufacture)
14390	17720	Waistcoats and other similar articles (knitted) (manufacture)
14131	18221	Waistcoats for men and boys (manufacture)
28922	29522	Walking draglines (manufacture)
32990	36639	Walking sticks (manufacture)
46420	51429	Walking sticks and seat sticks (wholesale)
16290	36639	Walking sticks made of wood (manufacture)
46730	51530	Wall boards (wholesale)
43330	45430	Wall covering
22230	25239	Wall coverings made of plastic (manufacture)
25990	28750	Wall mountings made of metal (manufacture)
23610	26610	Wall panels for structural use made of precast concrete (manufacture)
23310	26300	Wall tiles (glazed) (manufacture)
23310	26300	Wall tiles made of unglazed clay (manufacture)
31090	36140	Wall unit (manufacture)
91020	92521	Wallace collection
47722	52432	Wallets (retail)
17230	21230	Wallets containing an assortment of paper stationery (manufacture)
15120	19200	Wallets made of leather or leather substitute (manufacture)
47530	52489	Wallpaper (retail)
46730	51440	Wallpaper (wholesale)
17240	21240	Wallpaper and lining paper (manufacture)
17120	21120	Wallpaper base (manufacture)
43330	45430	Wallpaper hanging
01250	01139	Walnut growing
01700	01500	Walrus catching
25400	29600	War ammunition (manufacture)
94990	91330	War veterans' associations
31090	36140	Wardrobes (manufacture)
31090	36140	Wardrobes made of metal (manufacture)
52102	63129	Warehouse (general) operation for air transportlevel activities
52103	63129	Warehouse (general) operation for land transport activities
52101	63129	Warehouse (general) operation for water transport activities
27520	29720	Warm air generator (non-electric) (manufacture)
13100	17120	Warp dressing (woollen) (manufacture)
13910	17600	Warp knitted fabric (manufacture)
13300	17300	Warp knitted fabric dyeing and finishing (manufacture)
13910	17600	Warp knitting (manufacture)
13100	17130	Warp sizing and dressing (worsted) (manufacture)
10620	15620	Warp starch (manufacture)
28940	29540	Warpers for preparing textile yarns (manufacture)
28940	29540	Warping machinery (manufacture)
30110	35110	Warship (manufacture)
25990	28750	Wash basins made of metal (manufacture)
22230	25239	Wash basins made of plastic (manufacture)plastics
23420	26220	Wash basins or sinks made of ceramic, fireclay, etc. (manufacture)
46730	51530	Washbasins (wholesale)
15120	19200	Washers made of leather (manufacture)
25940	28740	Washers made of metal (manufacture)
22190	25130	Washers made of rubber (manufacture)
96010	93010	Washing and cleaning of fur products
96010	93010	Washing and dry cleaning of clothing
96010	93010	Washing and dry cleaning of textile products
28940	29540	Washing machines (laundry) (manufacture)
28940	29540	Washing machines (textile) (non-domestic) (manufacture)
27510	29710	Washing machines for domestic use (manufacture)
20411	24511	Washing powders and preparations in solid or liquid form (manufacture)
46440	51440	Washing products (e.g. washing powder) (wholesale)
46770	51570	Waste (wholesale)
46180	51180	Waste and scrap (commission agent)
46770	51570	Waste and scrap exporter (wholesale)
46770	51570	Waste and scrap importer (wholesale)
38110	90020	Waste collection
38110	90020	Waste collection centre
13100	17110	Waste cotton yarn (manufacture)
27510	29710	Waste disposers (manufacture)
23130	26130	Waste glass resulting from glass container production (manufacture)
38210	90020	Waste disposal

W

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

23190 26150 Waste glass resulting from glass product production (other than glass container) (manufacture)

25300 28300 Waste heat boiler (manufacture)

38210 90020 Waste incineration

46770 51570 Waste paper (wholesale)

46770 51570 Waste rubber (wholesale)

46770 51570 Waste string (wholesale)

13300 17300 Waste textile dyeing (manufacture)

38210 90020 Waste treatment by composting of plant materials 46760 51550 Waste, parings and scrap of plastic (wholesale) 46120 51120 Waste, parings and scrap of rubber (commission agent)

26520 33500 Watch (manufacture)

46499 51479 Watch and clock movements (wholesale)

15120 19200 Watch bands of non-metallic material such as fabric, leather or plastic (manufacture)

26520 33500 Watch case (manufacture)

23190 26150 Watch glass (manufacture)

15120 19200 Watch straps (non-metallic) (manufacture)

15120 19200 Watch straps made of leather or leather substitute (manufacture)

32130 33500 Watch straps, bands and bracelets made of non-precious metal (manufacture)

32120 33500 Watchbands, wristbands and watch straps, of precious metal (manufacture)

47770 52484 Watches and clocks (retail)

46480 51479 Watches and clocks (wholesale)

26520 33500 Watchmakers' jewels (manufacture)

80100 74602 Watchman activities

36000 41000 Water authority (headquarters and water supply) 11070 15980 Water bottling (manufacture)

22290 25240 Water butts made of plastic (manufacture) 25400 29600 Water cannon (manufacture)

23420 26220 Water closet bowls made of ceramic, fireclay, etc. (manufacture)

36000 41000 Water collection, purification and distribution 36000 41000 Water company

36000 41000 Water conservation

71122 74206 Water divining and other scientific prospecting activities

77342 71229 Water freight transport equipment rental (without operator)

27520 29720 Water heaters (gas) (manufacture)

27510 29710 Water heaters for domestic use (electric) (manufacture)

27520 29720 Water heaters for domestic use (non-electric) (manufacture)

10520 15520 Water ices (manufacture)

42210 45213 Water main and line construction 71129 74204 Water management projects design 71200 74300 Water measuring related to cleanness

26513 33202 Water meters (non-electronic) (manufacture)

77341 71221 Water passenger transport equipment rental (without operator)

42910 45240 Water project construction

22290 25240 Water sensitive adhesive tapes made of plastic (manufacture)

28290 29240 Water softening plant (manufacture)

32300 36400 Water sports equipment (manufacture)

22230 25239 Water stop and bar made of plastic (manufacture) 50100 61101 Water taxis operation (except for inland waterway service)

50300 61201 Water taxis operation (inland waterway service)25110 28110 Water tower made of steel plate (manufacture) 52220 63220 Water transport (supporting activities)

50400 61209 Water transport of freight inside harbours and docks20590 24660 Water treatment chemicals (manufacture)

28290 29240 Water treatment plant (manufacture)

42210 45240 Water treatment plant construction

25300 28300 Water tube boilers (manufacture)

42210 45250 Water well drilling

22190 25130 Waterbed mattresses of rubber (manufacture) 50200 61102 Waterborne freight transport (except for inland waterway service) 01130 01120 Watercress growing

22290 25240 Watering cans made of plastic (manufacture)01130 01120 Watermelon growing

17120 21120 Waterproof paper (manufacture)

13922 17402 Waterproofed covers made of canvas (manufacture) 43999 45220 Waterproofing of buildings

13300 17300 Waterproofing of purchased garments (manufacture)

46499 51479Water-skis, surf-boards, sail-boards and otherwater-sport equipment (wholesale)

42910 45240 Waterway construction

52220 63220 Waterway locks operation

28110 29110 Water-wheels (manufacture)

28110 29110 Waterwheels and regulators and parts thereof(manufacture)

32300 36400 Waterwings made of rubber (manufacture)26511 33201 Watt meter (electronic) (manufacture)

26513 33202 Watt meter (non-electronic) (manufacture)

27900 31620 Wave form generator (manufacture)

20420 24520 Waving and hair straightening preparations(manufacture)

20412 24512Wax (manufacture)

93290 92349 Waxworks

74909 63400 Way-bills issue and procurement

22230 25239 WC seat and cover units made of plastic (manufacture)

25400 29600 Weapons (manufacture)

47789 52489 Weapons (retail)

14200 18300 Wearing apparel and clothing accessories made offur (manufacture)

77299 71409 Wearing apparel rental and leasing74909 74206 Weather forecasting activities

65120 66031 Weather insurance

14120 18210 Weather protective industrial clothing (manufacture) 16100 20100 Weatherboard (manufacture)

22230 25239 Weatherboarding made of plastic (manufacture)

14131 18221 Weatherproof jackets for men and boys (manufacture)

14132 18222 Weatherproof jackets for women and girls(manufacture)

14190 18249 Weatherproof outerwear for infants (manufacture)14131 18221 Weatherproof outerwear for men and boys (manufacture)

14132 18222 Weatherproof outerwear for women and girls(manufacture)

14190 18249 Weatherproof skiing clothing (manufacture)

13200 17220 Weaving (woollen) (manufacture)

13200 17230 Weaving (worsted) (manufacture)

28940 29540 Weaving machinery (looms) (manufacture)

28940 29540 Weaving machines (manufacture)

SIC 2007	SIC 2003	Activity
13200	17210	Weaving of cotton and man-made fibres (manufacture)
13922	17402	Web equipment making-up (manufacture)
63110	72300	Web hosting
62012	72220	Web page design
63120	72400	Web search portals
13960	17542	Webbing made of non-elastic and non-elastomeric (manufacture)
13960	17542	Webbing weaving (manufacture)
56210	55520	Wedding catering
74209	74819	Wedding photography
26701	33402	Wedge (optical) (manufacture)
20200	24200	Weed killer (manufacture)
13910	17600	Weft knitted fabric (manufacture)
13300	17300	Weft knitted fabric dyeing and finishing (manufacture)
28290	29240	Weighbridge (manufacture)
52219	63210	Weighbridge services
28290	29240	Weighing machine (manufacture)
96090	93059	Weighing machine operation (coin operated)
46690	51870	Weighing machines and scales for commercial use (wholesale)
28290	29240	Weights for weighing machine (manufacture)
24100	27100	Welded sections of iron and steel (manufacture)
24200	27220	Welded tubes (manufacture)
27900	31620	Welding electrode (manufacture)
27900	29430	Welding machines (electric) (manufacture)
28290	29430	Welding machines (gas) (manufacture)
25930	28730	Welding rods (coated/covered with flux) made of steel (manufacture)
28290	29430	Welding torch (manufacture)
24340	27340	Welding wire (uncoated) made of steel (manufacture)
88990	85321	Welfare and guidance activities for children and adolescents (charitable)
88990	85322	Welfare and guidance activities for children and adolescents (non-charitable)
88990	85321	Welfare service (charitable)
88990	85322	Welfare service (non-charitable)
23190	26150	Well and bulkhead glass (manufacture)
28921	29521	Well drilling equipment (manufacture)
09100	11200	Well logging
43999	45250	Well sinking (except gas or oil)
28921	29521	Wellhead running tools (manufacture)
28921	29521	Wellheads (manufacture)
15200	19300	Wellington boot (manufacture)
09100	11200	Well-perforating services
94910	91310	Wesleyan reform union
27200	31400	Wet cell batteries (manufacture)
10620	15620	Wet corn milling (manufacture)
47230	52230	Wet fish (retail)
46380	51380	Wet fish dealer (wholesale)
22190	25130	Wet suits of rubber (manufacture)
46330	51333	Whale oil (wholesale)
10410	15410	Whale oil production (manufacture)
10410	15420	Whale oil refining (manufacture)
32990	36639	Whalebone cutting and splitting (manufacture)
30110	35110	Whaler (manufacture)
10110	15111	Whales processing on land or on specialised vessels (manufacture)
03110	05010	Whaling
52220	63220	Wharfinger
10611	15611	Wheat flake (manufacture)
01110	01110	Wheat growing
10611	15611	Wheat milling (manufacture)
10611	15611	Wheat offal (manufacture)
10611	15611	Wheat pellets (manufacture)
10620	15620	Wheat starch (manufacture)
26511	33201	Wheel balancing machine (electronic) (manufacture)
26513	33202	Wheel balancing machine (non-electronic) (manufacture)
30920	35430	Wheel chair (manufacture)
77390	71219	Wheelbarrow hire
28220	35500	Wheelbarrows made of metal (manufacture)
28220	35500	Wheelbarrows made of plastic (manufacture)
28220	35500	Wheelbarrows made of wood (manufacture)
30920	35430	Wheelchair (manufacture)
33170	35430	Wheelchair repair and maintenance (manufacture)
32409	36509	Wheeled toys designed to be ridden (manufacture)
46499	51477	Wheeled toys designed to be ridden by children (wholesale)
46610	51880	Wheeled tractor (wholesale)
29320	34300	Wheels and hubs for motor vehicles (manufacture)
30910	35410	Wheels for motorcycles (manufacture)
30920	35420	Wheels for pedal cycles (manufacture)
10519	15519	Whey (sweetened skimmed) production (manufacture)
13300	52740	'While-you-wait' printing of textile articles (manufacture)
08110	14110	Whinstone quarry
15120	36639	Whips (manufacture)
46499	51479	Whips and riding crops (wholesale)
11010	15910	Whisky (manufacture)
11010	15910	Whisky blending (manufacture)
11010	15910	Whisky distilling (manufacture)
32200	36300	Whistles (manufacture)
28230	36120	White boards (manufacture)
10822	15842	White chocolate (manufacture)
01250	01139	White currant growing
20130	24130	White lead (not in paste form) (manufacture)
20301	24301	White lead in paste form (manufacture)
24450	27450	White metal (manufacture)
08930	14400	White salt production
19201	23201	White spirit (manufacture)
10810	15830	White sugar (manufacture)
32910	36620	Whitewash brush (manufacture)
08110	14120	Whiting and prepared chalk production
46390	51390	Wholesale grocer (wholesale)
46900	51900	Wholesale of a variety of goods without any particular specialisation (wholesale)
16290	20520	Wicker baskets (manufacture)
16290	20520	Wickerwork (manufacture)
46499	51479	Wickerwork (wholesale)
47599	52440	Wickerwork goods (retail)
13960	17542	Wicks for lamps, stoves or candles (manufacture)
19201	23201	Wide cut gasoline (manufacture)
24100	27100	Wide slabs made of semi-finished steel (manufacture)
32990	36639	Wig (manufacture)
31090	36140	Wicker furniture (manufacture)

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SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

91040 92530 Wildlife preservation services
02100 02010 Willow growing
69109 74119 Wills preparation
13931 17511 Wilton carpet (manufacture)
13200 17210 Winceyette weaving (manufacture)
28220 29220 Winch (manufacture)
46690 51870 Winches and capstans (wholesale)
46630 51820 Winches specially designed for use underground (wholesale)
35110 40110 Wind farms
32200 36300 Wind instrument (manufacture)
28110 29110 Wind turbines (manufacture)
28220 29220 Winding device (manufacture)
28921 29521 Winding machine for mining (manufacture)
28940 29540 Winding machine for textiles (manufacture)
27320 31300 Winding wire and strip (manufacture)
28220 29220 Windlass (manufacture)
47599 52440 Window blinds (retail)
22230 25239 Window blinds and accessories made of plastic (manufacture)
81221 74702 Window cleaning
13940 17520 Window cord (manufacture)
73110 74402 Window dressing
25720 28630 Window fittings made of metal (manufacture)
23650 26650 Window frames made of fibre-cement (manufacture)
25120 28120 Window frames made of metal (manufacture)
22230 25239 Window frames made of plastic (manufacture)
16230 20300 Window frames made of wood (manufacture)
13910 17600 Window furnishing knitted fabric (manufacture)
23110 26110 Window glass (not cut to size) (manufacture)
23120 26120 Window glass cut to size (manufacture)
18129 22220 Window ticket (manufacture)
29320 34300 Window winding gear for motor vehicles (notelectric) (manufacture)
45200 50200 Windscreen replacement services
29310 31610 Windscreen wipers (manufacture)
29320 34300 Windscreen wipers for motor vehicles (non-electric) (manufacture)
23120 26120 Windscreens made of glass (manufacture)
93290 92729 Windsor Great Park
11020 15931 Wine (of own manufacture) blending, purification and bottling (manufacture)
11020 51342 Wine (purchased in bulk) blending, purification and bottling (manufacture)
47250 52250 Wine and spirit merchant (retail)
46342 51342 Wine and spirit merchant (wholesale)
47250 52250 Wine and spirits (retail)
11020 15932 Wine based on concentrated grape must (manufacture)
46342 51342 Wine importer (wholesale)
28930 29530 Wine making machinery (manufacture)
20590 24660 Wine making preparations (excluding yeast) (manufacture)
11020 15931 Wine production from fresh grapes and grape juice (manufacture)
11020 01131 Wine production from self produced grapes
16290 20510 Wine racks made of wood (manufacture)
46690 51870 Wine, cider, fruit beverage production machinery (wholesale)
28930 29530 Wine, cider, fruit juice, etc. press (manufacture)
30300 35300 Wings for aircraft (manufacture)

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03110 05010 Winkle gathering
28302 29320 Winnower for agricultural use (manufacture) 28930 29530 Winnowers for milling (manufacture)
93110 92619 Winter sport arenas and stadiums 93120 92629 Winter sport clubs
16240 20400 Wire and cable drums made of wood (manufacture) 32910 36620 Wire brush (manufacture)
25930 28730 Wire cable made of steel (manufacture) 28990 29560 Wire coiling machine (manufacture) 25930 28730 Wire fabric made of steel (manufacture) 46690 51870 Wire for industrial use (wholesale)
24420 27420 Wire made of aluminium (manufacture)
24440 27440 Wire made of copper (uninsulated) (manufacture) 46740 51540 Wire netting (wholesale)
24410 27410 Wire of precious metals, made by drawing (manufacture)
25930 28730 Wire products (manufacture)
25930 28730 Wire products made of uninsulated copper (manufacture)
24440 27440 Wire rods made of copper (manufacture) 24100 27100 Wire rods made of steel (manufacture) 28990 29560 Wire rope making machine (manufacture)
25930 28730 Wire strands made of aluminium (manufacture) 28490 29430 Wire weaving machine (manufacture)
46690 51870 Wire, switches and other installation equipment for industrial use (wholesale)
24420 27420 Wirebar made of aluminium (manufacture) 23110 26110 Wired glass (manufacture)
61200 64200 Wireless telecommunications activities
46470 51439 Wires and switches for domestic lighting use (wholesale)
27330 31200 Wiring accessories (manufacture)
27330 31200 Wiring devices (manufacture)
29310 31610 Wiring sets (manufacture)
08990 14500 Witherite mine
02200 02010 Withy growing
24450 27450 Wolfram (manufacture)
47710 52423 Women's bespoke tailor (retail) 47710 52423 Women's clothier and outfitter (retail) 47710 52423 Women's clothing (retail)
46420 51429 Women's clothing (wholesale)
47710 52423 Women's clothing accessories (retail)
47710 52423 Women's hats (retail)
47710 52423 Women's hosiery (retail)
47710 52423 Women's outfitter (retail)
84220 75220 Women's Royal Air Force
84220 75220 Women's Royal Army Corps
84220 75220 Women's Royal Naval Service
88990 85321 Women's Royal Voluntary Service
47710 52423 Women's tailor (retail)
47710 52423 Women's wear (retail)
46130 51130 Wood (commission agent)
46730 51530 Wood (wholesale)
18130 22240 Wood blocks for printing (manufacture) 25730 28620 Wood boring bit (manufacture)
16290 20510 Wood carving (manufacture)
46750 51550 Wood charcoal (not fuel) (wholesale) 46120 51120 Wood charcoal for fuel (commission agent) 16100 20100 Wood chip (manufacture)

SIC 2007	SIC 2003	Activity
16210	20200	Wood chipboard agglomerated with non-mineral binding substances (manufacture)
25730	28620	Wood chisel (manufacture)
16100	20100	Wood creosoting, impregnation, preservation, spraying, varnishing and drying (manufacture)
16100	20100	Wood drying (manufacture)
90030	92319	Wood engraver (artistic)
16100	20100	Wood flour (manufacture)
02200	02010	Wood gathering and production, for energy
16100	20100	Wood grooving, milling, planing, sawing etc. (manufacture)
16100	20100	Wood impregnation (manufacture)
46730	51530	Wood in the rough (wholesale)
02200	02010	Wood in the rough production (untreated)
02200	02010	Wood logging, etc. within forestry site
16100	20100	Wood machining (manufacture)
16290	20510	Wood marquetry (manufacture)
16100	20100	Wood mill (manufacture)
16100	20100	Wood particles (manufacture)
16230	20300	Wood partitions (manufacture)
16100	20100	Wood planing (manufacture)
16100	20100	Wood preservation (manufacture)
46730	51530	Wood products of primary processing (wholesale)
17110	21110	Wood pulp (manufacture)
17290	21259	Wood pulp vessel (manufacture)
16100	20100	Wood sawing (manufacture)
28490	29430	Wood sculpturing and engraving machines (manufacture)
16100	20100	Wood shavings (manufacture)
16100	20100	Wood spraying (manufacture)
20301	24301	Wood stain (manufacture)
20140	24140	Wood tar chemicals (manufacture)
16100	20100	Wood varnishing (manufacture)
16210	20200	Wood veneers (manufacture)
16100	20100	Wood wool (manufacture)
81291	74703	Wood worm preventative treatment service
46730	51530	Wood, construction materials and sanitary equipment exporter (wholesale)
46730	51530	Wood, construction materials and sanitary equipment importer (wholesale)
16290	20510	Wooden articles n.e.c. (manufacture)
16230	20300	Wooden beams for the construction industry (manufacture)
28490	29430	Wooden button making machinery (manufacture)
16290	20510	Wooden cases for jewellery (manufacture)
16230	20300	Wooden goods intended to be used primarily in the construction industry (manufacture)
16220	20300	Wooden parquet floor blocks assembled into panels (manufacture)
16220	20300	Wooden parquet floor strips assembled into panels (manufacture)
47599	52440	Wooden ware (retail)
46499	51479	Wooden ware (wholesale)
46760	51560	Woodpulp and paper making materials (wholesale)
81291	74703	Wood rot preventative treatment service
32200	36300	Woodwind instruments (manufacture)
28490	29430	Woodworking machinery (manufacture)
10110	15113	Wool (fellmongery) (manufacture)
01450	01220	Wool (raw) production
46110	51110	Wool broker (commission agent)
28940	29540	Wool carbonisers (manufacture)
13100	17120	Wool carbonising (manufacture)
13100	17120	Wool carding (manufacture)
13100	17120	Wool cleaning (manufacture)
13100	17120	Wool condensing (manufacture)
13300	17300	Wool dyeing (loose) (manufacture)
46110	51110	Wool exchange (commission agent)
13100	17120	Wool extracting (manufacture)
14190	18241	Wool felt and fur felt hood and capeline (manufacture)
46110	51110	Wool grease including lanolin (commission agent)
46760	51560	Wool merchant (wholesale)
13100	17120	Wool opening and willeying (manufacture)
13300	17300	Wool printing (manufacture)
13100	17120	Wool recovery (manufacture)
28940	29540	Wool scourers (manufacture)
13100	17120	Wool scouring (manufacture)
13100	17120	Wool sorting (manufacture)
13100	17130	Wool topmaking (manufacture)
52102	63129	Wool warehouse for air transport activities
52103	63129	Wool warehouse for land transport activities
52101	63129	Wool warehouse for water transport activities
13300	17300	Woollen and worsted fabric bleaching, dyeing, or otherwise finishing (manufacture)
13200	17220	Woollen cloth weaving (manufacture)
47510	52410	Woollen draper (retail)
46410	51410	Woollen flock (wholesale)
46770	51570	Woollen rag (wholesale)
13100	17120	Woollen rag carbonising (manufacture)
13100	17120	Woollen rag carding (manufacture)
13100	17120	Woollen rag garnetting (manufacture)
13100	17120	Woollen rag grinding or pulling (manufacture)
13100	17120	Woollen waste breaking (manufacture)
13100	17120	Woollen waste garnetting (manufacture)
13100	17120	Woollen waste grinding (manufacture)
13100	17120	Woollen waste opening and willeying (manufacture)
13100	17120	Woollen yarn carding (manufacture)
13100	17120	Woollen yarn condensing (manufacture)
13100	17120	Woollen yarn reeling (manufacture)
13100	17120	Woollen yarn sizing (manufacture)
13100	17120	Woollen yarn spinning (manufacture)
13100	17120	Woollen yarn twisting (manufacture)
13100	17120	Woollen yarn warping (manufacture)
13100	17120	Woollen yarn winding (manufacture)
46410	51410	Woollens (wholesale)
13200	17220	Woollen-type fabrics (manufacture)
13100	17120	Woollen-type fibre preparation and spinning (manufacture)
13200	17220	Woollen-type weaving (manufacture)
13100	17120	Woollen-type yarns (manufacture)
28230	30010	Word processing machines (manufacture)
77330	71330	Word processing machines rental and operating leasing
31090	36140	Work benches made of wood (manufacture)
28490	29430	Work holders (engineers' small tools) (manufacture)
28490	29430	Work holders for machine tools (manufacture)
77320	71320	Work platform rental without erection and dismantling
96010	93010	Work uniforms rental from laundries
43999	45250	Work with specialist access requirements necessitating climbing skills and related equipment

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SIC 2007	SIC 2003	Activity
32120	36220	Worked pearls (manufacture)
23990	26829	Worked peat, articles thereof (manufacture)
85590	80429	Workers' Educational Association
55900	55239	Workers' hostels
70221	74142	Working capital and liquidity management consultancy services
94990	91330	Working men's club (not licensed to sell alcohol)
56301	55401	Working men's clubs (licensed to sell alcohol)
47781	52486	Works of art (retail)
85320	80220	Works school (if separately identifiable)
28220	29220	Works trucks (manufacture)
46690	51870	Works trucks (wholesale)
30200	35200	Workshop wagon for railways (manufacture)
46160	51160	Workwear (commission agent)
14120	18210	Workwear (manufacture)
14120	18210	Workwear clothing for women (manufacture)
99000	99000	World bank
01490	01250	Worm (other than marine) farming
03210	05020	Worm farms, marine
13100	17130	Worsted carding (manufacture)
13100	17130	Worsted doubling (manufacture)
13100	17130	Worsted spinning and twisting (manufacture)
13100	17130	Worsted waste grinding (manufacture)
13100	17130	Worsted yarn reeling (manufacture)
13100	17130	Worsted yarn warping (manufacture)
13100	17130	Worsted yarn winding (manufacture)
13200	17230	Worsted-type fabrics (manufacture)
13100	17130	Worsted-type fibres preparation and spinning (manufacture)
13200	17230	Worsted-type weaving (manufacture)
13100	17130	Worsted-type yarns (manufacture)
13200	17250	Woven cloth made of polypropylene (manufacture)
13960	17542	Woven conveyor belting (manufacture)
13200	17250	Woven elastomeric over 30 cm wide (manufacture)
13200	17250	Woven elastomeric over 30 cm wide (manufacture)
13300	17300	Woven fabric bleaching, dyeing, printing or otherwise finishing (manufacture)
31090	36140	Woven fibre furniture (manufacture)
13960	17542	Woven machinery belting (manufacture)
13200	17210	Woven pile cotton-type fabrics (manufacture)
13960	17542	Woven trimmings (manufacture)
17120	21120	Wrapping and packaging paper including coated (manufacture)
24420	27420	Wrapping foil made of aluminium (manufacture)
28290	29240	Wrapping machinery (manufacture)
17290	21259	Wrapping paper cut and packed in ready to use sheets or rolls (manufacture)
52220	63220	Wreck raising
25730	28620	Wrecking bars (manufacture)
25730	28620	Wrench (manufacture)
93120	92629	Wrestling clubs
26520	33500	Wrist watch (manufacture)
69109	74119	Writer to the signet
94120	91120	Writers associations
17230	21230	Writing compendiums (manufacture)
46499	51479	Writing implement sets (wholesale)
20590	24660	Writing ink (manufacture)
32990	36631	Writing instrument sets (manufacture)
25620	28520	Writing on metal by laser beam (manufacture)
17120	21120	Writing paper (manufacture)

17230 22220 Writing paper pads (manufacture)
28230 30010 Xerographic copying machines (manufacture) 74202 74813 X-ray and other speciality photography activities 26600 33100 X-ray apparatus for industrial use (manufacture) 26600 33100 X-ray apparatus for medical use (manufacture) 26600 33100 X-ray diffraction or fluorescence apparatus (manufacture)
26600 33100 X-ray or alpha, beta or gamma radiation apparatus(manufacture)
26600 33100 X-ray tubes (manufacture)
46520 51860 X-ray, alpha, beta or gamma radiation apparatus(wholesale)
20140 24140 Xylene (manufacture)
47789 52489 Yacht chandler (retail)
93120 92629 Yacht club
30120 35120Yacht building (manufacture)
46499 51479Yachts (wholesale)
01130 01110 Yam growing
46160 51160Yarn (commission agent)
13100 17110Yarn (core spun on the cotton system) (manufacture)22190 25130 Yarn (rubberised) (manufacture)
46410 51410Yarn (wholesale)
13300 17300 Yarn bleaching, dyeing or otherwise finishing(manufacture)
13300 17300 Yarn finishing (manufacture)
13300 17300 Yarn gassing (manufacture)
23990 26821 Yarn made of asbestos (manufacture) 23140 26140 Yarn made of glass fibre (manufacture)13100 17170 Yarn made of paper (manufacture) 13300 17300 Yarn mercerising (manufacture)
13100 17110Yarn of cotton (manufacture)
13300 17300 Yarn polishing (manufacture)
13300 17300 Yarn storing (manufacture)
46380 51380 Yeast (wholesale)
10890 15899 Yeast and vegetable extract (manufacture)10890 15899 Yeast preparation (manufacture)
46170 51170Yeasts and prepared baking powders (commissionagent)
07210 12000 Yellowcake production
24460 23300 Yellowcake to uranium tetrafluoride and hexafluoride conversion (manufacture)55900 55239 YMCA hostel
85510 93059 Yoga instruction
10519 15519Yoghurt (manufacture)
46330 51331Yoghurt (wholesale)
84230 75230 Young offender centres
94920 91320 Young people's auxiliaries associated with a political party
94990 91330 Young persons associations
94990 91330 Youth centre
94990 91330 Youth club
55202 55210 Youth hostel
94990 91330 YMCA (not hostel)
17210 Zephyr weaving (manufacture)
32500 33100 Zimmer frames and other walking aids (manufacture)
24430 27430 Zinc (manufacture)
46720 51520 Zinc (wholesale)
07290 13200 Zinc mining and preparation
20120 24120Zinc oxide (manufacture)

SIC 2007	SIC 2003	Activity
46750	51550	Zinc oxide and peroxide (wholesale)
20301	24301	Zinc paint (manufacture)
24430	27430	Zinc wire made by drawing (manufacture)
94990	91330	Zionist organisation
25990	36639	Zip fasteners made of metal (manufacture)
22290	36639	Zip fasteners made of plastic (manufacture)
24450	27450	Zirconium (manufacture)
91040	92530	Zoological gardens

SIC 2007	SIC 2003	Activity

SIC 2007	SIC 2003	Activity

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Part 2

Numerical Index

UK SIC 2007	UK SIC 2003	Activity
01110		**Growing of cereals (except rice), leguminous crops and oil seeds**
	01110	Barley growing
	01120	Bean growing
	01120	Broad bean growing
	01110	Castor bean growing
	01110	Cereal grains growing, except rice
	01120	Chick pea growing
	01110	Colza growing
	01110	Cottonseed growing
	01120	Cow pea growing
	01110	Dried leguminous vegetables growing
	01110	Grain maize growing
	01110	Groundnut growing
	01120	Leguminous crops growing
	01110	Lentil growing
	01110	Linseed growing
	01110	Lupin growing
	01110	Millet growing
	01110	Mustard seed growing
	01110	Niger seed growing
	01110	Oats growing
	01110	Oil seeds growing
	01120	Pea growing
	01110	Peanut growing
	01120	Pigeon pea growing
	01110	Rape growing
	01110	Rye growing
	01110	Safflower seed growing
	01110	Sesame seed growing
	01110	Sorghum growing
	01110	Soya growing
	01110	Sunflower seed growing
	01110	Sunflower seed production
	01110	Wheat growing
01120		**Growing of rice**
	01110	Rice growing
01130		**Growing of vegetables and melons, roots and tubers**
	01120	Alliaceous vegetable growing
	01120	Artichoke growing
	01120	Asparagus growing
	01120	Aubergine (egg-plant) growing
	01120	Beetroot growing
	01120	Broccoli growing
	01120	Brussel sprout growing
	01120	Bulb growing
	01120	Cabbage growing
	01120	Cantaloupe growing
	01120	Capers growing
	01120	Carrot growing
	01110	Cassava growing
	01120	Cauliflower growing
	01120	Chervil growing
	01120	Chicory growing
	01120	Courgette growing
	01120	Cress growing
	01120	Cucumber growing
	01120	Egg plant growing
	01120	Fennel growing
	01120	Fruit bearing vegetables growing
	01120	Garlic growing
	01120	Gherkin growing
	01120	Herbs (culinary) growing
	01120	Jerusalem artichoke growing
	01120	Leafy or stem vegetables growing
	01120	Leek growing
	01120	Lettuce growing
	01120	Melon growing
	01120	Mushroom growing (cultivated)
	01120	Onion growing
	01120	Parsley growing
	01120	Parsnip growing
	01110	Potato growing
	01120	Root vegetable growing
	01110	Roots and tubers growing
	01110	Roots and tubers with a high starch or inulin content
	01120	Shallot growing
	01120	Spinach growing
	01110	Sugar beet growing
	01110	Sugar beet seed production
	01120	Swede growing
	01120	Sweet marjoram growing
	01110	Sweet potato growing
	01120	Tarragon growing
	01120	Tomato growing
	01120	Truffles growing
	01110	Tuberous vegetable growing
	01120	Turnip growing
	01120	Vegetable growing (except potatoes)
	01120	Vegetable seed growing
	01120	Watercress growing
	01120	Watermelon growing
	01110	Yam growing
01140		**Growing of sugar cane**
	01110	Sugar cane growing
01150		**Growing of tobacco**
	01110	Tobacco growing

01120 Lettuce growing

UK SIC 2007	UK SIC 2003	Activity
01160		**Growing of fibre crops**
	01110	Abaca and other vegetable textile fibre growing
	01110	Cotton growing
	01110	Fibre crop growing
	01110	Flax growing
	01110	Jute textile bast fibre growing
	01110	Kenaf and other textile bast fibre growing
	01110	Plants bearing vegetable fibres, retting of
	01110	Ramie and other vegetable textile fibre growing
	01110	Sisal growing and other textile fibre of the genus agave growing
	01110	Textile plants growing
	01110	True hemp growing
01190		**Growing of other non-perennial crops**
	01110	Alfalfa growing
	01110	Beet seed growing
	01110	Clover growing
	01120	Cut flowers and flower bud production
	01120	Dried flower production
	01120	Flower growing
	01120	Flower seed growing
	01110	Fodder maize and other grass growing
	01110	Fodder root growing
	01110	Forage kale and similar forage products growing
	01110	Forage plants seed production including grasses
	01110	Forage production
	01110	Mangold growing
	01110	Sainfoin growing
	01120	Seed production for flowers, fruit or vegetables (not for oil)
01210		**Growing of grapes**
	01131	Grape production
	01131	Vineyards
01220		**Growing of tropical and subtropical fruits**
	01139	Avocado growing
	01139	Bananas and plantain growing
	01139	Dates growing
	01139	Fig growing
	01139	Mango growing
	01139	Other tropical and subtropical fruit growing
	01139	Papaya growing
	01139	Pineapple growing
01230		**Growing of citrus fruits**
	01139	Clementine growing
	01139	Grapefruit growing
	01139	Growing of citrus fruits
	01139	Lemon growing
	01139	Lime growing
	01139	Mandarin growing
	01139	Orange growing
	01139	Pomelo growing
	01139	Tangerine growing
01240		**Growing of pome fruits and stone fruits**
	01139	Apple growing
	01139	Apricot growing
	01139	Cherry growing
	01139	Cider apple growing
	01139	Nectarine growing
	01139	Peach growing
	01139	Pear growing
	01139	Plum growing
	01139	Pome fruit growing
	01139	Quince growing
	01139	Sloe growing
	01139	Sour cherry growing
	01139	Stone fruit growing
01250		**Growing of other tree and bush fruits and nuts**
	01139	Almond growing
	01139	Blackberry (cultivated) growing
	01139	Blackcurrant growing
	01139	Blueberry growing
	01139	Cashew nut growing
	01139	Chestnut growing
	01139	Currant growing
	01139	Edible nuts growing
	01120	Fruit seed growing
	01139	Gooseberry growing
	01139	Growing of berries
	01139	Hazelnut growing
	01139	Kiwi fruit growing
	01139	Locust bean growing
	01139	Loganberry growing
	01139	Mulberry growing
	01139	Pistachio growing
	01139	Raspberry growing
	01139	Redcurrant growing
	01139	Strawberry growing
	01139	Walnut growing
	01139	White currant growing
01260		**Growing of oleaginous fruits**
	01139	Coconut growing
	01110	Growing of oleaginous fruits other than olives
	01110	Oil palms growing
	01139	Olive growing
01270		**Growing of beverage crops**
	01139	Beverage crop growing other than wine grapes
	01139	Cocoa growing
	01139	Coffee growing
	01139	Mate growing
	01139	Tea growing
01280		**Growing of spices, aromatic, drug and pharmaceutical crops**
	01139	Anise growing
	01139	Aromatic crops growing
	01139	Badian growing
	01139	Basil growing
	01139	Bay growing
	01139	Chilli growing
	01139	Chillies and peppers capsicum sop. Growing
	01139	Cinnamon growing

UK SIC 2007	UK SIC 2003	Activity
	01139	Clove growing
	01139	Coriander growing
	01110	Drug and narcotic crops growing
	01139	Ginger growing
	01110	Hop cones growing
	01139	Nutmeg, mace and cardamoms growing
	01120	Pepper growing
	01110	Pharmaceutical crops growing
	01110	Plants used chiefly in pharmacy or for insecticidal, fungicidal or similar purposes
	01139	Spice crops growing
	01139	Vanilla growing
01290		**Growing of other perennial crops**
	02010	Christmas tree growing
	01110	Rubber trees growing for harvesting of latex
	01110	Tree growing for extraction of sap
	01110	Vegetable plaiting material growing
01300		**Plant propagation**
	01120	Mushroom spawn growing
	01120	Nursery (horticulture)
	01120	Ornamental tree and shrub growing
	01120	Plant growing for bulbs
	01120	Plant growing for cuttings and slips
	01120	Plant growing for roots
	01120	Plant growing for tubers
	01120	Plant propagation
	01120	Plants for planting or ornamental purposes
	01120	Tree nurseries
	01120	Turf for transplanting
01410		**Raising of dairy cattle**
	01210	Buffalo milk, raw
	01210	Cows' milk (raw) production
	01210	Dairy farming
01420		**Raising of other cattle and buffaloes**
	01210	Bovine semen production
	01210	Buffalo raising and breeding for meat
	01210	Cattle farming
	01210	Cattle raising and breeding for meat
01430		**Raising of horses and other equines**
	01220	Animal hair (not carded or combed) including horsehair production
	01220	Ass farming and breeding
	01220	Hinny farming and breeding
	01220	Horse farming and breeding
	01220	Mule farming and breeding
	01220	Stud farming
01440		**Raising of camels and camelids**
	01250	Camelid raising and breeding
	01250	Camels (dromedary) raising and breeding
01450		**Raising of sheep and goats**
	01220	Goat farming
	01220	Goat milk (raw) production
	01220	Goat raising and breeding

SIC 2007	SIC 2003	Activity
	01220	Sheep farming
	01220	Sheep milk (raw) production
	01220	Sheep raising and breeding
	01220	Wool (raw) production
01460		**Raising of swine/pigs**
	01230	Pig farming
	01230	Pig raising and breeding
	01230	Swine farming
	01230	Swine raising and breeding
01470		**Raising of poultry**
	01240	Chicken farm (battery rearing)
	01240	Chicken raising and breeding
	01240	Duck farming
	01240	Duck raising and breeding
	01240	Egg hatchery
	01240	Egg production
	01240	Egg production from poultry
	01240	Geese farming
	01240	Goose raising and breeding
	01240	Guinea fowl production
	01240	Guinea fowl raising and breeding
	01240	Poultry farming
	01240	Poultry hatcheries
	01240	Poultry raising and breeding
	01240	Turkey farming
	01240	Turkey raising and breeding
01490		**Raising of other animals**
	01250	Angora rabbit breeding
	01250	Animal rearing for medical research
	01250	Bee keeping
	01250	Bird raising, other than poultry
	01250	Bird skin production from ranching operation
	01250	Cat and dog raising and breeding
	01250	Emu raising and breeding
	01220	Fine or coarse animal hair, not including sheep or goats wool
	01250	Fur animal raising
	01250	Fur farming
	01250	Fur skin production from ranching operation
	01250	Game bird farming
	01250	Hamster raising and breeding
	01250	Honey and beeswax production
	01250	Honey processing and packing
	01250	Insect raising
	01250	Maggot breeding
	01250	Mollusc farming, except aquatic molluscs
	01250	Ostriches raising and breeding
	01250	Pet animal breeding, other than fish
	01250	Pet bird raising and breeding
	01250	Rabbit and other fur animal raising
	01250	Rabbit breeding
	01250	Rabbit skin sorting
	01250	Raw fur skin production
	01250	Reptile skin production from ranching operation
	01250	Silk worm cocoon production
	01250	Silk worm raising

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UK SIC 2007	UK SIC 2003	Activity
	01250	Snail farming
	01250	Worm (other than marine) farming
01500		**Mixed farming**
	01300	Crop growing in combination with farming of livestock
	01300	Mixed farming
01610		**Support activities for crop production**
	01410	Agricultural contracting
	01410	Agricultural land maintenance in good agricultural environmental condition
	01410	Agricultural machinery and equipment rental with operator
	01410	Beet thinning on a fee or contract basis
	01410	Crop and grass drying plant operation by contractor
	01410	Crop establishing for subsequent crop production, fee or contract basis
	01410	Crop harvesting and preparation
	01410	Crop production support activities
	01410	Crop spraying on a fee or contract basis
	01410	Crop treatment on a fee or contract basis
	01410	Fencing by agricultural contractor
	01410	Field preparation on a fee or contract basis
	01410	Fruit tree and vine trimming, on a fee or contract basis
	01410	Irrigation systems operation on a fee or contract basis
	01410	Mole catching by contractors
	01410	Pest control in connection with agriculture
	01410	Rabbit destroying and trapping on agricultural land
	01410	Rat destroying and trapping on agricultural land
	01410	Rice transplanting
	01410	Rice transplanting, on a fee or contract basis
	01410	Rodent destroying and trapping on agricultural land
	01410	Threshing by contractor
	01410	Vermin destroying and trapping on agricultural land
01621		**Farm animal boarding and care**
	01421	Farm animal boarding and care (except pets)
	01421	Farm animal pound
01629		**Support activities for animal production (other than farm animal boarding and care) n.e.c.**
	01429	Agistment services on a fee or contract basis
	01429	Animal production support activities other than farm animal boarding and care
	01429	Animal propagation, growth and output — activities promote these, on a fee or contract basis
	01429	Animal rearing for production of serum
	01429	Artificial insemination activities on a fee or contract basis
	01429	Coop cleaning
	01429	Droving services
	28520	Farriers, on a fee or contract basis
	01429	Grazing
	01429	Herd testing services
	01429	Poultry caponising
	01429	Propagation, growth and output of animals, promotion service activities
	01429	Sheep agisting (grazing)
	01429	Sheep shearing on a fee or contract basis

SIC 2007	SIC 2003	Activity
	01429	Stud services on a fee or contract basis
01630		**Post-harvest crop activities**
	01139	Cocoa beans, peeling and preparation
	01410	Cooling and bulk packing of crops for primary market
	01410	Cotton ginning
	01410	Crop drying and disinfecting for primary market
	01410	Crop preparation for primary market (cleaning, trimming, grading, etc.)
	01410	Crop wax covering, polishing and wrapping for primary market
	01410	Fruit packing, for primary market
	01410	Fruit waxing
	01410	Grain drying
	01410	Post-harvest crop activities
	01110	Tobacco leaves, drying and preparation on a
01640		**Seed processing for propagation**
	01110	Seed cleaning and treating (cereals and other crops)
	01410	Seed cleaning and treating (fee or contract basis)
	01139	Seed cleaning and treating (fruit, nuts, beverage and spice crops)
	01120	Seed cleaning and treating (vegetables, horticultural specialties and other nursery products)
	01110	Seed drying (cereals and other crops)
	01410	Seed drying (fee or contract basis)
	01139	Seed drying (fruit, nuts, beverage and spice crops)
	01120	Seed drying (vegetables, horticultural specialties and other nursery products)
	01110	Seed genetically modified, treatment of these (cereals and other crops)
	01410	Seed genetically modified, treatment of these (fee or contract basis)
	01139	Seed genetically modified, treatment of these (fruit, nuts, beverage and spice crops)
	01120	Seed genetically modified, treatment of these (vegetables, horticultural and other nursery products)
	01110	Seed grading (cereals and other crops)
	01410	Seed grading (fee or contract basis)
	01139	Seed grading (fruit, nuts, beverage and spice crops)
	01120	Seed grading (vegetables, horticultural specialties and other nursery products)
	01110	Seed post harvest processing (cereals and other crops)
	01410	Seed post harvest processing (fee or contract basis)
	01139	Seed post harvest processing (fruit, nuts, beverage and spice crops)
	01120	Seed post harvest processing (vegetables, horticultural specialties and other nursery products)
	01110	Seed processing for propagation (cereals and other crops)
	01410	Seed processing for propagation (fee or contract basis)
	01139	Seed processing for propagation (fruit, nuts, beverage and spice crops)
	01120	Seed processing for propagation (vegetables, horticultural specialties and other nursery products)
01700		**Hunting, trapping and related service activities**
	01500	Animal hunting and trapping
	01500	Bird skin production (from hunting)

UK SIC 2007	UK SIC 2003	Activity
	01500	Furskin production (from hunting)
	01500	Game propagation
	01500	Hunting or trapping of animals for food
	01500	Hunting or trapping of animals for fur
	01500	Hunting or trapping of animals for pets
	01500	Hunting or trapping of animals for skin
	01500	Hunting or trapping of animals for use in research
	01500	Hunting or trapping of animals for use in zoos
	01500	Hunting, trapping and related service activities
	01500	Reptile skin production (from hunting)
	01500	Sea mammal catching
	01500	Seal catching
	01500	Walrus catching
02100		**Silviculture and other forestry activities**
	02010	Coppice and pulpwood growing
	02010	Forest enterprises
	02010	Forest tree nursery operation
	02010	Forests and timber tract planting, replanting, transplanting, thinning and conservation
	02010	Fuel wood production
	02010	Furze collecting, cutting or gathering
	01120	Growing of forest tree seeds
	02010	Heath collecting, cutting or gathering
	02010	Hoopwood production
	02010	Pulpwood production
	02010	Silviculture and other forestry activities
	02010	Timber growing
	02010	Tree nursery (not fruit or ornamental trees)
	02010	Vegetable materials used for plaiting growing
	02010	Willow growing
02200		**Logging**
	02010	Charcoal production in the forest using traditional methods
	02010	Forest harvesting residues, gathering of these for energy
	02010	Logging
	02010	Osier growing
	02010	Pale fencing production
	02010	Pickets (of wood) production
	02010	Pilings (of wood) production
	02010	Pit props (of wood) production
	02010	Pole fencing production
	02010	Poles (of wood) production
	02010	Posts (of wood) production
	02010	Roundwood production (untreated)
	02010	Roundwood production for forest-based manufacturing industries
	02010	Sawlog production
	02010	Split pole production
	02010	Splitwood production
	02010	Stakes (of wood) production
	02010	Timber felling
	02010	Treefelling (own account)
	02010	Withy growing
	02010	Wood gathering and production, for energy
	02010	Wood in the rough production (untreated)
	02010	Wood logging, etc. within forestry site

SIC 2007	SIC 2003	Activity
02300		**Gathering of wild growing non-wood products**
	02010	Acorn gathering
	02010	Balata gathering
	02010	Balsam gathering
	01139	Berries, gathering from the wild
	02010	Cork, gathering from the wild
	02010	Eel grass gathering
	02010	Fern collecting, cutting, gathering
	02010	Growing materials, gathering from the wild
	02010	Horse-chestnut gathering
	02010	Lac gathering
	02010	Lichen gathering
	02010	Moss collecting, cutting or gathering
	01120	Mushroom (wild) gathering
	02010	Non-wood products, gathering from the wild
	01139	Nuts, gathering from the wild
	02010	Reed collecting, cutting and gathering
	02010	Resin gathering
	02010	Teasel growing
	01120	Truffles, gathering from the wild
	02010	Vegetable hair gathering
02400		**Support services to forestry**
	74149	Forest management consulting services
	02020	Forest pest control
	02020	Forestry fire protection
	02020	Forestry inventories
	02020	Forestry service activities
	02020	Forestry support services
	02020	Log transport within the forest
	02020	Logging service activities
	02020	Timber evaluation
03110		**Marine fishing**
	05010	Algae gathering
	05010	Cockle gathering
	05010	Coral gathering
	05010	Fishing by line, except for recreation or sport
	05010	Fishing for shellfish
	05010	Fishing in ocean, sea, coastal or inland waters
	05010	Fishing on a commercial basis in ocean and coastal waters
	05010	Fishing service activities
	05010	Kelp collecting, cutting and gathering (uncultivated)
	05010	Marine and freshwater crustaceans and molluscs gathering
	05010	Marine crustacean and mollusc gathering
	05010	Marine fishing
	05010	Marine fishing vessels engaged in processing and preserving of fish
	05010	Mussel gathering
	05010	Natural pearls gathering of
	05010	Pearl gathering
	05010	Periwinkle gathering
	05010	Salmon netting
	05010	Sea-squirt hunting
	05010	Sea urchin hunting
	05010	Seaweed collecting, cutting and gathering (uncultivated)
	05010	Shrimping

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

05010 Sponge gathering
05010 Tunicate hunting
05010 Turtle hunting
05010 Whaling
05010 Winkle gathering

03120 Freshwater fishing

05010 Fishing on a commercial basis in inland waters05010 Freshwater aquatic animal taking
05010 Freshwater crustacean and mollusc taking05010 Freshwater fishing
05010 Freshwater materials gathering

03210 Marine aquaculture

05020 Aquaculture in salt water filled tanks or reservoirs05020 Aquaculture in sea or brackish waters
01250 Bait digging
01250 Bait production
05020 Bivalves cultured in sea water 05020 Crustaceans cultured in sea water05020 Edible seaweed growing
05020 Fingerling production, marine05020 Fish breeding, marine
05020 Fish farming, marine 05020 Fish fry production, marine
05020 Fish hatcheries and farms service activities, marine05020 Fish hatcheries, marine
05020 Laver gathering (cultivated)05020 Laver growing
05020 Lobsterling production, marine05020 Marine aquaculture
05020 Molluscs and other aquatic animals cultured in seawater
05020 Mussel production, marine 05020 Ornamental fish farming, marine05020 Oyster cultivation, marine 05020 Oyster fishery, marine
05020 Oyster spat production, marine
05020 Salmon and trout fishery (hatchery), marine05020 Shrimp production (post-larvae), marine 05020 Worm farms, marine

03220 Freshwater aquaculture

05020 Aquaculture, freshwater
05020 Fingerling production, freshwater01250 Fish breeding, freshwater
05020 Fish farming in fresh water, including farming of freshwater ornamental fish
05020 Fish fry production, freshwater
05020 Fish hatcheries and farms service activities, freshwater
05020 Fish hatcheries, freshwater
05020 Freshwater crustaceans, bivalves, other molluscs and other aquatic animals, culture of
05020 Frog farming
05020 Lobsterling production, freshwater 05020 Mussel production, freshwater 05020 Ornamental fish farming, freshwater05020 Oyster cultivation, freshwater 05020 Oyster fishery, freshwater

05020 Oyster spat production, freshwater
05020 Salmon and trout fishery (hatchery), freshwater 05020 Shrimp production (post-larvae), freshwater

05101 Mining of hard coal from deep coal mines (underground mining)

10101 Coal cleaning, sizing, grading and pulverising (hard, deep mined)
10101 Coal mine (deep or drift) 10101 Coal preparation (deep mined)
10101 Coal washing (deep mined) 10101 Deep coal mines
10101 Hard coal mining (underground)

05102 Mining of hard coal from open cast coal working (surface mining)

10102 Coal cleaning, sizing, grading and pulverising(hard, opencast)
10102 Coal contractor (opencast) 10102 Coal preparation (opencast)
10102 Coal recovery from dumps, tips etc.10102 Coal recovery of from culm banks 10102 Coal site (opencast)
10102 Coal washing (opencast) 10102 Hard coal recovery from tips 10102 Opencast coal disposal point
10102 Opencast coal site
10102 Opencast coal working 10102 Surface mining of hard coal

05200 Mining of lignite

10200 Lignite (brown coal) mining including miningthrough liquefaction methods
10200 Lignite mining
10200 Lignite washing, dehydrating, pulverising etc. Toimprove quality or facilitate transport or storage

06100 Extraction of crude petroleum

11100 Bituminous or oil shale and sand extraction11100 Crude oil extraction
11100 Crude oils obtained by decantation processes11100 Crude oils obtained by dehydration processes11100 Crude oils obtained by desalting processes 11100 Crude oils obtained by stabilisation processes11100 Crude petroleum extraction
11100 Crude petroleum production
11100 Crude petroleum production from bituminous shaleand sand
11100 Mineral oil extraction 11100 Oil platform operation
11100 Oil production well or platform operating11100 Oil shale mine
11100 Oil shale retorting
11100 Oil stabilisation plant operation

06200 Extraction of natural gas

11100 Butane extraction from natural gas11100 Condensate extraction
11100 Crude gaseous hydrocarbon production (natural gas)11100 Ethane extraction from natural gas
11100 Gas desulphurisation

UK SIC 2007	UK SIC 2003	Activity
	11100	Gas extraction (natural gas)
	11100	Hydrocarbon liquids mining, by liquefaction or pyrolysis
	11100	Liquid hydrocarbon fractions draining and separation
	11100	Methane extraction from natural gas
	11100	Natural gas condensates separation
	11100	Natural gas production well
	11100	Propane extraction from natural gas
07100		**Mining of iron ores**
	13100	Haematite quarry
	13100	Iron ore beneficiation and agglomeration
	13100	Iron ore calcining
	13100	Iron ore crushing
	13100	Iron ore mine or quarry
	13100	Iron ore preparation
	13100	Iron ore sintering
	13100	Iron ore washing
07210		**Mining of uranium and thorium ores**
	12000	Thorium ores mining
	12000	Uranium and thorium ore concentration
	12000	Uranium ore mining
	12000	Yellowcake production
07290		**Mining of other non-ferrous metal ores**
	13200	Aluminium ore (bauxite) mining or preparation
	13200	Chrome ore mining and preparation
	13200	Cobalt mining and preparation
	13200	Copper mining and preparation
	13200	Copper ore and concentrate extraction and preparation
	13200	Gold mining and preparation
	13200	Lead mining and preparation
	13200	Lead ore and concentrate extraction and preparation
	13200	Manganese mining and preparation
	13200	Mining of non-ferrous metal ore
	13200	Molybdenum mining and preparation
	13200	Nickel mining and preparation
	13200	Non-ferrous metal ore quarrying
	13200	Non-ferrous metal ores mining and preparation
	13200	Platinum mining and preparation
	13200	Precious metal ores mining and preparation
	13200	Silver mining and preparation
	13200	Silver ore and concentrate extraction and preparation
	13200	Tantalum mining and preparation
	13200	Tin mining and preparation
	13200	Tin ore and concentrate extraction and preparation
	13200	Vanadium mining and preparation
	13200	Zinc mining and preparation
08110		**Quarrying of ornamental and building stone, limestone, gypsum, chalk and slate**
	14110	Alabaster mine
	14120	Anhydrite mine or quarry
	14110	Basalt mine
	14110	Blackstone quarry
	14110	Blue pennant stone quarry
	14120	Chalk pit or quarry

SIC 2007	SIC 2003	Activity
	14110	Crushing and breaking of stone
	14110	Flagstone quarry
	14110	Freestone mine or quarry
	14110	Granite quarrying (rough trimming and sawing)
	14120	Gypsum mine or quarry
	14110	Igneous rock quarry
	14120	Limestone including dolomite mine or quarry
	14120	Limestone quarrying, crushing and breaking for constructional purposes
	14110	Marble quarrying (rough trimming and sawing)
	14120	Marl mining
	14110	Ornamental and building stone, breaking and crushing
	14110	Ragstone quarry
	14110	Rough trimming and sawing of building and monumental stone
	14110	Sandstone mine, pit or quarry
	14110	Sett quarry
	14130	Slate mine or quarry
	14110	Whinstone quarry
	14120	Whiting and prepared chalk production
08120		**Operation of gravel and sand pits; mining of clays and kaolin**
	14220	Ball clay extraction (mine or opencast working)
	14220	China clay (ground) production
	14220	China clay pit
	14220	China stone mine
	14220	Clay extraction for brick, pipe and tile production
	14220	Clay mining
	14220	Clay quarrying
	14210	Coated roadstone production
	14210	Coated tarmacadam production
	14220	Fireclay mine or quarry
	14210	Flint bed, pit or quarry
	14210	Flint grit production
	14220	Fuller's earth pit
	14210	Gravel and sand breaking and crushing
	14210	Gravel pit or quarry
	14220	Kaolin mining
	14210	Pebble dredging
	14220	Pipeclay pit
	14220	Potters' clay mine or quarry
	14220	Refractory clays mining
	14210	Road metal production (crushed and processed)
	14210	Roadstone (coated) production
	14210	Sand dredging
	14210	Sand extraction and dredging for industrial use
	14210	Sand pit
	14210	Sand quarry
	14210	Shingle dredging
	14210	Stone chippings production
	14210	Stone dust production
	14210	Tarmacadam (coated) production
08910		**Mining of chemical and fertiliser minerals**
	14300	Alum mine
	14300	Barium sulphate (natural) mining
	14300	Barytes mine
	14300	Borates (natural) mining

UK SIC 2007	UK SIC 2003	Activity
	14300	Carbonate (barytes and witherite) mining
	14300	Celestine pit
	14300	Chalk (ground) production
	14300	Chemical minerals mining
	14300	Earth colours and fluorspar mining
	14300	Fertiliser minerals mining
	14300	Fluorspar mining
	14300	Guano mining
	14300	Iron pyrites extraction (not for iron production)
	14300	Jet mine
	14300	Magnesium sulphates (natural kieserite) mining
	14300	Native sulphur mining
	14300	Ochre pit
	14300	Phosphates (natural) mining
	14300	Potash mine
	14300	Potassium salts (natural) mining
	14300	Pyrites and pyrrhotite extraction and preparation
08920		**Extraction of peat**
	10300	Peat agglomeration
	10300	Peat cutting and digging
	10300	Peat extraction
	10300	Peat, preparation to facilitate transport or storage
	10300	Peat, preparation to improve quality
08930		**Extraction of salt**
	14400	Brine pit
	14400	Brine production
	14400	Rock salt production
	14400	Salt crushing, purification and refining by the producer
	14400	Salt extraction
	14400	Salt mine
	14400	Salt preparation (not at salt mine or brine pit)
	14400	Salt production
	14400	Salt production by evaporation of sea water or other waters
	14400	Salt works
	14400	Salt, extraction of, from underground including by dissolving and pumping
	14400	Sea salt production
	14400	White salt production
08990		**Other mining and quarrying n.e.c.**
	14500	Abrasive materials mining and quarrying
	14500	Asbestos mining and quarrying
	14500	Asphalt (natural) mining and quarrying
	14500	Asphaltites and asphaltic rock mining and quarrying
	14500	Bitumen mining and quarrying
	14500	Chert quarry
	14500	Diatomite bed
	14500	Emery extraction
	14500	Feldspar mining and quarrying
	14500	French chalk production
	14500	Ganister extraction
	14500	Gem stones mining and quarrying
	14500	Graphite (natural) mining
	14500	Mica mining and quarrying
	14500	Pumice extraction
	14500	Quartz mining and quarrying
	14500	Rubbing stone mine, pit or quarry
	14500	Semi-precious stones extraction
	14500	Silica stone extraction or quarrying
	14500	Siliceous fossil meals mining
	14500	Steatite (talc) mining and quarrying
	14500	Talc mine or quarry
	14500	Witherite mine
09100		**Support activities for petroleum and natural gas extraction**
	11200	Derrick erection in situ, repairing and dismantling
	11200	Directional drilling services
	11200	Diving services incidental to oil and gas exploration
	11200	Downhole-fishing services
	11200	Downhole-milling services
	11200	Draining and pumping services incidental to oil and gas extraction, on a fee or contract basis
	11200	Drilling contractor for offshore oil or gas well
	11200	Drilling services to oil and gas extraction wells
	11200	Floating drilling rig operation for petroleum or natural gas exploration or production
	11200	Fluid displacement services
	11200	Fracture/stimulation services
	11200	Gas extraction service activities
	11200	Gravel packing services
	11200	Horizontal drilling services
	11200	Hyperbaric welding services
	11200	Liquefaction and regasification of natural gas for transport
	11200	Hot-tap operation services
	11200	Mud logging services
	11200	Oil and gas exploration in connection with oil and gas extraction, including traditional prospecting
	11200	Oil and gas extraction service activities provided on a fee or contract basis
	11200	Oil and gas field fire fighting services
	11200	Oil and gas well casing, cementing, tubing and liningsaline services
	11200	Oil and gas well cementing services
	11200	Oil and gas well coiled-tubing wellwork
	11200	Oil and gas well conductor driving services
	11200	Oil and gas well cutting, casing and abandonment services
	11200	Oil and gas well pipe refurbishment services
	11200	Oil and gas well sleeving repair services
	11200	Oil extraction service activities
	11200	Petroleum and natural gas mining support activities
	11200	Petroleum test well drilling
	11200	Petroleum well drilling
	11200	Plugging and abandoning oil and gas wells
	11200	Pumping of oil and gas wells
	11200	Redrilling oil and gas wells
	11200	Repair and dismantling services of derricks
	11200	Sealing of oil and gas wells
	11200	Separation terminal operation (natural gas)
	11200	Spudding in for oil wells
	11200	Test boring incidental to oil and gas extraction
	11200	Turbine drilling services
	11200	Well logging
	11200	Well-perforating services

UK SIC 2007	UK SIC 2003	Activity
09900		**Support activities for other mining and quarrying**
	14300	Chemicals and fertiliser minerals mining support services provided on a fee or contract basis
	14220	Clay and kaolin mining support services provided on a fee or contract basis
	14210	Gravel and sand pit support services provided on a fee or contract basis
	10102	Hard coal mining (opencast) support services, provided on a fee or contract basis
	10101	Hard coal mining (underground) support services, provided on a fee or contract basis
	13100	Iron ore mining support services provided on a fee or contract basis
	10200	Lignite mining support services provided on a fee or contract basis
	14120	Limestone, gypsum and chalk quarrying support services provided on a fee or contract basis
	14500	Mining and quarrying of residual class 08990, support services provided on a fee or contract basis
	13200	Non-ferrous metal ore mining of class 07290, support services provided on a fee or contract basis
	14110	Ornamental and building stone quarrying support services provided on a fee or contract basis
	10300	Peat extraction support services, provided on a fee contract basis
	14400	Salt production support services provided on a fee or contract basis
	14130	Slate quarrying support services provided on a fee or contract basis
	12000	Uranium and thorium ore mining support services provided on a fee or contract basis
10110		**Processing and preserving of meat**
	15111	Abattoir (manufacture)
	15112	Animal grease (manufacture)
	15112	Animal offal (inedible) production (manufacture)
	15112	Animal offal processing (manufacture)
	15112	Bile processing by knackers (manufacture)
	15112	Bladder processing (manufacture)
	15112	Bone boiling by knackers (manufacture)
	15112	Bone crushing by knackers (manufacture)
	15112	Bone degreasing by knackers (manufacture)
	15112	Bone flour from knackers (manufacture)
	15112	Bone meal (manufacture)
	15112	Bone meal from knackers (manufacture)
	15112	Bone scraping by knackers (manufacture)
	15112	Bone sorting by knackers (manufacture)
	15111	Bovine hides and skins production from knackers (manufacture)
	15112	Bristles from knackers (manufacture)
	15112	Casings for sausages (manufacture)
	15113	De-woolling (manufacture)
	15112	Dripping (manufacture)
	15112	Edible fats of animal origin rendering (manufacture)
	15112	Edible offal (processed) production (manufacture)
	15112	Edible tallow production (manufacture)
	15112	Fat recovery from knackers (manufacture)
	15113	Fellmongery (manufacture)
	15112	Flours and meals of meat (manufacture)
	15112	Hair (animal by-product) from knackers (manufacture)
	15111	Hide degreasing (manufacture)
	15111	Hide pickling (manufacture)
	15111	Hides and skins production from abattoirs (manufacture)
	15111	Hides and skins production from knackers (manufacture)
	15111	Hides and skins production from slaughterhouses (manufacture)
	15112	Hooves from knackers production (manufacture)
	15112	Lard from knackers (manufacture)
	15111	Meat (except poultry meat) processing and preserving (manufacture)
	15112	Meat and bone meal from knackers (manufacture)
	15111	Meat chilling or freezing for human consumption (manufacture)
	15112	Meat meal (ground meat) (manufacture)
	15111	Meat production (fresh, chilled or frozen) in carcasses or cuts (manufacture)
	15111	Offal (edible) preparation (i.e. removal, freezing, packing, etc.) (manufacture)
	15113	Pelt from fellmongery (manufacture)
	15112	Premier jus (manufacture)
	15113	Pulled wool production (manufacture)
	15120	Rabbit meat preparation (manufacture)
	15112	Raw bones from knackers (manufacture)
	15112	Rendering of lard and other edible fats of animal origin (manufacture)
	15112	Sausage skins and casings (natural) (manufacture)
	15113	Sheep and lambskin pulling (manufacture)
	15111	Skin drying (manufacture)
	15111	Skin pickling (manufacture)
	15111	Skin production from slaughterhouses (manufacture)
	15111	Skin sorting (manufacture)
	15111	Slaughterhouse (manufacture)
	15111	Slaughterhouses killing, dressing or packing meat (manufacture)
	15112	Sterilised bone flour (not for fertilisers) (manufacture)
	15112	Suet (manufacture)
	15112	Tripe dressing (manufacture)
	15111	Whales processing on land or on specialised vessels (manufacture)
	15113	Wool (fellmongery) (manufacture)
10120		**Processing and preserving of poultry meat**
	15120	Chicken cuts (fresh, chilled or frozen) (manufacture)
	15120	Down production (manufacture)
	15120	Duck (fresh, chilled or frozen) slaughter and dressing (manufacture)
	15120	Feather production (manufacture)
	15120	Game bird (fresh, chilled or frozen) dressing or preparation (manufacture)
	15120	Goose (fresh, chilled or frozen) slaughter and dressing (manufacture)
	15120	Poultry (fresh, chilled or frozen) production (manufacture)
	15120	Poultry dressing (manufacture)
	15120	Poultry fat (edible) rendering (manufacture)
	15120	Poultry meat preparation (manufacture)
	15120	Poultry meat production and preserving (manufacture)

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	15120	Poultry packing (manufacture)
	15120	Poultry slaughtering (manufacture)
	15120	Slaughterhouses killing, dressing or packing poultry (manufacture)
10130		**Production of meat and poultry meat products**
	15139	Andouillettes (manufacture)
	15131	Bacon curing (manufacture)
	15131	Bacon production (manufacture)
	15131	Bacon smoking (manufacture)
	15139	Beef extract (manufacture)
	15139	Beef paste (manufacture)
	15139	Beef pickling (manufacture)
	15139	Black pudding (manufacture)
	15139	Blood pudding (manufacture)
	15131	Boiled ham production (manufacture)
	15139	Bolognas (manufacture)
	15139	Brawn (manufacture)
	15139	Calves' foot jelly (manufacture)
	15139	Chicken paste (manufacture)
	15139	Cooked and preserved meat (manufacture)
	15139	Dried, salted or smoked meat (manufacture)
	15139	Forcemeat (manufacture)
	15139	Galantines (manufacture)
	15139	Haggis (manufacture)
	15131	Ham boiling (manufacture)
	15131	Ham cooking or preparing in bulk (manufacture)
	15131	Ham curing (manufacture)
	15131	Ham production (manufacture)
	15131	Ham smoking (manufacture)
	15139	Meat and poultry meat processing (other than bacon and ham) (manufacture)
	15139	Meat and poultry meat products (manufacture)
	15139	Meat canning, cooking and preserving (manufacture)
	15139	Meat extract (manufacture)
	15139	Meat juices (manufacture)
	15139	Meat pate (manufacture)
	15139	Meat pies and puddings (manufacture)
	15139	Meat pudding (manufacture)
	15139	Meat rillettes (manufacture)
	15139	Pastrami and other salted, dried or smoked meats (manufacture)
	15139	Pâtés (manufacture)
	15139	Polony (manufacture)
	15131	Pork (salted or pickled) (manufacture)
	15139	Pork pie (manufacture)
	15139	Potted meat. (manufacture)
	15139	Poultry canning (manufacture)
	15139	Poultry potting (manufacture)
	15139	Preserved meat (manufacture)
	15139	Salami (manufacture)
	15139	Sausage meat (manufacture)
	15139	Sausage rolls (manufacture)
	15139	Sausages (manufacture)
	15139	Saveloys (manufacture)
	15139	Smoked meat (other than bacon and ham) (manufacture)
	15131	Tinned ham (manufacture)
	15139	Tinned meat (other than tinned ham) (manufacture)

SIC 2007	SIC 2003	Activity
10200		**Processing and preserving of fish, crustaceans and molluscs**
	15209	Caviar (manufacture)
	15209	Caviar substitute (manufacture)
	15209	Crustacean and mollusc canning (manufacture)
	15209	Crustacean and mollusc preservation by drying (manufacture)
	15209	Crustacean and mollusc products (manufacture)
	15209	Crustacean and mollusc salting (manufacture)
	15201	Crustacean freezing (manufacture)
	15209	Crustacean preservation (other than by freezing) (manufacture)
	15209	Fish and other aquatic animal meals and solubles unfit for human consumption (manufacture)
	15209	Fish cakes (manufacture)
	15209	Fish canning (manufacture)
	15209	Fish curing (other than by distributors) (manufacture)
	15209	Fish drying (manufacture)
	15209	Fish fillet production (manufacture)
	15209	Fish meal (manufacture)
	15209	Fish paste (manufacture)
	15209	Fish preservation (other than by freezing) (manufacture)
	15201	Fish preservation by freezing (manufacture)
	15209	Fish processing (not freezing) (manufacture)
	15209	Fish products (manufacture)
	15209	Fish salting (manufacture)
	15209	Fish, crustacean and mollusc cooking (manufacture)
	15209	Fish, crustacean and mollusc preparation and preservation, by immersing in brine (manufacture)
	15209	Fish, crustacean and mollusc smoking (manufacture)
	15209	Inedible flours, meal and pellets of fish, crustaceans and molluscs production (manufacture)
	15209	Kipper (manufacture)
	15209	Mollusc preservation (other than by freezing) (manufacture)
	15201	Mollusc preservation by freezing (manufacture)
	15209	Potted shrimp (manufacture)
	15209	Roe production (manufacture)
	15209	Seaweed processing (manufacture)
	15201	Shellfish freezing (manufacture)
	15209	Shellfish preserving (not freezing) (manufacture)
	15209	Shrimp preserving (not freezing) (manufacture)
	15209	Smoked salmon, trout and herring production (manufacture)
	15209	Vessels only engaged in processing and preserving fish (other than by freezing) (manufacture)
	15201	Vessels only engaged in processing and preserving fish by freezing (manufacture)
10310		**Processing and preserving of potatoes**
	15310	Mashed potatoes (dehydrated) production (manufacture)
	15310	Potato chip production (frozen, raw, steamed or boiled) (manufacture)
	15310	Potato crisp (manufacture)
	15310	Potato flour and meal (manufacture)
	15310	Potato peeling (industrial) (manufacture)
	15310	Potato processing and preserving (manufacture)
	15310	Potato puff (manufacture)
	15310	Potato snacks production (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	15310	Potato stick (manufacture)
	15310	Potato straw (manufacture)
	15310	Potatoes (prepared frozen) production (manufacture)
10320		**Manufacture of fruit and vegetable juice**
	15320	Fruit and vegetable concentrates (manufacture)
	15320	Fruit juice (manufacture)
	15320	Vegetable juice (manufacture)
10390		**Other processing and preserving of fruit and vegetables**
	15330	Banana ripening and conditioning (manufacture)
	15330	Canning of fruit and vegetables (except fruit juices and potatoes) (manufacture)
	15330	Chutney (manufacture)
	15330	Coconut flakes including desiccated but (not sugared) (manufacture)
	15330	Dehydrating fruit for human consumption (manufacture)
	15330	Dehydrating of vegetables for human consumption (manufacture)
	15330	Dried fruit (except field dried) (manufacture)
	15330	Dried fruit cleaning (manufacture)
	15330	Dried vegetables (except field dried) (manufacture)
	15330	Flaked coconut including desiccated but (not sugared) (manufacture)
	15330	Fruit freezing (manufacture)
	15330	Fruit jelly (preserve) (manufacture)
	15330	Fruit or vegetable food products (manufacture)
	15330	Fruit pickling (manufacture)
	15330	Fruit preserving (manufacture)
	15330	Fruit processing and preserving (except in sugar) (manufacture)
	15330	Fruit pulp (manufacture)
	15330	Fruit, nuts or vegetables preserved by immersing in oil (manufacture)
	15330	Fruit, nuts or vegetables preserved by immersing in vinegar (manufacture)
	15330	Gherkin pickling (manufacture)
	15330	Heat treatment of fruit and vegetables (manufacture)
	15330	Homogenised fruit and vegetables (manufacture)
	15330	Jam (manufacture)
	15330	Jelly (table) (manufacture)
	15330	Jelly powder (manufacture)
	15330	Marmalade (manufacture)
	15330	Mincemeat (manufacture)
	15330	Nut foods and pastes (manufacture)
	15330	Nut processing and preservation (except in sugar) (manufacture)
	15330	Nut shelling, grinding and preparing (manufacture)
	15330	Nuts preserved by freezing (manufacture)
	15330	Olive preserving in salt or brine (manufacture)
	15330	Peanut butter (manufacture)
	01410	Peeled or cut vegetables, mixed fresh salads, packaged (manufacture)
	51310	Peeled, cut fresh vegetables, mixed salads, packed (manufacture)
	15330	Perishable prepared fruit and vegetables (manufacture)
	15330	Perishable prepared salads; mixed salads (manufacture)
	15330	Perishable prepared tofu bean curd (manufacture)
	15330	Perishable prepared vegetables, packaged peeled or cut (manufacture)
	15330	Piccalilli production (manufacture)
	15330	Pickle including beetroot and onion (manufacture)
	15330	Pickling of fruit and vegetables (manufacture)
	15330	Quick freezing of fruit and vegetables (manufacture)
	15330	Strained fruit (manufacture)
	15330	Strained vegetables (manufacture)
	15330	Table jelly (manufacture)
	15330	Vegetable dehydrating for human consumption (manufacture)
	15330	Vegetable pickling (manufacture)
	15330	Vegetable preparation and preserving (manufacture)
	15330	Vegetable quick freezing (manufacture)
10410		**Manufacture of oils and fats**
	15410	Animal fat and oil production (non-edible) (manufacture)
	15420	Animal oil refining (manufacture)
	15410	Benniseed crushing (manufacture)
	15420	Benniseed oil refining (manufacture)
	15410	Bone oil (manufacture)
	15420	Castor oil processing (manufacture)
	15410	Castor seed crushing (manufacture)
	15420	Coconut oil refining (manufacture)
	15420	Cod liver oil refining (manufacture)
	15420	Cola oil refining (manufacture)
	15410	Colza oil production (manufacture)
	15410	Copra (coconut) crushing (manufacture)
	15410	Cotton linters production (manufacture)
	15410	Cotton seed crushing including delinting or cleaning (manufacture)
	15410	Cotton seed oil production (manufacture)
	15420	Cotton seed oil refining (manufacture)
	15410	Crude vegetable oil production (manufacture)
	15410	Fat of marine animals production (manufacture)
	15410	Fish and marine mammal oil extraction (manufacture)
	15410	Fish liver oil (unrefined) production (manufacture)
	15420	Fish liver oil refining (manufacture)
	15410	Fish oil (crude) production (manufacture)
	15420	Gingelly oil refining (manufacture)
	15410	Gingelly seed crushing (manufacture)
	15410	Groundnut crushing (manufacture)
	15420	Groundnut oil refining (manufacture)
	15420	Herring oil refining (manufacture)
	15410	Kapok seed crushing (manufacture)
	15420	Kapok seed oil refining (manufacture)
	15410	Kernel crushing (manufacture)
	15410	Lanolin recovery (manufacture)
	15410	Lard oil (manufacture)
	15410	Linseed crushing (manufacture)
	15410	Linseed oil production (manufacture)
	15420	Linseed oil refining (manufacture)
	15410	Marine animal crude oil and fat production (manufacture)
	15410	Mustard oil production (manufacture)
	15410	Mustard seed crushing (manufacture)
	15420	Neatsfoot oil (manufacture)
	15410	Non-defatted flour production (manufacture)

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	15420	Oil (edible) (manufacture)
	15410	Oil kernel meal production (manufacture)
	15410	Oil nut meal production (manufacture)
	15410	Oil seed cake and meal (manufacture)
	15410	Oil seed crushing (manufacture)
	15410	Oilcakes and other residual products of oil production (manufacture)
	15410	Oleo stearin (manufacture)
	15410	Olive oil (crude) production (manufacture)
	01139	Olive oil from self produced olives (if value of production exceeds that of growing) (manufacture)
	15420	Olive oil refining (manufacture)
	15410	Palm kernel crushing (manufacture)
	15420	Palm kernel oil refining (manufacture)
	15410	Palm oil production (manufacture)
	15420	Palm oil refining (manufacture)
	15410	Rape oil production (manufacture)
	15420	Rape oil refining (manufacture)
	15410	Rape seed crushing (manufacture)
	15410	Seed and nut crushing (manufacture)
	15420	Sesame oil refining (manufacture)
	15410	Sesame seed crushing (manufacture)
	15420	Shea butter (manufacture)
	15410	Shea nut crushing (manufacture)
	15410	Soya bean crushing (manufacture)
	15410	Soya bean oil (crude) (manufacture)
	15420	Soya bean oil refining (manufacture)
	15420	Sperm oil refining (manufacture)
	15420	Sunflower oil refining (manufacture)
	15410	Sunflower seed crushing (manufacture)
	15410	Sunflower-seed oil production (manufacture)
	15410	Technical tallow (manufacture)
	15410	Tung oil extraction (manufacture)
	15420	Vegetable oil processing: blowing, boiling, dehydration, hydrogenation (manufacture)
	15420	Vegetable oil refining (manufacture)
	15410	Whale oil production (manufacture)
	15420	Whale oil refining (manufacture)
10420		**Manufacture of margarine and similar edible fats**
	15430	Cooking fat (compound) (manufacture)
	15430	Fats (edible) (manufacture)
	15430	Margarine (manufacture)
	15430	Melanges and similar spreads (manufacture)
10511		**Liquid milk and cream production**
	15511	Clotted cream (manufacture)
	15511	Condensed milk (manufacture)
	15511	Cream (sterilised) (manufacture)
	15511	Cream from fresh homogenized liquid milk (manufacture)
	15511	Cream from fresh pasteurized liquid milk (manufacture)
	15511	Cream production (manufacture)
	15511	Creamery (not farm or retail shop) (manufacture)
	15511	Dairy preparation of milk and cream (manufacture)
	15511	Double cream (manufacture)
	15511	Evaporated milk (manufacture)
	15511	Heat treatment of milk (manufacture)
	15511	Homogenised milk production (manufacture)
	15511	Milk homogenising (manufacture)
	15511	Milk production (evaporated, condensed, etc.) (manufacture)
	15511	Milk sterilising (manufacture)
	15511	Milk ultra heat treatment (manufacture)
	15511	Pasteurized fresh liquid milk (manufacture)
	15511	Preserved cream (manufacture)
	15511	Sterilised cream (manufacture)
10512		**Butter and cheese production**
	15512	Butter blending (manufacture)
	15512	Butter milk (manufacture)
	15512	Butter oil (manufacture)
	15512	Butter production (manufacture)
	15512	Butterfat (manufacture)
	15512	Cheese (manufacture)
	15512	Curd production (manufacture)
	15512	Dairy preparation of cheese and butter (manufacture)
	15512	Processed cheese (manufacture)
10519		**Manufacture of milk products (other than liquid milk and cream, butter, cheese) n.e.c**
	15519	Casein production (manufacture)
	15519	Concentrated dried milk (manufacture)
	15519	Dairy preparation of milk products n.e.c. (manufacture)
	15519	Desserts with a milk base (manufacture)
	15519	Dried milk (manufacture)
	15519	Junket powder (manufacture)
	15519	Lactose production (manufacture)
	15519	Milk or cream in solid form (manufacture)
	15519	Milk powder (manufacture)
	15519	Milk products other than liquid milk and cream, butter, cheese n.e.c. (manufacture)
	15519	Rennet (not artificial) (manufacture)
	15519	Soft drinks (milk based) (manufacture)
	15519	Sweetened skimmed whey production (manufacture)
	15519	Whey (sweetened skimmed) production (manufacture)
	15519	Yoghurt (manufacture)
10520		**Manufacture of ice cream**
	15520	Ice cream (manufacture)
	15520	Ice cream powder (manufacture)
	15520	Sorbet production (manufacture)
	15520	Water ices (manufacture)
10611		**Grain milling**
	15611	Barley meal production (manufacture)
	15611	Barley milling (manufacture)
	15611	Barley processing (blocked, flaked, puffed or pearled) (manufacture)
	15611	Bran (manufacture)
	15611	Cake mixture (manufacture)
	15611	Cereal grains, flour, groats, meal or pellets (manufacture)
	15611	Corn or other cereal grains (manufacture)
	15611	Cornflour (manufacture)
	15611	Flaked maize (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	15611	Flour (manufacture)
	15611	Flour milling (manufacture)
	15611	Flour mixes and prepared blended flour and dough for biscuits (manufacture)
	15611	Flour mixes and prepared blended flour and dough for bread (manufacture)
	15611	Flour mixes and prepared blended flour and dough cakes (manufacture)
	15611	Flour mixes and prepared blended flour and dough for pancakes (manufacture)
	15611	Flour of cereal grains production (manufacture)
	15611	Grain milling (manufacture)
	15611	Grist milling (manufacture)
	15611	Groats production (manufacture)
	15611	Maize (flaked) production (manufacture)
	15611	Maize flour and meal production (manufacture)
	15611	Meal from grain (manufacture)
	15611	Oat flour and meal (manufacture)
	15611	Oat grinding, rolling, crushing or flaking (manufacture)
	15611	Oats (manufacture)
	15611	Pudding mixture (manufacture)
	15611	Rye (manufacture)
	15611	Rye flaking (manufacture)
	15611	Rye flour and meal (manufacture)
	15611	Rye milling (manufacture)
	15611	Rye rolling (manufacture)
	15611	Self-raising and patent flour (manufacture)
	15611	Semolina milling (manufacture)
	15611	Wheat flake (manufacture)
	15611	Wheat milling (manufacture)
	15611	Wheat offal (manufacture)
	15611	Wheat pellets (manufacture)
10612		**Manufacture of breakfast cereals and cereals-based foods**
	15612	Almond grinding (manufacture)
	15612	Bean grinding (manufacture)
	15612	Bean milling (manufacture)
	15612	Bean splitting (manufacture)
	15612	Breakfast cereal (cooked) (manufacture)
	15612	Breakfast cereal (uncooked) (manufacture)
	15612	Cereal breakfast foods (manufacture)
	15612	Chicory root drying (manufacture)
	15612	Cornflake (manufacture)
	15612	Edible nut flour or meal production (manufacture)
	15612	Flour of dried leguminous vegetables production (manufacture)
	15612	Flour or meal of roots or tubers (manufacture)
	15612	Glazed rice (manufacture)
	15612	Lentil splitting, grinding or milling (manufacture)
	15612	Meal of dried leguminous vegetables production (manufacture)
	15612	Parboiled or converted rice (manufacture)
	15612	Pea splitting, milling or grinding (manufacture)
	15612	Polished rice (manufacture)
	15612	Puffed rice (manufacture)
	15612	Puffed wheat (manufacture)
	15612	Rice cleaning (manufacture)
	15612	Rice flaking (manufacture)
	15612	Rice flour production (manufacture)
	15612	Rice husking (manufacture)
	15612	Rice milling (manufacture)
	15612	Rice rolling (manufacture)
	15612	Sago grinding or milling (manufacture)
	15612	Soya bean grinding (manufacture)
	15612	Soya bean milling (manufacture) for
	15612	Soya flour and meal (manufacture)
	15612	Vegetable milling (manufacture)
10620		**Manufacture of starches and starch products**
	15620	Arrowroot (manufacture)
	15620	Corn oil (manufacture)
	15620	Dextrin (manufacture)
	15620	Dextrose (manufacture)
	15620	Glucose (manufacture)
	15620	Glucose syrup (manufacture)
	15620	Gluten (manufacture)
	15620	Inulin (manufacture)
	15620	Laundry starch (manufacture)
	15620	Maize starch (manufacture)
	15620	Maltose (manufacture)
	15620	Potato starch (manufacture)
	15620	Rice starch (manufacture)
	15620	Soluble starch (manufacture)
	15620	Starch (manufacture)
	15620	Tapioca (manufacture)
	15620	Tapioca grinding (manufacture)
	15620	Warp starch (manufacture)
	15620	Wet corn milling (manufacture)
	15620	Wheat starch (manufacture)
10710		**Manufacture of bread; manufacture of fresh pastry goods and cakes**
	15810	Bakery (baking main activity) (manufacture)
	15810	Bread and flour confectionery baking (manufacture)
	15810	Bread baking including rolls (manufacture)
	15810	Bread rolls (manufacture)
	15810	Cakes (manufacture)
	15810	Crumpet making (manufacture)
	15810	Fancy pastry (manufacture)
	15810	Flour confectionery (manufacture)
	15810	Fresh pastry (manufacture)
	15810	Fruit cake baking (manufacture)
	15810	Fruit loaf baking (manufacture)
	15810	Fruit pie making (manufacture)
	15810	Tarts (manufacture)
	15810	Waffles (manufacture)
10720		**Manufacture of rusks and biscuits; manufacture of preserved pastry goods and cakes**
	15820	Biscuits (manufacture)
	15820	Cakes (preserved) (manufacture)
	15820	Cereal for sausage filler (manufacture)
	15820	Cookies (manufacture)
	15820	Crispbread (manufacture)
	15820	Dry bakery products (manufacture)
	15820	Matzos (manufacture)
	15820	Oat cake (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	15820	Pancake making (manufacture)
	15820	Pastry and buns (preserved) (manufacture)
	15820	Pies (other than meat) (manufacture)
	15820	Pikelet making (manufacture)
	15820	Pizza (manufacture)
	15820	Preserved pastry goods and cakes (manufacture)
	15820	Pretzels whether sweet or salted (manufacture)
	15820	Rusk making (manufacture)
	15820	Salted crackers (manufacture)
	15820	Sandwich cake baking (manufacture)
	15820	Sausage filler made of cereal (manufacture)
	15820	Scone baking (manufacture)
	15820	Snack products of puffed or extruded farinaceous or proteinaceous materials (manufacture)
	15820	Snack products whether sweet or salted (manufacture)
	15820	Sweet crackers (manufacture)
	15820	Wafer biscuits (manufacture)
10730		**Manufacture of macaroni, noodles, couscous and similar farinaceous products**
	15850	Couscous (manufacture)
	15850	Farinaceous products (manufacture)
	15850	Macaroni (manufacture)
	15850	Noodle (manufacture)
	15850	Pasta products, canned or frozen (manufacture)
	15850	Pastas (manufacture)
	15850	Ravioli (manufacture)
	15850	Spaghetti (manufacture)
	15850	Spaghetti canning (manufacture)
	15850	Vermicelli (manufacture)
10810		**Manufacture of sugar**
	15830	Beet pulp (manufacture)
	15830	Beet sugar (manufacture)
	15830	Castor sugar (manufacture)
	15830	Icing sugar (manufacture)
	15830	Invert sugar (manufacture)
	15830	Liquid sugar (manufacture)
	15830	Maple syrup (manufacture)
	15830	Molasses (manufacture)
	15830	Powdered sugar (manufacture)
	15830	Sugar milling (manufacture)
	15830	Sugar refining (manufacture)
	15830	Sugar substitutes refining and production (manufacture)
	15830	Sugar sucrose and sugar substitutes from cane, manufacture or refining (manufacture)
	15830	Sugar sucrose and sugar substitutes from maple, manufacture or refining (manufacture)
	15830	Sugar sucrose and sugar substitutes from palm, manufacture or refining (manufacture)
	15830	Sugar syrups (manufacture)
	15830	Syrup (sugar) (manufacture)
	15830	Treacle (manufacture)
	15830	White sugar (manufacture)
10821		**Manufacture of cocoa, and chocolate confectionery**
	15841	Chocolate (manufacture)
	15841	Chocolate confectionery (manufacture)
	15841	Chocolate couverture (manufacture)
	15841	Cocoa (manufacture)
	15841	Cocoa bean roasting and dressing (manufacture)
	15841	Cocoa butter (manufacture)
	15841	Cocoa fat (manufacture)
	15841	Cocoa oil (manufacture)
	15841	Cocoa powder (manufacture)
	15841	Cocoa products (manufacture)
	15841	Confectionery made of chocolate (manufacture)
	15841	Drinking chocolate (manufacture)
	15841	Milk chocolate (manufacture)
	15841	Milk cocoa (manufacture)
10822		**Manufacture of sugar confectionery**
	15842	Boiled sweet (manufacture)
	15842	Butterscotch (manufacture)
	15842	Cachous (manufacture)
	15842	Candied peel (manufacture)
	15842	Caramel sweets (manufacture)
	15842	Chewing gum (manufacture)
	15842	Clear gum confectionery (manufacture)
	15842	Confectioner's novelty (manufacture)
	15842	Confectionery (medicated) (manufacture)
	15842	Confectionery made of sugar (manufacture)
	15842	Crystallised fruit (manufacture)
	15842	Fondant (manufacture)
	15842	Fruit peel preserving in sugar (manufacture)
	15842	Fruit preserving in sugar (manufacture)
	15842	Jujube (manufacture)
	15842	Liquorice (manufacture)
	15842	Lozenge (medicated) (manufacture)
	15842	Lozenge (not medicated) (manufacture)
	15842	Marshmallow (manufacture)
	15842	Marzipan sweets (manufacture)
	15842	Medicated confectionery (manufacture)
	15842	Nougat (manufacture)
	15842	Nut and bean confectionery (manufacture)
	15842	Nut preserving in sugar (manufacture)
	15842	Pastille (manufacture)
	15842	Plant parts preserving in sugar (manufacture)
	15842	Pomfret (pontefract) cakes (manufacture)
	15842	Sugar confectionery (manufacture)
	15842	Sweets (sugar confectionery) (manufacture)
	15842	Toffee (manufacture)
	15842	Turkish delight (manufacture)
	15842	White chocolate (manufacture)
10831		**Tea processing**
	15861	Chamomile herb infusions (manufacture)
	15861	Herb tea (manufacture)
	15861	Mint herb infusions maté (manufacture)
	15861	Soluble tea (manufacture)
	15861	Tea (packing into tea bags) (manufacture)
	15861	Tea and maté blending (manufacture)
	15861	Tea blending (manufacture)
	15861	Tea extract and essence (manufacture)
	15861	Tea or maté based extracts and preparations (manufacture)
	15861	Vervain herb infusions (manufacture)

UK SIC 2007	UK SIC 2003	Activity
10832		**Production of coffee and coffee substitutes**
	15862	Coffee (manufacture)
	15862	Coffee and chicory essence and extract (manufacture)
	15862	Coffee bags (manufacture)
	15862	Coffee blending (manufacture)
	15862	Coffee essence and extract (manufacture)
	15862	Coffee extracts and concentrates (manufacture)
	15862	Coffee grinding and roasting (manufacture)
	15862	Coffee processing (manufacture)
	15862	Coffee products (manufacture)
	15862	Coffee roasting (manufacture)
	15862	Coffee substitutes (manufacture)
	15862	Dandelion coffee (manufacture)
	15862	De-caffeinated coffee (manufacture)
	15862	Ground coffee (manufacture)
	15862	Instant coffee (manufacture)
	15862	Liquid coffee (manufacture)
	15862	Soluble coffee (manufacture)
10840		**Manufacture of condiments and seasonings**
	15870	Catsup (manufacture)
	15870	Condiments (manufacture)
	15870	Curry powder (manufacture)
	15870	Dried herbs (except field dried) (manufacture)
	15870	Gravy (manufacture)
	15870	Ketchup (manufacture)
	15870	Mayonnaise (manufacture)
	15870	Mint sauce (manufacture)
	15870	Mustard (manufacture)
	15870	Mustard flour and meal (manufacture)
	15870	Pepper (ground) (manufacture)
	15870	Pepper substitute (manufacture)
	15870	Relish (manufacture)
	15870	Salad cream (manufacture)
	15870	Salad dressing (manufacture)
	14400	Salt, processing of into food-grade salt, iodised salt (manufacture)
	15870	Sandwich spread (manufacture)
	15870	Sauce (manufacture)
	15870	Seasoning (manufacture)
	15870	Spice (ground) (manufacture)
	15870	Spice (purifying) (manufacture)
	15870	Stuffing (manufacture)
	15870	Vinegars (malt, spirit, wine, acetic acid) (manufacture)
10850		**Manufacture of prepared meals and dishes**
	15330	Bottling of fruit and vegetables (manufacture)
	15139	Chicken ready to eat meals (manufacture)
	15209	Fish dish (prepared) production (manufacture)
	15209	Fish dishes, including fish and chips (manufacture)
	15209	Fish fingers (manufacture)
	15139	Frozen meals based on meat (manufacture)
	15850	Pasta, cooked, stuffed or otherwise prepared
	15820	Pizza, frozen or otherwise preserved (manufacture)
	15139	Poultry dishes (manufacture)
	15139	Prepared meat dishes (manufacture)
	15330	Vegetable dishes (manufacture)

SIC 2007	SIC 2003	Activity
10860		**Manufacture of homogenised food preparations and dietetic food**
	15880	Baby foods (manufacture)
	15880	Baby foods (milk based) (manufacture)
	15880	Diabetic food (manufacture)
	15880	Dietary foods for special medical purposes (manufacture)
	15880	Dietetic food (excluding milk based) (manufacture)
	15880	Dietetic food with a milk base (manufacture)
	15880	Follow-up milk (manufacture)
	15880	Follow-up milk for infants (manufacture)
	15880	Food for particular nutritional uses (manufacture)
	15880	Foods for persons suffering from carbohydrate metabolism disorders (manufacture)
	15880	Foods to meet the expenditure of intense muscular effort, especially for sportsmen (manufacture)
	15880	Gluten-free foods (manufacture)
	15880	Homogenised food preparations (manufacture)
	15880	Infant food (milk based) (manufacture)
	15880	Infant food (other than milk based) (manufacture)
	15880	Infant formulae (manufacture)
	15880	Invalid food (milk based) (manufacture)
	15880	Invalid food (other than milk based) (manufacture)
	15880	Low energy and energy-reduced foods (manufacture)
	15880	Low sodium foods (manufacture)
	15880	Low-sodium or sodium-free dietary salts (manufacture)
	15880	Milk based baby food (manufacture)
10890		**Manufacture of other food products n.e.c.**
	15899	Apple pomace and pectin (manufacture)
	15899	Artificial concentrates (manufacture)
	15620	Artificial honey (manufacture)
	15899	Bakers' yeast from distillery (manufacture)
	15899	Baking powder (manufacture)
	15899	Blancmange powder (manufacture)
	15891	Broth containing meat or vegetables or both (manufacture)
	15891	Canned broth containing meat or vegetables or both (manufacture)
	15891	Canned soup containing meat or vegetables or both (manufacture)
	15620	Caramel (not sweets) (manufacture)
	15899	Cider pectin (manufacture)
	15899	Custard powder (manufacture)
	15899	Dried egg (manufacture)
	15899	Egg drying (manufacture)
	15899	Egg pickling (manufacture)
	15899	Egg products and egg albumin (manufacture)
	15899	Egg substitute (manufacture)
	15899	Eggs (powdered or reconstituted) (manufacture)
	15139	Extracts and juices of meat, fish, crustaceans or molluscs (manufacture)
	15899	Food products enriched with vitamins or proteins (manufacture)
	15899	Food supplements (manufacture)
	15899	Hop extracts (manufacture)
	15899	Malt extract (manufacture)
	15899	Malted milk production (manufacture)
	15899	Non-dairy milk and cheese substitutes (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	15810	Perishable food preparations of bread, pastry or cake (manufacture)
	15891	Powdered broth containing meat or vegetables or both (manufacture)
	15891	Powdered soup containing meat or vegetables or both (manufacture)
	15899	Rice pudding (canned) (manufacture)
	15899	Roasting of nuts (manufacture)
	15512	Sandwiches with cheese filling (manufacture)
	15899	Sandwiches with egg filling (manufacture)
	15209	Sandwiches with fish, crustacean and mollusc filling (manufacture)
	15139	Sandwiches with ham or bacon filling (manufacture)
	15139	Sandwiches with meat or poultry filling, other than ham or bacon (manufacture)
	15330	Sandwiches with vegetable filling (manufacture)
	15891	Soup containing meat or vegetables or both (manufacture)
	15891	Tinned broth (manufacture)
	15891	Tinned soup (manufacture)
	15899	Uncooked pizza (manufacture)
	15899	Yeast and vegetable extract (manufacture)
	15899	Yeast preparation (manufacture)
10910		**Manufacture of prepared feeds for farm animals**
	15710	Alfalfa (Lucerne) meal and pellets (manufacture)
	15710	Animal compound feed (manufacture)
	15710	Animal feed supplement (manufacture)
	15710	Chicken food (manufacture)
	15710	Compound animal feed (manufacture)
	15710	Concentrated animal feed and feed supplements (manufacture)
	15710	Dairy concentrate (animal feed) (manufacture)
	15710	Farm animal feeds produced from slaughter waste (manufacture)
	15710	Feed supplements for animals (manufacture)
	15710	Molassed feeding stuff containing more than 30% molasses (manufacture)
	15710	Non-compound animal and cattle feed (not from grain milling or oilseed cakes and meal) (manufacture)
	15710	Potato dehydrating for animal feed (manufacture)
	15710	Poultry grit (manufacture)
	15710	Prepared feeds for farm animals (manufacture)
	15710	Protein (synthetic) for animal feed (manufacture)
	15710	Protein concentrates (animal food) (manufacture)
	15710	Single feeds, unmixed, for farm animals (manufacture)
	15710	Synthetic animal feed protein (manufacture)
10920		**Manufacture of prepared pet foods**
	15720	Bird food (manufacture)
	15720	Cat food (manufacture)
	15720	Dog biscuit (manufacture)
	15720	Dog food (manufacture)
	15720	Pet animal feeds produced from slaughter waste (manufacture)
	15720	Pet fish feeds (manufacture)
	15720	Pet food including canned (manufacture)
	15720	Pet foods (manufacture)

SIC 2007	SIC 2003	Activity
11010		**Distilling, rectifying and blending of spirits**
	15910	Alcoholic distilled potable beverage (manufacture)
	15910	Aperitif (spirit based) (manufacture)
	15910	Blending and bottling of whisky (manufacture)
	15910	Blending of distilled spirits (manufacture)
	51342	Blending of distilled spirits by wholesalers (manufacture)
	15910	Brandy (manufacture)
	15910	Cherry brandy (manufacture)
	15910	Drinks mixed with distilled alcoholic beverages (manufacture)
	15910	Gin (manufacture)
	15910	Liqueurs (manufacture)
	15910	Rectified spirits (manufacture)
	15910	Rum distilling (manufacture)
	15910	Spirit distilling and compounding (manufacture)
	15920	Undenatured ethyl alcohol (manufacture)
	15910	Vodka distilling (manufacture)
	15910	Whisky (manufacture)
	15910	Whisky blending (manufacture)
	15910	Whisky distilling (manufacture)
11020		**Manufacture of wine from grape**
	51342	Buying wine in bulk with blending, purification and bottling of wine (manufacture)
	15932	Low and non-alcoholic wine based on concentrated grape must (manufacture)
	15931	Low and non-alcoholic wine from fresh grapes and grape juice (manufacture)
	15931	Sparkling wine (manufacture)
	15932	Tonic wine production (manufacture)
	15931	Wine (of own manufacture) blending, purification and bottling (manufacture)
	51342	Wine (purchased in bulk) blending, purification and bottling (manufacture)
	15932	Wine based on concentrated grape must (manufacture)
	15931	Wine production from fresh grapes and grape juice (manufacture)
	01131	Wine production from self produced grapes
11030		**Manufacture of cider and other fruit wines**
	15949	Apple wine making
	15949	Beverages made of fermented fruit n.e.c.
	15941	Cider (alcoholic) (manufacture)
	15941	Cider perry (manufacture)
	15949	Fruit wines other than cider and perry (manufacture)
	15949	Mead (manufacture)
	15949	Mixed beverages containing fruit wines (manufacture)
	15941	Perry (manufacture)
	15949	Sake (manufacture)
11040		**Manufacture of other non-distilled fermented beverages**
	15950	Beverages (non-distilled, fermented) (manufacture)
	15950	Vermouth (manufacture)
11050		**Manufacture of beer**
	15960	Ale brewing (manufacture)
	15960	Beer (non-alcoholic) (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	15960	Beer brewing (manufacture)
	15960	Black beer brewing (manufacture)
	15960	Brewery (beer and other brewing products) (manufacture)
	15960	Lager brewing (manufacture)
	15960	Low and non-alcoholic beer (manufacture)
	15960	Malt liquors (manufacture)
	15960	Porter brewing (manufacture)
	15960	Stout brewing (manufacture)
11060		**Manufacture of malt**
	15970	Barley malting (manufacture)
	15970	Malt and malt products (manufacture)
11070		**Manufacture of soft drinks; production of mineral waters and other bottled waters**
	15980	Aerated water (manufacture)
	15980	Carbonated soft drink (manufacture)
	15980	Cider (non-alcoholic) (manufacture)
	15980	Cola production (manufacture)
	15980	Cordial (non-alcoholic) (manufacture)
	15980	Cream soda (manufacture)
	15980	Energy drinks (manufacture)
	15980	Fruit cordial (manufacture)
	15980	Fruit drinks (non-alcoholic) (manufacture)
	15980	Fruit squash (manufacture)
	15980	Fruit syrup (manufacture)
	15980	Ginger beer (manufacture)
	15980	Hop bitters (manufacture)
	15980	Lemonade powder (manufacture)
	15980	Lemonade production (manufacture)
	15980	Milk drinks (flavoured) (manufacture)
	15980	Milk shake base (manufacture)
	15980	Mineral water bottling (manufacture)
	15980	Mineral water production (manufacture)
	15980	Non-alcoholic flavoured and/or sweetened waters (manufacture)
	15980	Orangeade production (manufacture)
	15980	Shandy (manufacture)
	15980	Soda water (manufacture)
	15980	Soft drinks (manufacture)
	15980	Squash drink (manufacture)
	15980	Table water (manufacture)
	15980	Tonic water production (manufacture)
	15980	Water bottling (manufacture)
12000		**Manufacture of tobacco products**
	16000	Cheroot (manufacture)
	16000	Chewing tobacco (manufacture)
	16000	Cigar (manufacture)
	16000	Cigarette (manufacture)
	16000	Cigarillo (manufacture)
	16000	Fine cut tobacco (manufacture)
	16000	Pipe tobacco (manufacture)
	16000	Snuff (manufacture)
	16000	Tobacco for use in pipes and rolled cigarettes (manufacture)
	16000	Tobacco products (manufacture)
	16000	Tobacco stemming and redrying (manufacture)
	16000	Tobacco substitute products (manufacture)

SIC 2007	SIC 2003	Activity
	16000	Tobacco, homogenised or reconstituted (manufacture)
13100		**Preparation and spinning of textile fibres**
	17120	Alpaca and mohair spinning on the woollen system (manufacture)
		(manufacture)
	17170	Bast fibres preparation and spinning (manufacture)
	17130	Blending of fibres on the worsted system (manufacture)
	17130	Botany spinning (manufacture)
	17120	Camel hair spinning on the woollen system (manufacture)
	17130	Camel hair spinning on the worsted system (manufacture)
	17120	Carded sliver preparation for textiles industry (manufacture)
	17110	Carpet pile yarn spun on the cotton system (manufacture)
	17120	Carpet pile yarn spun on the woollen system (manufacture)
		semi-worsted systems (manufacture)
	17120	Coffin cloth (manufacture)
	17120	Combers' shoddy for woollen industry (manufacture)
	17130	Combing and slubbing of wool on a commission basis (manufacture)
	17110	Core spun yarn spun on the cotton system (manufacture)
	17110	Cotton carding (manufacture)
	17110	Cotton combing (manufacture)
	17110	Cotton doubling (manufacture)
	17110	Cotton drawing (manufacture)
	17110	Cotton lap, sliver, rovings and other intermediate bobbin (manufacture)
	17110	Cotton opening (manufacture)
		(manufacture)
	17110	Cotton sorting (manufacture)
	17110	Cotton spinning (manufacture)
	17160	Cotton thread mill (manufacture)
	17110	Cotton warp (manufacture)
	17110	Cotton waste spinning (manufacture)
	17110	Cotton yarn (manufacture)
	17110	Cotton yarn doubling (manufacture)
	17110	Cotton yarn twisting (manufacture)
	17110	Cotton yarn warping (manufacture)
	17110	Cotton yarn winding (manufacture)
	17110	Cotton-type yarn (manufacture)
	17120	Degreasing and carbonising of wool (manufacture)
	17170	Down of vegetable origin (manufacture)
	17140	Dressed line made of flax (manufacture)
	17120	Dyeing of wool fleece (manufacture)
	17160	Embroidery cotton (manufacture)
	17120	Fingering wool (manufacture)
	17110	Fishing net yarn made of cotton (manufacture)
	17140	Flax carding (manufacture)
	17140	Flax deseeding (manufacture)
	17140	Flax dressing (manufacture)
	17140	Flax hackling (manufacture)
	17140	Flax preparing (manufacture)
	17140	Flax roughing (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

17140 Flax sorting (manufacture) 17140 Flax spinning (manufacture) 17140 Flax tow (manufacture) 17140 Flax type yarns (manufacture)

17140 Flax-type fibre preparation and spinning (manufacture)

17170 Hair dressing for upholsterers (manufacture)17170 Hemp carding (manufacture)

17170 Hemp dressing (manufacture) 17170 Hemp sorting (manufacture) 17170 Hemp spinning (manufacture) 17170 Horsehair curling (manufacture) 17170 Horsehair dressing (manufacture)17170 Horsehair hackling (manufacture)17170 Horsehair sorting (manufacture) 17170 Horsehair teasing (manufacture) 17170 Jute sorting (manufacture)

17170 Jute spinning (manufacture)17170 Jute tow (manufacture) 17170 Jute winding (manufacture)17170 Jute yarn (manufacture)

17170 Kapok willowing (manufacture)

17120 Knitting yarn made of wool (manufacture) 17130 Knitting yarn made of worsted (manufacture)17110 Knitting yarns (cotton) (manufacture)

17110 Knitting yarns (man made fibres) (manufacture)17140 Line yarn made of flax (manufacture)

17150 Man-made fibre bulking (other than in man-made fibre producing establishments) (manufacture)

17150 Man-made fibre crimping (other than in man-made fibre producing establishments) (manufacture)

17150 Man-made fibre texturing (other than in man-made fibre producing establishments) (manufacture)

17150 Man-made fibre texturing, bulking, crimping in man-made fibre producing establishments (manufacture)

17110 Man-made fibres spinning on the cotton system (manufacture)

17120 Man-made fibres spinning on the woollen system (manufacture)

17130 Man-made fibres spinning on the worsted and semi-worsted systems (manufacture)

17110 Man-made fibres twisting on the cotton system (manufacture)

17120 Man-made fibres twisting on the woollen system (manufacture)

17130 Man-made fibres twisting on the worsted and semi-worsted systems (manufacture)

17110 Man-made fibres warping on the cotton system (manufacture)

17120 Man-made fibres warping on the woollen system (manufacture)

17130 Man-made fibres warping on the worsted and semi-worsted systems (manufacture)

17110 Man-made fibres winding on the cotton system (manufacture)

17120 Man-made fibres winding on the woollen system (manufacture)

17130 Man-made fibres winding on the worsted and semi-worsted systems (manufacture)

17130 Merino yarn spinning (manufacture)

17120 Mohair spinning on the woollen system (manufacture)

17130 Mohair spinning on the worsted system (manufacture)
17120 Noils (woollen industry) (manufacture)17170 Padding for upholstery (manufacture)
17120 Recovered wool (mungo and shoddy) (manufacture)17150 Reeling and washing of silk (manufacture)
17140 Scutching of flax (manufacture)
17130 Semi-worsted yarn spinning (manufacture) 17160 Sewing thread made of cotton (manufacture)17150 Silk creping (manufacture)
17150 Silk throwing (manufacture)17150 Silk twisting (manufacture) 17150 Silk warping (manufacture)
17150 Silk waste noil spinning (manufacture)17150 Silk winding (manufacture)
17150 Silk yarn (manufacture)
17120 Sliver dyeing of wool (manufacture) 17120 Slubbing dyeing of wool (manufacture)
17160 Spinning and manufacture of yarn for weaving, forthe trade or for further processing (manufacture)
17160 Spinning and manufacture of yarn or sewing thread,for the trade or further processing (manufacture)
17110 Spinning on the cotton system (manufacture) 17140 Spinning on the flax system (manufacture) 17120 Spinning on the woollen system (manufacture)
17130 Spinning on the worsted and semi-worsted systems(manufacture)
17170 Sunn hemp (manufacture)
17160 Thread for sewing and embroidery, made of cotton(manufacture)
17160 Thread made of hemp (manufacture)17160 Thread made of jute (manufacture) 17160 Thread made of linen (manufacture)
17160 Thread made of silk (manufacture) 17130 Topmaking (wool) (manufacture) 17140 Tow of flax (manufacture)
17170 Twine made of paper (manufacture) 17110 Tyre cord (cotton system) (manufacture)
17170 Upholstery hair fibre and filling (manufacture)17170 Vegetable down (manufacture)
17120 Warp dressing (woollen) (manufacture)
17130 Warp sizing and dressing (worsted) (manufacture)17110 Waste cotton yarn (manufacture)
17120 Wool carbonising (manufacture)17120 Wool carding (manufacture) 17120 Wool cleaning (manufacture) 17120 Wool condensing (manufacture)17120 Wool extracting (manufacture)
17120 Wool opening and willeying (manufacture)17120 Wool recovery (manufacture)
17120 Wool scouring (manufacture) 17120 Wool sorting (manufacture) 17130 Wool topmaking (manufacture)
17120 Woollen rag carbonising (manufacture)17120 Woollen rag carding (manufacture) 17120 Woollen rag garnetting (manufacture)
17120 Woollen rag grinding or pulling (manufacture)17120 Woollen waste breaking (manufacture)
17120 Woollen waste garnetting (manufacture)

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UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

17120 Woollen waste grinding (manufacture)
17120 Woollen waste opening and willeying (manufacture)17120 Woollen yarn carding (manufacture)
17120 Woollen yarn condensing (manufacture)17120 Woollen yarn reeling (manufacture) 17120 Woollen yarn sizing (manufacture) 17120 Woollen yarn spinning (manufacture) 17120 Woollen yarn twisting (manufacture) 17120 Woollen yarn warping (manufacture) 17120 Woollen yarn winding (manufacture)
17120 Woollen-type fibre preparation and spinning(manufacture)
17120 Woollen-type yarns (manufacture)17130 Worsted carding (manufacture) 17130 Worsted doubling (manufacture)
17130 Worsted spinning and twisting (manufacture)17130 Worsted waste grinding (manufacture) 17130 Worsted yarn reeling (manufacture)
17130 Worsted yarn warping (manufacture)17130 Worsted yarn winding (manufacture)
17130 Worsted-type fibres preparation and spinning(manufacture)
17130 Worsted-type yarns (manufacture) 17110 Yarn (core spun on the cotton system) (manufacture)
17170 Yarn made of paper (manufacture)17110 Yarn of cotton (manufacture)

13200 Weaving of textiles

17220 Alpaca woollen weaving (manufacture)17230 Alpaca worsted weaving (manufacture)
17210 Apparel cloth woven from yarns spun on the cottonsystem (manufacture)
17250 Awning cloth weaving (manufacture)17250 Bagging cloth (manufacture)
17210 Bandage cloth weaving (manufacture)
17250 Bast fibres and special yarns weaving (manufacture)17210 Bedford cord (not worsted) weaving (manufacture) 17230 Bedford cord worsted weaving (manufacture) 17210 Belting duck weaving (manufacture)
17210 Book cloth weaving (manufacture)17210 Brocade weaving (manufacture)
17210 Bunting made of cotton (manufacture) 17220 Bunting woollen weaving (manufacture)17210 Calico weaving (manufacture)
17210 Cambric weaving (manufacture)
17220 Camel hair woollen weaving (manufacture) 17230 Camel hair worsted weaving (manufacture)17250 Canvas weaving (manufacture)
17250 Carbon and aramid thread weaving (manufacture)17210 Casement cloth weaving (manufacture)
17220 Cashmere woollen weaving (manufacture)
17230 Cashmere worsted weaving (manufacture)
17210 Cellular cloth weaving from yarn spun on the cottonsystem (manufacture)
17210 Chenille (manufacture)
17210 Chiffon weaving from yarn spun on the cottonsystem (manufacture)
17210 Chintz weaving from yarn spun on the cottonsystem (manufacture)

17210 Cloth made of cotton and similar man made fibres (manufacture)
17220 Coating woollen weaving (manufacture)
17230 Coating worsted weaving (manufacture)
17210 Corduroy weaving from yarn spun on the cotton system (manufacture)
17210 Corset cloth weaving (from yarn spun on the cotton system) (manufacture)
17210 Cotton weaving (manufacture)
17210 Cotton-type fabrics (manufacture)
17240 Crepe weaving (manufacture)
17210 Cretonne weaving (manufacture)
17210 Damask weaving (not woollen or worsted) (manufacture)
17220 Damask woollen weaving (manufacture)
17230 Damask worsted weaving (manufacture)
17210 Denim weaving (manufacture)
17210 Downproof cloth weaving (manufacture)
17210 Dress fabric (woven (not wool)) (manufacture)
17220 Dress goods woollen weaving (manufacture)
17230 Dress goods worsted weaving (manufacture)
17210 Drill weaving from yarn spun on the cotton system (manufacture)
17210 Duck weaving (manufacture)
17220 Flag fabric (woollen) (manufacture)
17220 Flannel (manufacture)
17210 Flannelette weaving (manufacture)
17250 Flax woven cloth (manufacture)
17210 Flock made of cotton (manufacture)
17220 Frieze cloth (manufacture)
17210 Furnishing fabric (woven (not wool or worsted)) (manufacture)
17230 Furnishing fabric worsted weaving (manufacture)
17220 Furnishing fabrics woollen weaving (manufacture)
17210 Fustian weaving (manufacture)
17210 Gabardine (cotton) weaving (manufacture)
17210 Gauze weaving (manufacture)
17210 Gingham weaving (manufacture)
17250 Glass fibre woven fabric (manufacture)
17210 Haircord weaving (manufacture)
17250 Hemp weaving (manufacture)
17250 Hessian (manufacture)
17210 Imitation fur (woven long pile fabrics) (manufacture)
17220 Imitation fur of long pile fabrics made on the woollen system (manufacture)
17210 Interlining weaving from yarn spun on the cotton system (manufacture)
17210 Jeans cloth weaving (manufacture)
17250 Jute cloth (manufacture)
17250 Jute sacking (manufacture)
17250 Jute weaving (manufacture)
17210 Leno fabric weaving (manufacture)
17250 Linen and union cloth (manufacture)
17250 Linen weaving (manufacture)
17210 Man-made fibre weaving from yarns spun on the cotton system (manufacture)
17220 Man-made fibre weaving of fabrics from yarns spun on the woollen system (manufacture)
17230 Man-made fibre weaving of fabrics from yarns spun on worsted and semi-worsted systems (manufacture)
17220 Mohair woollen weaving (manufacture)

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UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

17230 Mohair worsted weaving (manufacture)
17210 Moquette (not woollen) weaving (manufacture)17220 Moquette woollen weaving (manufacture) 17210 Muslin weaving (manufacture)
17210 Organdie weaving (manufacture)
17220 Overcoating woollen weaving (manufacture)17210 Pique weaving (manufacture)
17240 Plush silk (manufacture)
17220 Plush woollen weaving (manufacture)17230 Plush worsted weaving (manufacture)17210 Pocketing weaving (manufacture) 17250 Polypropylene fabrics (manufacture) 17210 Poplin weaving (manufacture)
17210 Poult weaving (manufacture)17220 Press cloth (manufacture)
17210 Print cloth weaving (manufacture)17210 Printers' weaving (manufacture) 17210 Quilt weaving (manufacture) 17250 Ramie weaving (manufacture) 17250 Sailcloth weaving (manufacture)
17210 Sateen weaving (manufacture) 17240 Satin weaving (manufacture)
17250 Scrim weaving from flax, hemp, ramie and man-made fibres processed on the flax system(manufacture)
17250 Sheeting weaving from flax and man-made fibresprocessed on the flax system (manufacture)
17210 Sheeting weaving from yarn spun on the cottonsystem (manufacture)
17250 Shirting weaving from flax and man made fibreprocessed on the flax system (manufacture)
17210 Shirting weaving from yarn spun on the cottonsystem (manufacture)
17240 Silk type fabrics (manufacture)
17240 Silk woven cloth (manufacture)
17220 Suiting woollen weaving (manufacture)
17230 Suiting worsted weaving (manufacture)
17240 Taffeta made of silk (manufacture)
17220 Taffeta woollen weaving (manufacture)
17210 Tapestry (not woollen or worsted) (manufacture)
17220 Tapestry woollen weaving (manufacture)
17210 Terry towelling (manufacture)
17210 Ticking weaving (manufacture)
17240 Tie silk (manufacture)
17210 Towelling weaving (manufacture)
17220 Tweed (manufacture)
17210 Twill weaving (manufacture)
17250 Union cloth (cotton/linen) (manufacture)
17240 Veiling made of silk (manufacture)
17210 Velvet (manufacture)
17210 Velveteen (manufacture) 17210 Voile weaving (manufacture)
17220 Weaving (woollen) (manufacture)
17230 Weaving (worsted) (manufacture)
17210 Weaving of cotton and man-made fibres (manufacture)
17210 Winceyette weaving (manufacture)
17220 Woollen cloth weaving (manufacture)
17220 Woollen-type fabrics (manufacture)
17220 Woollen-type weaving (manufacture)

17230 Worsted-type fabrics (manufacture) 17230 Worsted-type weaving (manufacture)
17250 Woven cloth made of polypropylene (manufacture)17250 Woven elastic over 30 cm wide (manufacture) 17250 Woven elastomeric over 30 cm wide (manufacture)17210 Woven pile cotton-type fabrics (manufacture) 17210 Zephyr weaving (manufacture)

13300 Finishing of textiles

17300 Binding and mending of textiles (manufacture)17300 Bleach works (manufacture)
17300 Bleaching and dyeing of fabrics (manufacture)
17300 Bleaching and dyeing of textile articles, including wearing apparel (manufacture)
17300 Bleaching and dyeing of textile fibres (manufacture)17300 Bleaching and dyeing of yarns (manufacture)
17300 Bleaching of jeans (manufacture)
17300 Bleaching of wool cop, hank, warp, etc. (manufacture)
17300 Block printing of textiles (manufacture) 17300 Bonding of fabric to fabric (manufacture)17300 Calendering of textiles (manufacture) 17300 Calico printing (manufacture)
17300 Chintz glazing (manufacture)17300 Cloth beetling (manufacture)
17300 Cloth crease resisting treatment (manufacture)17300 Cloth degreasing (manufacture)
17300 Cloth dressing (manufacture) 17300 Cloth dyeing (manufacture) 17300 Cloth embossing (manufacture)
17300 Cloth ending and mending (manufacture)17300 Cloth finishing (manufacture)
17300 Cloth fireproofing (manufacture)17300 Cloth mercerising (manufacture)
17300 Cloth piece goods printing (manufacture)17300 Cloth proofing (manufacture)
17300 Cloth rot proofing (manufacture)17300 Cloth shrinking (manufacture) 17300 Cloth waterproofing
17300 Coating of purchased garments (manufacture)17300 Commission mending of textiles (manufacture)
17300 Contract cutting of textiles (not self-owned)(manufacture)
17300 Cotton cord and velveteen finishing (manufacture)17300 Cotton fabric bleaching, dyeing or otherwise finishing (manufacture)
17300 Cotton waste bleaching, dying or otherwise finishing (manufacture)
17300 Cotton yarn gassing (manufacture) 17300 Cotton yarn polishing (manufacture)17300 Cotton yarn printing (manufacture)
17300 Dressing of textiles and textile articles, including wearing apparel (manufacture)
17300 Drying of textiles and textile articles, including wearing apparel (manufacture)
17300 Dyework (manufacture)
17300 Embroidery on made up textile goods
17300 Ending and mending of textiles (manufacture) 17300 Finishing of leather wearing apparel (manufacture)17300 Finishing of wearing apparel n.e.c. (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

17300 Flannel ending (manufacture) 17300 Flannel filling (manufacture) 17300 Flannel finishing (manufacture) 17300 Flannel preparing (manufacture) 17300 Flannel scouring (manufacture) 17300 Flannel shrinking (manufacture)

17300 Flannelette raising and finishing (manufacture)

17300 Flax yarn bleaching, dyeing or otherwise finishing (manufacture)

17300 Foam backed fabric finishing (manufacture)

17300 Foam backing (single textile material) (manufacture) 17300 Foam backing (texture material sandwich) (manufacture)

17300 Fulling mill (manufacture) 17300 Gassing yarn (manufacture)

17300 Hair dyeing (textile) (manufacture)

17300 Hand block printing of textiles (manufacture) 17300 Hose bleaching, dyeing or otherwise finishing (manufacture)

17300 Hosiery finishing (manufacture) 17300 Hosiery printing (manufacture) 17300 Hosiery scouring (manufacture) 17300 Hosiery shrinking (manufacture) 17300 Hosiery trimming

17300 Impregnating purchased garments (manufacture) 17300 Jute calendering (manufacture)

17300 Jute fabrics bleaching, dyeing or otherwise finishing (manufacture)

17300 Knitted goods finishing (manufacture) 17300 Knitted goods printing (manufacture) 17300 Knitted goods scouring (manufacture) 17300 Knitted goods shrinking (manufacture) 17300 Knitted goods trimming (manufacture)

17300 Lace bleaching, dyeing and dressing (on commission) (manufacture)

17300 Laminating of textile material (manufacture) 17300 Lapping of textiles (manufacture)

17300 Linen bleaching (manufacture) 17300 Linen dyeing (manufacture) 17300 Linen printing (manufacture)

17300 Machine printing of textiles (manufacture)

17300 Man-made fibre fabric bleaching, dyeing, printing or otherwise finishing (manufacture)

17300 Man-made fibre yarn bleaching, dyeing or otherwise finishing (manufacture)

17300 Mending of textile articles, including wearing apparel (manufacture)

17300 Mercerising of textiles and textile articles, including wearing apparel (manufacture)

17300 Mercerising yarn (manufacture) 17300 Muslin clipping (manufacture) 17300 Muslin dressing (manufacture)

17300 Muslin ending (manufacture)

17300 Muslin finishing (manufacture) 17300 Muslin gassing (manufacture) 17300 Muslin mending (manufacture) 17300 Piece goods dyeing (manufacture)

17300 Pile fabric bleaching and finishing (manufacture) 17300 Plaiting of textiles (manufacture)

17300 Pleating and similar work on textiles (manufacture)

17300 Pleating of textiles (manufacture)17300 Rag bleaching (manufacture)
17300 Rag dyeing (manufacture)
17300 Raw cotton bleaching, dyeing or otherwise finishing(manufacture)
17300 Raw silk dyeing (manufacture)
17300 Roller printing of textiles (manufacture)
17300 Rubberising of purchased garments (manufacture) 17300 Sanforising of textiles and textile articles, including wearing apparel (manufacture)
17300 Screen printing of textiles (manufacture)
17300 Shrinking of textiles and textile articles, includingwearing apparel (manufacture)
17300 Silk bleaching (manufacture)17300 Silk dyeing (manufacture)
17300 Silk finishing and weighting (manufacture)17300 Silk printing (manufacture)
17300 Silk screen-printing on wearing apparel (manufacture)
17300 Slub dyeing (manufacture)
17300 Small ware bleaching (manufacture)17300 Small ware dyeing (manufacture)
17300 Steaming of textiles and textile articles, includingwearing apparel (manufacture)
17300 Storing yarn (manufacture) 17300 Tape bleaching (manufacture)
17300 Textile binding and mending (manufacture)17300 Textile bleaching (manufacture)
17300 Textile calendering (manufacture)17300 Textile dyeing (manufacture) 17300 Textile embossing (manufacture)
17300 Textile ending and mending (manufacture)17300 Textile finishing (manufacture)
17300 Textile lacquering (manufacture)
17300 Tracing cloth (textile finishing) (manufacture)17300 Velvet cutting and shearing (manufacture) 17300 Velvet dyeing (manufacture)
17300 Velveteen cutting and shearing (manufacture)17300 Velveteen dyeing (manufacture)
17300 Warp knitted fabric dyeing and finishing (manufacture)
17300 Waste textile dyeing (manufacture) 17300 Waterproofing of purchased garments (manufacture)
17300 Weft knitted fabric dyeing and finishing (manufacture)
52740 'While-you-wait' printing of textile articles(manufacture)
17300 Wool dyeing (loose) (manufacture)17300 Wool printing (manufacture)
17300 Woollen and worsted fabric bleaching, dyeing, orotherwise finishing (manufacture)
17300 Woven fabric bleaching, dyeing, printing orotherwise finishing (manufacture)
17300 Yarn bleaching, dyeing or otherwise finishing(manufacture)
17300 Yarn finishing (manufacture) 17300 Yarn gassing (manufacture) 17300 Yarn mercerising (manufacture)
17300 Yarn polishing (manufacture) 17300 Yarn storing (manufacture)

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UK SIC 2007	UK SIC 2003	Activity
13910		**Manufacture of knitted and crocheted fabrics**
	17600	Crocheted fabric (manufacture)
	17600	Crocheted fabrics (manufacture)
	17600	Elastic and elastomeric fabric (manufacture)
	17600	Elastic or elastomeric knitted or netted fabric more than 30 cm wide (manufacture)
	17600	Imitation fur obtained by knitting (manufacture)
	17600	Knitted fabrics (manufacture)
	17600	Knitted or netted elastic over 30 cm wide (manufacture)
	17600	Locknit fabric (manufacture)
	17600	Net and window furnishing type fabrics (manufacture)
	17600	Net curtaining knitted or crocheted fabric (manufacture)
	17600	Netted fabric (manufacture)
	17600	Pile knitted fabric (manufacture)
	17600	Sliver knitted fabric (manufacture)
	17600	Terry fabrics (manufacture)
	17600	Warp knitted fabric (manufacture)
	17600	Warp knitting (manufacture)
	17600	Weft knitted fabric (manufacture)
	17600	Window furnishing knitted fabric (manufacture)
13921		**Manufacture of soft furnishings**
	17401	Austrian blinds (manufacture)
	17401	Blinds (soft furnishings) (manufacture)
	17401	Bolster (manufacture)
	17401	Curtains (made-up) (manufacture)
	17401	Cushion covers (manufacture)
	17401	Cushions (manufacture)
	17401	Festoon blinds (manufacture)
	17401	Furnishing articles (made-up) (manufacture)
	17401	Furniture covers (manufacture)
	17401	Lace curtains (manufacture)
	17401	Loose cover for furniture (manufacture)
	17401	Pillow (manufacture)
	17401	Poufte (manufacture)
	17401	Roman blinds (manufacture)
	17401	Soft furnishing articles, made-up, of knitted or crocheted fabrics (manufacture)
	17401	Soft furnishing articles, made-up, of textile material (manufacture)
	17401	Soft furnishings (manufacture)
	17401	Stretch covers for furniture (manufacture)
13922		**Manufacture of canvas goods, sacks etc.**
	17402	Awnings (manufacture)
	17402	Bags made of canvas (manufacture)
	17402	Bags made of canvas or cotton cloth (manufacture)
	17402	Banner (making up) (manufacture)
	17402	Blinds made of canvas (manufacture)
	17402	Brattice cloth (manufacture)
	17402	Buckets made of canvas (manufacture)
	17402	Bunting (making-up) (manufacture)
	17402	Camping goods (manufacture)
	17402	Canvas goods (manufacture)
	17402	Car loose covers (manufacture)
	17402	Cart cover made of canvas (manufacture)
	17402	Covers made of waterproofed canvas (manufacture)
	17402	Escape chute for aircraft (manufacture)
	17402	Filter cloth (made-up) (manufacture)
	17402	Flag making up (manufacture)
	17402	Flexible ventilating ducting made of textiles (manufacture)
	17402	Haversack (manufacture)
	17402	Lifejacket made of canvas (manufacture)
	17402	Machine covers (manufacture)
	17402	Made-up filter cloth (manufacture)
	17402	Made-up goods of sailcloth (manufacture)
	17402	Marquee (manufacture)
	17402	Parachute (manufacture)
	17402	Pennants (manufacture)
	17402	Perambulator awning (manufacture)
	17402	Rick cloths and covers (manufacture)
	17402	Roller blinds made of canvas (manufacture)
	17402	Sacks (woven) (manufacture)
	17402	Sacks and bags made of noil (manufacture)
	17402	Sacks for coal (manufacture)
	17402	Sacks made of canvas (manufacture)
	17402	Sacks made of jute (manufacture)
	17402	Sails (manufacture)
	17402	Shutes made of canvas (manufacture)
	17402	Stretchers made of canvas (manufacture)
	17402	Sun blinds (manufacture)
	17402	Tarpaulins (manufacture)
	17402	Tents (manufacture)
	17402	Tubes made of canvas for ventilating purposes (manufacture)
	17402	Wagon cover (manufacture)
	17402	Waterproofed covers made of canvas (manufacture)
	17402	Web equipment making-up (manufacture)
13923		**Manufacture of household textiles (other than soft furnishings of 13.42/1)**
	17403	Art needlework (manufacture)
	17403	Baby napkins made of towelling (manufacture)
	17403	Bath towel (manufacture)
	17403	Bed linen (manufacture)
	17403	Bedspread (manufacture)
	17403	Bedspreads made of lace (manufacture)
	17403	Blanket making up, outside weaving or knitting establishment (manufacture)
	17403	Blankets (excluding electric blankets) and travelling rugs (manufacture)
	17403	Blankets made of cotton and man-made fibres (manufacture)
	17403	Blankets made of wool (manufacture)
	17403	Bolster case (manufacture)
	17403	Cleaning cloth (not of bonded fibre fabric) (manufacture)
	17403	Cot blanket (manufacture)
	17403	Cot quilt (manufacture)
	17403	Cotton patch quilt (manufacture)
	17403	Cotton, silk, etc. embroidering (except lace and apparel) (manufacture)
	17403	Counterpane (manufacture)
	17403	Dish-cloths and similar articles (manufacture)
	17403	Doilies made of textiles (manufacture)
	17403	Duchesse set (manufacture)
	17403	Dust cloths (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	17403	Dust sheet (manufacture)
	17403	Duster (cleaning cloth (not of bonded fibre fabric)) (manufacture)
	17403	Duvet (manufacture)
	17403	Eiderdowns (manufacture)
	17403	Embroidering on made-up textile goods (manufacture)
	17403	Hand towel (manufacture)
	17403	Hand-woven tapestries (manufacture)
	17403	Household textile made-up articles (manufacture)
	17403	Household textiles (manufacture)
	17403	Kitchen linen (manufacture)
	17403	Lace tablecloth (manufacture)
	17403	Lavatory seat cover (manufacture)
	17403	Nursery square (manufacture)
	17403	Pillow case (manufacture)
	17403	Pin cushion (manufacture)
	17403	Polishing cloths and pads, made of unprepared, non-bonded fibre fabric (manufacture)
	17403	Pram blanket (outside knitting or weaving establishment) (manufacture)
	17403	Quilt (lined) (manufacture)
	17403	Quilt fringing (manufacture)
	17403	Roller towel (manufacture)
	17403	Sheet hemming (textiles) (manufacture)
	17403	Sleeping bag (manufacture)
	17403	Table linen (manufacture)
	17403	Table mats made of textiles (manufacture)
	17403	Table runner (manufacture)
	17403	Tea towels (manufacture)
	17403	Textile part of electric blankets (manufacture)
	17403	Toilet linen (manufacture)
	17403	Towel (manufacture)
	17403	Travelling rug making-up (outside weaving establishment) (manufacture)
	17403	Travelling rugs made of wool (manufacture)
	17403	Tufting blankets (manufacture)
	17403	Tufting household textiles (manufacture)
	17403	Valances (manufacture)
13931		**Manufacture of woven or tufted carpets and rugs**
	17511	Axminster carpet (manufacture)
	17511	Brussels carpet (manufacture)
	17511	Carpet weaving (manufacture)
	17511	Pile carpet mat weaving (manufacture)
	17511	Pile carpet weaving (manufacture)
	17512	Pile carpets of cotton, tufted (manufacture)
	17511	Pile carpets of cotton, woven (manufacture)
	17512	Pile carpets of man-made fibres, tufted (manufacture)
	17511	Pile carpets of man-made fibres, woven (manufacture)
	17512	Pile carpets of wool, tufted (manufacture)
	17511	Pile carpets of wool, woven (manufacture)
	17511	Pile rugs and mats of cotton, woven (manufacture)
	17511	Pile rugs and mats of man-made fibres, woven (manufacture)
	17511	Pile rugs and mats of wool, woven (manufacture)
	17512	Pile rugs, mats and tiles of cotton, tufted (manufacture)
	17512	Pile rugs, mats and tiles of man-made fibres, tufted (manufacture)
	17512	Pile rugs, mats and tiles of wool, tufted (manufacture)
	17512	Rug tufting (manufacture)
	17511	Rug weaving (not travelling rug) (manufacture)
	17512	Tiles made of tufted carpet (manufacture)
	17512	Tufted carpet (manufacture)
	17511	Wilton carpet (manufacture)
13939		**Manufacture of carpets and rugs (other than woven or tufted) n.e.c.**
	17519	Bonded fibre carpets (manufacture)
	17519	Carpets (other than woven or tufted) (manufacture)
	17519	Carpets and rugs, other than woven or tufted (manufacture)
	17519	Carpets made of jute (manufacture)
	17519	Floor rugs made of jute (manufacture)
	17519	Knotted carpets (manufacture)
	17519	Mats and matting made of coconut fibre (manufacture)
	17519	Mats and matting made of coir (manufacture)
	17519	Mats and matting made of sisal (manufacture)
	17519	Mats made of jute (manufacture)
	17519	Needlefelt carpet underlay (manufacture)
	17519	Needleloom and bonded fibre rugs (manufacture)
	17519	Needleloom and bonded fibre tiles (manufacture)
	17519	Needleloom carpet (manufacture)
	17519	Needleloom carpeting (manufacture)
	17519	Needleloom felt carpet underlay (manufacture)
	17519	Rugs (other than woven or tufted) (manufacture)
	17519	Rugs made of coir (manufacture)
	17519	Rugs made of rag (manufacture)
	17519	Tiles made of felt (manufacture)
	17519	Tiles made of needleloom carpet (manufacture)
13940		**Manufacture of cordage, rope, twine and netting**
	17520	Agricultural twine (manufacture)
	17520	Baler twine (manufacture)
	17520	Binder twine (manufacture)
	17520	Cable made of textile materials (manufacture)
	17520	Cargo sling (manufacture)
	17520	Combination rope (manufacture)
	17520	Cordage made of textile material (manufacture)
	17520	Fibre core for wire rope (manufacture)
	17520	Fishing line (manufacture)
	17520	Fishing net (manufacture)
	17520	Fishing net mending (manufacture)
	17520	Garden and horticultural net (manufacture)
	17520	Hammocks (manufacture)
	17520	Hemp rope, cord or line (manufacture)
	17520	Knotted netting of twine, cordage or rope (manufacture)
	17520	Line yarn made of hard fibre (manufacture)
	17520	Loading slings (manufacture)
	17520	Nets for horticulture (manufacture)
	17520	Netting products (manufacture)
	17520	Plastic coated twine, cordage rope and cables of textile fibres (manufacture)
	17520	Reaper twine (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

17520 Repair of nets and ropework (manufacture) 17520 Rope and cables of textile fibres (manufacture)17520 Rope made of cotton (manufacture)
17520 Rope or cable fitted with metal rings (manufacture)17520 Rope products (manufacture)
17520 Rope slings (manufacture)17520 Rope walk (manufacture)
17520 Rope, cord and line made of sisal (manufacture) 17520 Rope, cord or line made of jute (manufacture) 17520 Rope, cord or line made of manila (manufacture)
17520 Rope, cord or line made of man-made fibre(manufacture)
17520 Rubber coated twine, cordage rope and cables oftextile fibres (manufacture)
17520 Sash line (manufacture) 17520 Sheep net (manufacture) 17520 Ship's fenders (manufacture)
17520 Sports nets (manufacture) 17520 String (manufacture)
17520 String bag (manufacture)
17520 Textile material cordage (manufacture) 17520 Tow yarn made of hard fibres (manufacture)17520 Towing rope (manufacture)
17520 Twine (manufacture)
17520 Unloading cushions (manufacture)17520 Window cord (manufacture)

13950 Manufacture of non-wovens and articles madefrom non-wovens, except apparel

17530 Articles made from non-wovens (manufacture)17530 Bonded fibre fabric (manufacture)
17530 Cleaning cloth (non-woven) (manufacture) 17530 Non-woven bonded fibre fabrics (manufacture)17530 Non-wovens (manufacture)
17530 Non-wovens and articles made from non-wovens(manufacture)

13960 Manufacture of other technical and industrial textiles

17549 Artists' canvases (manufacture)
17549 Artists' tracing cloth (manufacture) 17542 Automotive trimmings (manufacture)17542 Badges (textile) (manufacture)
17549 Bolting cloth (manufacture)
17542 Braid made of elastic (manufacture)
17542 Braid made of elastomeric (manufacture)17542 Braid made of non-elastic (manufacture)
17542 Braid made of textile material (manufacture)17549 Buckram (manufacture)
17549 Buckram and similar stiffened textile fabrics (manufacture)
17549 Canvas prepared for use by painters (manufacture)17542 Carding of trimmings (manufacture)
17542 Coach trimming (manufacture)
17542 Coffin frilling (manufacture)
17542 Conveyor belting (woven) (manufacture)
17542 Elastic fabric (not more than 30 cm wide) (manufacture)
17542 Elastomeric fabric (not more than 30 cm wide) (manufacture)

17549 Fabrics coated with gum or amylaceous substances(manufacture)
17549 Fabrics impregnated, coated, covered or laminatedwith plastics (manufacture)
17549 Filter cloth weaving
(manufacture)17542 Frilling
(manufacture)
17542 Fringe (textile material)
(manufacture)17542 Galloon
ribbon (manufacture)
17549 Gas mantles and tubular gas mantle fabric(manufacture)
17542 Gimp (manufacture)
17542 Haberdashery (narrow fabrics)
(manufacture)17542 Hat bands
(manufacture)
17542 Hosepiping made of textiles
(manufacture)17549 Incandescent
mantle (manufacture)
17542 Labels (manufacture)
17542 Labels made of textiles
(manufacture) 17542 Labels made of
woven fabric (manufacture)17542
Ladder tape (textile material)
(manufacture)17549 Leathercloth
(manufacture)
17549 Leathercloth made of polyvinyl chloride(manufacture)
17549 Linen buckram weaving
(manufacture) 17542 Machinery
belting (woven) (manufacture)17549
Metallised yarn (manufacture)
17542 Narrow fabric (not elastic or elastomeric)(manufacture)
17542 Narrow woven fabrics, including weftless fabrics assembled by means of an adhesive (manufacture)
17549 Nitro-cellulose coated textile fabric
(manufacture)17542 Ornamental braids
(manufacture)
17542 Ornamental trimmings
(manufacture)17542 Petersham
ribbon (manufacture)
17549 Polyurethane coated textile fabrics
(manufacture)17542 Pompons (manufacture)
17542 Printed labels of textile materials
(manufacture)17542 Ribbon made of textile
(manufacture)
17542 Rubber thread and cord, textile covered, coated orsheathed with rubber or plastics (manufacture)
17542 Rubber thread or cord covered with textile material(manufacture)
17542 Shoe trimmings made of textile materials (manufacture)
17549 Stiffened textile fabrics
(manufacture)17549 Straining cloth
(manufacture)
17542 Tapes made of non-elastic and non-elastomerictextile materials (manufacture)
17542 Tassels made of textile material
(manufacture)17542 Textile wicks
(manufacture)
17549 Textile yarn impregnated, coated or sheathed withrubber or plastic (manufacture)
17549 Tracing cloth (woven)
(manufacture) 17549 Tracing cloth
weaving (manufacture)
17542 Transmission or conveyor belts or belting, made oftextiles (manufacture)
17542 Twist cord (fabric) (manufacture)
17549 Tyre cord fabric made of high-tenacity man-madeyarn (manufacture)
17549 Tyre cord fabric of high-tenacity man-made yarn(manufacture)
17549 Tyre fabric woven from yarn spun on the cottonsystem (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	17542	Umbrella trimmings made of textile material (manufacture)
	17542	Upholsterers' trimmings (textile material) (manufacture)
	17542	Webbing made of non-elastic and non-elastomeric (manufacture)
	17542	Webbing weaving (manufacture)
	17542	Wicks for lamps, stoves or candles (manufacture)
	17542	Woven conveyor belting (manufacture)
	17542	Woven machinery belting (manufacture)
	17542	Woven trimmings (manufacture)
13990		**Manufacture of other textiles n.e.c.**
	17549	Baize (manufacture)
	17542	Banding (woven) (manufacture)
	17542	Bias binding (manufacture)
	17549	Billiard table cloth (manufacture)
	17542	Binding (woven) (manufacture)
	17542	Boot lace (manufacture)
	36639	Button carding (manufacture)
	36639	Button covering (manufacture)
	17542	Cord made of elastic (manufacture)
	17542	Cord made of elastomeric material (manufacture)
	17542	Corset lace (manufacture)
	17542	Curtain loop (manufacture)
	17542	Dress binding (manufacture)
	17542	Dressing gown cord and girdle (manufacture)
	17541	Embroidery lace (manufacture)
	17549	Felt (manufacture)
	17541	Furnishing lace (manufacture)
	17541	Lace (manufacture)
	17541	Lace and embroidery in the piece, in strips or in motifs (manufacture)
	17541	Lace bleaching (not on commission) (manufacture)
	17541	Lace clipping (manufacture)
	17541	Lace drawing (manufacture)
	17541	Lace dressing (manufacture)
	17541	Lace dyeing (not on commission) (manufacture)
	17541	Lace edging (manufacture)
	17541	Lace embroidery (manufacture)
	17541	Lace ending (manufacture)
	17541	Lace finishing (manufacture)
	17541	Lace flouncing (manufacture)
	17541	Lace mending (manufacture)
	17541	Lace net (manufacture)
	17541	Lace scalloping (manufacture)
	17541	Lace trimming (manufacture)
	17542	Laces for boots and shoes (manufacture)
	17541	Leavers lace (manufacture)
	17541	Napery lace (manufacture)
	17549	Needlefelt (other than carpet underlay) (manufacture)
	17549	Needleloom felt (other than carpet underlay) (manufacture)
	17541	Net fabrics in the piece, in strips or in motifs (manufacture)
	17541	Nottingham lace (manufacture)
	36639	Powder puff (manufacture)
	17549	Pressed felt (not paper or roofing) (manufacture)
	17549	Pressed wool felt (manufacture)

SIC 2007	SIC 2003	Activity
	17549	Pressure sensitive cloth-tape (manufacture)
	17542	Pyjama cord (manufacture)
	17541	Raschel lace (manufacture)
	17541	Schiffli embroidery (manufacture)
	17542	Shoe laces (braided) (manufacture)
	17542	Small ware made of textiles (manufacture)
	36639	Sponge dressing (manufacture)
	17541	Swiss embroidery (manufacture)
	17549	Tufted fabrics (other than household textiles) (manufacture)
	17541	Tulles and other net fabrics (manufacture)
	17541	Tulles in motifs (manufacture)
	17541	Tulles in one piece (manufacture)
	17541	Tulles in strips (manufacture)
	17541	Veiling (not silk) (manufacture)
14110		**Manufacture of leather clothes**
	18100	Imitation leather clothes for men and boys (manufacture)
	18100	Imitation leather clothes for women and girls (manufacture)
	18100	Industrial leather welders aprons (manufacture)
	18100	Leather clothes (manufacture)
	18100	Leather garments for men and boys (manufacture)
	18100	Leather garments for women and girls (manufacture)
	18100	Leather industrial work accessories (manufacture)
	18100	Leather wearing apparel (manufacture)
14120		**Manufacture of workwear**
	18210	Aprons for domestic use (manufacture)
	18210	Aprons for industrial use (manufacture)
	18210	Battledress for men (manufacture)
	18210	Battledress for women (manufacture)
	18210	Boiler suit (manufacture)
	18210	Cassock (manufacture)
	18210	Chefs' clothing (manufacture)
	18210	Clerical vestment (manufacture)
	18210	Dungarees (manufacture)
	18210	Gowns for academic, legal or ecclesiastical use (manufacture)
	18210	Industrial clothing (manufacture)
	18210	Livery (manufacture)
	18210	Military clothing (manufacture)
	18210	Nuns' clothing (manufacture)
	18210	Nurses' uniforms for men (manufacture)
	18210	Nurses' uniforms for women (manufacture)
	18210	Overalls for boys (manufacture)
	18210	Overalls for domestic use (manufacture)
	18210	Overalls for girls (manufacture)
	18210	Overalls for men and boys (manufacture)
	18210	Overalls for women and girls (manufacture)
	18210	Protective clothing for industrial use (manufacture)
	18210	Robes for academic, legal and ecclesiastical use (manufacture)
	18210	Shirts for industrial use (manufacture)
	18210	Surplice (manufacture)
	18210	Trousers for industrial use (manufacture)
	18210	Uniforms for men and boys (manufacture)
	18210	Uniforms for women and girls (manufacture)
	18210	Vestments for clerical use (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	18210	Weather protective industrial clothing (manufacture)
	18210	Workwear (manufacture)
	18210	Workwear clothing for women (manufacture)
14131		**Manufacture of men's outerwear, other than leather clothes and workwear**
	18221	Anoraks for men and boys (manufacture)
	18221	Blazers for men and boys (manufacture)
	18221	Breeches (manufacture)
	18221	Climbing clothing for men and boys (weatherproof) (manufacture)
	18221	Cloaks for men and boys (manufacture)
	18221	Coats for men and boys (manufacture)
	18221	Custom tailored outerwear for men and boys (manufacture)
	18221	Custom tailoring for men and boys (manufacture)
	18221	Jackets for men and boys (manufacture)
	18221	Jeans for men and boys (manufacture)
	18221	Knitted outerwear for men and boys (manufacture)
	18221	Mackintoshes for men and boys (manufacture)
	18221	Oilskins for men and boys (manufacture)
	18221	Outerwear for men and boys (manufacture)
	18221	Outerwear for men and boys made of stitched plastic (manufacture)
	18221	Overcoats for men and boys (manufacture)
	18221	Parts of coats for men and boys (manufacture)
	18221	Parts of jackets for men and boys (manufacture)
	18221	Parts of suits for men and boys (manufacture)
	18221	Parts of trousers for men and boys (manufacture)
	18221	Raincoats for men and boys (manufacture)
	18221	Rainproof garments for men and boys (manufacture)
	18221	Recreational clothing for men and boys (waterproofed) (manufacture)
	18221	Recreational weatherproof clothing for men and (manufacture)
	18221	Sailing clothing for men and boys (weatherproof) (manufacture)
	18221	Shorts for men and boys (manufacture)
	18221	Sportswear for men and boys (manufacture)
	18221	Suits for men and boys (manufacture)
	18221	Tailored outerwear for men and boys (manufacture)
	18221	Trousers for men and boys (manufacture)
	18221	Waistcoats for men and boys (manufacture)
	18221	Weatherproof jackets for men and boys (manufacture)
	18221	Weatherproof outerwear for men and boys (manufacture)
14132		**Manufacture of women's outerwear, other than leather clothes and workwear**
	18222	Anoraks for women and girls (manufacture)
	18222	Blazers for women and girls (manufacture)
	18222	Climbing clothing for women and girls (weatherproof) (manufacture)
	18222	Cloaks for women and girls (manufacture)
	18222	Coats for women and girls (manufacture)
	18222	Costumes for women and girls (manufacture)
	18222	Custom tailoring for women and girls (manufacture)
	18222	Divided lightweight skirt (dress made) (manufacture)
	18222	Dress and jacket knitted ensemble (manufacture)
	18222	Dresses for women and girls (manufacture)
	18222	Dressmaking (manufacture)
	18222	Ensembles (manufacture)
	18222	Fashion (manufacture)
	18222	Gowns (manufacture)
	18222	Housecoats (manufacture)
	18222	Jackets for women and girls (manufacture)
	18222	Jeans for women and girls (manufacture)
	18222	Knitted dress and jacket ensemble (manufacture)
	18222	Knitted dresses for women and girls (manufacture)
	18222	Knitted outerwear for women and girls (manufacture)
	18222	Knitted skirts (manufacture)
	18222	Knitted suits for women and girls (manufacture)
	18222	Light outerwear for women and girls (manufacture)
	18222	Lightweight jackets for women and girls (manufacture)
	18222	Mackintoshes for women and girls (manufacture)
	18222	Oilskins for women and girls (manufacture)
	18222	Outerwear for women and girls made of stitched plastic (manufacture)
	18222	Overcoats for women and girls (manufacture)
	18222	Parts of coats for women and girls (manufacture)
	18222	Parts of ensembles for women and girls (manufacture)
	18222	Parts of jackets for women and girls (manufacture)
	18222	Parts of skirts for women and girls (manufacture)
	18222	Parts of suits for women and girls (manufacture)
	18222	Parts of trousers for women and girls (manufacture)
	18222	Raincoats for women and girls (manufacture)
	18222	Raincoats for women and girls made of stitched plastic (manufacture)
	18222	Rainproof garments for women and girls (manufacture)
	18222	Recreational clothing for women and girlsboys (waterproof) (manufacture)
	18222	Recreational weatherproof clothing for women and girls (manufacture)
	18222	Sailing clothing for women and girls (weatherproof) (manufacture)
	18222	Skirts for women and girls (dressmade)
	18222	Slacks for women and girls (manufacture)
	18222	Sportswear for women and girls (manufacture)
	18222	Suits for women and girls (dressmade) (manufacture)
	18222	Tailored outerwear for women and girls (manufacture)
	18222	Tailored skirts (manufacture)
	18222	Trouser suits for women and girls (manufacture)
	18222	Trousers for women and girls (manufacture)
	18222	Weatherproof jackets for women and girls (manufacture)
	18222	Weatherproof outerwear for women and girls (manufacture)
14141		**Manufacture of men's underwear**
	18231	Briefs for men and boys (manufacture)
	18231	Dressing gowns for men and boys (manufacture)
	18231	Knitted nightwear for men and boys (manufacture)
	18231	Knitted underwear for men and boys (manufacture)
	18231	Knitted vests for men and boys (manufacture)
	18231	Nightwear for men and boys (manufacture)
	18231	Pyjamas for men and boys (manufacture)

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UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

18231 Shirts for men and boys (manufacture) 18231 T-shirts for men and boys (manufacture) 18231 Underwear for men and boys (manufacture)18231 Vests for men and boys (manufacture)

14142 Manufacture of women's underwear

18232 Blouses for women and girls (manufacture)18232 Brassiere (manufacture)

18232 Briefs for women and girls (manufacture)18232 Corselet (manufacture)

18232 Corset (manufacture)

18232 Corset belt (manufacture)

18232 Dressing gown for women and girls (manufacture)18232 Foundation garment (manufacture)

18232 Knickers (manufacture)

18232 Knitted nightwear for women and girls(manufacture)

18232 Knitted underwear for women and girls(manufacture)

18232 Knitted vests for women and girls (manufacture)18232 Lingerie (manufacture)

18232 Night-dresses for women and girls (manufacture)18232 Nightwear for women and girls (manufacture) 18232 Panty (manufacture)

18232 Petticoat (manufacture)

18232 Pyjamas for women and girls (manufacture)18232 Shirts for women and girls (manufacture) 18232 Slips (manufacture)

18232 Suspender (manufacture)

18232 Suspender belt (manufacture)18232 Underskirt (manufacture)

18232 Underwear for women and girls (manufacture)18232 Vests for women and girls (manufacture)

14190 Manufacture of other wearing apparel and accessories

18249 Athletic clothing (manufacture)18249 Babies garments (manufacture)18249 Baby clothing (manufacture) 18249 Baby linen (manufacture) 18241 Balaclava helmet (manufacture)

18249 Beachwear for women and girls (manufacture)

18241 Beret (knitted) (manufacture)

18241 Beret (not knitted) (manufacture)

18249 Braces (not made of leather or leather substitute)(manufacture)

18249 Braces made of leather (manufacture)

18241 Buckram shape (manufacture)

18241 Capeline felt (manufacture)

18241 Caps made of cloth (manufacture)

18249 Clothing accessories (manufacture)

18249 Clothing pad (manufacture)

18249 Collars for men and boys (manufacture)

18249 Cravats (manufacture)

18249 Cuffs for men and boys (manufacture)

18243 Cut, make and trim on a fee or contract basis (manufacture)

18249 Disposable clothing (manufacture)

18249 Dress belts (not made of leather or leather substitute) (manufacture)

18249 Dress gloves made of fabric (manufacture) 18249 Dress shield (manufacture)
18241 Felt hat bleaching and dying (manufacture) 18241 Felt hat body making (manufacture)
18241 Felt hat finishing (manufacture)
18249 Footwear made of textile fabric with applied soles (manufacture)
17710 Footwear made of textiles without applied soles (manufacture)
18249 Garter (manufacture)
18249 Gloves (other than knitted) (manufacture) 18249 Gloves for children (manufacture)
18249 Gloves made of cloth (manufacture) 18249 Gloves made of fur (manufacture)
18249 Gloves made of leather (not sports) (manufacture)
18249 Gloves made of textiles for household use (manufacture)
18249 Hair nets (manufacture)
18249 Hair nets made of lace (manufacture) 18249 Handkerchief folding (manufacture) 18249 Handkerchief hemming (manufacture)
18249 Handkerchief made of textile material (manufacture) 18241 Hat lining (manufacture)
18241 Hat pad (manufacture) 18241 Hat shape (manufacture)
18241 Hats made of cloth (manufacture) 18241 Hats made of felt (manufacture)
18241 Hats made of fur (manufacture) 18241 Hats made of fur fabric (manufacture)
18241 Hats made of silk (manufacture) 18241 Hats made of wool (manufacture)
18241 Headgear made of furskins (manufacture) 18249 Headsquare (manufacture)
18241 Knitted bonnet (manufacture) 18249 Knitted bootees (manufacture) 18249 Knitted gloves (manufacture)
18249 Knitted mittens and mitts (manufacture) 18249 Knitted scarf (manufacture)
18249 Knitted shawl (manufacture) 18249 Knitted swimwear (manufacture)
18249 Knitted swimwear for infants (manufacture) 18249 Knitted ties (manufacture)
18249 Knitted underclothing for infants (manufacture) 18249 Ladies fan (manufacture)
18241 Linings for hats (manufacture) 18241 Millinery made of felt (manufacture) 18249 Necktie (manufacture)
18249 Neckwear for women (manufacture) 18249 Nightwear for infants (manufacture) 18249 Outerwear for infants (manufacture)
18241 Peak cap (manufacture)
18249 Scarf (lace or knitted) (manufacture) 18249 Scarf (not lace or knitted) (manufacture) 18249 Shawls (manufacture)
18249 Shirt front (manufacture) 18249 Shirt neckband (manufacture) 18249 Ski suits (manufacture)
18249 Sporran (manufacture)
18241 Straw hat blocking (manufacture)

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UK SIC 2007	UK SIC 2003	Activity
	18241	Straw hats (manufacture)
	18249	Swimwear (manufacture)
	18249	Tailors' pad (manufacture)
	18249	Theatrical costumes (manufacture)
	18249	Ties made of silk (manufacture)
	18249	Tracksuits (manufacture)
	18241	Tropical helmet (manufacture)
	18249	Underclothing for infants (manufacture)
	18241	Uniform hats and caps (manufacture)
	18249	Weatherproof outerwear for infants (manufacture)
	18249	Weatherproof skiing clothing (manufacture)
	18241	Wool felt and fur felt hood and capeline (manufacture)
14200		**Manufacture of articles of fur**
	18300	Apparel made of fur (manufacture)
	18300	Artificial fur and articles thereof (manufacture)
	18300	Capes made of fur (manufacture)
	18300	Clothing made of sheepskin (manufacture)
	18300	Cravats made of fur (manufacture)
	18300	Fur skin assemblies including dropped fur skins, plates, mats and strips (manufacture)
	18300	Furrier (manufacture)
	18300	Furskin articles (manufacture)
	18300	Furskin assemblies (manufacture)
	18300	Furskin pouffes, unstuffed (manufacture)
	18300	Garments made of rabbit fur (manufacture)
	18300	Hatters' fur (manufacture)
	18300	Industrial polishing cloths made of fur (manufacture)
	18300	Lambskin clothing (manufacture)
	18300	Manufacturing furrier (manufacture)
	18300	Mats and rugs made of fur (manufacture)
	18300	Moleskin finishing (manufacture)
	18300	Muffs made of fur (manufacture)
	18300	Rugs made of sheepskin (manufacture)
	18300	Rugs made of skins (manufacture)
	18300	Stoles made of fur (manufacture)
	18300	Trimmings made of fur (manufacture)
	18300	Wearing apparel and clothing accessories made of fur (manufacture)
14310		**Manufacture of knitted and crocheted hosiery**
	17710	Bedsock (manufacture)
	17710	Fancy hosiery (manufacture)
	17710	Hosiery (knitted and crocheted) (manufacture)
	17710	Hosiery blank (manufacture)
	17710	Pantyhose (manufacture)
	17710	Socks and stockings (knitted) (manufacture)
	17710	Socks for children (manufacture)
	17710	Socks for men (manufacture)
	17710	Socks for women and girls (manufacture)
	17710	Stockinette goods (manufacture)
	17710	Stockings (manufacture)
	17710	Stockings for women and girls (manufacture)
	17710	Tights (manufacture)
14390		**Manufacture of other knitted and crocheted apparel**
	17720	Cardigans (knitted) (manufacture)
	17720	Crocheted articles (manufacture)
	17720	Jerseys (knitted) (manufacture)
	17720	Jumpers (knitted) (manufacture)
	17720	Knitwear (manufacture)
	17720	Pullovers (knitted or crocheted) (manufacture)
	17720	Twin sets (knitted) (manufacture)
	17720	Waistcoats and other similar articles (knitted) (manufacture)
15110		**Tanning and dressing of leather; dressing and dyeing of fur**
	19100	Box and willow calf leather (manufacture)
	19100	Buckskin (manufacture)
	19100	Cattle hide leather (manufacture)
	19100	Chamois leather (manufacture)
	19100	Chrome tanning (manufacture)
	19100	Combing leather (manufacture)
	19100	Composition leather (manufacture)
	18300	Currying of fur skins and hides with the hair on (manufacture)
	18300	Dressing and dyeing of furskins and hides with the hair on (manufacture)
	19100	Dressing of leather (manufacture)
	18300	Dyed lamb including beaver lamb (manufacture)
	19100	Footwear leather preparation (manufacture)
	18300	Fur dressing (manufacture)
	18300	Fur dressing and dyeing (manufacture)
	19100	Gill leather (manufacture)
	19100	Glace kid (manufacture)
	19100	Glove leather preparation (manufacture)
	19100	Goldbeaters' skin or bung (manufacture)
	19100	Harness and saddlery leather preparation (manufacture)
	19100	Hat and cap leather preparation (manufacture)
	19100	Hydraulic leather (manufacture)
	19100	Leather dressing (manufacture)
	19100	Leather dying (manufacture)
	19100	Leather enamelling (manufacture)
	19100	Leather gilding (manufacture)
	19100	Leather proofing (manufacture)
	19100	Leather tanning and dressing (manufacture)
	19100	Leather trimmings (manufacture)
	19100	Mechanical leather preparation (manufacture)
	19100	Metallised leathers (manufacture)
	19100	Parchment made of leather (manufacture)
	19100	Patent leather (manufacture)
	19100	Reptile leather (manufacture)
	18300	Scraping of fur skins and hides with the hair on (manufacture)
	18300	Shearing and plucking of fur skins and hides with the hair on (manufacture)
	19100	Sheep skin preparation (manufacture)
	19100	Sole leather preparation (manufacture)
	19100	Tanning leather (manufacture)
	18300	Tanning of fur skins and hides with the hair on (manufacture)
	19100	Tanning of hairless skins and hides (manufacture)
	19100	Trimmings made of leather (manufacture)
	19100	Upholstery leather preparation (manufacture)
	19100	Upper leather (manufacture)
	19100	Vellum (manufacture)

UK SIC 2007	UK SIC 2003	Activity
15120		**Manufacture of luggage, handbags and the like, saddlery and harness**
	19200	Army accoutrement made of leather (manufacture)
	19200	Art leather work (manufacture)
	19200	Attaché case made of leather or leather substitute (manufacture)
	19200	Bags made of leather or leather substitute (manufacture)
	19200	Belts made of leather or leather substitute (manufacture)
	19200	Billfolds made of leather (manufacture)
	19200	Bridle cutting (manufacture)
	19200	Brown saddlery (manufacture)
	19200	Brush case (not of leather or plastics) (manufacture)
	19200	Buff and mop made of leather (manufacture)
	19200	Buffalo pickers made of leather (manufacture)
	19200	Cases for cutlery (not wooden) (manufacture)
	19200	Cases for jewellery (not wooden) (manufacture)
	19200	Cases for musical instruments (not wooden) (manufacture)
	19200	Cases made of leather for cutlery, instruments, etc. (manufacture)
	19200	Check strap made of leather (manufacture)
	19200	Container for typewriter, radio, etc. Made of leather (manufacture)
	19200	Convevor bands made of leather (manufacture)
	19200	Cutlery case (not leather or plastics) (manufacture)
	19200	Cycle bags made of leather (manufacture)
	19200	Dog lead made of leather (manufacture)
	19200	Dressing case made of leather or leather substitute (manufacture)
	19200	Driving belts made of leather (manufacture)
	19200	Elevator bands made of leather (manufacture)
	19200	Fancy leather goods (manufacture)
	19200	Gas meter diaphragm made of leather (manufacture)
	19200	Gun cases made of leather (manufacture)
	19200	Hand luggage made of leather (manufacture)
	19200	Handbags and the like of composition leather (manufacture)
	19200	Handbags made of leather or leather substitutes (manufacture)
	19200	Harness (manufacture)
	19200	Harness front and rosette made of leather (manufacture)
	19200	Hat box made of leather or leather substitute (manufacture)
	19200	Horse collars made of leather (manufacture)
	36639	Horse whips (manufacture)
	19200	Industrial leather (manufacture)
	19200	Jewel case (not wood or metal) (manufacture)
	19200	Key tags and cases made of leather (manufacture)
	19200	Ladies handbags made of leather (manufacture)
	19200	Leather articles for use in machinery or mechanical appliances (manufacture)
	19200	Leather belting for use in machinery (manufacture)
	19200	Leather goods (not industrial) (manufacture)
	19200	Leather shoe-laces (manufacture)
	19200	Luggage and the like of leather (manufacture)
	19200	Luggage handbags made of paperboard (manufacture)
	19200	Luggage made of leather or leather substitute (manufacture)
	19200	Luggage, handbags made of plastic sheeting (manufacture)
	19200	Luggage, handbags made of textile materials (manufacture)
	19200	Machinery accessories made of leather (manufacture)
	19200	Machinery belting made of leather (manufacture)
	19200	Manicure case made of leather (manufacture)
	19200	Novelty goods made of leather (manufacture)
	19200	Picking bands made of leather (manufacture)
	19200	Pipe case (not leather or plastic) (manufacture)
	19200	Pochette made of leather (manufacture)
	19200	Pocket book made of leather (manufacture)
	19200	Pouch for tobacco (manufacture)
	19200	Pouch made of leather or leather substitute (manufacture)
	19200	Pump leather (manufacture)
	19200	Purses made of leather or leather substitute (manufacture)
	19200	Radio cases made of leather (manufacture)
	36639	Riding crops (manufacture)
	19200	Roller skin (cut) made of leather (manufacture)
	19200	Saddle horse (manufacture)
	19200	Saddlery (manufacture)
	19200	Saddlery and harness made of leather (manufacture)
	19200	Sample case made of leather (manufacture)
	19200	Shopping bags made of plastic (designed for prolonged use) (manufacture)
	19200	Shopping bags made of stitched plastic (manufacture)
	19200	Skips made of leather (manufacture)
	19200	Spectacle cases made of leather (manufacture)
	19200	Sports bags made of fabric (manufacture)
	19200	Sports bags made of leather (manufacture)
	19200	Sports goods carrier (manufacture)
	19200	Straps made of leather (manufacture)
	19200	Strops made of leather (manufacture)
	19200	Suitcases made of leather or leather substitute (manufacture)
	19200	Toilet case (fitted) made of leather (manufacture)
	19200	Toolbags made of leather (manufacture)
	19200	Travel goods made of leather or leather substitute (manufacture)
	19200	Trunk handles made of leather (manufacture)
	19200	Trunks made of leather (manufacture)
	19200	Typewriter case made of leather (manufacture)
	19200	Violin case (not wooden) (manufacture)
	19200	Wallets made of leather or leather substitute (manufacture)
	19200	Washers made of leather (manufacture)
	19200	Watch bands of non-metallic material such as fabric, leather or plastic (manufacture)
	19200	Watch straps (non-metallic) (manufacture)
	19200	Watch straps made of leather or leather substitute (manufacture)
	36639	Whips (manufacture)
15200		**Manufacture of footwear**
	19300	Athletic footwear (manufacture)
	19300	Ballet shoe (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

19300 Beach footwear (manufacture) 19300 Boot (manufacture)
19300 Boot closing (manufacture) 19300 Boot stiffener (manufacture) 19300 Boot upper (manufacture)
19300 Clog (manufacture)
19300 Cut soles for footwear (manufacture) 19300 Footwear (manufacture)
19300 Gaiters made of leather (manufacture) 19300 Galoshes made of rubber (manufacture) 19300 Heels made of leather (manufacture) 19300 House shoe (manufacture)
19300 Insoles made of leather (manufacture) 19300 Leather fillings (manufacture)
19300 Leggings and gaiters made of cloth (manufacture) 19300 Leggings made of leather (manufacture)
19300 Overboot (manufacture)
19300 Overshoes made of rubber (manufacture)
19300 Protective footwear made of plastic (manufacture) 19300 Safety boots (manufacture)
19300 Sandals (manufacture)
19300 Shoes (manufacture)
19300 Shoes made of wood (manufacture) 19300 Slipper soles (manufacture)
19300 Slippers (manufacture)
19300 Socks made of leather (manufacture) 19300 Spats made of leather (manufacture) 19300 Sports footwear (manufacture) 19300 Wellington boot (manufacture)

16100 Sawmilling and planing of wood

20100 Bargeboard (manufacture) 20100 Beaded wood (manufacture) 20100 Bent timber (manufacture) 20100 Boxboard (manufacture)
20100 Chamfered wood (manufacture)
20100 Drying of timber (manufacture)
20100 Flooring made of wood (not parquet flooring) (manufacture)
20100 Flooring made of wood (unassembled) (manufacture) 20100 Grooved wood (manufacture)
20100 Immersion treatment of wood (manufacture) 20100 Log sawing (manufacture)
20100 Log slicing, peeling or chipping (manufacture) 20100 Mining timber (sawn) (manufacture)
20100 Plank (manufacture)
20100 Pressure treatment of wood (manufacture) 20100 Railway sleepers made of wood (manufacture) 20100 Rebated wood (manufacture)
20100 Sawmilling (manufacture)
20100 Sawn fencing (manufacture)
20100 Skirting boards made of unmoulded wood (manufacture)
20100 Sleepers made of wood (manufacture)
02010 Split poles, pickets and other products (manufacture) 20100 Telegraph poles (manufacture)
20100 Tongued wood (manufacture)
20100 Vacuum treatment of wood (manufacture) 20100 Veneer log sawing (manufacture)

20100 V-jointed wood (manufacture) 20100 Wagon timber (sawn) (manufacture)
20100 Weatherboard (manufacture)
20100 Wood chip (manufacture)
20100 Wood creosoting, impregnation, preservation, spraying, varnishing and drying (manufacture)
20100 Wood drying (manufacture) 20100 Wood flour (manufacture)
20100 Wood grooving, milling, planing, sawing etc. (manufacture)
20100 Wood impregnation (manufacture) 20100 Wood machining (manufacture) 20100 Wood mill (manufacture)
20100 Wood particles (manufacture) 20100 Wood planing (manufacture) 20100 Wood preservation (manufacture) 20100 Wood sawing (manufacture) 20100 Wood shavings (manufacture)
20100 Wood spraying (manufacture) 20100 Wood varnishing (manufacture) 20100 Wood wool (manufacture)

16210 Manufacture of veneer sheets and wood-based panels

20200 Battenboard (manufacture)
20200 Blockboard (manufacture)
20200 Building boards made of fibre (manufacture)
20200 Building boards made of wood waste (manufacture) 20200 Cellular wood panel (manufacture)
20200 Chipboard agglomerated with non-mineral binding substances (manufacture)
20200 Densified wood (manufacture) 20200 Fibre board (manufacture)
20200 Fibre building board (manufacture) 20200 Glue laminated wood (manufacture) 20200 Hardboard (manufacture)
20200 Improved wood (manufacture)
20200 Laminated veneer wood (manufacture) 20200 Laminated wood products (manufacture) 20200 Laminboard (manufacture)
20200 Medium density fibreboard (MDF) and other fibreboard (manufacture)
20200 Oriented strand board (OSB) and other particleboard (manufacture)
20200 Particleboard agglomerated with non-mineral binding substances (manufacture)
20200 Plywood (manufacture)
20200 Veneer (manufacture)
20200 Veneer sheet (manufacture)
20200 Wood chipboard agglomerated with non-mineral binding substances (manufacture)
20200 Wood veneers (manufacture)

16220 Manufacture of assembled parquet floors

20300 Hardwood flooring strip (manufacture) 20300 Parquet flooring (manufacture)
20300 Strip flooring made of hardwood (manufacture)
20300 Wooden parquet floor blocks assembled into panels (manufacture)
20300 Wooden parquet floor strips assembled into panels (manufacture)

UK SIC 2007	UK SIC 2003	Activity
16230		**Manufacture of other builders' carpentry and joinery**
	20300	Bannister rails made of wood (manufacture)
	20300	Beading made of wood (manufacture)
	20300	Beadings and mouldings made of wood (manufacture)
	20300	Beams (manufacture)
	20300	Blinds made of wood (excluding shop blinds) (manufacture)
	20300	Bridges made of wood (manufacture)
	20300	Builders' carpentry and joinery made of wood (manufacture)
	20300	Builders' woodwork such as window frames etc. (manufacture)
	20300	Display stand (manufacture)
	20300	Door frames made of wood (manufacture)
	20300	Doors made of wood (manufacture)
	20300	Exhibition stand (manufacture)
	20300	Fencing made of wood (assembled) (manufacture)
	20300	Garage made of wood (manufacture)
	20300	Garden frames made of wood (manufacture)
	20300	Gate made of wood (manufacture)
	20300	Glue-laminated and metal connected prefabricated wooden roof trusses (manufacture)
	20300	Greenhouse made of wood (manufacture)
	20300	Huts made of wood (manufacture)
	20300	Industrialised building component made of timber (manufacture)
	20300	Moulded skirting board made of wood (manufacture)
	20300	Mouldings made of wood (manufacture)
	20300	Paving blocks made of wood (manufacture)
	20300	Portable wooden buildings (manufacture)
	20300	Poultry house made of wood (manufacture)
	20300	Prefabricated buildings made of wood (manufacture)
	20300	Prefabricated buildings or elements thereof made wood (manufacture)
	20300	Prefabricated roof timbers (manufacture)
	20300	Rafters (manufacture)
	20300	Railings made of wood (manufacture)
	20300	Roof struts (manufacture)
	20300	Saunas made from wood (manufacture)
	20300	Sheds made of wood (manufacture)
	20300	Shingles and shakes (manufacture)
	20300	Shop fronts made of wood (manufacture)
	20300	Shuttering made of wood (manufacture)
	20300	Shutters made of wood (manufacture)
	20300	Silos made of wood (manufacture)
	20300	Stair rods made of wood (manufacture)
	20300	Staircase made of wood (manufacture)
	20300	Tower made of wood (manufacture)
	20300	Trellis work made of wood (manufacture)
	20300	Truss rafter (manufacture)
	20300	Window frames made of wood (manufacture)
	20300	Wood partitions (manufacture)
	20300	Wooden beams for the construction industry (manufacture)
	20300	Wooden goods intended to be used primarily in the construction industry (manufacture)

SIC 2007	SIC 2003	Activity
16240		**Manufacture of wooden containers**
	20400	Barrels made of wood (manufacture)
	20400	Box pallet (manufacture)
	20400	Boxes made of wood (manufacture)
	20400	Boxes made of wood (wirebound) (manufacture)
	20400	Buckets made of wood (manufacture)
	20400	Bungs made of wood (manufacture)
	20400	Cable drums made of wood (manufacture)
	20400	Cask heads made of wood (manufacture)
	20400	Casks made of wood (manufacture)
	20400	Chests made of wood (manufacture)
	20400	Churns made of wood (manufacture)
	20400	Cigar box made of wood (manufacture)
	20400	Cock made of wood (manufacture)
	20400	Collapsible box made of wood (manufacture)
	20400	Containers made of wood (manufacture)
	20400	Cooper's products (manufacture)
	20400	Cooper's products reconditioning (manufacture)
	20400	Cooper's wood (manufacture)
	20400	Crates made of wood (manufacture)
	20400	Drums and similar packings made of wood (manufacture)
	20400	Egg box made of wood (manufacture)
	20400	Fish boxes made of wood (manufacture)
	20400	Hoops made of wood (manufacture)
	20400	Kegs made of wood (manufacture)
	20400	Packing cases made of wood (manufacture)
	20400	Pallets, box pallets and other load boards made of wood (manufacture)
	20400	Staves made of wood (manufacture)
	20400	Stillage made of wood (manufacture)
	20400	Suitcases made of wood (manufacture)
	20400	Tea chests made of wood (manufacture)
	20400	Travelling trunks made of wood (manufacture)
	20400	Tubs made of wood (manufacture)
	20400	Tuns made of wood (manufacture)
	20400	Vats made of wood (manufacture)
	20400	Wire and cable drums made of wood (manufacture)
16290		**Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials**
	20520	Agglomerated cork (manufacture)
	20520	Bamboo preparation (manufacture)
	20520	Baskets made of materials (other than plastic) (manufacture)
	20520	Basketware (manufacture)
	20510	Beads made of wood (manufacture)
	20510	Beehives made of wood (manufacture)
	36639	Blocks for the manufacture of smoking pipes (manufacture)
	20510	Bobbins made of wood (not textile accessory) (manufacture)
	20510	Boot or shoe lasts and trees made of wood (manufacture)
	20510	Breadboards made of wood (manufacture)
	20510	Broom handles made of wood (manufacture)
	20510	Brush back made of wood (manufacture)
	20510	Brush head made of wood (manufacture)
	20510	Brush top made of wood (manufacture)
	20510	Brush wood ware (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	20520	Buoyancy apparatus made of cork (except cork life preservers) (manufacture)
	20520	Cane preparation (manufacture)
	20520	Cane splitting and weaving (manufacture)
	20520	Cane working (manufacture)
	20510	Cases made of wood, for musical instruments (manufacture)
	20510	Caskets (except burial caskets) and cases made of wood (manufacture)
	20510	Clothes hangers made of wood (manufacture)
	20510	Clothes horse made of wood (manufacture)
	20510	Clothes pegs made of wood (manufacture)
	20510	Coat and hat racks made of wood (manufacture)
	20510	Coat hangers made of wood (manufacture)
	20520	Composition cork (manufacture)
	20510	Cooking utensils made of wood (manufacture)
	20510	Cops made of wood (manufacture)
	20520	Cork products (except cork life preservers) (manufacture)
	20510	Cutlery case made of wood (manufacture)
	20510	Dishes made of wood (manufacture)
	20510	Domestic woodware (manufacture)
	20510	Dowel pin (manufacture)
	20510	Drawing instruments case made of wood (not containing instruments) (manufacture)
	20510	Egg cup made of wood (manufacture)
	20520	Envelopes for bottles made of straw (manufacture)
	20520	Fenders made of cork (manufacture)
	20510	Fire logs and pellets, of pressed wood, or of coffee soybean grounds and the like (manufacture)
	20520	Floor coverings of natural cork (manufacture)
	20510	Foundry moulding pattern made of wood (manufacture)
	20510	Frames for artists canvases (manufacture)
	20510	Fruit bowls made of wood (manufacture)
	20510	Grids made of wood (manufacture)
	20510	Gunstock made of wood (manufacture)
	20510	Handicraft articles made of wood (manufacture)
	20510	Handles and bodies for brooms made of wood (manufacture)
	20510	Handles and bodies for brushes made of wood (manufacture)
	20510	Handles and bodies for tools made of wood (manufacture)
	36639	Handles for canes, umbrellas and similar (manufacture)
	20510	Handles made of wood (manufacture)
	20510	Household utensils made of wood (manufacture)
	20510	Hurdles made of wood (manufacture)
	20510	Inlaid wood (manufacture)
	20510	Instrument case made of wood (manufacture)
	20520	Insulating materials made of cork (manufacture)
	20510	Kitchenware made of wood (manufacture)
	20510	Ladders made of wood (manufacture)
	20510	Lasts made of wood (manufacture)
	20520	Loofah articles (manufacture)
	20510	Loom made of wood (manufacture)
	20510	Machine parts made of wood (manufacture)
	20520	Mats made of cork (manufacture)
	20520	Matting made of cane (manufacture)
	20520	Matting made of rushes (manufacture)
	20510	Mirror frame made of wood (manufacture)
	20510	Ornaments made of wood (manufacture)
	20520	Osier articles (manufacture)
	20520	Osier preparation (manufacture)
	20510	Picture frame made of wood (manufacture)
	20520	Plaiting material preparation (manufacture)
	20520	Plaits and products of plaiting materials (manufacture)
	20510	Pulley made of wood (manufacture)
	20520	Punnets made of cork, straw or plaiting materials (manufacture)
	20520	Raffia goods (manufacture)
	20510	Rakes made of wood (manufacture)
	20520	Reed articles (manufacture)
	20520	Reed preparation (manufacture)
	20510	Reels made of wood (manufacture)
	20510	Roller blinds made of wood (manufacture)
	20510	Rolling pins made of wood
	20520	Rush matting (manufacture)
	20520	Screens made of plaiting materials (manufacture)
	20510	Sewing thread reels and similar articles of turned wood (manufacture)
	20520	Sheets made of cork (manufacture)
	19300	Shoe parts made of wood (manufacture)
	20510	Shoetrees made of wood (manufacture)
	20510	Signs made of wood (manufacture)
	20520	Slabs made of cork (manufacture)
	20510	Slats for the manufacture of pencils (manufacture)
	20510	Spills made of wood (manufacture) or
	20510	Spinning wheels made of wood (manufacture)
	20510	Spools made of wood (manufacture)
	20510	Spoons made of wood (manufacture)
	20510	Statuettes made of wood (manufacture)
	20510	Step ladders made of wood (manufacture)
	20510	Steps made of wood (manufacture)
	20520	Stopper insets made of cork (manufacture)
	20520	Stoppers made of cork (manufacture)
	20520	Straw articles (manufacture)
	20510	Tent poles made of wood (manufacture)
	20520	Tiles made of cork (manufacture)
	20520	Tips made of cork (manufacture)
	20510	Tool handles made of wood (manufacture)
	20510	Tools made of wood (manufacture)
	20510	Trays made of wood (manufacture)
	20510	Turned wood products (manufacture)
	20510	Violin cases made of wood (manufacture)
	36639	Walking sticks made of wood (manufacture)
	20520	Wicker baskets (manufacture)
	20520	Wickerwork (manufacture)
	20510	Wine racks made of wood (manufacture)
	20510	Wood carving (manufacture)
	20510	Wood marquetry (manufacture)
	20510	Wooden articles n.e.c. (manufacture)
	20510	Wooden cases for jewellery (manufacture)
17110		**Manufacture of pulp**
	21110	Bleached paper pulp made by chemical dissolving (manufacture)
	21110	Bleached paper pulp made by mechanical processes (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	21110	Bleached paper pulp made by non-dissolving processes (manufacture)
	21110	Bleached paper pulp made by semi-chemical processes (manufacture)
	21110	Chemical woodpulp (manufacture)
	21110	Cotton-linters pulp (manufacture)
	21110	Dissolving chemical wood pulp (manufacture)
	21110	Mechanical woodpulp (manufacture)
	21110	Pulp for paper (manufacture)
	21110	Pulping recycled paper (manufacture)
	21110	Recycled fibre pulp (manufacture)
	21110	Removal of ink from waste paper and subsequent manufacture of pulp (manufacture)
	21110	Semi-bleached paper pulp made by chemical dissolving (manufacture)
	21110	Semi-bleached paper pulp made by mechanical processes (manufacture)
	21110	Semi-bleached paper pulp made by non-dissolving processes (manufacture)
	21110	Semi-bleached paper pulp made by semi-chemical processes (manufacture)
	21110	Semi-chemical woodpulp (manufacture)
	21110	Sulphate and soda woodpulp (manufacture)
	21110	Sulphite woodpulp (manufacture)
	21110	Synthetic fibre woodpulp (manufacture)
	21110	Unbleached paper pulp made by chemical dissolving (manufacture)
	21110	Unbleached paper pulp made by mechanical processes (manufacture)
	21110	Unbleached paper pulp made by non-dissolving processes (manufacture)
	21110	Unbleached paper pulp made by semi-chemical processes (manufacture)
	21110	Vegetable fibre pulp (manufacture)
	21110	Wood pulp (manufacture)
17120		**Manufacture of paper and paperboard**
	21120	Abrasive base paper (manufacture)
	21120	Bank note paper (manufacture)
	21120	Base paper for printing and writing paper (manufacture)
	21120	Bible paper (manufacture)
	21120	Bituminised building board (manufacture)
	21120	Blotting paper (manufacture)
	21120	Boot and shoe board (manufacture)
	21120	Bristol board (manufacture)
	21120	Building boards made of paper (manufacture)
	21120	Carbon paper in large sheets (manufacture)
	21120	Carbon paper in rolls (manufacture)
	21120	Carbonising base paper (manufacture)
	21120	Cardboard (manufacture)
	21120	Case making materials (manufacture)
	21120	Cellulose fibre webs (manufacture)
	21120	Cellulose wadding (manufacture)
	21120	Cigarette paper (uncut in rolls) (manufacture)
	21120	Creped paper (manufacture)
	21120	Crinkled paper (manufacture)
	21120	Drawing paper (manufacture)
	21120	Electrical paper (manufacture)
	21120	Fancy paper (manufacture)
	21120	Feltboard including felt paper (manufacture)
	21120	Filter paper stock (manufacture)
	21120	Flong paperboard (manufacture)
	21120	Fluting paper (manufacture)
	21120	Folding boxboard (manufacture)
	21120	Glassine paper (manufacture)
	21120	Greaseproof paper (manufacture)
	21120	Grey board (manufacture)
	21120	Hand made paper (manufacture)
	21120	Hygienic paper (uncut) (manufacture)
	21120	Industrial paper (manufacture)
	21120	Kraft wrapping and packaging paper (manufacture)
	21120	Laminates and foils laminated with paper or paperboard (manufacture)
	21120	Magazine paper (manufacture)
	21120	Mill board (manufacture)
	21120	Multi-layer paper obtained by compression (manufacture)
	21120	Newsprint (manufacture)
	21120	Packing made of cardboard (manufacture)
	21120	Packing paper (manufacture)
	21120	Paper (not sensitized) (manufacture)
	21120	Paper (uncut) for household use (manufacture)
	21120	Paper and paperboard coating, covering and impregnation (manufacture)
	21120	Paper and paperboard intended for further industrial processing (manufacture)
	21120	Paper and paperboard processing (manufacture)
	21120	Paper made of vegetable fibres for corrugated cardboard (manufacture)
	21120	Parchment and imitation parchment paper (manufacture)
	21120	Photographic base paper (manufacture)
	21120	Pressboard (manufacture)
	21120	Presspahn (manufacture)
	21120	Printing paper (manufacture)
	21120	Punched card and punched paper tape stock (manufacture)
	21120	Sacks made of kraft paper (manufacture)
	21120	Saturated and impregnated base paper (manufacture)
	21120	Security paper (manufacture)
	21120	Special purpose paper (manufacture)
	21120	Stencil basepaper (manufacture)
	21120	Stencil paper in large sheets (manufacture)
	21120	Stencil paper in rolls (manufacture)
	21120	Strawboard (manufacture)
	21120	Strawpaper (manufacture)
	21120	Sulphite wrapping paper (manufacture)
	21120	Tissue paper (uncut) (manufacture)
	21120	Toilet paper (uncut) (manufacture)
	21120	Tracing paper (manufacture)
	21120	Wallpaper base (manufacture)
	21120	Waterproof paper (manufacture)
	21120	Wrapping and packaging paper including coated (manufacture)
	21120	Writing paper (manufacture)
17211		**Manufacture of corrugated paper and paperboard; manufacture of sacks and bags of paper**
	21211	Bags made of paper (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	21211	Corrugated paper (manufacture)
	21211	Corrugated paper board (manufacture)
	21211	Multi-wall paper sack (manufacture)
	21211	Paper and paperboard (corrugated) (manufacture)
	21211	Printed paper bags (manufacture)
	21211	Sacks and bags made of paper (manufacture)
	21211	Sacks made of paper (manufacture)
17219		**Manufacture of paper and paperboard containers other than sacks and bags**
	21213	Boxes made of corrugated cardboard (manufacture)
	21213	Boxes made of corrugated paper (manufacture)
	21214	Boxes made of non-corrugated cardboard (manufacture)
	21214	Boxes made of non-corrugated paper (manufacture)
	21214	Boxes made of rigid board (manufacture)
	21213	Boxes made of rigid corrugated board (manufacture)
	21215	Cartons and similar containers for carrying liquids (unwaxed) (manufacture)
	21215	Cartons and similar containers for carrying liquids (waxed) (manufacture)
	21213	Cartons made of corrugated board (manufacture)
	21213	Cartons made of corrugated paper (manufacture)
	21214	Cartons made of non-corrugated board (manufacture)
	21214	Cartons made of non-corrugated paper (manufacture)
	21213	Cases made of corrugated cardboard (manufacture)
	21213	Cases made of corrugated fibreboard (manufacture)
	21213	Cases made of corrugated paper (manufacture)
	21214	Cases made of non-corrugated cardboard (manufacture)
	21214	Cases made of non-corrugated paper (manufacture)
	21219	Cigarette packets (manufacture)
	21219	Containers and canisters made of cardboard n.e.c. (manufacture)
	21219	Containers made of corrugated paper or paperboard n.e.c. (manufacture)
	21219	Containers made of paper and paperboard n.e.c. (manufacture)
	21219	Containers made of solid board n.e.c. (manufacture)
	21213	Corrugated packing case (manufacture)
	21219	Cylinders made of board (open ended for posting documents) (manufacture)
	21219	Folding boxes made of board (manufacture)
	21219	Folding paperboard containers (manufacture)
	21219	Letter file (manufacture)
	21219	Office box files and similar articles (manufacture)
	21219	Office systems made of paper and board (manufacture)
	21219	Packing cases made of fibre board (manufacture)
17220		**Manufacture of household and sanitary goods and of toilet requisites**
	21220	Beakers made of paper (manufacture)
	21220	Cake board (manufacture)
	21220	Cellulose wadding products (manufacture)
	21220	Cleansing tissues (manufacture)
	21220	Cups made of paper (manufacture)
	21220	Dishes made of paper (manufacture)
	21220	Disposable baby napkins made of paper or cellulose wadding (manufacture)
	21220	Disposable bed linen made of paper or cellulose wadding (manufacture)
	21220	Doilies made of paper (manufacture)
	21220	Handkerchief made of paper (manufacture)
	21220	Household and personal hygiene paper (manufacture)
	21220	Household cellulose wadding paper products (manufacture)
	21220	Kitchen cloth made of paper (manufacture)
	21220	Kitchen towels made of paper (manufacture)
	21220	Napkin liners (manufacture)
	21220	Napkins made of paper (manufacture)
	21220	Paper lace (manufacture)
	21220	Plates made of paper (manufacture)
	21220	Pots made of paper (manufacture)
	21220	Sanitary towels made of paper (manufacture)
	17549	Sanitary towels made of textile wadding (manufacture)
	21220	Serviettes made of paper (manufacture)
	21220	Table-cloths made of paper (manufacture)
	21220	Tampons made of paper and cellulose wadding (manufacture)
	17549	Tampons made of textile wadding (manufacture)
	17549	Textile wadding and articles of wadding (manufacture)
	21220	Toilet paper (cut to size) (manufacture)
	21220	Towels made of paper (manufacture)
	21220	Trays made of paper (manufacture)
	21220	Underwear made of paper (manufacture)
	17549	Wadding made from yarn spun on the cotton system (manufacture)
17230		**Manufacture of paper stationery**
	22220	Account books (manufacture)
	21230	Adhesive paper ready for use (manufacture)
	21230	Boxed stationery (manufacture)
	21230	Carbon paper ready for use (manufacture)
	21230	Carbon paper stencil ready for use (manufacture)
	21230	Carbonless copy paper ready for use (manufacture)
	21230	Card cutting for index cards (manufacture)
	22220	Commercial notebooks (manufacture)
	22220	Commercial stationery (manufacture)
	22220	Commercial stationery binders (manufacture)
	22220	Commercial stationery business forms (manufacture)
	22220	Commercial stationery registers (manufacture)
	21230	Computer print-out paper (manufacture)
	21230	Continuous stationery (manufacture)
	21230	Duplicating paper (cut to size) (manufacture)
	21230	Duplicator stencils ready for use (manufacture)
	22220	Educational notebooks (manufacture)
	22220	Educational stationery (manufacture)
	22220	Educational stationery binders (manufacture)
	22220	Educational stationery business forms (manufacture)
	22220	Educational stationery registers
	21230	Envelopes and letter-cards (manufacture)
	21230	Gummed paper ready for use (manufacture)
	21230	Index card (manufacture)
	21230	Letter card (manufacture)
	22220	Loose leaf binder (manufacture)
	22220	Notepad (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	21230	Postcards (plain) (manufacture)
	21230	Pouches containing an assortment of paper stationery (manufacture)
	22220	Printed matter for accounting and technical use (manufacture)
	21230	Printers' cards (manufacture)
	21230	Printing and writing paper ready for use (manufacture)
	22220	School stationery (manufacture)
	21230	Self-copy paper ready for use (manufacture)
	21230	Stationery paper (manufacture)
	21230	Stencil duplicating (manufacture)
	21230	Wallets containing an assortment of paper stationery (manufacture)
	21230	Writing compendiums (manufacture)
	22220	Writing paper pads (manufacture)
17240		**Manufacture of wallpaper**
	21240	Fabric wallcoverings (manufacture)
	21240	Lincrusta (manufacture)
	21240	Paper and paperboard articles for interior decoration (manufacture)
	21240	Paper staining (manufacture)
	21240	Textile wall coverings (manufacture)
	21240	Textile wallpaper (manufacture)
	21240	Vinyl-coated wall coverings (manufacture)
	21240	Vinyl-coated wallpaper (manufacture)
	21240	Wallpaper and lining paper (manufacture)
17290		**Manufacture of other articles of paper and paperboard**
	21259	Articles made of paper and paperboard n.e.c. (manufacture)
	21259	Blinds made of paper (manufacture)
	21259	Bobbins made of paper and paperboard (manufacture)
	21259	Bobbins, spools and cops made of paper and paperboard (manufacture)
	21259	Bonbon paper (manufacture)
	36639	Christmas cracker (manufacture)
	36639	Christmas decorations made of paper (manufacture)
	21259	Cigarette paper in booklets (manufacture)
	21259	Cigarette tube (manufacture)
	36639	Confetti paper (manufacture)
	21259	Cop paper (manufacture)
	21259	Cop tube (manufacture)
	21259	Cylinder made of hardened paper (manufacture)
	21259	Discs made of cardboard (manufacture)
	21259	Egg boxes made of paper (manufacture)
	21259	Egg trays and other moulded pulp packaging products (manufacture)
	21259	Filter paper and paperboard (cut to size) (manufacture)
	21259	Flexible paper packaging (manufacture)
	36639	Hats made of paper (manufacture)
	21252	Labels (unprinted) made of gummed paper (manufacture)
	21252	Labels (unprinted) made of paper (manufacture)
	21259	Mount cutting (manufacture)
	21259	Mounting paper on linen (manufacture)
	21259	Paper converting (unspecified) (manufacture)
	21259	Paper creping (manufacture)
	21259	Paper cut to size (not packaging products) (manufacture)
	21259	Paper embossing (manufacture)
	36639	Paper novelties (manufacture)
	21259	Paper or paperboard cards for use on jacquard machines (manufacture)
	21259	Paper patterns (manufacture)
	21259	Paper perforating (manufacture)
	21259	Paper shavings (manufacture)
	21259	Paper transfer for embroidery, etc. (manufacture)
	21259	Papier mache works (manufacture)
	21259	Pattern card (manufacture)
	21259	Photograph mount (manufacture)
	21259	Picture frame mount (manufacture)
	21259	Pleated paper (manufacture)
	21259	Spools made of paper (manufacture)
	21259	Stamp hinges (manufacture)
	21259	Tabulating machine cards (manufacture)
	21259	Ticket cutting and punching (manufacture)
	21259	Tube fittings made of paper (manufacture)
	21259	Tubes made of cardboard (not for packing) (manufacture)
	21259	Wood pulp vessel (manufacture)
	21259	Wrapping paper cut and packed in ready to use sheets or rolls (manufacture)
18110		**Printing of newspapers**
	22210	Newspaper printing (manufacture)
	22210	Printing of periodicals appearing at least four times a week (manufacture)
18121		**Manufacture of printed labels**
	21251	Flexographic printing on labels or tags (manufacture)
	21251	Gravure printing on labels or tags (manufacture)
	21251	Labels (printed) made of gummed paper (manufacture)
	21251	Labels (printed) made of paper (manufacture)
	21251	Lithographic printing on labels or tags (manufacture)
	21251	Printed labels (manufacture)
	21251	Printing on labels or tags (manufacture)
18129		**Printing (other than printing of newspapers and printing on labels and tags) n.e.c.**
	22220	Advertising catalogue printing (manufacture)
	22220	Advertising printed matter printing (manufacture)
	22220	Album printing (manufacture)
	22220	Almanac printing (manufacture)
	22220	Amusement guide periodical printing (manufacture)
	22220	Atlas printing (manufacture)
	22220	Bank note printing (manufacture)
	22220	Book printing (manufacture)
	22220	Braille printing (manufacture)
	22220	Brochure printing (manufacture)
	22220	Business form printing (manufacture)
	22220	Calendar printing (manufacture)
	22220	Chart printing (manufacture)
	22220	Cheque book printing (manufacture)
	22220	Christmas card printing (manufacture)
	22220	Collotype printing (manufacture)
	22220	Commercial printed matter printing (manufacture)
	22220	Copper plate printing (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

22220 Decal printing (manufacture) 22220 Diary printing (manufacture) 22220 Directory printing (manufacture) 22220 Documents of title printing (manufacture)22220 Fashion printing (manufacture) 22220 Flexographic printing (manufacture) 22220 General printing (manufacture) 22220 Greeting card printing (manufacture) 22220 Hexachrome printing (manufacture) 22220 Job printing (manufacture) 22220 Letterpress printing (manufacture) 22220 Lithographic printing (manufacture)22220 Magazine printing (manufacture) 22220 Manuscript book (manufacture) 22220 Map printing (manufacture) 22220 Music printing (manufacture) 22220 Offset printing (manufacture) 22220 Pamphlet printing (manufacture) 22220 Passport printing (manufacture) 22220 Periodical printing (manufacture) 22220 Personal stationery printing (manufacture)22220 Phonetic printing (manufacture) 22220 Photocopier printing (manufacture) 22220 Photogravure printing (manufacture)22220 Picture postcard (manufacture) 22220 Plan printing (manufacture) 22220 Postage stamp perforating (manufacture)22220 Postage stamp printing (manufacture) 22220 Poster printing (manufacture) 22220 Printing (undefined) (manufacture) 22220 Printing by computer printers (manufacture) 22220 Printing by duplication machines (manufacture)22220 Printing by embossers (manufacture) 22220 Printing by quick printing (manufacture) 22220 Printing directly onto ceramics (manufacture)22220 Printing of banknotes 22220 Printing of magazines appearing less than four timesa week (manufacture) 22220 Printing of other security papers (manufacture)22220 Printing of smart cards (manufacture) 22220 Printing onto glass (manufacture) 22220 Printing onto metal (manufacture)22220 Printing onto plastic (manufacture) 21220 Printing onto sanitary goods and toilet requisites of paper (manufacture) 22220 Printing onto textiles (manufacture)22220 Printing onto wood (manufacture) 22220 Prospectus printing (manufacture) 22220 Register printing (manufacture) 22220 Review printing (manufacture) 22220 Screen printing (except silk screen printing on textilesand apparel) (manufacture) 22220 Screen printing (manufacture) 22220 Screen printing of logos (manufacture) 22220 Screen printing on glass or pottery (manufacture)22220 Security printing (manufacture) 22220 Sheet metal printing (manufacture) 22220 Sheet music printing (manufacture) 22220 Showcard (manufacture)

22220 Stamp embossed paper (manufacture) 22220 Stochastic printing (manufacture) 22220 Taxation stamps printing (manufacture)22220 Thermocopier printing (manufacture) 22220 Ticket printing (manufacture) 22220 Timetable printing (manufacture)22220 Tin printing (manufacture)
22220 Title document printing (manufacture)22220 Trade journal printing (manufacture) 22220 Trading stamp printing (manufacture) 22220 Transfer printing (manufacture)
22220 Window ticket (manufacture)

18130 Pre-press and pre-media services

22250 Aerographing (manufacture)
22250 Blocking (printing)
22250 Ceramic transfer litho engraving (manufacture)22240 Composition for printing (manufacture)
22240 Computer to plate CTP processing of plates for reliefprinting (manufacture)
22240 Computer to plate CTP processing of plates for reliefstamping
22240 Cylinder engraving for gravure printing(manufacture)
22240 Cylinder etching for gravure printing (manufacture)22240 Data files preparation for multi-media printing on CD- ROM (manufacture)
22240 Data files preparation for multi-media printing oninternet applications (manufacture)
22240 Data files preparation for multi-media printing onpaper (manufacture)
22250 Die sinking of stationery (manufacture) 22250 Die stamping of stationery (manufacture)22240 Digital imposition (manufacture)
22250 Dummies for presentation (manufacture)22240 Electronic makeup (manufacture)
22240 Electrotyping (manufacture)
22250 Embossing (manufacture)
22240 Engraving for printing (manufacture)22240 Etching for printing (manufacture)
22240 Image setting for letterpress processes (manufacture)
22240 Image setting for offset printing processes(manufacture)
22250 Insetting (manufacture)
22250 Laminating (manufacture)
22250 Layouts for presentation (manufacture)
22240 Litho plate making (unsensitized) (manufacture) 22240 Lithographic stones and wood blocks (manufacture)22250 Lithography (manufacture)
22240 Metal etching (manufacture)
22240 Music plate engraving (manufacture) 22250 Overhead media foils and other forms of presentation (manufacture)
22250 Overhead projection foils production (manufacture)22240 Photo engraving (manufacture)
22250 Photo lithography (manufacture)
22240 Phototypesetting (manufacture)
22240 Plate making for printing (manufacture)
22240 Plate processes direct to plate (also photopolymerplates) (manufacture)
22240 Plate setting for letterpress processes (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	22240	Plate setting for offset printing processes (manufacture)
	22250	Poster aerographing (manufacture)
	22240	Poster writing (manufacture)
	22240	Preparation and linkage of digital data (manufacture)
	22240	Pre-press data input electronic make-up (manufacture)
	22240	Pre-press data input optical character recognition, electronic make-up (manufacture)
	22240	Pre-press data input scanning (manufacture)
	22250	Print colouring (manufacture)
	22250	Printers' designing (manufacture)
	22240	Printing plate engraving (manufacture)
	22240	Printing roller engraving (manufacture)
	22240	Process block making (manufacture)
	22240	Process engraving (manufacture)
	22240	Process plate engraving (manufacture)
	22250	Rag book making (manufacture)
	22240	Reproduction and composing (manufacture)
	22250	Reprographic dummies production (manufacture)
	22250	Reprographic lay-outs production (manufacture)
	22250	Reprographic products production (manufacture)
	22250	Reprographic sketch production (manufacture)
	22250	Sketches for presentation (manufacture)
	22240	Stereotyping (manufacture)
	22240	Typesetting and phototypesetting (manufacture)
	22250	Varnishing (manufacture)
	22240	Wood blocks for printing (manufacture)
18140		**Binding and related services**
	22230	Adhesive binding of books, brochures, etc. (manufacture)
	22230	Advertising mailing literature finishing (manufacture)
	22230	Assembling of books, brochures, etc. (manufacture)
	22230	Binding and finishing of books, brochures, magazines, catalogues etc. (manufacture)
	22230	Binding and related services (manufacture)
	22230	Bookbinding (manufacture)
	22230	Braille copying (manufacture)
	22230	Business forms finishing (manufacture)
	22230	Calendar finishing (manufacture)
	22230	Calico printers' engraving (manufacture)
	22230	Card embossing (manufacture)
	22230	Collating of books, brochures, etc. (manufacture)
	22230	Cutting, cover laying, gluing, collating books, brochures, magazines, catalogues etc. (manufacture)
	22230	Die sinking or stamping finishing activities (manufacture)
	22230	Finishing services for CD-ROMS (manufacture)
	22230	Gilding (printing service) (manufacture)
	22230	Glueing of books, brochures, etc. (manufacture)
	22230	Gold blocking (manufacture)
	22230	Gold stamping (manufacture)
	22230	Heraldic chasing and seal engraving (manufacture)
	22230	Heraldic engraving (manufacture)
	22230	Mailing finishing services such as customisation, envelope preparation (manufacture)
	22230	Merchandising display finishing (manufacture)
	22230	Plastic wire binding and finishing of books and brochures (manufacture)
	22230	Post press services in support of printing activities (manufacture)
	22230	Printed paper or board finishing (manufacture)
	22230	Printed sheets finishing (manufacture)
	22230	Prospectus finishing (manufacture)
	22230	Publisher's case making (manufacture)
	22230	Relief stamping (manufacture)
	22230	Sample card finishing (manufacture)
	22230	Sample mounting in support of printing activities (manufacture)
	22230	Spiral binding and finishing of books and brochures (manufacture)
	22230	Stitching of books, brochures, etc. (manufacture)
	22230	Tillot and seal making (manufacture)
	22230	Trade binding (manufacture)
	22230	Trimming of books, brochures, etc. (manufacture)
18201		**Reproduction of sound recording**
	22310	Audio tape recording, except master copies for records or audio material (manufacture)
	22310	Compact disc reproduction from master copies (manufacture)
	22310	Gramophone record reproduction from master copies (manufacture)
	22310	Gramophone records (except master copies) including blanks for cutting) (manufacture)
	22310	Music tape reproduction from master copies (manufacture)
	22310	Sound recording, except master copies for records or audio material (manufacture)
	22310	Sound recording reproduction (manufacture)
	22310	Tape pre-recording, except master copies for records or audio material (manufacture)
18202		**Reproduction of video recording**
	22320	Video disc reproduction (manufacture)
	22320	Video tape recordings reproduction (manufacture)
18203		**Reproduction of computer media**
	22330	Computer media reproduction (manufacture)
	22330	Software reproduction from master copies (manufacture)
19100		**Manufacture of coke oven products**
	23100	Agglomeration of coke (manufacture)
	23100	Ammoniacal liquor from coke ovens (manufacture)
	23100	Ammonium sulphate from coke ovens (manufacture)
	23100	Coal carbonisation (manufacture)
	23100	Coke oven gas (manufacture)
	23100	Coke oven products (manufacture)
	23100	Coke production (manufacture)
	23100	Crude benzole from coke ovens (manufacture)
	23100	Crude coal tar from coke ovens (manufacture)
	23100	Crude coal tar production (manufacture)
	23100	Foundry coke (manufacture)
	23100	Hard coke (manufacture)
	23100	Hard coke breeze (manufacture)
	23100	Lignite tars production (manufacture)
	23100	Low temperature carbonisation solid fuel (not ovoid or briquettes) (manufacture)
	23100	Metallurgical coke (manufacture)
	24140	Pitch and pitch coke (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

23100 Semi-coke (manufacture)
23100 Sulphate of ammonia from coke ovens (manufacture)

19201 Mineral oil refining

23201 Aviation spirit (manufacture) 23201 Aviation turbine fuel (manufacture)
23201 Biofuels from blending of alcohols with petroleum, e.g. Gasohol (manufacture)23201 Bitumen (manufacture)
10103 Briquette solid fuel production (manufacture)23201 Burning oil (manufacture)
23201 Butane (manufacture)
23201 Chemical feedstock (manufacture)
10103 Coal tar (crude) from manufactured fuel plants(manufacture)
23201 Coke petroleum (manufacture) 23201 Crude oil refining (manufacture)
23201 Crude petroleum jelly (at refinery) (manufacture)23201 Derv (manufacture)
23201 Diesel oil (manufacture)
23201 Ethane production by refining (manufacture)23201 Fuel heavy fuel oil (manufacture)
23201 Fuel oil (manufacture)23201 Gas oil (manufacture)
23201 Gasoline motor fuel (manufacture) 23201 Greases (at refinery) (manufacture) 10103 Hard coal agglomeration (manufacture)10103 Hard-coal briquettes (manufacture)
23201 Industrial benzole (manufacture)
23201 Industrial spirit from petroleum (manufacture)23201 Insulating oil (at refineries) (manufacture) 23201 Kerosene (manufacture)
23201 Light fuel oil (manufacture)
10200 Lignite fuel briquettes (manufacture)23201 Liquid butane gas (manufacture) 23201 Liquid propane gas (manufacture)
23201 Lubricating oil (at refinery) (manufacture)23201 Marine diesel oil (manufacture)
23201 Medical paraffin (manufacture)
23201 Medium fuel oil (manufacture)
23201 Mineral oil refining (manufacture)23201 Motor fuel (manufacture)
23201 Motor spirit (manufacture) 23201 Naphtha (LDF) (manufacture)23201 Oil refinery (manufacture)
10103 Ovoid solid fuel production (manufacture)23201 Paraffin (manufacture)
23201 Paraffin for medicinal use (manufacture)23201 Paraffin wax (manufacture)
10103 Patent fuel production (manufacture)10300 Peat briquettes (manufacture)
23201 Petro-chemical industry products (manufacture)23201 Petrol (manufacture)
23201 Petroleum briquettes (manufacture)23201 Petroleum coke (manufacture) 23201 Petroleum feedstock (manufacture)23201 Petroleum gas (manufacture)
23201 Petroleum grease (at refinery) (manufacture) 23201 Petroleum product (at refineries) (manufacture)

23201 Petroleum refining (manufacture) 23201 Process oil refining (manufacture) 23201 Process oils (manufacture)

23201 Propane (manufacture) 23201 Refinery gas (manufacture)

23201 Road coverings derived from crude petroleum orbituminous minerals (manufacture)

23201 Shale oil refining (manufacture)

10103 Solid fuel briquettes production (manufacture) 10103 Solid fuels production (manufacture)

10103 Solid smokeless ovoids and briquettes preparation (manufacture)

23201 Tail gas (manufacture)

23201 Technical white oil (manufacture)

23201 Transformer oil (at refineries) (manufacture) 23201 Vaporising oil (manufacture)

23201 Vaseline (at refinery) (manufacture) 23201 White spirit (manufacture)

23201 Wide cut gasoline (manufacture)

19209 Other treatment of petroleum products (excluding mineral oil refining/petrochemicals manufacture)

23209 Cutting oil (manufacture)

23209 Grease formulation outside refineries (manufacture) 23209 Hydraulic oil formulation outside refineries (manufacture)

23209 Insulating oil formulation outside refineries (manufacture)

23209 Lubricating grease formulation outside refineries (manufacture)

23209 Lubricating oil formulation outside refineries (manufacture)

23209 Mineral oil blending (manufacture) 23209 Oil based lubricating oils (manufacture) 23209 Penetrating oil (manufacture)

23209 Petroleum grease formulation outside refineries (manufacture)

23209 Petroleum jelly formulation outside refineries (manufacture)

23209 Petroleum societies without refineries (manufacture) 23209 Strap paste for transmission belts (manufacture) 23209 Transformer oil formulation outside refineries (manufacture)

20110 Manufacture of industrial gases

24110 Acetylene (manufacture)

24110 Argon (manufacture)

24110 Carbon dioxide (manufacture)

24110 Compressed industrial gases (manufacture) 24110 Elemental gases (manufacture)

24110 Hydrogen (manufacture) 24110 Industrial gases (manufacture)

24110 Inert gases such as carbon dioxide (manufacture) 24110 Isolating gases (manufacture)

24110 Liquefied or compressed industrial gases (manufacture)

24110 Liquefied or compressed industrial or medical refrigerant gases (manufacture)

24110 Liquefied or compressed medical gases (manufacture)

24110 Liquid or compressed air (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	24110	Mixed industrial gases (manufacture)
	24110	Neon (manufacture)
	24110	Nitrogen (manufacture)
	24110	Nitrous oxide (manufacture)
	24110	Oxygen (manufacture)
	24110	Rare gases (manufacture)
	24110	Refrigerant gases (manufacture)
20120		**Manufacture of dyes and pigments**
	24120	Acid dye (manufacture)
	24120	Alizarin dye (manufacture)
	24120	Aniline dye (manufacture)
	24120	Azoic dye (manufacture)
	24120	Basic dye (manufacture)
	24120	Chromium pigment (manufacture)
	24120	Colour lake (manufacture)
	24120	Colours for food and cosmetics (manufacture)
	24120	Colours in dry, liquid or paste form (manufacture)
	24120	Crushed pigment colours (manufacture)
	24120	Direct dye (manufacture)
	24120	Disperse dye (manufacture)
	24120	Dye (manufacture)
	24120	Dyes and pigments from any source in basic or concentrated forms (manufacture)
	24120	Dyes for food, drink and cosmetics (manufacture)
	24120	Dyes modified for dying acrylic fibres (manufacture)
	24120	Fluorescent brightening agent (manufacture)
	24120	Jewellers' rouge (manufacture)
	24120	Lake (pigment) (manufacture)
	24120	Laundry blue (manufacture)
	24120	Luminophores (manufacture)
	24120	Manganese oxide (manufacture)
	24120	Mineral colours (manufacture)
	24120	Mordant dye (manufacture)
	24120	Ochres (pigments) (manufacture)
	24120	Optical bleaching agent (manufacture)
	24120	Solvent dye (manufacture)
	24120	Sulphur dye (manufacture)
	24120	Synthetic dyestuffs (manufacture)
	24120	Synthetic iron oxide (manufacture)
	24120	Synthetic organic pigment (manufacture)
	24120	Tanning agents (synthetic) (manufacture)
	24120	Titanium dioxide (manufacture)
	24120	Toner (pigment) (manufacture)
	24120	Vat dye (manufacture)
	24120	Vegetable tanning and dyeing extracts (manufacture)
	24120	Zinc oxide (manufacture)
20130		**Manufacture of other inorganic basic chemicals**
	24130	Acid (inorganic) (manufacture)
	24130	Alkali (manufacture)
	24130	Aluminium compounds (except bauxite and abrasives) (manufacture)
	24130	Alums (manufacture)
	24130	Bromine and bromides (manufacture)
	24130	Calcium and calcium compounds (manufacture)
	24130	Calcium carbide (manufacture)
	24130	Carbon (manufacture)
	24130	Carbon black (manufacture)
	24130	Carbon disulphide (manufacture)
	24130	Chemical elements (except metals) (manufacture)
	24130	Chlorine and chloride (manufacture)
	24130	Chromium compounds (excluding prepared pigments) (manufacture)
	24130	Distilled water (manufacture)
	23300	Enriched thorium (manufacture)
	23300	Enriched uranium production (manufacture)
	24130	Flocculating agents (chemical) (manufacture)
	24130	Fluorine, hydrofluoric acid and fluorides (manufacture)
	23300	Fuel elements for nuclear reactors production (manufacture)
	24130	Halogens and halides (inorganic) (manufacture)
	24130	Hydrochloric acid (manufacture)
	24130	Hydrogen peroxide (manufacture)
	24130	Hydrosulphite (manufacture)
	24130	Inorganic acid (manufacture)
	24130	Inorganic bases (manufacture)
	24130	Inorganic chemical (manufacture)
	24130	Inorganic compounds (manufacture)
	24130	Iodine and iodides (manufacture)
	23300	Iron pyrites roasting (manufacture)
	24130	Lyes (manufacture)
	24130	Oxygen compounds of non metals (excluding carbon dioxide) (manufacture)
	24130	Pesticide inorganic chemicals (excluding formulated preparations) (manufacture)
	24130	Phosphorous compounds (excluding phosphatic fertiliser) (manufacture)
	23300	Plutonium processing (manufacture)
	24130	Potassium compounds (manufacture)
	23300	Radioactive compounds production (manufacture)
	24130	Radioactive isotopes (other than of uranium, thorium or plutonium) (manufacture)
	23300	Radioactive isotopes of uranium, thorium and plutonium (manufacture)
	24130	Sodium and sodium compounds (manufacture)
	23300	Spent nuclear fuel re-processing (manufacture)
	24130	Sulphur (manufacture)
	24130	Sulphuric acid (manufacture)
	23300	Uranium (enriched) (manufacture)
	24130	White lead (not in paste form) (manufacture)
20140		**Manufacture of other organic basic chemicals**
	24140	Acetic acid (manufacture)
	24140	Acetone (manufacture)
	24140	Acid (organic) (manufacture)
	24140	Acrylonitrile (manufacture)
	24140	Activated and unactivated charcoal (other than wood charcoal) (manufacture)
	24140	Activated earths (manufacture)
	24140	Acyclic (fatty) alcohols (manufacture)
	24140	Acyclic hydrocarbons (saturated and unsaturated) (manufacture)
	24140	Aldehyde (manufacture)
	24140	Amines (manufacture)
	24140	Anthracene (manufacture)
	24140	Aromatic hydrocarbons (manufacture)
	24140	Benzene (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	24140	Butadiene (manufacture)
	24140	Carboxylic acid (manufacture)
	24140	Charcoal (other than wood charcoal) (manufacture)
	24140	Charcoal burning (manufacture)
	24140	Citric acid (manufacture)
	24140	Coal tar (refined) (manufacture)
	24140	Coal tar distillation (manufacture)
	24140	Coal tar naphtha (manufacture)
	24140	Creosote (manufacture)
	24140	Cresylic acid (manufacture)
	24140	Cumene (manufacture)
	24140	Cyclic alcohols (manufacture)
	24140	Cyclic hydrocarbons (saturated and unsaturated) (manufacture)
	24140	Cyclohexane (manufacture)
	15920	Denatured ethyl alcohol (manufacture)
	24140	Diethyl phenylamine diamine sulphate (chlorine tablets) (manufacture)
	15920	Distillery draft production (manufacture)
	24140	Enzymes and other organic compounds (manufacture)
	24140	Epoxides (manufacture)
	24140	Esters (but (not polyesters)) (manufacture)
	24140	Esters of methacrylic acid (manufacture)
	24140	Ethane diol (excluding anti-freeze mixtures) (manufacture)
	24140	Ethanol (synthetic) (manufacture)
	15920	Ethyl alcohol (non-potable) obtained by fermentation (manufacture)
	24140	Ethylene (manufacture)
	24140	Ethylene glycol (excluding anti-freeze mixtures) (manufacture)
	24140	Fat splitting and distilling (manufacture)
	24140	Fatty acid (manufacture)
	24140	Formaldehyde (manufacture)
	24140	Halogenated derivatives of hydrocarbon (manufacture)
	24140	Heterocyclic compounds (manufacture)
	24140	Hydrocarbon derivatives (sulphated, nitrated or nitrosated) (manufacture)
	24140	Hydrocarbons (not fuels) (manufacture)
	24140	Ketones (manufacture)
	24140	Lactones (coumarin, methylcoumarins and ethylcoumarins) (manufacture)
	24140	Melamine (manufacture)
	24140	Methanol (manufacture)
	15920	Methylated spirits (manufacture)
	24140	Mono and polycarboxyclic acids including acetic acid (manufacture)
	24140	Monohydric alcohols (manufacture)
	24140	Naphthalene (manufacture)
	15920	Neutral spirits production (manufacture)
	24140	Nitrogen-function organic compounds including aniline (manufacture)
	24140	Oleic acid (manufacture)
	24140	Olefine (manufacture)
	24140	Organic acids and their esters and halogenated, nitrosated and sulphonated derivatives (manufacture)
	24140	Organic base chemicals (manufacture)
	24140	Organic compounds including wood distillation products (manufacture)
	24140	Organo-sulphur compounds (manufacture)
	24140	Oxirane (ethylene oxide) (manufacture)
	24140	Oxygen-function compounds (dual or poly) (manufacture)
	24140	Oxygen-function compounds including aldehydes (manufacture)
	24140	Peracetic acid (manufacture)
	24140	Perchloroethylene (manufacture)
	24140	Pesticide organic chemicals (excluding formulated preparations) (manufacture)
	24140	Phenol (manufacture)
	24140	Phthalic anhydride (manufacture)
	24140	Piezo-electric quartz (manufacture)
	24140	Propylene (manufacture)
	24140	Propylene oxide (manufacture)
	24140	Pyridine base (manufacture)
	24140	Quinones (manufacture)
	24140	Refined coal tar (manufacture)
	24140	Rosin size (manufacture)
	24140	Saccharin tablet (manufacture)
	24140	Spirit of turpentine (manufacture)
	24140	Stearic acid (manufacture)
	24140	Styrene (manufacture)
	24140	Synthetic alcohol (manufacture)
	24140	Synthetic aromatic products (manufacture)
	24140	Synthetic ethyl alcohol (manufacture)
	24140	Synthetic glycerol (manufacture)
	24140	Synthetic or reconstructed precious or semi-precious stones (manufacture)
	24140	Tar acids (manufacture)
	24140	Tetrachloroethylene (manufacture)
	24140	Toluene (manufacture)
	24140	Urea (not for use as fertiliser) (manufacture)
	24140	Ureines (manufacture)
	24140	Vinyl acetate (manufacture)
	24140	Wood tar chemicals (manufacture)
	24140	Xylene (manufacture)
20150		**Manufacture of fertilisers and nitrogen compounds**
	24150	Ammonia (manufacture)
	24150	Ammonium chloride (manufacture)
	24150	Ammonium compounds (excluding ammonium nitrate, sulphate and phosphate) (manufacture)
	24150	Ammonium nitrate (not for explosives) (manufacture)
	24150	Ammonium phosphate (manufacture)
	24150	Ammonium sulphate (manufacture)
	24150	Artificial manure (manufacture)
	24150	Basic slag (ground) (manufacture)
	24150	Compound fertiliser (manufacture)
	24150	Crude natural phosphates (manufacture)
	24150	Fertiliser (manufacture)
	24150	Lawn sand (manufacture)
	24150	Lime (ammonium nitrate) (manufacture)
	24150	Nitrates and nitrites of potassium (manufacture)
	24150	Nitric and sulphonitric acid (manufacture)
	24150	Nitrogen products (manufacture)
	24150	Nitrogenous straight fertiliser (manufacture)
	24150	Nitrogenous, phosphatic or potassic fertilisers (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

24150 Phosphates of ammonium carbonates (manufacture) 24150 Phosphates of triammonium carbonates (manufacture)24150 Phosphatic straight fertiliser (manufacture)

24150 Potassic straight fertiliser (manufacture) 24150 Potassium salts (manufacture)

24150 Potting soil mixtures of natural soil, sand, clays andminerals (manufacture)

24150 Potting soil with peat as main constituent (manufacture)

24150 Superphosphate (manufacture)

24150 Urea for use as fertiliser (manufacture)

20160 Manufacture of plastics in primary forms

24160 Acrylic resins (manufacture)24160 Acrylics (manufacture)

24160 Acrylonitrile butadiene styrene (abs) polymers(manufacture)

24160 Alginates (manufacture) 24160 Alkyd resins (manufacture)

24160 Aminoplastic resins (manufacture)24160 Casein resins (manufacture) 24160 Cellulose (manufacture)

24160 Cellulose acetate (manufacture)

24160 Cellulose ester and ether ester (manufacture)24160 Cellulose nitrate (manufacture)

24160 Condensation, polycondensation and polyadditionproducts (plastic material) (manufacture)

24160 Co-polymer plastics (manufacture)24160 Cresylic resins (manufacture)

24160 Dispersions of synthetic resin (manufacture)24160 Emulsions of synthetic resin (manufacture) 24160 Epoxide resins (manufacture)

24160 Ethylene polymers (manufacture)

24160 Siloxanes (manufacture)

24160 Styrene polymers (manufacture)

24160 Synthetic resin adhesive (unformulated) (manufacture)

24160 Synthetic resins (manufacture) 24160 Thermoplastic resins (manufacture) 24160 Thermosetting resins (manufacture)

24160 Thiourea resins (manufacture)

24160 Vinyl acetate polymers (manufacture) 24160 Vinyl chloride polymers (manufacture)

20170 Manufacture of synthetic rubber in primary forms

24170 Factice (manufacture)

24170 Rubber-like gums (balata, etc.) (manufacture)24170 Synthetic rubber (manufacture)

24170 Synthetic rubber and natural rubber mixtures(manufacture)

Manufacture of pesticides and other

2 4 1 6 0 Extrusion compounds (plastics) (manufacture) 24160 Ion-exchangers based on polymers (manufacture)24160 Melamine resins (manufacture)

24160 Moulding compounds (plastics) (manufacture)

24160 Non-vulcanisable thermoplastic elastomers(manufacture)

24160 Phenolic resins (manufacture)

24160 Plastics in primary forms (manufacture)24160 Polyamide compounds (manufacture) 24160 Polyamides (manufacture)

24160 Polyester resins (manufacture)24160 Polyesters (manufacture)

24160 Polyethers (manufacture)

24160 Polyethylene (manufacture)

24160 Polymers (manufacture)

24160 Polypropylene (manufacture)

24160 Polystyrene (manufacture)

24160 Polytetrafluoroethylene (PTFE) (manufacture)

24160 Polyurethanes (manufacture)

24160 Polyvinyl acetate (PVA) (manufacture)

24160 Polyvinyl chloride (PVC) (manufacture)

24160 Propylene polymers (manufacture)

24160 PVC polyvinyl chloride as a raw material (manufacture)

24160 Resins for paint (manufacture)

24160 Resins made of urea formaldehyde (manufacture)

24160 Silicones (manufacture)

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agrochemical products

24200 Acaricide (manufacture)

24200 Agro-chemical products n.e.c. (manufacture)

24200 Anti-sprouting products (manufacture)

24200 Biocides (manufacture)

24200 Cattle dip (manufacture)

24200 Disinfectant (manufacture)

24200 Disinfectants for agricultural and other use (manufacture)

24200 Fly paper (manufacture)

24200 Formulated pesticide (manufacture)

24200 Fruit dropping compound (manufacture)

24200 Fruit setting compound (manufacture)

24200 Fumigating block (manufacture)

24200 Fungicide (manufacture)

24200 Herbicide (manufacture)

24200 Insecticide (manufacture)

24200 Molluscicides (manufacture)

24200 Nematocide (manufacture)

24200 Nicotine preparation (manufacture)

24200 Pesticides and other agrochemical products (manufacture)

24200 Plant growth regulators (manufacture)

24200 Plant hormone (manufacture)

24200 Rodenticide (manufacture)

24200 Seed dressing (manufacture)

24200 Sheep dip (manufacture)

24200 Soil fumigant (manufacture)

24200 Weed killer (manufacture)

20301 Manufacture of paints, varnishes and similar coatings, mastics and sealants

24301 Acrylic paints (manufacture)

24301 Alkyd (manufacture)

24301 Aluminium paint (manufacture)

24301 Aluminium paste (manufacture)

24301 Anti-corrosive paint (manufacture)

24301 Artists' colours (manufacture)

24301 Bituminous paint (manufacture)

24303 Caulking compounds and similar non-refractory filling or surfacing preparations (manufacture)

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UK SIC 2007	UK SIC 2003	Activity
	24301	Cellulose paint (manufacture)
	24301	Cellulose varnish (manufacture)
	24301	Cement based paint (manufacture)
	24301	Ceramic colours (manufacture)
	24301	Ceramic glaze (manufacture)
	24301	Chlorinated rubber based paint (manufacture)
	24301	Distemper (manufacture)
	24301	Electrocoats paint (manufacture)
	24301	Emulsion paint (manufacture)
	24301	Enamel (manufacture)
	24301	Epoxy paint (manufacture)
	24303	Filling and sealing compounds for painters (manufacture)
	24301	French polish (manufacture)
	24301	Glass powder (manufacture)
	24301	Glazes and engobes and similar preparations (manufacture)
	24301	Lacquer (manufacture)
	24301	Lead paint (manufacture)
	24301	Liquid lustres (manufacture)
	24301	Marine paint (manufacture)
	24303	Mastics (manufacture)
	24301	Metal pre-treatment paint (manufacture)
	24301	Metallic paint (manufacture)
	24301	Nitrogen resin type paint (manufacture)
	24301	Oleo resinous paint (manufacture)
	24301	Opacifiers and colours (manufacture)
	24301	Organic composite solvents (manufacture)
	24301	Paint (not cement based) (manufacture)
	24301	Paint removers (manufacture)
	24301	Paint with cement base (manufacture)
	24301	Paste made of aluminium (manufacture)
	24301	Pigments (prepared) (manufacture)
	24301	Polyester paint (manufacture)
	24301	Polyurethane paint (manufacture)
	24301	Powder made of glass (manufacture)
	24301	Prepared dyes (manufacture)
	24301	Primer paint (manufacture)
	24303	Putty (manufacture)
	24301	Rubber based paint (chlorinated) (manufacture)
	24303	Sealants (other than bituminous or oil based) (manufacture)
	24301	Shellac varnish (manufacture)
	24301	Ship's bottom composition (manufacture)
	24301	Stain (manufacture)
	24301	Thinners for paint and varnish (manufacture)
	24301	Varnish (manufacture)
	24301	Varnish removers (manufacture)
	24301	Vinyl paint (manufacture)
	24301	Vitreous enamel frits (manufacture)
	24301	Vitrifiable enamels (manufacture)
	24301	White lead in paste form (manufacture)
	24301	Wood stain (manufacture)
	24301	Zinc paint (manufacture)
20302		**Manufacture of printing ink**
	24302	Flexographic ink (manufacture)
	24302	Gravure ink (manufacture)
	24302	Letterpress ink (manufacture)
	24302	Lithographic ink (manufacture)
	24302	News ink (manufacture)
	24302	Printers' varnish (manufacture)
	24302	Printing ink (manufacture)
	24302	Screen process ink (manufacture)
20411		**Manufacture of soap and detergents**
	24511	Abrasive soap (manufacture)
	24511	Carpet soap (manufacture)
	24511	Crude glycerol (manufacture)
	24511	Detergent (soapless, formulated) (manufacture)
	24511	Detergent (synthetic) (manufacture)
	24511	Dish-washing preparations (manufacture)
	24511	Dog soap (manufacture)
	24511	Glycerol (manufacture)
	24511	Hard soap (manufacture)
	24511	Industrial soap (manufacture)
	24511	Liquid soap (manufacture)
	24511	Oil dispersant (manufacture)
	24511	Organic surface-active agents (manufacture)
	24511	Soap (manufacture)
	24511	Soap chips (manufacture)
	24511	Soap flakes (manufacture)
	24511	Soap or detergent coated felt, paper and wadding (manufacture)
	24511	Soap powder (manufacture)
	24511	Surface active preparations (manufacture)
	24511	Synthetic detergent (manufacture)
	24511	Textile soap (manufacture)
	24511	Textile softeners (manufacture)
	24511	Washing powders and preparations in solid or liquid form (manufacture)
20412		**Manufacture of cleaning and polishing preparations**
	24512	Artificial waxes (manufacture)
	24512	Car polish (manufacture)
	24512	Cleaning and polishing preparations (manufacture)
	24512	Cleaning powder (other than detergents and scouring powder) (manufacture)
	24512	Deodoriser for household use (manufacture)
	24512	Deodorisers (manufacture)
	24512	Floor cleanser (manufacture)
	24512	Floor polish (manufacture)
	24512	Floor seal (manufacture)
	24512	Furniture polish (manufacture)
	24512	Glass polish (manufacture)
	24512	Impregnated cleaning and polishing cloth (manufacture)
	24512	Metal polish (manufacture)
	24512	Plate polish (manufacture)
	24512	Polish (manufacture)
	24512	Polishes and creams (manufacture)
	24512	Polishes and creams for leather (manufacture)
	24512	Polishes and creams for wood (manufacture)
	24512	Polishes for coachwork (manufacture)
	24512	Polishes for glass (manufacture)
	24512	Polishes for metal (manufacture)
	24512	Polishing paste and powder (manufacture)
	24512	Prepared waxes (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	24512	Sanitary cleanser (manufacture)
	24512	Scouring paste or powder coated paper (manufacture)
	24512	Scouring pastes (manufacture)
	24512	Scouring powder (manufacture)
	24512	Shoe dye (manufacture)
	24512	Shoe polish (manufacture)
	24512	Ski wax (manufacture)
	24512	Wax (manufacture)
20420		**Manufacture of perfumes and toilet preparations**
	24520	After shave lotion (manufacture)
	24520	Anti-perspirant (manufacture)
	24520	Bath preparations (manufacture)
	24520	Bath salts (manufacture)
	24520	Beauty and make-up preparations (manufacture)
	24520	Brushless shaving cream (manufacture)
	24520	Colognes (manufacture)
	24511	Cosmetic soap (manufacture)
	24520	Cosmetics (manufacture)
	24520	Dental cleansing preparation (manufacture)
	24520	Dentifrices (manufacture)
	24520	Denture fixative preparations (manufacture)
	24520	Deodorant (manufacture)
	24520	Depilatory (manufacture)
	24520	Face powder or cream (manufacture)
	24520	Hair lacquers (manufacture)
	24520	Hair preparations (manufacture)
	24520	Hand cream (manufacture)
	24520	Lipstick (manufacture)
	24520	Make-up preparation (manufacture)
	24520	Manicure and pedicure preparations (manufacture)
	24520	Nail preparation (cosmetic) (manufacture)
	24520	Oral hygiene preparations (manufacture)
	24520	Perfume (manufacture)
	24520	Pre-shave lotion (manufacture)
	24520	Shampoo (manufacture)
	24520	Shaving cream (brushless) (manufacture)
	24520	Shaving cream (manufacture)
	24520	Shaving preparations (manufacture)
	24511	Shaving soap (manufacture)
	24520	Skin care preparations (manufacture)
	24520	Sunburn prevention and sun tan preparations (manufacture)
	24520	Talcum powder (manufacture)
	24520	Toilet preparations (manufacture)
	24511	Toilet soap (manufacture)
	24520	Toilet water (manufacture)
	24520	Toiletries (manufacture)
	24520	Tooth powder (manufacture)
	24520	Toothpaste (manufacture)
	24520	Waving and hair straightening preparations (manufacture)
20510		**Manufacture of explosives**
	24610	Ammonium nitrate for explosives (manufacture)
	24610	Amorce (manufacture)
	24610	Black powder (manufacture)
	24610	Blasting powder

SIC 2007	SIC 2003	Activity
	24610	Chlorate explosive (manufacture)
	24610	Cordite (manufacture)
	24610	Detonating fuse (manufacture)
	24610	Detonator (manufacture)
	24610	Dynamite (manufacture)
	24610	Explosive signalling flares (manufacture)
	24610	Explosives (manufacture)
	24610	Firework (manufacture)
	24610	Fog signal (manufacture)
	24610	Fuse for explosives (manufacture)
	24610	Gelignite (manufacture)
	24610	Guncotton (manufacture)
	24610	Gunpowder (manufacture)
	24610	Incendiary composition (manufacture)
	36639	Match (manufacture)
	24610	Nitro glycerine (manufacture)
	24610	Perchlorate explosive (manufacture)
	24610	Percussion cap (manufacture)
	24610	Propellant powder (manufacture)
	24610	Propergol fuels and other propellant powders (manufacture)
	24610	Pyrotechnics (manufacture)
	24610	Rain rocket (manufacture)
	24610	Safety fuse (manufacture)
	24610	Signal rocket (manufacture)
	24610	Trinitrotoluene (TNT) (manufacture)
20520		**Manufacture of glues**
	24620	Acrylic adhesives (manufacture)
	24620	Adhesive (formulated) (manufacture)
	24620	Adhesive coating (manufacture)
	24620	Adhesive made of urea formaldehyde (manufacture)
	24620	Adhesive paste (manufacture)
	24620	Anaerobic adhesive (manufacture)
	24620	Bone glue (manufacture)
	24620	Casein based adhesive (manufacture)
	24620	Cellulose based adhesive (manufacture)
	24620	Cross linking adhesive (manufacture)
	24620	Cyanoacrylate adhesive (manufacture)
	24620	Decorators' size (manufacture)
	24620	Dextrin based adhesive (manufacture)
	24620	Emulsion adhesive (manufacture)
	24620	Epoxide adhesive (manufacture)
	24620	Glue (manufacture)
	24620	Gum (manufacture)
	24620	Hot melt adhesive (manufacture)
	24620	Industrial adhesives (manufacture)
	24620	Moutant (manufacture)
	24620	Polyester adhesive (manufacture)
	24620	Polyurethane adhesive (manufacture)
	24620	Polyvinyl acetate and co-polymer adhesives (manufacture)
	24620	Resorcinol formaldehyde adhesive (manufacture)
	24620	Rubber based glues and adhesives (manufacture)
	24620	Starch based adhesives (manufacture)
	24620	Synthetic resin adhesive (manufacture)
20530		**Manufacture of essential oils**
	24630	Aromatic distilled waters (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

24630 Compound flavour (blended flavour concentrates)(manufacture)
24630 Essential oils and essence (other than turpentine)(manufacture)
24630 Extracts of aromatic products (manufacture) 24630 Natural material used in flavours or perfumes (manufacture)
24630 Odoriferous products (manufacture) 24630 Perfume compounds (blended perfume concentrates) (manufacture)
24630 Perfumery and flavour synthetic chemicals (manufacture)
24630 Resinoids (manufacture)

20590 Manufacture of other chemical products n.e.c.

24660 Activated carbon (manufacture)
24660 Anti-freeze mixtures (excluding pure ethyl glycol)(manufacture)
24660 Anti-knock compounds (manufacture)24660 Anti-rust preparations (manufacture)
24660 Brewing preparations (excluding yeast) (manufacture)24660 Catalysts (manufacture)
24660 Chemicals specially prepared for laboratory use(manufacture)
24640 Cinematographic sensitized film (manufacture) 24640 Clearing agents for photographic use (manufacture)24660 Composite diagnostic or laboratory reagents (manufacture)
24660 Compound plasticisers for rubber or plastics (manufacture)
24660 De-icing fluid (manufacture)24660 Dental wax (manufacture)
24660 Desiccants (chemical) (manufacture)
24660 Doped compounds for use in electronics (manufacture)
24660 Drawing ink (manufacture) 24660 Drilling mud (manufacture) 24660 Duplicating ink (manufacture)
24660 Finings (manufacture)
24660 Fire extinguishing chemicals (manufacture)24640 Fixer for photographic use (manufacture) 24660 Flux (manufacture)
24660 Foundry bonding clays (manufacture)24660 Foundry core binder (manufacture) 24660 Foundry facing (manufacture)
24660 Foundry preparation (manufacture)24660 Fuel additive (manufacture)
24660 Fusel oil (manufacture)
24620 Gelatine (manufacture)
24620 Gelatine derivatives (manufacture)
24660 Heat treatment salts (manufacture)
24660 Hydraulic brake fluid (less than 70% petroleum oil)(manufacture)
24660 Hydraulic transmission liquids (manufacture)24660 Indian ink (manufacture)
24660 Industrial catalyst (manufacture)
24660 Industrial cleaning preparation (manufacture)24660 Ink for impregnating ink pads (manufacture) 24640 Instant print film (manufacture)
24640 Intensifier for photographic use (manufacture)24620 Isinglass (manufacture)

24640 Litho plate making (sensitized) (manufacture) 24660 Lubricating oil additive (manufacture)
24660 Marking ink (manufacture)
24660 Metal pickling substances (manufacture) 24660 Metal treatment chemical (manufacture) 24660 Modelling pastes (manufacture)
24660 Oil additive (manufacture)
24660 Oils and fats (chemically modified) (manufacture)24660 Peptone derivatives (manufacture)
24660 Peptones (manufacture)
24640 Photographic chemicals (manufacture) 24640 Photographic developer (manufacture) 24640 Photographic film (sensitized) (manufacture)
24640 Photographic film plate (sensitised) (manufacture)24640 Photographic plates (manufacture)
24640 Photographic unexposed film (manufacture)
24660 Pickling preparations for metal treatment(manufacture)
24660 Powders and pastes used in soldering, brazing orwelding (manufacture)
24660 Prepared additives for cement (manufacture)24660 Prepared culture media for micro-organisms (manufacture)
24660 Protein substances (manufacture) 24660 Rubber accelerators (manufacture)
24660 Rubber processing chemicals (manufacture)24640 Sensitized cloth (manufacture)
24640 Sensitized emulsions for photographic use(manufacture)
24640 Sensitized paper (manufacture)
24660 Stabilisers and extenders for PVC processing(manufacture)
24660 Stabilisers for rubber or plastics (manufacture)24660 Stearin (manufacture)
24660 Surface active chemicals (excluding finished detergents and scouring powder) (manufacture)
24660 Textile chemical auxiliaries (manufacture)
24660 Textiles and leather finishing materials (manufacture)24640 Toner for photographic use (manufacture)
24640 Unexposed materials (manufacture) 24660 Vegetable-based bio diesel (manufacture)24660 Vegetable-based biodiesel (manufacture)
24660 Water treatment chemicals (manufacture)
24660 Wine making preparations (excluding yeast)(manufacture)
24660 Writing ink (manufacture)

20600 Manufacture of man-made fibres

24700 Continuous filament yarn of man-made fibres(manufacture)
24700 Fibrillated yarn (manufacture)24700 Filament tow (manufacture)
24700 High tenacity yarn made of viscose rayon(manufacture)
24700 Man-made fibre (not glass fibre) (manufacture) 24700 Man-made staple fibres, not carded, combed or otherwise processed for spinning (manufacture)
24700 Man-made tow (manufacture) 24700 Monofilament or strip (manufacture)
24700 Polyamide man-made fibre (manufacture)24700 Polyester man-made fibre (manufacture)

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UK SIC 2007	UK SIC 2003	Activity
	24700	Rayon (manufacture)
	24700	Single yarn of man-made continuous fibres, including high tenacity and textured yarn (manufacture)
	24700	Staple fibre of acetate, synthetic or viscose production (manufacture)
	24700	Staples of man-made fibre (manufacture)
	24700	Synthetic fibre (manufacture)
	24700	Textured single yarn (manufacture)
21100		**Manufacture of basic pharmaceutical products**
	24410	Antibiotics (manufacture)
	24410	Blood processing (manufacture)
	24410	Chemically pure sugars (manufacture)
	24410	Cyclamates (manufacture)
	24410	Fatty amines and quaternary ammonium salts (manufacture)
	24410	Gland extracts (manufacture)
	24410	Gland processing (manufacture)
	24410	Glycosides and their salts, ethers, esters and other derivatives (manufacture)
	24410	Hormone (not plant hormone) (manufacture)
	24410	Lactones (other than coumarin, methylcoumarins and ethylcoumarins) (manufacture)
	24410	Medicinal active substances to be used for their pharmacological properties (manufacture)
	24410	Medicinal feed additives (veterinary) (manufacture)
	24410	Microbiological cultures, toxins, etc. (manufacture)
	24410	Mineral and pharmaceutical nutritional ingredients for food and feeding stuff (manufacture)
	24410	O-acetylsalicylic acids (manufacture)
	24410	Pharmaceutical chemicals (manufacture)
	24410	Provitamins, vitamins and their derivatives (manufacture)
	24410	Quaternary ammonium salts and fatty amines (manufacture)
	24410	Salicylic medicaments (manufacture)
	24410	Salines (manufacture)
	24410	Sulphonamides (manufacture)
	24410	Veterinary biologicals (manufacture)
	24410	Veterinary feed additives (medicinal) (manufacture)
21200		**Manufacture of pharmaceutical preparations**
	24421	Anaesthetics (manufacture)
	24421	Analgesics (manufacture)
	24421	Anti-infectives (manufacture)
	24421	Antiseptics (manufacture)
	24421	Antisera and other blood fractions (manufacture)
	24421	Biotech pharmaceuticals (manufacture)
	24421	Blood-grouping reagents (manufacture)
	24421	Botanical products for pharmaceutical use (manufacture)
	24421	Chemical contraceptive products (manufacture)
	24421	Diagnostic reagents (manufacture)
	24421	Drug (medicinal) (manufacture)
	24421	Embrocation (manufacture)
	24421	Enema preparations (manufacture)
	24421	Gammaglobulin (manufacture)
	24421	Homeopathic preparations (manufacture)
	24421	Hormonal contraceptive medicaments (manufacture)
	24421	Human plasma extract (manufacture)
	24421	Immunoglobin (manufacture)
	24421	Medical diagnostic preparations, including pregnancy tests (manufacture)
	24421	Medical impregnated bandages, dressings, gauze and wadding (manufacture)
	24421	Medicaments (manufacture)
	24421	Medicine (manufacture)
	24421	Ointment (manufacture)
	24421	Opacifying preparations for x-ray examinations (manufacture)
	24421	Oral contraceptives (manufacture)
	24421	Pharmaceutical medicament products (manufacture)
	24421	Pharmaceuticals for veterinary use (manufacture)
	24421	Pills (medicinal) (manufacture)
	23300	Radioactive in-vivo diagnostic substances (manufacture)
	24421	Sera (manufacture)
	24421	Serum albumin (manufacture)
	24421	Urological reagents (manufacture)
	24421	Vaccine (manufacture)
	24421	Veterinary medicines (manufacture)
	24421	Veterinary pharmaceuticals (manufacture)
22110		**Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres**
	25110	Camel back strips for retreading tyres (manufacture)
	25110	Inner tube for tyre (manufacture)
	25110	Interchangeable tyre flaps for retreading tyres (manufacture)
	25110	Interchangeable tyre treads for retreading tyres (manufacture)
	25110	Pneumatic tyres (manufacture)
	25120	Repair of tyres and inner tubes by specialists (manufacture)
	25110	Rubber tyres for furniture and other uses (manufacture)
	25110	Rubber tyres for mobile machinery (manufacture)
	25110	Rubber tyres for toys (manufacture)
	25110	Tyre flaps (manufacture)
	25120	Tyre rebuilding and retreading (manufacture)
	25120	Tyre retreading (manufacture)
	25110	Tyres (manufacture)
	25110	Tyres for aircraft (manufacture)
	25110	Tyres for cars or vans (manufacture)
	25110	Tyres for commercial vehicles (manufacture)
	25110	Tyres for cycles (manufacture)
	25110	Tyres for industrial use (manufacture)
	25110	Tyres for motorcycles and mopeds (manufacture)
	25110	Tyres for scooters (manufacture)
	25110	Tyres for tractors (manufacture)
	25110	Tyres made of rubber (manufacture)
	25110	Tyres made of solid rubber (manufacture)
22190		**Manufacture of other rubber products**
	25130	Adhesive repair material made of rubber (manufacture)
	25130	Adhesive tape of rubberised textile (manufacture)
	25130	Apparel made of rubber (if only sealed together, not sewn) (manufacture)
	25130	Apparel made of sealed rubber (manufacture)
	25130	Aprons (manufacture)

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	25130	Armoured hose made of rubber (manufacture)
	25130	Balata belting (manufacture)
	25130	Balata goods (excluding belting) (manufacture)
	25130	Ball core (rubber) (manufacture)
	25130	Balloons, rubber (except pilot and sounding balloons, dirigibles and hot-air balloons) (manufacture)
	25130	Bands made of elastic (manufacture)
	25130	Bands made of rubber (manufacture)
	25130	Bathing caps of rubber (manufacture)
	25130	Bellows made of rubber (manufacture)
	25130	Belting for domestic appliances made of rubber (manufacture)
	25130	Belting made of rubber (manufacture)
	19300	Bootee (rubber protective) (manufacture)
	36620	Brushes of rubber (manufacture)
	25130	Buckets made of rubberised fabric (manufacture)
	25130	Carpet underlay made of rubber (manufacture)
	25130	Cellular rubber products (manufacture)
	36639	Combs of hard rubber (manufacture)
	25130	Conveyor belts made of rubber (manufacture)
	25130	Cushioning for upholstery made of rubber (manufacture)
	25130	Delivery hose made of rubber (manufacture)
	25130	Diving suit made of rubber (manufacture)
	25130	Ebonite, vulcanite or hard rubber goods (manufacture)
	25130	Elevator belting made of rubber (manufacture)
	25130	Eraser rubber (manufacture)
	25130	Expansion joints made of rubber (manufacture)
	25130	Fan belts for motor vehicles (manufacture)
	25130	Felting made of rubber (manufacture)
	25130	Fittings made of rubber (manufacture)
	25130	Floor coverings made of rubber (manufacture)
	25130	Flooring made of rubber (manufacture)
	25130	Fluid seals made of rubber (manufacture)
	25130	Foam rubber (manufacture)
	25130	Garden hose made of rubber (manufacture)
	25130	Gloves and gauntlets of unstitched rubber (manufacture)
	25130	Golf ball core (manufacture)
	25130	Groundsheet made of rubber (manufacture)
	25130	Grout packers (manufacture)
	25130	Gutta percha goods (manufacture)
	36639	Hair pins of hard rubber (manufacture)
	36639	Hair rollers and similar of hard rubber (manufacture)
	19300	Heel and sole made of rubber (manufacture)
	25130	Hose made of rubber (manufacture)
	25130	Hot water bottles made of rubber (manufacture)
	25130	Hydraulic hose made of rubber (manufacture)
	25130	Hygienic articles made of rubber (manufacture)
	25130	Industrial belting made of rubber (manufacture)
	25130	Inflatable cushion made of rubber (manufacture)
	25130	Inflatable mattress made of rubber (manufacture)
	25130	Insulating cloth tape (manufacture)
	25130	Insulating material made of rubber (manufacture)
	25130	Latex foam (manufacture)
	25130	Mats made of rubber (manufacture)
	19300	Moulded rubber bottoms for footwear (manufacture)
	25130	Mouldings for upholstery made of rubber (manufacture)
	25130	Piece goods made of unsupported rubber sheeting (manufacture)
	25130	Pipes made of rubber (manufacture)
	25130	Plates made of rubber (semi-manufactures) (manufacture)
	25130	Printers' blankets made of rubber (manufacture)
	25130	Profile shapes of rubber (manufacture)
	25130	Puncture repair outfit made of rubber (manufacture)
	25130	Reinforced hose made of rubber (manufacture)
	25130	Repair materials made of rubber (manufacture)
	25130	Rings and washers made of rubber (manufacture)
	25130	Rods made of rubber (manufacture)
	25130	Roller coverings made of rubber (manufacture)
	25130	Roller covers made of rubber (manufacture)
	25130	Rope made of rubber (manufacture)
	25130	Rubber (vulcanized, unvulcanized or hardened) (manufacture)
	25130	Rubber compounds (manufacture)
	25130	Rubber products (manufacture)
	25130	Rubber thread (uncovered) (manufacture)
	25130	Rubberised fabrics (manufacture)
	25130	Rubberised hair (manufacture)
	25130	Rubberised textile fabric (manufacture)
	25130	Seals made of rubber (manufacture)
	25130	Semi-finished products made of rubber (manufacture)
	36639	Sex articles of rubber (manufacture)
	25130	Sheath contraceptives made of rubber (manufacture)
	25130	Sheets made of rubber (manufacture)
	25130	Sponges made of rubber (manufacture)
	25130	Strips made of rubber (manufacture)
	25130	Suction and discharge hose made of rubber (manufacture)
	25130	Teats made of rubber (manufacture)
	25130	Tennis ball core (manufacture)
	25130	Tiling made of rubber (manufacture)
	25130	Timing belt for motor vehicles (manufacture)
	25130	Transmission belting made of rubber (manufacture)
	25130	Transmission v-belts made of rubber (manufacture)
	25130	Tubes made of rubber (manufacture)
	25130	Tubing made of rubber (manufacture)
	25130	Tyre repair materials and kits (manufacture)
	25130	Underwater swimming suit made of rubber (manufacture)
	25130	Washers made of rubber (manufacture)
	25130	Waterbed mattresses of rubber (manufacture)
	25130	Wet suits of rubber (manufacture)
	25130	Yarn (rubberised) (manufacture)
22210		**Manufacture of plastic plates, sheets, tubes and profiles**
	25210	Belting made of plastic (manufacture)
	25210	Blocks made of plastic (manufacture)
	25210	Carpet underlay made of plastic (manufacture)
	25210	Conveyor belts made of plastic (manufacture)
	25210	Decorative unsupported polyvinyl chloride film and sheet (manufacture)
	25210	Drainpipes and fittings made of plastic (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	25210	Film and sheet of decorated unsupported polyvinyl (manufacture)
	25210	Film made of cellophane (manufacture)
	25210	Film made of plastic (manufacture)
	25210	Film made of polyethylene (manufacture)
	25210	Film made of polypropylene (manufacture)
	25210	Film made of polythene (manufacture)
	25210	Film made of polyvinyl chloride (PVC) (manufacture)
	25210	Flexible plastic foam (manufacture)
	25210	Foil made of plastic (manufacture)
	25210	Hose and pipe fittings made of plastic (manufacture)
	25210	Hose made of plastic (manufacture)
	25210	Laminate made wholly of plastics and/or transparent regenerated cellulose film (manufacture)
	25210	Laminated plastic film (manufacture)
	25210	Laminated thermosetting plastics sheet (manufacture)
	25210	Laminates made of plastic (manufacture)
	25210	Photographic film (unsensitized) (manufacture)
	25210	Photographic unsensitized film (manufacture)
	25210	Pipes and fittings made of plastic (manufacture)
	25210	Plastic semi-manufactures (manufacture)
	25210	Plates made of plastic (semi-manufactures) (manufacture)
	25210	Profile shapes of plastic materials (rods, tubes, etc.) (manufacture)
	25210	Rigid plastic foam (manufacture)
	25210	Sheets made of cellophane (manufacture)
	25210	Sheets made of laminated thermosetting plastic (manufacture)
	25210	Sheets made of plastic (manufacture)
	25210	Sheets made of polyethylene (manufacture)
	25210	Sheets made of polypropylene (manufacture)
	25210	Sheets made of polyvinyl chloride (PVC) (manufacture)
	25210	Strips made of plastic (manufacture)
	25210	Tubes made of plastic (manufacture)
	25210	Tubing made of plastic (manufacture)
	25210	Vulcanized fibre (manufacture)
22220		**Manufacture of plastic packing goods**
	25220	Bags made of plastic (not designed for prolonged use) (manufacture)
	25220	Bags made of plastic for packaging (manufacture)
	25220	Bags made of polyethylene (manufacture)
	25220	Bags made of transparent regenerated cellulose film (manufacture)
	25220	Barrels made of plastic (manufacture)
	25220	Bin liners made of plastic (manufacture)
	25220	Bottle crates made of plastic (manufacture)
	25220	Bottles made of plastic (manufacture)
	25220	Boxes made of plastic (manufacture)
	25220	Canisters made of plastic (manufacture)
	25220	Caps and closures made of plastic (manufacture)
	25220	Caps for bottles made of plastic (manufacture)
	25220	Carboy made of plastic (manufacture)
	25220	Cases made of plastic (manufacture)
	25220	Closures made of plastic (manufacture)
	25220	Container made of plastic for closed transit (manufacture)
	25220	Drums (containers) made of plastic (manufacture)
	25220	Egg boxes made of plastic (manufacture) chloride
	25220	Jam pot covers made of plastic (manufacture)
	25220	Jars made of plastic (manufacture)
	25220	Jerry can made of plastic (manufacture)
	25220	Kegs made of plastic (manufacture)
	25220	Liner made of non-woven polyethylene (manufacture)
	25220	Mesh bags made of plastic (manufacture)
	25220	Non-woven liners made of polyethylene (manufacture)
	25220	Non-woven sacks made of polyethylene (manufacture)
	25220	Packaging products made of plastic (manufacture)
	25220	Packing goods made of plastic (manufacture)
	25220	Pots made of plastic (not flower pots) (manufacture)
	25220	Reels made of printed polypropylene (manufacture)
	25220	Sachets made of plastic (manufacture)
	25220	Sacks made of non-woven polyethylene (manufacture)
	25220	Sacks made of plastic (manufacture)
	25220	Tube containers made of plastic (manufacture)
	25220	Tubs made of plastic (manufacture)
22230		**Manufacture of builders' ware of plastic**
	25239	Architrave made of plastic (manufacture)
	25239	Artificial stone made of plastic (manufacture)
	25239	Baths made of fibre glass (manufacture)
	25239	Baths made of plastic (manufacture)
	25239	Blinds made of plastic (manufacture)
	25239	Builders' ware made of plastic (manufacture)
	25239	Building products made of plastic (manufacture)
	25239	Ceiling coverings made of plastic (manufacture)
	25239	Ceiling tiles made of plastic (manufacture)
	25239	Cistern floats made of plastic (manufacture)
	25239	Cisterns made of plastic (manufacture)
	25239	Coving made of plastic (manufacture)
	25239	Dome lights made of plastic (manufacture)
	25239	Door frames made of plastic (manufacture)
	25239	Door furniture for buildings (handles, hinges, knobs, etc.) Made of plastic (manufacture)
	25239	Doors made of plastic (manufacture)
	25239	Double glazing made of plastic (manufacture)
	25239	Ducting made of plastic (manufacture)
	25239	Fencing made of plastic (manufacture)
	36639	Floor coverings (hard surface) (manufacture)
	25231	Floor coverings made of plastic (manufacture)
	25231	Floor coverings made of printed vinyl (manufacture)
	25231	Floor coverings made of supported vinyl (manufacture)
	25239	Flushing cisterns made of plastic (manufacture)
	25239	Frames made of plastic (manufacture)
	25239	Gutter and fittings made of plastic (manufacture)
	25239	Insulating (heat and sound) sheet, tiles, blocks and granules made of plastic (manufacture)
	25239	Intermediate bulk containers (other than drums made of plastic) (manufacture)
	25239	Lavatory pans made of plastic (manufacture)
	36639	Linoleum (manufacture)
	25239	Manhole or access covers made of plastic (manufacture)
	25231	Matting made of woven plastic (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

25239 Meter housing boxes made of plastic (manufacture)25239 Prefabricated buildings made of plastic (manufacture)

25231 Printed felt base floorcovering (manufacture)25239 Reservoirs made of plastic (manufacture) 25239 Roof lights made of plastic (manufacture) 25239 Sanitary ware made of plastic (manufacture)

25239 Sheeting made of plastic for roofing and cladding(manufacture)

25239 Shiplap cladding made of plastic (manufacture)25239 Shower baths made of plastic (manufacture) 25239 Shutters made of plastic (manufacture)

25239 Sinks made of plastic (manufacture)

25239 Skirting boards made of plastic (manufacture)25239 Storage tanks made of plastic (manufacture) 25239 Tanks made of plastic (open and closed) (manufacture)

25239 Taps and valves made of plastic (manufacture)25239 Tiles (other than floor tiles made of plastic) (manufacture)

25231 Tiles made of asphalt thermoplastic (manufacture)25231 Tiles made of vinyl asbestos (manufacture)

25231 Vinyl floor covering (homogeneous and printed)(manufacture)

25239 Wall coverings made of plastic (manufacture) 25239 Wash basins made of plastic (manufacture) 25239 Water stop and bar made of plastic (manufacture)25239 WC seat and cover units made of plastic (manufacture)

25239 Weatherboarding made of plastic (manufacture)25239 Window blinds and accessories made of plastic (manufacture)

25239 Window frames made of plastic (manufacture)

22290 Manufacture of other plastic products

25240 Adhesive labels of plastic or cellulose (manufacture)25240 Advertising material made of plastic (manufacture)25240 Air beds made of inflatable plastic (manufacture) 25240 Aircraft parts and accessories made of plastic (manufacture)

25240 Apparel made of plastic (if only sealed together,not sewn) (manufacture)

25240 Awnings made of plastic (manufacture)

25240 Baby baths made of plastic (manufacture) 25240 Baskets made of plastic (manufacture) 25240 Bathing caps made of plastic (manufacture)25240 Bins made of plastic (manufacture)

25240 Bowls made of plastic (manufacture)

25240 Buckets made of plastic (manufacture)

36639 Button and button moulds made of plastic (manufacture)

36639 Buttons and button bases (not metal or glass) (manufacture)

25240 Cabinet components made of plastic (manufacture)25240 Cellulose adhesive tape (manufacture)

25240 Chains made of plastic (manufacture)

36639 Cigar holder (manufacture)

36639 Cigarette holder (manufacture)

25240 Clothes pegs made of plastic (manufacture) 25240 Coat hangers made of plastic (manufacture)25240 Colanders made of plastic (manufacture)

36639 Combs of plastic (manufacture)
25240 Conveyer belts made of plastic (manufacture) 25240 Cooking utensils made of plastic (manufacture)25240 Cups made of plastic (manufacture)
25240 Curtain hooks, rings and runners made of plastic(manufacture)
25240 Curtain rail, rollers and fittings made of plastic(manufacture)
25240 Cutlery made of plastic (manufacture) 25240 Dishes made of plastic (manufacture) 25240 Doilies made of plastic (manufacture) 25240 Dustbins made of plastic (manufacture)25240 Dustpans made of plastic (manufacture)25240 Egg cups made of plastic (manufacture)
25240 Filtration elements made of plastic (manufacture) 25240 Flower pots and tubs made of plastic (manufacture)
19300 Footwear parts and accessories made of plastic(manufacture)
25240 Forks made of plastic (manufacture) 25240 Funnels made of plastic (manufacture)
25240 Furniture fittings made of plastic (manufacture) 25240 Gloves made of unstitched plastic (manufacture)36639 Hair comb made of plastic (manufacture)
36639 Hair curler made of plastic (manufacture)
25240 Handles for furniture made of plastic (manufacture)25240 Headgear made of plastic (manufacture)
25240 Heat sensitive adhesive tape made of plastic(manufacture)
25240 Hollow ware made of plastic (manufacture) 25240 Household utensils made of plastic (manufacture)25240 Illuminated street furniture made of plastic (manufacture)
25240 Inflatable air bed made of plastic (manufacture)25240 Inflatable plastic products (excluding playballs) (manufacture)
25240 Insulated plastic fittings (manufacture) 25240 Kitchenware made of plastic (manufacture)
25240 Knitting needles made of plastic (manufacture)25240 Knives made of plastic (manufacture)
25240 Knobs for furniture made of plastic (manufacture)
25240 Labels (not self-adhesive) made of plastic(manufacture)
25240 Lampshades, reflectors, covers and diffusers madeof plastic (manufacture)
25240 Light fittings made of plastic (manufacture)
25240 Lighting fittings parts made of plastic (manufacture)25240 Metal coating of plastics
36639 Models for window display made of plastic(manufacture)
25240 Motor vehicle accessories, fittings and parts made ofplastic (manufacture)
25240 Mouldings made of plastic (manufacture) 25240 Nameplates made of plastic (manufacture) 25240 Netting made of plastic (not woven or knotted) (manufacture)
25240 Notice plates made of plastic (manufacture) 36639 Novelties made of plastic (manufacture) 25240 Office supplies made of plastic (manufacture)25240 Ornaments made of plastic (manufacture)
25240 Pallets made of plastic (manufacture)
25240 Pedal bins made of plastic (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	25240	Pelmets made of plastic (manufacture)
	25240	Plastic headgear (other than hard hats) made of plastic (manufacture)
	25240	Plates made of plastic (tableware) (manufacture)
	36639	Powder compact made of plastic (manufacture)
	25240	Pressure sensitive adhesive tape made of plastic (manufacture)
	25240	Resin bonded glass fibre mouldings (excluding for motor vehicles) (manufacture)
	25240	Ring binders and folders made of plastic (manufacture)
	25240	Road cones made of plastic (manufacture)
	25240	Road signs made of plastic (manufacture)
	25240	Rulers made of plastic (manufacture)
	25240	School supplies made of plastic (manufacture)
	25240	Screws made of plastic (manufacture)
	25240	Seed trays made of plastic (manufacture)
	25240	Self-adhesive tapes made of plastic (manufacture)
	25240	Shoe lasts made of plastic (manufacture)
	25240	Signs made of plastic (manufacture)
	36639	Slide fasteners made of plastic (manufacture)
	25240	Spoons made of plastic (manufacture)
	25240	Statuettes made of plastic (manufacture)
	25240	Tableware made of plastic (manufacture)
	36639	Tailors' dummy made of plastic (manufacture)
	19300	Toe puff (manufacture)
	25240	Toilet articles made of plastic (manufacture)
	25240	Transmission belts made of plastic (manufacture)
	25240	Trays made of plastic (manufacture)
	25240	Valves for aerosols (moulded components) (manufacture)
	25240	Vases made of plastic (manufacture)
	25240	Water butts made of plastic (manufacture)
	25240	Water sensitive adhesive tapes made of plastic (manufacture)
	25240	Watering cans made of plastic (manufacture)
	36639	Zip fasteners made of plastic (manufacture)
23110		**Manufacture of flat glass**
	26110	Antique glass (manufacture)
	26110	Blown glass (manufacture)
	26110	Cast glass (manufacture)
	26110	Coloured glass (manufacture)
	26110	Drawn sheet glass (manufacture)
	26110	Figured glass (manufacture)
	26110	Flat glass (manufacture)
	26110	Float glass (manufacture)
	26110	Plate glass (manufacture)
	26110	Rolled glass (manufacture)
	26110	Tinted glass (manufacture)
	26110	Window glass (not cut to size) (manufacture)
	26110	Wired glass (manufacture)
23120		**Shaping and processing of flat glass**
	26120	Glass mirrors (manufacture)
	26120	Glass mirrors for motor vehicles (not further assembled) (manufacture)
	26120	Glass shaping and processing (manufacture)
	26120	Laminated glass (manufacture)
	26120	Mirror glass (manufacture)

SIC 2007	SIC 2003	Activity
	26120	Mirrors for motor vehicles (manufacture)
	26120	Multiple insulating glass (manufacture)
	26120	Multiple-walled insulating units of glass (manufacture)
	26120	Safety glass (manufacture)
	26120	Stained glass (manufacture)
	26120	Toughened glass (manufacture)
	26120	Window glass cut to size (manufacture)
	26120	Windscreens made of glass (manufacture)
23130		**Manufacture of hollow glass**
	26130	Bottle stoppers made of glass (manufacture)
	26130	Bottles made of glass or crystal (manufacture)
	26130	Bowls made of glass (manufacture)
	26130	Bulbs for vacuum flask inners (manufacture)
	26130	Carboys made of glass (manufacture)
	26130	Containers made of glass or crystal (manufacture)
	26130	Containers made of tubular glass (manufacture)
	26130	Crystal articles (manufacture)
	26130	Culinary glassware (manufacture)
	26130	Drinking glass (manufacture)
	26130	Glass inners for vacuum flasks and other vacuum vessels (manufacture)
	26130	Glassware for domestic use (manufacture)
	26130	Heat resisting glassware for cooking purposes (manufacture)
	26130	Hollow glass (manufacture)
	26130	Jars made of glass (manufacture)
	26130	Kitchenware made of glass (manufacture)
	26130	Ornaments made of glass (manufacture)
	26130	Ovenware made of glass (manufacture)
	26130	Pots made of glass (manufacture)
	26130	Stemmed drinking vessels made of glass (manufacture)
	26130	Stoppers made of glass (manufacture)
	26130	Syphons made of glass (manufacture)
	26130	Tableware made of glass (manufacture)
	26130	Tableware made of lead crystal (manufacture)
	26130	Tumblers made of glass (manufacture)
	26130	Tubular containers made of glass (manufacture)
	26130	Vacuum flask inners (manufacture)
	26130	Vases made of glassware (manufacture)
	26130	Vial (manufacture)
	26130	Waste glass resulting from glass container production (manufacture)
23140		**Manufacture of glass fibres**
	26140	Boards made of glass fibre (manufacture)
	26140	Chopped roving and strand made of glass fibre (manufacture)
	26140	Doubled glass fibre (manufacture)
	26140	Felt made of glass fibre (manufacture)
	26140	Flock made of glass fibre (manufacture)
	26140	Glass fibre spinning and doubling (manufacture)
	26140	Glass fibres (manufacture)
	26140	Glass wool (manufacture)
	26140	Insulating material made of glass fibre (manufacture)
	26140	Loose glass fibre (manufacture)
	26140	Mat made of glass fibre (manufacture)

26130 Tubular containers made of glass (manufacture)
26140 Doubled yarn made of glass fibre (manufacture)

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	26140	Mattress made of glass fibre (manufacture)
	26140	Sheets made of glass fibre (manufacture)
	26140	Slabs made of glass fibre (manufacture)
	26140	Thermal and sound insulating material made of glass fibre (manufacture)
	26140	Tissue made of glass fibre (manufacture)
	26140	Yarn made of glass fibre (manufacture)
23190		**Manufacture and processing of other glass, including technical glassware**
	26150	Absorption drums made of glass (manufacture)
	26150	Accumulator cell cases made of glass (manufacture)
	26150	Ampoules made of glass (hygienic and pharmaceutical) (manufacture)
	26150	Architectural glass (manufacture)
	26150	Ballotini (manufacture)
	26150	Bars made of glass (manufacture)
	26150	Basement lights made of glass (manufacture)
	26150	Beads made of glass (manufacture)
	26150	Blanks for corrective spectacle lens (manufacture)
	26150	Bricks made of glass (manufacture)
	26150	Bulbs made of glass (manufacture)
	26150	Burettes made of glass (manufacture)
	26150	Catseye reflector (manufacture)
	26150	Clock and watch glass (manufacture)
	26150	Container made of glass tubing (hygienic and pharmaceutical) (manufacture)
	26150	Desiccator made of glass (manufacture)
	26150	Electrical insulators made of glass (manufacture)
	26150	Enamel glass in the mass (manufacture)
	26150	Envelopes made of glass (manufacture)
	26150	Envelopes made of glass for light bulbs and electronic valves (manufacture)
	26150	Fancy articles and goods made of glass (manufacture)
	26150	Figurines made of glass (manufacture)
	26150	Gauge glass (manufacture)
	26150	Glass ball (manufacture)
	26150	Glass ball, bar, rod and tube for processing (manufacture)
	26150	Glass in the mass (manufacture)
	26150	Glassware (hygienic and pharmaceutical) (manufacture)
	26150	Glassware for laboratory, hygienic or pharmaceutical use (manufacture)
	26150	Glassware for technical use (manufacture)
	26150	Glassware used in imitation jewellery (manufacture)
	26150	Globes made of glass (manufacture)
	26150	Graduated glassware (manufacture)
	26150	Hygienic glassware (other than containers) (manufacture)
	26150	Illuminated glassware (manufacture)
	26150	Industrial glassware (not container) (manufacture)
	26150	Insulated fittings made of glass (manufacture)
	26150	Insulators made of glass (manufacture)
	26150	Jewellery made of glass (manufacture)
	26150	Lamp chimneys made of glass (manufacture)
	26150	Lamps made of glass (manufacture)
	26150	Leaded light (manufacture)
	26150	Lens (pressed or moulded, unworked, (not coloured glass for traffic signals)) (manufacture)
	26150	Lens made of coloured glass for rail and road signals (not optically worked) (manufacture)
	26150	Marbles made of glass (manufacture)
	26150	Mosaic cubes made of glass (manufacture)
	26150	Multicellular glass block (manufacture)
	26150	Optical elements made of glass (not optically worked) (manufacture)
	26150	Optical glass (manufacture)
	26150	Parts for electric lamps and electronic valves made of glass (manufacture)
	26150	Pavement light (manufacture)
	26150	Paving blocks made of glass (manufacture)
	26150	Pharmaceutical glassware (other than containers) (manufacture)
	26150	Pipettes made of glass (manufacture)
	26150	Prisms (pressed or moulded, unworked) (manufacture)
	26150	Rods made of glass (manufacture)
	26150	Shades made of glass (manufacture)
	26150	Signalling glassware (manufacture)
	26150	Spectacle glass (manufacture)
	26150	Sunglass blank (manufacture)
	26150	Tanks made of glass (manufacture)
	26150	Test tube (manufacture)
	26150	Tiles made of glass (manufacture)
	26150	Tube fittings made of glass for electric lights (manufacture)
	26150	Tubes made of glass (manufacture)
	26150	Tubing made of glass (manufacture)
	26150	Volumetric glassware (manufacture)
	26150	Waste glass resulting from glass product production (other than glass container) (manufacture)
	26150	Watch glass (manufacture)
	26150	Well and bulkhead glass (manufacture)
23200		**Manufacture of refractory products**
	26260	Bats made of ceramic (manufacture)
	26260	Blocks made of graphite (manufacture)
	26260	Boiler block (manufacture)
	26260	Bricks and blocks made of refractory ceramic (manufacture)
	26260	Bricks and mouldings made of magnesite (manufacture)
	26260	Bricks made for refractory insulating (manufacture)
	26260	Bricks made of alumina (manufacture)
	26260	Bricks made of bauxite (manufacture)
	26260	Bricks made of chrome (manufacture)
	26260	Bricks made of chromite (manufacture)
	26260	Bricks made of dolomite (manufacture)
	26260	Bricks made of gannister (manufacture)
	26260	Bricks made of high alumina (manufacture)
	26260	Bricks made of magnesite (manufacture)
	26260	Bricks made of magnesite chrome (manufacture)
	26260	Bricks made of refractory (manufacture)
	26260	Bricks made of silica (manufacture)
	26260	Bricks made of siliceous (manufacture)
	26260	Bricks made of sillimanite (manufacture)
	26260	Casting pot (manufacture)
	26260	Cement made of dolomite (manufacture)
	26260	Cement made of fireclay (manufacture)
	26260	Cement made of high alumina (manufacture)

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	26260	Cement made of silica and siliceous (manufacture)
	26260	Cement refractory jointing (manufacture)
	26260	Chrome magnesite shape (manufacture)
	26260	Chromite articles (manufacture)
	26260	Crucibles made of fireclay (manufacture)
	26260	Crucibles made of fireclay or graphite (manufacture)
	26260	Crucibles made of graphite (manufacture)
	26260	Crucibles made of refractory ceramic (manufacture)
	26260	Firebrick and shape (manufacture)
	26260	Furnace block and pot (manufacture)
	26260	Gas mantle ring and rod (manufacture)
	26260	Gas retort and kiln lining (manufacture)
	26260	Heat insulating ceramic goods made of siliceous fossil meals (manufacture)
	26260	Hollow ware made of refractory (manufacture)
	26260	Intermediate goods of mined or quarried non-metallic minerals e.g. Sand, gravel, clay (manufacture)
	26260	Kiln furniture (manufacture)
	26260	Kiln lining (manufacture)
	26260	Magnesite chrome shape (manufacture)
	26260	Mortars made of refractory (manufacture)
	26260	Mouldable refractory (manufacture)
	26260	Mouldings made of magnesite (manufacture)
	26260	Moulds made of silica (manufacture)
	26260	Muffles (refractory product) (manufacture)
	26260	Nozzles made of refractory ceramic (manufacture)
	26260	Pillars made of ceramic (manufacture)
	26260	Pipes made of refractory ceramic (manufacture)
	26260	Props made of ceramic (manufacture)
	26260	Radiant for gas and electric fire (manufacture)
	26260	Ramming material made of refractory (manufacture)
	26260	Refractory articles containing magnesite, dolomite or chromite (manufacture)
	26260	Refractory blocks (manufacture)
	26260	Refractory castable (manufacture)
	26260	Refractory cement (manufacture)
	26260	Refractory ceramic goods (manufacture)
	26260	Refractory concretes (manufacture)
	26260	Refractory goods (manufacture)
	26260	Refractory hollow ware (manufacture)
	26260	Refractory jointing cement (manufacture)
	26260	Refractory mouldable (manufacture)
	26260	Refractory ramming material (manufacture)
	26260	Refractory tiles (manufacture)
	26260	Retorts made of fireclay, silica and siliceous (manufacture)
	26260	Retorts made of graphite (manufacture)
	26260	Retorts made of refractory ceramic (manufacture)
	26260	Saggar (manufacture)
	26260	Steel moulder's composition (manufacture)
	26260	Stilts made of ceramic (manufacture)
	26260	Tubes made of refractory ceramic (manufacture)
	26260	Tunnel oven refractory (manufacture)
23310		**Manufacture of ceramic tiles and flags**
	26300	Biscuit tile (manufacture)
	26300	Decorative tile made of glazed earthenware (manufacture)
	26300	Enamelled tile (glazed) (manufacture)
	26300	Encaustic tile (manufacture)
	26300	Flags made of clay (manufacture)
	26300	Flags made of non-refractory ceramic (manufacture)
	26300	Glazed fireplace brick (manufacture)
	26300	Glazed tile (manufacture)
	26300	Glazed tiles for fireplaces (manufacture)
	26300	Hearth or wall tiles made of non-refractory ceramic (manufacture)
	26300	Hearth tile made of clay (unglazed) (manufacture)
	26300	Mosaic cube (manufacture)
	26300	Mosaic glazed tiles (manufacture)
	26300	Ornamental earthenware glazed tiles (manufacture)
	26300	Paving made of non-refractory ceramic (manufacture)
	26300	Paving tiles made of unglazed clay (manufacture)
	26300	Tessellated glazed pavement tiles (manufacture)
	26300	Tesserae made of earthenware (manufacture)
	26300	Tiles made of ceramics (manufacture)
	26300	Tiles made of glazed earthenware (manufacture)
	26300	Wall tiles (glazed) (manufacture)
	26300	Wall tiles made of unglazed clay (manufacture)
23320		**Manufacture of bricks, tiles and construction products, in baked clay**
	26400	Block flooring made of clay (manufacture)
	26400	Blue brick (manufacture)
	26400	Bricks made of ceramic (manufacture)
	26400	Bricks made of clay (manufacture)
	26400	Building materials made of clay (non-refractory) (manufacture)
	26400	Cable conduit made of clay (manufacture)
	26400	Chimney liners made of clay (manufacture)
	26400	Chimney pots made of ceramic (manufacture)
	26400	Chimney pots made of clay (manufacture)
	26400	Conduits made of ceramic (manufacture)
	26400	Conduits made of clay (manufacture)
	26400	Drainpipes and fittings made of clay (manufacture)
	26400	Engineering brick (manufacture)
	26400	Floor and quarry tiles made of unglazed clay (manufacture)
	26400	Flue tiles made of clay (manufacture)
	26400	Hollow partition made of clay (manufacture)
	26400	Pipes and conduits made of clay (manufacture)
	26400	Pipes and fittings made of ceramics (manufacture)
	26400	Pipes made of clay (manufacture)
	26400	Quarry floor brick (manufacture)
	26400	Quarry tile made of clay (manufacture)
	26400	Roofing tiles made of ceramic (manufacture)
	26400	Roofing tiles made of unglazed clay (manufacture)
	26400	Tiles and construction products, made of baked clay (manufacture)
	26400	Unglazed building brick (manufacture)
23410		**Manufacture of ceramic household and ornamental articles**
	26210	Art pottery (manufacture)
	26210	Brown stone pottery (manufacture)
	26210	Ceramic ware for domestic use (manufacture)
	26210	Cups and saucers made of china or porcelain (manufacture)
	26210	Earthenware for domestic use (manufacture)

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	26210	Jet ware (pottery) (manufacture)
	26210	Kitchenware made of ceramics (manufacture)
	26210	Ornamental ceramic ware (manufacture)
	26210	Plates made of ceramic for domestic use (manufacture)
	26210	Pottery for domestic use (manufacture)
	26210	Pottery made of stone (manufacture)
	26210	Rockingham ware (manufacture)
	26210	Samian ware (manufacture)
	26210	Statuettes made of ceramic (manufacture)
	26210	Stoneware for domestic use (manufacture)
	26210	Tableware made of ceramic (manufacture)
	26210	Teapots made of ceramic (manufacture)
	26210	Terracotta ware (manufacture)
	26210	Toilet articles made of ceramic (manufacture)
	26210	Vases made of ceramic (manufacture)
23420		**Manufacture of ceramic sanitary fixtures**
	26220	Baths made of ceramic (manufacture)
	26220	Bidets made of ceramic, fireclay, etc. (manufacture)
	26220	Sanitary fixtures made of ceramic (manufacture)
	26220	Sanitary ware made of ceramics (manufacture)
	26220	Sanitary ware made of fireclay (manufacture)
	26220	Sanitary ware made of vitreous china (manufacture)
	26220	Sinks made of ceramic fireclay (manufacture)
	26220	Urinals made of ceramic, fireclay, etc. (manufacture)
	26220	Wash basins or sinks made of ceramic, fireclay, etc. (manufacture)
	26220	Water closet bowls made of ceramic, fireclay, etc. (manufacture)
23430		**Manufacture of ceramic insulators and insulating fittings**
	26230	Electrical ceramic fittings (manufacture)
	26230	Electrical insulating components made of ceramic (manufacture)
	26230	Insulated ceramic fittings (manufacture)
	26230	Insulators made of ceramic (manufacture)
23440		**Manufacture of other technical ceramic products**
	26240	Bacteria bed tile (manufacture)
	26240	Ceramic chemical products (manufacture)
	26240	Industrial non-refractory ceramic products (manufacture)
	26240	Laboratory non-refractory ceramic products (manufacture)
	31620	Permanent magnets (ceramic and ferrite) (manufacture)
	26240	Technical ceramic products (manufacture)
23490		**Manufacture of other ceramic products**
	26250	Agricultural ceramic ware (manufacture)
	26250	Flower pots made of clay (manufacture)
	26250	Jars made of ceramic (manufacture)
	26250	Packaging products made of ceramic (manufacture)
	26250	Pots made of ceramic (manufacture)
23510		**Manufacture of cement**
	26510	Aluminous cement (manufacture)
	26510	Calcareous cement (manufacture)
	26510	Cement (manufacture)
	26510	Clinkers and hydraulic cement (manufacture)
	26510	Keene's cement (manufacture)
	26510	Portland cement (manufacture)
	26510	Slag cement (manufacture)
	26510	Superphosphate cements (manufacture)
23520		**Manufacture of lime and plaster**
	26520	Agricultural lime processing (manufacture)
	26530	Anhydrite plaster (manufacture)
	26520	Blue lias lime kiln (manufacture)
	26530	Building plaster (manufacture)
	26520	Calcined dolomite (manufacture)
	26530	Calcined sulphate plaster (manufacture)
	26530	Gypsum plaster (manufacture)
	26520	Hydrated lime (manufacture)
	26520	Hydraulic lime (manufacture)
	26520	Lime (manufacture)
	26530	Plaster (manufacture)
	26530	Plaster of Paris (manufacture)
	26520	Quicklime (manufacture)
	26520	Slaked lime (manufacture)
23610		**Manufacture of concrete products for construction purposes**
	26610	Blocks made of breeze (manufacture)
	26610	Blocks made of concrete (manufacture)
	26610	Boards made of concrete (manufacture)
	26610	Bricks made of concrete (manufacture)
	26610	Bricks made of sand lime (manufacture)
	26610	Cast concrete products (manufacture)
	26610	Cast stone units made of precast concrete (manufacture)
	26610	Cement articles for use in construction (manufacture)
	26610	Cement products (manufacture)
	26610	Cement wood products (manufacture)
	26610	Cladding wall panels made of precast concrete (manufacture)
	26610	Flagstones made of precast concrete (manufacture)
	26610	Floor and wall tiles made of concrete and terrazzo
	26610	Floor units made of precast concrete (manufacture)
	26610	Gullies made of concrete (manufacture)
	26610	Kerbs and edging made of pre-cast concrete (manufacture)
	26610	Panels made of concrete (manufacture)
	26610	Paving slabs made of concrete (manufacture)
	26610	Pipes made of concrete (manufacture)
	26610	Posts made of precast concrete (manufacture)
	26610	Precast cement articles for use in construction (manufacture)
	26610	Precast concrete articles for use in construction (manufacture)
	26610	Precast concrete products (manufacture)
	26610	Prefabricated buildings and components made of concrete (manufacture)
	26610	Prefabricated structural parts for construction, of cement, concrete, artificial stone (manufacture)
	26610	Pressure pipes made of pre-stressed concrete (manufacture)
	26610	Pre-stressed concrete products (manufacture)

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	26610	Pylons made of precast concrete (manufacture)
	26610	Railway sleepers made of pre-cast concrete (manufacture)
	26610	Reinforced concrete products (manufacture)
	26610	Roof units made of precast concrete (manufacture)
	26610	Roofing tiles made of precast concrete (manufacture)
	26610	Sheets made of concrete (manufacture)
	26610	Stone articles for use in construction (manufacture)
	26610	Structural wall panels made of precast concrete (manufacture)
	26610	Tiles made of concrete (manufacture)
	26610	Tubes made of concrete (manufacture)
	26610	Wall panels for structural use made of precast concrete (manufacture)
23620		**Manufacture of plaster products for construction purposes**
	26620	Boards made of plaster (manufacture)
	26620	Gypsum plaster products (manufacture)
	26620	Panels made of plaster (manufacture)
	26620	Plaster articles for use in construction (manufacture)
	26620	Plaster products for construction purposes (manufacture)
	26620	Plasterboard (manufacture)
	26620	Sheets made of plaster (manufacture)
	26620	Tiles made of plaster (manufacture)
23630		**Manufacture of ready-mixed concrete**
	26630	Concrete dry mix (manufacture)
	26630	Ready-mixed concrete (manufacture)
23640		**Manufacture of mortars**
	26640	Mortars (manufacture)
	26640	Mortars (powdered) (manufacture)
	26640	Ready-mixed wet mortars (manufacture)
23650		**Manufacture of fibre cement**
	26650	Asbestos cement products (manufacture)
	26650	Basins made of fibre-cement (manufacture)
	26650	Building boards made of asbestos (manufacture)
	26650	Building boards made of asbestos cement (manufacture)
	26650	Building materials made of vegetable substances (manufacture)
	26650	Building materials of vegetable materials agglomerated with cement, plaster etc. (manufacture)
	26650	Cellulose fibre-cement articles (manufacture)
	26650	Corrugated sheets made of fibre-cement (manufacture)
	26650	Fibre cement (manufacture)
	26650	Furniture made of fibre-cement (manufacture)
	26650	Garages made of asbestos cement and concrete (manufacture)
	26650	Jars made of fibre-cement (manufacture)
	26650	Panels made of fibre-cement (manufacture)
	26650	Pipes made of asbestos cement (manufacture)
	26650	Pipes made of fibre-cement (manufacture)
	26650	Reservoirs made of fibre-cement (manufacture)
	26650	Sheets made of fibre cement (manufacture)
	26650	Sinks made of fibre cement (manufacture)
	26650	Tiles made of fibre cement (manufacture)
	26650	Troughs made of fibre cement (manufacture)
	26650	Tubes made of fibre cement (manufacture)
	26650	Window frames made of fibre-cement (manufacture)
23690		**Manufacture of other articles of concrete, plaster and cement**
	26660	Bas-relief and haut-relief made of concrete, plaster, cement or artificial stone (manufacture)
	26660	Cement products n.e.c. (manufacture)
	26660	Concrete articles n.e.c. (manufacture)
	26660	Flower pots made of concrete, plaster, cement or artificial stone (manufacture)
	26660	Furniture made of concrete, plaster, cement or artificial stone (manufacture)
	26660	Statuary made of concrete, plaster, cement or artificial stone (manufacture)
	26660	Vases made of concrete, plaster, cement or artificial stone (manufacture)
23700		**Cutting, shaping and finishing of stone**
	26700	Alabaster bowl cutting (manufacture)
	26700	Cutting, shaping and finishing of stone for use as roofing (manufacture)
	26700	Cutting, shaping and finishing of stone for use in cemeteries (manufacture)
	26700	Cutting, shaping and finishing of stone for use in construction (manufacture)
	26700	Cutting, shaping and finishing of stone for use on roads (manufacture)
	26700	Decorated building stone (manufacture)
	26700	Dolomite (ground) (manufacture)
	26700	Funerary stonework (manufacture)
	26700	Granite working (manufacture)
	26700	Kerbstone (not concrete) (manufacture)
	26700	Limestone (ground) (manufacture)
	26700	Limestone working (manufacture)
	26700	Litho stone working (manufacture)
	26700	Marble masonry working (manufacture)
	26700	Monumental stonework (manufacture)
	26700	Paving stone (manufacture)
	26700	Slate polishing (manufacture)
	26700	Slate slab and sheet cutting and preparation (manufacture)
	26700	Slate working (manufacture)
	26700	Stone furniture (manufacture)
	26700	Stone working (manufacture)
	26700	Tiles made of slate (manufacture)
23910		**Production of abrasive products**
	26810	Abrasive bonded disc, wheel and segment (manufacture)
	26810	Abrasive cloth (manufacture)
	26810	Abrasive grain (manufacture)
	26810	Abrasive grain of aluminium oxide (manufacture)
	26810	Abrasive grain of artificial corundum (manufacture)
	26810	Abrasive grain of boron carbide (manufacture)
	26810	Abrasive grain of silicon carbide (manufacture)
	26810	Abrasive paper (manufacture)
	26810	Abrasive wheel (bonded) (manufacture)
	26810	Agglomerated abrasives (manufacture)
	26810	Bonded abrasives (manufacture)
	26810	Coated abrasives (manufacture)

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	26810	Diamond impregnated disc and wheel (manufacture)
	26810	Discs made of bonded abrasives (manufacture)
	26810	Emery cloth (manufacture)
	26810	Emery paper (manufacture)
	26810	Emery wheel (manufacture)
	26810	Flint cloth (manufacture)
	26810	Flint paper (manufacture)
	26810	Garnet abrasives (manufacture)
	26810	Glass paper (manufacture)
	26810	Grinding paste (manufacture)
	26810	Grindstones made of bonded abrasives (manufacture)
	26810	Hones (bonded) (manufacture)
	26810	Millstone and grindstone cutting (manufacture)
	26810	Millstones made of bonded abrasives (manufacture)
	26810	Oilstones (bonded) (manufacture)
	26810	Organic bonded abrasives (manufacture)
	26810	Polishing stones made of bonded abrasives (manufacture)
	26810	Pumice stones (bonded) (manufacture)
	26810	Sandpaper (manufacture)
	26810	Segment bonded abrasive (manufacture)
	26810	Sharpening stones made of bonded abrasives (manufacture)
	26810	Stones for sharpening or polishing (manufacture)
	26810	Vitrified bonded abrasives (manufacture)
23990		**Manufacture of other non-metallic mineral products n.e.c.**
	26829	Artificial corundum (manufacture)
	26821	Asbestos carding (manufacture)
	26821	Asbestos felting (manufacture)
	26821	Asbestos mixing (manufacture)
	26821	Asbestos moulding (manufacture)
	26821	Asbestos spinning (manufacture)
	26821	Asbestos weaving (manufacture)
	26829	Asphalt (manufacture)
	26829	Asphalt or similar materials (e.g. Asphalt-based adhesives), articles thereof (manufacture)
	26829	Bitumen and flax felts for roofing and damp-proof courses (manufacture)
	26829	Bituminous sealants (manufacture)
	26821	Boards made of asbestos (manufacture)
	26821	Boiler packing made of asbestos (manufacture)
	26821	Brake linings made of asbestos (manufacture)
	26829	Carbon products (except carbon paper and electrical carbon) (manufacture)
	26821	Carded asbestos fibre (manufacture)
	26821	Clothing made of asbestos (manufacture)
	26821	Clutch linings made of asbestos (manufacture)
	26829	Coal tar pitch, articles thereof (manufacture)
	26821	Composition asbestos (manufacture)
	26821	Cord made of asbestos (manufacture)
	26821	Engine packing made of asbestos (manufacture)
	26829	Exfoliated vermiculite (manufacture)
	26829	Expanded clay (manufacture)
	26829	Expanded vermiculite (manufacture)
	26821	Fabric made of asbestos (manufacture)
	26821	Felt made of asbestos (manufacture)
	26829	Foamed slag (manufacture)
	26821	Footwear made of asbestos (manufacture)
	26829	Friction material and unmounted articles thereof, with a mineral or cellulose base (manufacture)
	26829	Friction material made of non-metallic mineral (manufacture)
	26821	Gaskets made of asbestos (manufacture)
	26829	Graphite (manufacture)
	26829	Graphite products (other than block and crucible) (manufacture)
	26821	Headgear made of asbestos (manufacture)
	26829	Heat insulating materials (other than asbestos) (manufacture)
	26821	Insulation made of asbestos (manufacture)
	26821	Joints made of asbestos (manufacture)
	26821	Lagging rope made of asbestos (manufacture)
	26829	Mica goods (manufacture)
	26829	Mica slab and sheet processing (manufacture)
	26821	Millboard made of asbestos (manufacture)
	26829	Mineral insulating materials (manufacture)
	26829	Mineral insulation products (manufacture)
	26829	Mineral wool (manufacture)
	26829	Moss litter (manufacture)
	26829	Non-metallic mineral substances, articles thereof (manufacture)
	26829	Oil based sealants (manufacture)
	26821	Packing made of woven asbestos (manufacture)
	26821	Panels made of asbestos (manufacture)
	26821	Paper made of asbestos (manufacture)
	26821	Paste made of asbestos (manufacture)
	26829	Peat products (pots or for chemical use, etc.) (manufacture)
	26821	Pipe covering sections made of asbestos
	26829	Pipes and fittings made of pitch fibre (manufacture)
	26821	Processed asbestos fibre (manufacture)
	26821	Rings made of asbestos (manufacture)
	26829	Rockwool (manufacture)
	26821	Rope lagging made of asbestos (manufacture)
	26829	Sealants (bituminous) (manufacture)
	26829	Sealants (oil based) (manufacture)
	26821	Sheeting made of non-woven asbestos/rubber composite (manufacture)
	26821	Sheets and sheeting made of woven asbestos
	26829	Slag wool (manufacture)
	26821	Socks made of asbestos (manufacture)
	26829	Sound absorbing materials (manufacture)
	26829	Sound insulating materials (manufacture)
	26821	String made of asbestos (manufacture)
	26821	Tapes made of asbestos (manufacture)
	26821	Tiles made of woven asbestos (manufacture)
	26829	Worked peat, articles thereof (manufacture)
	26821	Yarn made of asbestos (manufacture)
24100		**Manufacture of basic iron and steel and of ferro-alloys**
	27100	Alloy bearing steel (manufacture)
	27100	Alloy pig iron (manufacture)
	27100	Alloy tool steel (manufacture)
	27100	Angles of stainless steel (manufacture)
	27100	Bars of stainless steel (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

27100 Billets made of semi-finished steel (manufacture)27100 Blackplate (manufacture)
27100 Blooms made of semi-finished steel (manufacture)27100 Boron steel (manufacture)
27100 Bulb flats made of steel (manufacture)
27100 Cold reduced steel slit strip >600 mm (manufacture)
27100 Cold reduced wide steel strip >600 mm (coldreduced coil) (manufacture)
27100 Cold rolled narrow steel strip >600 mm (manufacture)
27100 Cold rolled steel plate (manufacture)27100 Cold rolled steel sheet (manufacture)
27100 Cold rolled steel slit strip >600 mm (manufacture)
27100 Cold rolled wide steel strip >600 mm (cold rolledwide coil) (manufacture)
27100 Continuous cast products made of steel (manufacture)
27100 Corrugated sheets made of steel (manufacture)27100 Directly reduced iron (manufacture)
27100 Electrical sheet steel (not finally annealed) (manufacture)
27100 Electrical steel (manufacture)
27100 Electro zinc coated sheet steel (manufacture) 27100 Electrolytic chromium/chromium oxide coated steel (manufacture)
27100 Electrolytically metal coated sheet steel (manufacture)
27100 Engineering steel (manufacture)
27100 Ferro alloys (high carbon ferro manganese)(manufacture)
27100 Ferro aluminium (manufacture) 27100 Ferro chromium (manufacture) 27100 Ferro molybdenum (manufacture)
27100 Ferro nickel (manufacture)
27100 Ferro niobium (manufacture) 27100 Ferro phosphorus (manufacture)27100 Ferro titanium (manufacture)
27100 Ferro tungsten (manufacture) 27100 Ferro vanadium (manufacture) 27100 Ferro zirconium (manufacture)
27100 Ferro-alloys (except high carbon ferro-manganeseproduction) (manufacture)
27100 Ferrosilicon (manufacture)
27100 Ferrosilicon chromium (manufacture) 27100 Ferrosilicon manganese (manufacture)27100 Ferrosilicon titanium (manufacture)
27100 Ferrosilicon tungsten (manufacture)
27100 Ferrous products production by reduction of iron ore(manufacture)
27100 Fish plates (hot rolled) (manufacture)
27100 Fish plates and sole plates (non-rolled) (manufacture)27100 Flat rolled steel products in coils or straight lengths >600 mm (manufacture)
27100 Forged bars (manufacture)
27100 Forged rail accessories (manufacture)27100 Forged sections (manufacture)
27100 Forged semi-finished products (manufacture)27100 Foundry pig iron (manufacture)
27100 Galvanised sheet steel (manufacture)
27100 Grain oriented electrical sheet steel (manufacture)

27100 High carbon ferro-manganese (carbon over 2%)(manufacture)
27100 High speed tool steel (manufacture)
27100 Hollow drill bars made of steel (manufacture) 27100 Hot dip metal coated sheet steel (manufacture) 27100 Hot dip zinc coated sheet steel (manufacture)
27100 Hot rolled steel angles (l-sections) (manufacture)27100 Hot rolled steel base plates (manufacture) 27100 Hot rolled steel beams (manufacture)
27100 Hot rolled steel bearing piling (manufacture) 27100 Hot rolled steel channels (manufacture) 27100 Hot rolled steel columns (manufacture)
27100 Hot rolled steel cut lengths (manufacture) 27100 Hot rolled steel fish plates (manufacture) 27100 Hot rolled steel flat bars (manufacture) 27100 Hot rolled steel heavy sections (manufacture)
27100 Hot rolled steel hexagonal bars (manufacture)27100 Hot rolled steel h-sections (manufacture) 27100 Hot rolled steel i-sections (manufacture)
27100 Hot rolled steel joists (manufacture)
27100 Hot rolled steel light sections (manufacture)27100 Hot rolled steel narrow strip (manufacture) 27100 Hot rolled steel plate (manufacture)
27100 Hot rolled steel quarto plate (manufacture) 27100 Hot rolled steel railway materials (manufacture) 27100 Hot rolled steel reversing mill plate (manufacture)27100 Hot rolled steel round bars (manufacture)
27100 Hot rolled steel sections for mining frames(manufacture)
27100 Hot rolled steel sheet (manufacture) 27100 Hot rolled steel sheet piling (manufacture)27100 Hot rolled steel sole plates (manufacture)
27100 Hot rolled steel special bars (manufacture)
27100 Hot rolled steel special sections (manufacture)27100 Hot rolled steel square bars (manufacture) 27100 Hot rolled steel t-sections (manufacture) 27100 Hot rolled steel u-sections (manufacture)
27100 Hot rolled steel wide strip (hot rolled wide coil)(manufacture)
27100 Ingots of stainless steel (manufacture)27100 Ingots of steel (manufacture)
27100 Iron (manufacture)
27100 Iron of exceptional purity production by electrolysisor other chemical processes (manufacture)
27100 Iron powder production (manufacture)27100 Iron shot (manufacture)
27100 Lead coated steel sheet (manufacture)27100 Liquid steel (manufacture)
27100 Low carbon ferro manganese (carbon 2% or less)(manufacture)
27100 Manufacture of hot-rolled rods of steel 27100 Metal sand for sandblasting (manufacture)
27100 Narrow slabs of semi-finished steel (manufacture)27100 Nodular pig iron (manufacture)
27100 Non-alloy pig iron (manufacture)27100 Non-alloy steel (manufacture)
27100 Non-oriented electrical steel sheet (manufacture) 27100 Organic coated steel sheet (manufacture)
27100 Other alloy steel (manufacture) 27100 Painted steel sheet (manufacture)

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UK SIC 2007	UK SIC 2003	Activity
	27100	Permanent way material (except rails production) (manufacture)
	27100	Pieces roughly shaped by forging (manufacture)
	27100	Plastic coated steel sheet (manufacture)
	27100	Primary products of stainless steel (manufacture)
	27100	Production of granular iron
	27100	Rails of iron, steel or cast iron (manufacture)
	27100	Remelting ferrous waste or scrap
	27100	Remelting scrap ingots of iron
	27100	Rods made of steel (in coils) (manufacture)
	27100	Rods of stainless steel (manufacture)
	27100	Rounds of semi-finished steel for seamless tubeproduction (manufacture)
	27100	Sections of stainless steel (manufacture)
	27100	Semi-finished products of stainless steel(manufacture)
	27100	Shapes of stainless steel (manufacture)
	27100	Sheet piling production (manufacture)
	27100	Silico manganese steel (manufacture)
	27100	Sleepers (cross ties) made of iron or steel (hot rolled) (manufacture)
	27100	Sole plates (hot rolled) (manufacture)
	27100	Spheroidal graphite pig iron (manufacture)
	27100	Spiegeleisen (manufacture)
	27100	Sponge iron
		(manufacture) 27100 Stainless
		steel (manufacture)
	27100	Steel in primary form, from ore or scrap, production(manufacture)
	27100	Steel making pig iron
		(manufacture)27100 Steel powders
		(manufacture)
	27100	Steel sheet (not finally annealed)
		(manufacture)27100 Steel shot (manufacture)
	27100	Structural steel
		(manufacture)27100 Terneplate
		(manufacture)
	27100	Tinplate (manufacture)
	27100	Welded sections of iron and steel
		(manufacture)27100 Wide slabs made of semi-finished steel (manufacture)
	27100	Wire rods made of steel (manufacture)
24200		**Manufacture of tubes, pipes, hollow profiles and related fittings, of steel**
	27220	Bends made of steel (manufacture)
	27220	Butt welding fittings made of steel
		(manufacture)27220 Casing made of steel
		(manufacture)
	27220	Circular hollow sections made of steel (manufacture)
	27220	Couplings and flange adapters made of iron or steel(manufacture)
	27220	Drill pipe made of steel (manufacture)
	27220	Elbows made of steel (manufacture)
	27220	Electrical conduit tube made of steel
		(manufacture)27220 Fittings made of steel
		(manufacture)
	27220	Flanges made of steel (manufacture) <600 mm (manufacture)
	27220	Repair clamps and collars, made of iron or steel (manufacture)
	27220	Scaffolding tubes made of steel (manufacture)
	27220	Sleeves made of steel (manufacture)
	27220	Tube fittings made of steel (manufacture)
	27220	Tube hollows made of steel (manufacture)
	27220	Tubes made of cold drawn steel (manufacture)
	27220	Tubes made of seamless steel (manufacture)
	27220	Tubes made of steel (manufacture)
	27220	Tubing made of steel (manufacture)
	27220	Welded tubes (manufacture)
24310		**Cold drawing of bars**
	27310	Bright steel bars (manufacture)
	27310	Cold drawn steel bars (manufacture)
	27310	Cold drawn steel sections (manufacture)
	27310	Cold finished steel bars (manufacture)
24320		**Cold rolling of narrow strip**
	27320	Cold reduced steel slit strip <600 mm (manufacture)
	27320	Cold rolled narrow steel strip <600 mm (manufacture)
	27320	Flat rolled steel products in coils or straight lengths
24330		**Cold forming or folding**
	27330	Cold formed steel angles (manufacture)
	27330	Cold formed steel channels (manufacture)
	27330	Cold formed steel sections (manufacture)
	27330	Cold-folded ribbed sheets and sandwich panels (manufacture)
	27330	Cold-formed ribbed sheets and sandwich panels (manufacture)

27330 Open sections made of steel formed on a roll mill(manufacture)

27330 Profiled steel sheet (manufacture)

28110 Sandwich panels of coated steel sheet (manufacture)27330 Sections cold formed from flat steel products (manufacture)

27330 Sheets of square corrugated steel (manufacture)

24340 Cold drawing of wire

27220 Gas pipes made of steel (manufacture)

27220 Hollow bars made of steel (manufacture)

27220 Hot finished steel tube (manufacture)

27220 Line pipe made of steel (manufacture)

27220 Pipes made of steel (manufacture)

27220 Precision tube made of steel (manufacture)

27220 Rectangular hollow steel section (manufacture)

27340 Cold drawing or stretching of steel wire (manufacture)

27340 Filament wire made of steel (manufacture)27340 Piano wire made of steel (manufacture)

27340 Single strand wire made of steel (manufacture)

27340 Welding wire (uncoated) made of steel (manufacture)

24410 Precious metals production

27410 Gold (manufacture)

27410 Iridium (manufacture)

27410 Gold and silver bullion (manufacture)

27410 Palladium (manufacture)

27410 Gold rolled onto base metals or silver production (manufacture)

27410 Platinum (manufacture)

27410 Platinum group metals (manufacture)

27410 Precious metal foil laminates (manufacture)

27410 Precious metals production (manufacture)

27410 Rhodium (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	27410	Silver (manufacture)
	27410	Silver rolled onto base metals production (manufacture)
	27410	Wire of precious metals, made by drawing (manufacture)
24420		**Aluminium production**
	27420	Aluminium alloys production (manufacture)
	27420	Aluminium foil laminates made from aluminium foil as primary component (manufacture)
	27420	Aluminium from alumina production (manufacture)
	27420	Aluminium hardener (manufacture)
	27420	Aluminium oxide (alumina) production (manufacture)
	27420	Aluminium refining (manufacture)
	27420	Aluminium semi-manufactures production (manufacture)
	27420	Aluminium smelting (manufacture)
	27420	Aluminium wire made by drawing (manufacture)
	27420	Angles made of aluminium (manufacture)
	27420	Bars made of aluminium (manufacture)
	27420	Billets made of aluminium (manufacture)
	27420	Blanks made of aluminium (manufacture)
	27420	Circles made of aluminium (manufacture)
	27420	Continuous cast rod made of aluminium (manufacture)
	27420	Cooking foil made of aluminium (manufacture)
	27420	Corrugated plate, sheet or strip made of aluminium (manufacture)
	27420	Deoxidiser made of aluminium (manufacture)
	27420	Discs made of aluminium (manufacture)
	27420	Drawn products made of aluminium (manufacture)
	27420	Extruded sections made of aluminium (manufacture)
	27420	Extruded tubes made of aluminium (manufacture)
	27420	Extrusion ingots made of aluminium (manufacture)
	27420	Extrusions made of aluminium (manufacture)
	27420	Flake made of aluminium (manufacture)
	27420	Foil laminate made of aluminium (manufacture)
	27420	Foil made of aluminium (decorated, embossed or cut to size) (manufacture)
	27420	Foil made of aluminium (not put up as a packaging product) (manufacture)
	27420	Foil packaging goods, made of aluminium (manufacture)
	27420	Foil stock made of aluminium (manufacture)
	27420	Forging bars made of aluminium (manufacture)
	27420	Foundry alloy made of aluminium (manufacture)
	27420	Foundry ingot made of aluminium (manufacture)
	27420	Hollow sections made of aluminium (manufacture)
	27420	Kitchen foil made of aluminium (manufacture)
	27420	Laminates of aluminium foil with other materials (manufacture)
	27420	Notched bars made of aluminium (manufacture)
	27420	Pipe fittings made of aluminium (manufacture)
	27420	Pipes made of aluminium (manufacture)
	27420	Plates made of aluminium (manufacture)
	27420	Powder made of aluminium (manufacture)
	27420	Remelt ingots made of aluminium (manufacture)
	27420	Rods made of aluminium (manufacture)
	27420	Rolled products made of aluminium (manufacture)
	27420	Rolling ingots and slabs made of aluminium (manufacture)
	27420	Sections made of aluminium (manufacture)
	27420	Sheets made of aluminium (manufacture)
	27420	Slugs made of aluminium (manufacture)
	27420	Solid sections made of aluminium (manufacture)
	27420	Strips made of aluminium (manufacture)
	27420	Tube fittings made of aluminium (manufacture)
	27420	Unwrought aluminium (manufacture)
	27420	Wire made of aluminium (manufacture)
	27420	Wirebar made of aluminium (manufacture)
	27420	Wrapping foil made of aluminium (manufacture)
24430		**Lead, zinc and tin production**
	27430	Bars, rods, profiles and wire made of lead (manufacture)
	27430	Bars, rods, profiles and wire made of tin (manufacture)
	27430	Bars, rods, profiles and wire made of zinc (manufacture)
	27430	Britannia metal (manufacture)
	27430	Dust, powder and flakes made of zinc (manufacture)
	27430	Lead (manufacture)
	27430	Lead wire made by drawing (manufacture)
	27430	Magnolia metal (manufacture)
	27430	Pewter (manufacture)
	27430	Plates, sheets, strip and foil made of lead (manufacture)
	27430	Plates, sheets, strip and foil made of tin (manufacture)
	27430	Plates, sheets, strip and foil made of zinc (manufacture)
	27430	Powders and flakes made of lead (manufacture)
	27430	Powders and flakes made of tin (manufacture)
	27430	Tin (manufacture)
	27430	Tin foil (manufacture)
	27430	Tin wire made by drawing (manufacture)
	27430	Tubes, pipes, tube and pipe fittings made of lead (manufacture)
	27430	Tubes, pipes, tube and pipe fittings made of tin (manufacture)
	27430	Tubes, pipes, tube and pipe fittings made of zinc (manufacture)
	27430	Type metal (manufacture)
	27430	Zinc (manufacture)
	27430	Zinc wire made by drawing (manufacture)
24440		**Copper production**
	27440	Bars made of brass (manufacture)
	27440	Bars made of copper (manufacture)
	27440	Billets made of brass (manufacture)
	27440	Billets made of copper (manufacture)
	27440	Blister copper (manufacture)
	27440	Blooms made of copper (manufacture)
	27440	Brass powder (manufacture)
	27440	Circles made of brass (manufacture)
	27440	Circles made of copper (manufacture)
	27440	Coils made of copper (manufacture)
	27440	Continuous cast rod made of copper (manufacture)
	27440	Copper refining (manufacture)
	27440	Copper smelting (manufacture)
	27440	Discs made of brass (manufacture)
	27440	Discs made of copper (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	27440	Drawn products made of copper (manufacture)
	27440	Electrolytic copper (manufacture)
	27440	Extruded products made of copper (manufacture)
	27440	Fire refined copper (manufacture)
	27440	Flake made of copper (manufacture)
	27440	Foil made of brass (manufacture)
	27440	Foil made of copper (manufacture)
	27440	Fuse wire (manufacture)
	27440	Ingots made of brass (manufacture)
	27440	Ingots made of copper (manufacture)
	27440	Master alloys of copper (manufacture)
	27440	Mattes made of copper (manufacture)
	27440	Nickel silver (manufacture)
	27440	Pipe and pipe fittings made of brass (manufacture)
	27440	Pipe blanks made of copper (manufacture)
	27440	Pipe fittings made of copper (manufacture)
	27440	Pipes made of copper (manufacture)
	27440	Powder made of copper (manufacture)
	27440	Primary copper (manufacture)
	27440	Rods made of brass (manufacture)
	27440	Rods made of copper (manufacture)
	27440	Rolled products made of copper (manufacture)
	27440	Secondary copper (manufacture)
	27440	Sections made of brass (manufacture)
	27440	Sections made of copper (manufacture)
	27440	Semi-manufactures made of copper (manufacture)
	27440	Sheets made of brass (manufacture)
	27440	Sheets made of copper (manufacture)
	27440	Slabs made of brass (manufacture)
	27440	Slabs made of copper (manufacture)
	27440	Strips made of brass (manufacture)
	27440	Strips made of copper (manufacture)
	27440	Tube blanks made of copper (manufacture)
	27440	Tube fittings made of copper (manufacture)
	27440	Tube shells made of copper (manufacture)
	27440	Tubes made of brass (manufacture)
	27440	Tubes made of copper (manufacture)
	27440	Unwrought brass (manufacture)
	27440	Unwrought bronze (manufacture)
	27440	Unwrought cadmium copper (manufacture)
	27440	Unwrought copper (manufacture)
	27440	Unwrought cupro-nickel (manufacture)
	27440	Unwrought delta metal (manufacture)
	27440	Unwrought German silver (manufacture)
	27440	Unwrought gun metal (manufacture)
	27440	Unwrought manganese bronze (manufacture)
	27440	Unwrought naval brass (manufacture)
	27440	Unwrought red metal (manufacture)
	27440	Wire made of copper (uninsulated) (manufacture)
	27440	Wire rods made of copper (manufacture)
24450		**Other non-ferrous metal production**
	27450	Antifriction metal (manufacture)
	27450	Antimony (manufacture)
	27450	Arsenic (manufacture)
	27450	Beryllium (manufacture)
	27450	Bismuth (manufacture)
	27450	Cadmium (manufacture)
	27450	Chrome alloys (manufacture)
	27450	Chrome production and refining (manufacture)
	27450	Chrome wire made by drawing (manufacture)
	27450	Chromium (manufacture)
	27450	Cobalt (manufacture)
	27450	Continuous cast rods of other base non-ferrous metals (manufacture)
	27450	Germanium (manufacture)
	27450	Magnesium (manufacture)
	27450	Manganese alloys (manufacture)
	27450	Manganese production and refining (manufacture)
	27450	Manganese wire made by drawing (manufacture)
	27450	Mattes of nickel production (manufacture)
	27450	Molybdenum (manufacture)
	27450	Nickel (manufacture)
	27450	Nickel alloys (manufacture)
	27450	Nickel wire made by drawing (manufacture)
	27450	Non-ferrous other metals production (manufacture)
	27450	Semi-manufacturing of chrome (manufacture)
	27450	Semi-manufacturing of manganese (manufacture)
	27450	Semi-manufacturing of nickel (manufacture)
	27450	Solder (manufacture)
	27450	Sterro metal (manufacture)
	27450	Tantalum (manufacture)
	27450	Titanium (manufacture)
	27450	Tungsten (manufacture)
	27450	Vanadium (manufacture)
	27450	White metal (manufacture)
	27450	Wolfram (manufacture)
	27450	Zirconium (manufacture)
24460		**Processing of nuclear fuel**
	23300	Natural uranium production (manufacture)
	23300	Nuclear fuel (except enrichment of uranium or thorium) (manufacture)
	23300	Nuclear fuel processing (except enrichment of uranium or thorium) (manufacture)
	23300	Uranium metal production from pitchblende or other ores (manufacture)
	23300	Uranium smelting and refining (manufacture)
	23300	Yellowcake to uranium tetrafluoride and hexafluoride conversion (manufacture)
24510		**Casting of iron**
	27510	Casting of ferrous metal (manufacture)
	27510	Casting of ferrous patterns (manufacture)
	27510	Casting of grey iron (manufacture)
	27510	Casting of iron (manufacture)
	27510	Casting of iron products (finished or semi-finished) (manufacture)
	27510	Casting of spheroidal graphite iron (manufacture)
	27510	Ferrous metal foundry (manufacture)
	27210	Fittings for tubes made of cast iron (manufacture)
	27210	Fittings for tubes made of cast steel (manufacture)
	27210	Hollow profiles of cast-iron (manufacture)
	27510	Iron foundry (manufacture)
	27510	Malleable castings (manufacture)
	27210	Pipe fittings of cast-iron (manufacture)
	27210	Pipes of cast-iron (manufacture)
	27210	Tubes and fittings made of cast iron (manufacture)
	27210	Tubes made of centrifugally cast steel (manufacture)

UK SIC 2007	UK SIC 2003	Activity
24520		**Casting of steel**
	27520	Casting of steel (manufacture)
	27520	Casting of steel products (finished or semi-finished) (manufacture)
	27520	Seamless pipes of steel by centrifugal casting (manufacture)
	27520	Seamless tubes of steel by centrifugal casting (manufacture)
	27520	Steel founders (manufacture)
24530		**Casting of light metals**
	27530	Casting of aluminium (manufacture)
	27530	Casting of aluminium products (manufacture)
	27530	Casting of beryllium products (manufacture)
	27530	Casting of light metal products (manufacture)
	27530	Casting of light metals (manufacture)
	27530	Casting of magnesium products (manufacture)
	27530	Casting of scandium products (manufacture)
	27530	Casting of titanium products (manufacture)
	27530	Casting of yttrium products (manufacture)
	27530	Die casting of aluminium (manufacture)
24540		**Casting of other non-ferrous metals**
	27540	Bell founding (manufacture)
	27540	Britannia metal founding (manufacture)
	27540	Bronze founding (manufacture)
	27540	Casting of heavy metal and precious metal (manufacture)
	27540	Casting of non-ferrous base metal (manufacture)
	27540	Casting of ornamental brass (manufacture)
	27540	Casting of other non-ferrous metals (manufacture)
	27540	Die casting of copper or copper alloy (manufacture)
	27540	Die casting of non-ferrous base metal (manufacture)
	27540	Founding of non-ferrous base metal (manufacture)
	27540	Gravity casting of non-ferrous base metal (manufacture)
	27540	Non-ferrous metal foundry (manufacture)
	27540	Pressure die casting of non-ferrous base metal (manufacture)
	27540	Sand casting of non-ferrous base metal (manufacture)
25110		**Manufacture of metal structures and parts of structures**
	28110	Bus shelters made of metal (manufacture)
	28110	Chimneys made of steel (manufacture)
	28110	Column (fabricated structural steelwork) (manufacture)
	28110	Construction site huts made of metal (manufacture)
	28110	Fabricated structural steelwork for buildings (manufacture)
	28110	Flooring systems made of metal (manufacture)
	28110	Glasshouses with metal frame (manufacture)
	28110	Industrial ossature in metal (manufacture)
	28110	Lock gates (manufacture)
	28110	Metal frameworks for blast furnaces (manufacture)
	28110	Metal frameworks for construction of bridges (manufacture)
	28110	Metal frameworks for construction of masts (manufacture)
	28110	Metal frameworks for construction of towers (manufacture)
	28110	Metal frameworks for lifting and handling equipment (manufacture)
	28110	Metal skeletons for bridges (manufacture)
	28110	Metal skeletons for masts (manufacture)
	28110	Metal skeletons for towers (manufacture)
	28110	Metal structures and parts of structures (manufacture)
	28110	Modular exhibition elements made of metal (manufacture)
	28110	Monopod tower made of steel plate (manufacture)
	28110	Ossature in metal for construction (manufacture)
	28110	Pilings (tubular welded) (manufacture)
	28110	Pipeline supports (manufacture)
	28110	Plant support of fabricated steelwork (manufacture)
	28110	Portable building metalwork (manufacture)
	28110	Power structural steelwork (manufacture)
	28110	Prefabricated building metalwork (manufacture)
	28110	Prefabricated buildings made of metal (manufacture)
	28110	Racking systems for large scale heavy duty use in shops, workshops and warehouses (manufacture)
	28110	Radio and television masts made of metal (manufacture)
	28110	Roof trusses made of metal (manufacture)
	28110	Scaffolding (manufacture)
	28110	Security screens made of metal (manufacture)
	28110	Sheds made of metal (manufacture)
	28110	Shuttering made of steel (manufacture)
	28110	Sluice gates made of steel (manufacture)
	28110	Static drilling derricks (manufacture)
	28110	Steelwork for agricultural buildings (manufacture)
	28110	Steelwork for bridges (manufacture)
	28110	Steelwork for buildings (manufacture)
	28110	Steelwork for commercial buildings (manufacture)
	28110	Steelwork for distribution depots (manufacture)
	28110	Steelwork for docks (manufacture)
	28110	Steelwork for domestic buildings (manufacture)
	28110	Steelwork for exhibition centres (manufacture)
	28110	Steelwork for factory buildings (manufacture)
	28110	Steelwork for glass roofs (manufacture)
	28110	Steelwork for harbours (manufacture)
	28110	Steelwork for hospital buildings (manufacture)
	28110	Steelwork for jetties (manufacture)
	28110	Steelwork for school buildings (manufacture)
	28110	Steelwork for tunnels (manufacture)
	28110	Steelwork for viaducts (manufacture)
	28110	Structural steelwork for buildings (manufacture)
	28110	Structures for buildings made of aluminium (manufacture)
	28110	Structures for civil engineering made of aluminium (manufacture)
	28110	Telephone booths made of metal (manufacture)
	28110	Tower made of steel (manufacture)
	28110	Water tower made of steel plate (manufacture)
25120		**Manufacture of doors and windows of metal**
	28120	Builders' carpentry and joinery made of metal (manufacture)
	28120	Casements made of metal (manufacture)
	28120	Curtain walling made of metal (manufacture)
	28120	Door frames made of metal (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	28120	Doors (other than safe doors) made of metal (manufacture)
	28120	Double glazing made of metal (manufacture)
	28120	Garden frames made of metal (manufacture)
	28120	Gates made of metal (manufacture)
	28120	Glazing bars (manufacture)
	28120	Grilles made of metal (not cast) (manufacture)
	28120	Partitioning made of metal (manufacture)
	28120	Railings made of metal (manufacture)
	28120	Revolving doors made of metal (manufacture)
	28120	Room partitions made of metal, for floor attachment (manufacture)
	28120	Shop fronts and entrances made of aluminium (manufacture)
	28120	Shutters made of metal (manufacture)
	28120	Skylights made of metal (manufacture)
	28120	Window frames made of metal (manufacture)
25210		**Manufacture of central heating radiators and boilers**
	28220	Boiler for central heating (manufacture)
	28220	Central heating boiler parts (manufacture)
	28220	Radiant panel (space heating equipment) (manufacture)
	28220	Radiator for space heating equipment (manufacture)
	28220	Radiators and boilers for central heating (manufacture)
25290		**Manufacture of other tanks, reservoirs and containers of metal**
	28210	Bunkers made of heavy steel plate exceeding 300 litres (manufacture)
	28210	Cistern made of metal exceeding 300 litres (manufacture)
	28210	Containers for compressed or liquefied gases made of metal (manufacture)
	28210	Containers made of metal of a capacity exceeding litres (manufacture)
	28210	Expansion tank made of metal exceeding 300 litres (manufacture)
	28210	Fuel bunkers made of metal exceeding 300 litres (manufacture)
	28210	Oil storage tank made of metal for domestic use exceeding 300 litres (manufacture)
	28210	Reservoirs made of metal exceeding 300 litres (manufacture)
	28210	Silos made of steel exceeding 300 litres (manufacture)
	28210	Storage tanks made of heavy steel plate exceeding 300 litres (manufacture)
	28210	Tanks made of galvanised steel exceeding 300 litres (manufacture)
	28210	Tanks made of metal exceeding 300 litres (manufacture)
	28210	Tanks made of metal for domestic storage exceeding 300 litres (manufacture)
25300		**Manufacture of steam generators, except central heating hot water boilers**
	28300	Auxiliary plant for use with steam generators (manufacture)
	28300	Boiler (nuclear powered) (manufacture)
	28300	Boiler drum (manufacture)
	28300	Boiler feed water heater (manufacture)
	28300	Boiler for marine applications (manufacture)
	28300	Boiler fuel economiser (manufacture)
	28300	Boiler fuel handling plant (manufacture)
	28300	Boiler house plant (manufacture)
	28300	Boilers and associated equipment and parts (manufacture)
	28300	Column (process plant) (manufacture)
	28300	Condenser (steam) (manufacture)
	28300	Condenser (vapour) (manufacture)
	28300	Cracker for process plant (manufacture)
	28300	Duct of heavy steel plate (manufacture)
	28300	Economic boiler (manufacture)
	28300	Economisers (manufacture)
	28300	Evaporator (manufacture)
	28300	Firing plant for boilers, etc. (manufacture)
	28300	Heat exchanger for process plant (manufacture)
	28300	Industrial air heater for boilers (manufacture)
	28300	Marine or power boiler parts (manufacture)
	28300	Nuclear fired boiler (manufacture)
	28300	Nuclear fuel plant (manufacture)
	28300	Nuclear reactor parts (manufacture)
	28300	Nuclear reactors (manufacture)
	28300	Penstock made of steel (manufacture)
	28300	Pipe system construction for steam generators (manufacture)
	28300	Process heater (manufacture)
	28300	Process pipework (manufacture)
	28300	Process pressure sphere (manufacture)
	28300	Process pressure vessel (manufacture)
	28300	Reactor column (manufacture)
	28300	Reactor vessel (manufacture)
	28300	Reformer (manufacture)
	28300	Shell boiler (manufacture)
	28300	Steam accumulator (manufacture)
	28300	Steam boiler (manufacture)
	28300	Steam collector (manufacture)
	28300	Steam generator (manufacture)
	28300	Steam generator parts (manufacture)
	28300	Super-heaters (manufacture)
	28300	Vapour generators (manufacture)
	28300	Vertical boiler (manufacture)
	28300	Waste heat boiler (manufacture)
	28300	Water tube boilers (manufacture)
25400		**Manufacture of weapons and ammunition**
	29600	Air gun (manufacture)
	29600	Air pistol (manufacture)
	29600	Air rifle (manufacture)
	29600	Aircraft bomb (manufacture)
	29600	Ammunition (manufacture)
	29600	Arms (manufacture)
	29600	Artillery (manufacture)
	29600	Artillery ammunition (manufacture)
	29600	Automatic gun (manufacture)
	29600	Ballistic missile, except intercontinental ballistic missile (ICBM) (manufacture)
	29600	Bomb fuse (manufacture)
	29600	Carbine (manufacture)
	29600	Cartridge case (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	29600	Cartridge primer (manufacture)
	29600	Cartridges for riveting guns (manufacture)
	29600	Conventional missiles (manufacture)
	29600	Directed energy weapons (manufacture)
	29600	Firearms for hunting, sporting or protective use (manufacture)
	29600	Flame throwers (manufacture)
	29600	Fuse for shells and bombs (manufacture)
	29600	Gas guns (manufacture)
	29600	Grenade (manufacture)
	29600	Guided weapon airborne delivery system, not intercontinental ballistic missile (ICBM) (manufacture)
	29600	Guided weapon warheads (manufacture)
	29600	Guided weapon, except intercontinental ballistic missile (ICBM) (manufacture)
	29600	Gun (manufacture)
	29600	Gun carriage mounting or platform (manufacture)
	29600	Howitzer (manufacture)
	29600	Machine gun (manufacture)
	29600	Military carbine (manufacture)
	29600	Military rifle (manufacture)
	29600	Mine case and component (manufacture)
	29600	Missiles (guided weapons), except intercontinental ballistic missile (ICBM) (manufacture)
	29600	Mortar (ordnance) (manufacture)
	29600	Mortar bomb (manufacture)
	29600	Ordnance (manufacture)
	29600	Pistol (manufacture)
	29600	Primer for cartridge (manufacture)
	29600	Revolver (manufacture)
	29600	Rocket launch systems (manufacture)
	29600	Shell case (manufacture)
	29600	Small arms (manufacture)
	29600	Sporting carbine (manufacture)
	29600	Sporting gun (manufacture)
	29600	Sporting rifle (manufacture)
	29600	Torpedo (manufacture)
	29600	Truncheons and night sticks (manufacture)
	29600	War ammunition (manufacture)
	29600	Water cannon (manufacture)
	29600	Weapons (manufacture)
25500		**Forging, pressing, stamping and roll-forming of metal; powder metallurgy**
	28400	Alloy and steel forging roll (manufacture)
	28400	Closed die forging (manufacture)
	28400	Cold pressing of base metals (manufacture)
	28400	Cold stamping of base metals (manufacture)
	28400	Die forging of ferrous metals (manufacture)
	28400	Drop forging of ferrous metals (manufacture)
	28400	Drop stamping of base non-ferrous metals (manufacture)
	28400	Drop stamping of ferrous metals (manufacture)
	28400	Engineers' stampings and pressings of base non-ferrous metals (manufacture)
	28400	Engineers' stampings and pressings of ferrous metals (manufacture)
	28400	Forging (manufacture)
	28400	Hammer forging of steel (manufacture)
	28400	Heavy forging (manufacture)
	28400	Hot pressing of ferrous metals (manufacture)
	28400	Hot stamping of ferrous metals (manufacture)
	28400	Metal forging, pressing, stamping and roll-forming (manufacture)
	28400	Metal objects production directly from metal powders by heat treatment (manufacture)
	28400	Perforated metal (manufacture)
	28400	Piercing of base metal (manufacture)
	28400	Powder metallurgy (manufacture)
	28400	Pressing of base metal (manufacture)
	28400	Rolls made of alloy or steel forgings (manufacture)
	28400	Sintering of metals (manufacture)
	28400	Stamping of base metal (manufacture)
25610		**Treatment and coating of metals**
	28510	Anodising (manufacture)
	28510	Case hardening (manufacture)
	28510	Chrome plating (manufacture)
	28510	Chromium plating (manufacture)
	28510	Concrete coating of metals (manufacture)
	28510	Electroplating (manufacture)
	28510	Enamelling of metals including vitreous enamelling (manufacture)
	28510	Galvanising (manufacture)
	28510	Gilding of metals (manufacture)
	28510	Grinding (metal finishing) (manufacture)
	28510	Hot dip coating (metal finishing) (manufacture)
	28510	Japanning (metal finishing) (manufacture)
	28510	Lacquering (metal finishing) (manufacture)
	28510	Metal finishing
	28510	Metal spraying (manufacture)
	28510	Plastic coating of metals (manufacture)
	28510	Plating (metal finishing) (manufacture)
	28510	Polishing (metal finishing) (manufacture)
	28510	Rubber coating of metals (manufacture)
	28510	Sand blasting of metals (manufacture)
	28510	Shot peening of metals (manufacture)
	28510	Stove painting (manufacture)
	28510	Treatment and coating of metals (manufacture)
25620		**Machining**
	28520	Blacksmith (not including farriers) (manufacture)
	28520	Cutting of metals by laser beam (manufacture)
	28520	General engineering (manufacture)
	28520	Mechanical engineering (general) (manufacture)
	28520	Sheet metal working (manufacture)
	28520	Writing on metal by laser beam (manufacture)
25710		**Manufacture of cutlery**
	28750	Bayonet (manufacture)
	28610	Butter knife (manufacture)
	28610	Choppers (manufacture)
	28610	Cleavers (manufacture)
	28750	Cutlasses (manufacture)
	28610	Cutlery (electro plated nickel silver) (manufacture)
	28610	Cutlery (manufacture)
	28610	Cutlery for domestic use (manufacture)
	28610	Electro plated nickel silver cutlery (manufacture)
	28610	Fish eater (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

28610 Fork (cutlery) (manufacture) 28610 Hair clippers (manufacture) 28610 Kitchen knife (manufacture) 28610 Knife (cutlery) (manufacture)
28610 Knife with folding blade (manufacture)28610 Ladle (manufacture)
28610 Manicure and pedicure sets (manufacture)28610 Nail file (manufacture)
28610 Pinking shears (manufacture) 28610 Pocket knife (manufacture) 28610 Pruning knife (manufacture)
28610 Razor (not electric) (manufacture)28610 Razor blade (manufacture)
28610 Razor blade blanks in strips (manufacture)28610 Razor set (manufacture)
28610 Safety razors (manufacture)28610 Scissors (manufacture) 28610 Sheath knife (manufacture)
28610 Spoons made of metal (manufacture)28750 Sword (manufacture)
28610 Tailors' shears (manufacture)

25720 Manufacture of locks and hinges

28630 Adjustable seat mechanisms (manufacture) 28630 Bicycle locks with or without keys (manufacture)28630 Carpet fittings made of metal (manufacture) 28630 Curtain rail and runners made of metal (manufacture)
28630 Door and window catches (manufacture) 28630 Door fittings made of metal (manufacture)
28630 Door hardware for buildings, furniture and vehicles(manufacture)
28630 Furniture fittings made of metal (manufacture)28630 Hinge (manufacture)
28630 Key (manufacture)
28630 Key blank (manufacture)
28630 Latch (manufacture)
28630 Lock (manufacture)
28630 Lock for motor vehicle (manufacture)
28630 Locksmiths (manufacture)
28630 Padlock (manufacture)
28630 Stair rods made of metal (manufacture)
28630 Suitcase fittings made of metal (manufacture)28630 Window fittings made of metal (manufacture)

25730 Manufacture of tools

28620 Adze (manufacture)
28620 Agricultural hand tools, not power-driven(manufacture)
28620 Agricultural knife (manufacture)28620 Anvils (manufacture)
28620 Auger and auger bit (manufacture)
28620 Axe (manufacture)
28620 Bandsaw blades (manufacture)
28620 Bench vice (manufacture)
28620 Bit stock drill (manufacture)
28620 Blacksmiths' tools (manufacture)
28620 Blow lamp (manufacture)
28620 Bolt cropper (manufacture)
28620 Brazing lamp (manufacture)

28620 Builders' knife (manufacture) 28620 Carpenter's drill (manufacture) 28620 Case opener (manufacture) 28620 Chainsaw blades (manufacture) 28620 Circular sawblades (manufacture) 28620 Circular saws for all materials (manufacture) 28620 Clamp (manufacture) 28620 Cold chisel (manufacture) 28620 Cramp (manufacture) 28620 Cutting blades for machines or mechanical appliances (manufacture) 28620 Diamond tipped tool (manufacture) 28620 Die (press tool) (manufacture) 28620 Die for machine tools (manufacture) 28620 Die pellet (manufacture) 28620 Draw knife (manufacture) 28620 Drill tools (interchangeable) (manufacture) 28620 File (hand tool) (manufacture) 28620 Forges (manufacture) 28620 Garden fork (manufacture) 28620 Garden shears (manufacture) 28620 Garden trowel (manufacture) 28620 Glass cutter (manufacture) 28620 Gouge (wood frame) (manufacture) 28620 Hacksaw blades (manufacture) 28620 Hammer (manufacture) 28620 Hand tools (manufacture) 28620 Handsaw (manufacture) 28620 Hard metal tipped tools (manufacture) 28620 Hatchet (manufacture) 28620 Hoe (manufacture) 28620 Interchangeable tools for dies (manufacture) 28620 Knives for horticultural use (manufacture) 28620 Knives for industrial use (manufacture) 28620 Knives for machines (manufacture) 28620 Knives for tradesmen (manufacture) 28620 Lapping tools (manufacture) 28620 Lathe tool (manufacture) 28620 Machine tool interchangeable tools (manufacture) 28620 Matchet (manufacture) 28620 Mattock (manufacture) 28620 Milling cutter (manufacture) 28620 Mould (engineers' small tools) (manufacture) 29560 Mould for foundry (manufacture) 29560 Moulding boxes for any material (manufacture) 29560 Moulding machine for working rubber or plastics (manufacture) 28620 Nippers (manufacture) 28620 Pick (manufacture) 28620 Pincers (manufacture) 28620 Pipe cutters (manufacture) 28620 Plane (manufacture) 28620 Planer tool (manufacture) 28620 Pliers (manufacture) 28620 Portable forges (manufacture) 28620 Press tool (manufacture) 28620 Pruning shears (manufacture) 28620 Punches for hand tools (interchangeable) (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	28620	Punches for machine tools (interchangeable) (manufacture)
	28620	Rakes for garden use (manufacture)
	28620	Rasp (manufacture)
	28620	Reamer (manufacture)
	28620	Rock drilling and earth boring interchangeable tools (e.g. Augers, boring bits, drills) (manufacture)
	28620	Saws (hand tools) (manufacture)
	28620	Saws and sawblades (manufacture)
	28620	Scraper (hand tool) (manufacture)
	28620	Screwdrivers (manufacture)
	28620	Scythe (manufacture)
	28620	Secateurs (manufacture)
	28620	Shave hook (manufacture)
	28620	Shears for agricultural or horticultural use (manufacture)
	28620	Shears for garden use (manufacture)
	28620	Sheep shears (not power) (manufacture)
	28620	Shovels (manufacture)
	28620	Sickles (manufacture)
	28620	Slitting saw (manufacture)
	28620	Socket set (manufacture)
	28620	Spade (manufacture)
	28620	Spanner (manufacture)
	28620	Spoke shave (manufacture)
	29560	Tableting and pelleting press for the chemical industry (manufacture)
	28620	Tension strapping tool (manufacture)
	28620	Threading die (manufacture)
	28620	Threading tap (manufacture)
	28620	Tinman's snips (manufacture)
	28620	Tip for cutting tool (manufacture)
	28620	Tools (precision) (manufacture)
	28620	Tools except power driven hand tools (manufacture)
	28620	Tradesmen's knife (manufacture)
	28620	Treadle operated and other non power-operated tools (manufacture)
	28620	Trowel (not garden) (manufacture)
	28620	Twist drill (manufacture)
	28620	Vices (manufacture)
	28620	Wood boring bit (manufacture)
	28620	Wood chisel (manufacture)
	28620	Wrecking bars (manufacture)
	28620	Wrench (manufacture)
25910		**Manufacture of steel drums and similar containers**
	28710	Barrels made of iron or steel (manufacture)
	28710	Boxes and other containers made of iron or steel, of capacity not exceeding 300 litres (manufacture)
	28710	Boxes made of iron or steel (manufacture)
	28710	Buckets made of steel (manufacture)
	28710	Cans and boxes made of iron or steel (manufacture)
	28710	Cans made of blackplate (manufacture)
	28710	Cans made of steel (manufacture)
	28710	Casks made of iron or steel (manufacture)
	28710	Churns made of iron or steel (manufacture)
	28710	Drums made of iron or steel (manufacture)
	28710	Kegs made of iron or steel (manufacture)
	28710	Metal drum reconditioning (manufacture)
	28710	Milk churns made of iron or steel (manufacture)
	28710	Pails made of steel (manufacture)
25920		**Manufacture of light metal packaging**
	28720	Aerosol cans made of metal (manufacture)
	28720	Barrels made of aluminium (manufacture)
	28720	Bottle tops made of metal (manufacture)
	28720	Boxes made of aluminium (manufacture)
	28720	Boxes made of metal (collapsible) (manufacture)
	28720	Cans and boxes made of aluminium (manufacture)
	28720	Cans and boxes made of tin (manufacture)
	28720	Cans for food products (manufacture)
	28720	Cans made of aluminium (manufacture)
	28720	Capsules made of metal (manufacture)
	28720	Casks made of aluminium (manufacture)
	28720	Churns made of aluminium (manufacture)
	28720	Closures made of metal (manufacture)
	28720	Containers made of foil (manufacture)
	28720	Crown cork (manufacture)
	28720	Drums made of aluminium (manufacture)
	28720	Foil containers made of aluminium (manufacture)
	28720	Kegs made of aluminium (manufacture)
	28720	Light metal packaging (manufacture)
	28720	Metallic closures (manufacture)
	28720	Milk churns made of aluminium (manufacture)
	28720	Pilfer-proof metal caps (manufacture)
	28720	Screw caps made of metal (manufacture)
	28720	Stoppers made of metal (manufacture)
	28720	Tins for food products (manufacture)
	28720	Tubes made of aluminium for packaging (collapsible)
	28720	Tubes made of metal (collapsible) (manufacture)
	28720	Tubular containers made of aluminium (manufacture)
	28720	Tubular containers made of metal (manufacture)
25930		**Manufacture of wire products, chain and springs**
	28730	Bands made of plaited metal (manufacture)
	28730	Bands made of uninsulated plaited copper (manufacture)
	28730	Bands, slings, etc. Made of uninsulated plaited iron or steel (manufacture)
	28730	Barbed wire made of steel (manufacture)
	28730	Cable made of uninsulated aluminium (manufacture)
	28730	Cable sheathing made of aluminium (manufacture)
	28730	Cable strands made of aluminium (manufacture)
	28740	Chain (manufacture)
	28740	Chain (non-precision) (manufacture)
	28740	Chain (not articulated transmission) (manufacture)
	28730	Cloth made of wire (manufacture)
	28730	Coated electrodes for electric arc-welding (manufacture)
	28730	Coated or cored wire (manufacture)
	28740	Coil springs (not for motor vehicle suspension) (manufacture)
	28730	Conductor cable made of steel reinforced aluminium (manufacture)
	28730	Drawing pin (manufacture)
	28730	Expanded metal (manufacture)
	28730	Fencing made of steel wire (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

28740 Fish plates for arches made of steel (manufacture)28740 Flange jointing sets (manufacture)
28730 Grills made of wire (manufacture)28730 Heavy wire (manufacture)
28740 Helical springs (manufacture)
28730 Knitting needles made of metal (manufacture)28740 Leaf springs (manufacture)
28740 Leaves for springs (manufacture) 28740 Link chain (welded) (manufacture)28730 Nail (not wire) (manufacture)
28730 Nails made of steel wire (manufacture) 28730 Needles made of metal (manufacture) 28730 Netting made of steel wire (manufacture)28730 Netting made of wire (manufacture)
28730 Pins made of metal (manufacture)
28730 Rigging for ships (manufacture)28740 Ring spring (manufacture)
28730 Rods or wires (coated/covered with flux) for gaswelding, soldering or brazing (manufacture)
28730 Rope made of wire (manufacture)28730 Safety pins (manufacture)
28730 Sewing needles (manufacture)28740 Skid chain (manufacture)
28740 Spring presswork (manufacture)28740 Spring washer (manufacture) 28740 Springs (manufacture)
28740 Springs for upholstery (manufacture)
28740 Springs made of steel for upholstery (manufacture)28730 Staples (not wire) (manufacture)
28730 Stranded un-insulated wire made of copper(manufacture)
28740 Stud link chain (manufacture)

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2873 0 Tackmade of metal (not wire) (manufacture)

28740 Torsion bar spring (manufacture)
28730 Uninsulated metal cable or insulated cable not useable as a conductor of electricity (manufacture)
28730 Welding rods (coated/covered with flux) made ofsteel (manufacture)
28730 Wire cable made of steel (manufacture) 28730 Wire fabric made of steel (manufacture) 28730 Wire products (manufacture)
28730 Wire products made of uninsulated copper(manufacture)
28730 Wire strands made of aluminium (manufacture)

25940 Manufacture of fasteners and screw machine products

28740 Belleville washer (manufacture)28740 Bifurcated rivet (manufacture)
28740 Bolt (manufacture)
28740 Bolt end (manufacture)
28740 Coach bolts and screws (manufacture)28740 Cotter pin (manufacture)
28740 Fasteners made of metal (manufacture)28740 Linchpin (manufacture)
28740 Lock washer (manufacture)28740 Nut (manufacture)
28740 Precision screw (manufacture)28740 Rivet (manufacture)
28740 Roofbolts, plates and accessories (manufacture)

2 self tapping) (manufacture)
8 28740 Screws of all types made of metal
7 (manufacture)28740 Threaded fasteners
4 (manufacture)
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Manufacture of other fabricated metalproducts n.e.c.

28750 Anchor (manufacture)
28750 Armoured doors
(manufacture)28750 Art metal work
(manufacture)
28750 Badges made of metal
(manufacture)28750 Bag clasp
(manufacture)
28750 Bag frame (manufacture)
28750 Baking dish, pan and tin
(manufacture)28750 Base metal
articles (manufacture) 28750 Basins
made of metal (manufacture) 28750
Baths made of metal (manufacture)
28750 Bells for pedal cycles
(manufacture)
28750 Bells made of base metals
(manufacture)28750 Bins made of metal
(manufacture)
28750 Brackets made of base metal
(manufacture)28750 Buckets made of
metal (manufacture) 28750 Buckles made
of metal (manufacture)
28750 Building components of zinc e.g. Gutters, roofcapping (manufacture)
28750 Butter dishes made of metal
(manufacture)36639 Buttons made of metal
(manufacture)
28750 Cabinets made of metal (not designed for placing onthe floor) (manufacture)
28750 Cable drum made of metal
(manufacture) 28750 Canisters made of
metal (manufacture) 28750 Cash boxes
made of metal (manufacture) 28750
Cigarette cases made of metal (manufacture)
28750 Clasps (manufacture)
28750 Clothes hook (manufacture)
28750 Colanders made of metal
(manufacture)36639 Combs of metal
(manufacture)
28750 Condiment set made of metal
(manufacture) 28750 Cooking utensils made of
metal (manufacture)28750 Crane hook

(manufacture)
28750 Deed box (manufacture)
28750 Desk tray made of metal (manufacture)
28750 Domestic hollow ware made of metal (manufacture) 28750 Domestic utensils made of aluminium (manufacture) 28750 Dustbins made of metal (manufacture)
28750 Dustpan made of metal (manufacture)
28750 Egg boxes made of metal (manufacture)
28750 Eyelet (manufacture)

2 8750 Filing cab inet made of metal (not designed to be placed on the floor) (manufacture)
28750 Flat ware made of base metal (manufacture)28750 Foil bags (manufacture)
28750 Frying pans (non-electric) (manufacture)28750 Grapnel (manufacture)
36639 Hair grips and pins made of metal (manufacture)
28750 Hollow ware (domestic) made of metal(manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

28750 Hook and eye (manufacture)
28750 Household articles made of metal (manufacture)28750 Household utensils made of metal (manufacture) 28750 Kettles (non-electric) (manufacture)
28750 Ladders made of metal (manufacture)
28750 Ladders made of metal for fire-fighting vehicles(manufacture)
28750 Left luggage lockers (manufacture)
28750 Manufacture of metal combs (manufacture)28750 Marine screw propeller (manufacture) 28750 Metal badges and metal military insignia (manufacture)
28750 Metal dinnerware bowls (manufacture) 28750 Metal dinnerware platters (manufacture)28750 Metal goods for office use (manufacture)28750 Metal hair curlers (manufacture)
28750 Metal hollow ware pots (manufacture) 28750 Metal hollowware kettles (manufacture)28750 Metal plates (manufacture)
28750 Metal road signs (manufacture)28750 Metal spinning
28750 Metal umbrella handles and frames (manufacture)28750 Metal vacuum jugs and bottles (manufacture) 28750 Milk pan (manufacture)
28750 Nameplates made of metal (manufacture)28750 Night safe (manufacture)
28750 Omelette pan (manufacture)
28750 Pallets made of metal (manufacture) 28750 Paper clips made of metal (manufacture)
28750 Paper fasteners made of metal (manufacture)28750 Pedal bins made of metal (manufacture)
28750 Percolators made of metal (non-electric)(manufacture)
31620 Permanent magnets (metallic) (manufacture)28750 Pewter ware (manufacture)
28750 Plan chests made of metal (manufacture)
28750 Plumbing and pipe fittings made of metal (not cast)(manufacture)
36639 Press stud (manufacture)
36639 Press-fasteners made of metal (manufacture)28750 Pressure cooker (manufacture)
28750 Railway track fixtures of assembled metal (manufacture)
28750 Rolls made of metal for cable, hose, etc. (manufacture)
28750 Sacrificial anodes made of zinc, magnesium or othernon-ferrous metal (manufacture)
28750 Safe (manufacture)
28750 Sanitary ware and fittings made of metal (manufacture)
28750 Saucepan (manufacture)
28750 Saucepans made of aluminium (manufacture)28750 Scourers made of metal (manufacture) 28750 Scouring pads made of metal (manufacture)
28750 Serving dishes made of base metal (manufacture)
28750 Shackle (manufacture)
28750 Ship propeller blades of metal (manufacture)28750 Ship propellers (manufacture)
28750 Shower cabinets made of metal (manufacture)
28750 Sign plates made of metal (manufacture)

28750 Sinks made of metal (other than cast iron)(manufacture)
36639 Slide fasteners made of metal (manufacture) 28750 Small metal hand-operated kitchen appliances and accessories (manufacture)
28750 Staples for office use (manufacture)
28750 Statuettes and other ornaments made of base metal(manufacture)
28750 Steel wool for domestic use (manufacture)28750 Steps made of metal (manufacture)
28750 Stewpans (manufacture)
28750 Stillage made of metal (manufacture)28750 Street furniture (manufacture)
28750 Striking of medals (manufacture)28750 Strong box (manufacture) 28750 Strong room (manufacture)
28750 Strong room door (manufacture)
28750 Tableware made of base metal (manufacture) 28750 Tea sets made of base metal (manufacture) 28750 Teapots made of base metal (manufacture) 28750 Tensional steel strapping (manufacture)
28750 Toast racks made of base metal (manufacture)28750 Trays made of base metal (manufacture) 28750 Trellis work made of metal (manufacture) 28750 Wall mountings made of metal (manufacture) 28750 Wash basins made of metal (manufacture) 36639 Zip fasteners made of metal (manufacture)

26110 Manufacture of electronic components

32100 Amplifying valve (manufacture)
32100 Bare printed circuit boards (manufacture)
32100 Capacitor for electronic apparatus (manufacture)32100 Cathode ray tube (manufacture)
24660 Chemical elements in disk form for use in electronics(manufacture)
31100 Choke and coil (electronic) (manufacture)
31200 Circuit protection device (electronic) (manufacture) 32100 Cold cathode valve or tube (manufacture)
32100 Colour television tubes (manufacture)32100 Diode (manufacture)
32100 Display components (plasma, polymer, LCD) (manufacture)
32100 Electron tubes (manufacture)
32100 Electronic active components (manufacture)32100 Electronic condensers (manufacture)
31200 Electronic connectors (manufacture)
32100 Electronic crystals and crystal assemblies (manufacture)
32100 Electronic integrated circuits (manufacture) 32100 Electronic micro-assemblies of moulded module, micromodule or similar types (manufacture)
32100 Electronic passive components (manufacture)32100 Electronic tube (manufacture)
32100 Electronic valve (manufacture)
31100 Ferrite parts for electronic apparatus (manufacture) 24660 Finished or semi-finished dice, semiconductor (manufacture)
24660 Finished or semi-finished wafers, semiconductor(manufacture)
32100 Hybrid integrated circuits (electronic) (manufacture) 32100 Image converters and intensifiers (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

31100 Inductor (electronic) (manufacture)
31100 Industrial transformer (electronic) (manufacture) 32100 Insulated monolithic, hybrid and passive circuit (manufacture)
32100 Integrated circuits (analogue or digital)(manufacture)
31200 Isolating and make or break switches (electronic)(manufacture)
32100 Klystron (manufacture)
32100 Light emitting diodes (LED) (manufacture)32100 Magnetron (manufacture)
32100 Microchip (manufacture)
32100 Microcircuit (manufacture)
32100 Microprocessors (manufacture)
32100 Microwave components (manufacture)32100 Microwave tube (manufacture)
31300 Monitor cables (manufacture)
32100 Monolithic integrated circuits (manufacture) 32100 Mounted piezo-electric crystals (manufacture)32100 Photo diode (manufacture)
32100 Photo electric cell (manufacture)
32100 Photo semi-conductor device (manufacture) 32100 Photo-cathode valves or tubes (manufacture)32100 Photosensitive semi-conductor devices (manufacture)
32100 Piezo electric crystal (manufacture)31200 Plug (electronic) (manufacture) 32100 Printed circuit (manufacture)
31300 Printer and monitor connectors (manufacture)31300 Printer cables (manufacture)
32100 Quartz crystal (manufacture)
32100 Receiver or amplifier valves or tubes (manufacture)32300 Record cutters (manufacture)
31100 Rectifier plant (electronic) (manufacture)
31200 Relays for electronic and telecommunications use(manufacture)
32100 Resistor (electronic) (manufacture)
32100 Semi-conductor (not power) (manufacture) 31100 Semi-conductor control equipment (converters) (manufacture)
24660 Semi-finished dice or wafers, semiconductor (manufacture)
32100 Solar panels (photovoltaic cell type) (manufacture)32100 Solenoids for electronic apparatus (manufacture) 32100 Solid state circuit (manufacture)
32100 Stabilising valve (manufacture)
31200 Switches and transducers for electronic applications(manufacture)
32100 Television camera tubes (manufacture)
32100 Television picture tube (manufacture)
32100 Television scan coil (manufacture)
31200 Terminals for electronic apparatus (manufacture)
32100 Thermionic valves or tubes (manufacture)
32100 Thyratron (manufacture)
31100 Transformer for electronic apparatus (manufacture)32100 Transistors (manufacture)
32100 Travelling wave tube (manufacture)
32100 Tube (electronic) (manufacture)
31300 USB cables (manufacture)
32100 Valves (electronic) (manufacture)

26120 Manufacture of loaded electronic boards32100 Controllers interface cards (manufacture) 32100 Interface cards (manufacture)

32100 Loaded electronic boards (manufacture) 32100 Loaded printed circuit boards (manufacture)32100 Modem interface cards (manufacture)

32100 Network interface cards (manufacture)

32100 Phonecards and similar cards containing integrated circuits (smart cards) (manufacture)

32100 Smart cards (manufacture)

32100 Sound interface cards (manufacture)32100 Video interface cards (manufacture)

26200 Manufacture of computers and peripheral equipment

30020 Aluminium coating inside pc cases (manufacture)30020 Analogue computer (manufacture)

30020 Automatic teller machines (ATMs) computer terminals not mechanically operated (manufacture)

30020 Barcode readers and other optical readers(manufacture)

30020 Braille pads and other output devices (manufacture)30020 Central processing units for computers (manufacture)

30020 Computer (electronic) (manufacture)30020 Computer (manufacture)

30020 Computer peripheral equipment (manufacture) 32300 Computer projectors (video beamers) (manufacture)30020 Computer store (manufacture)

30020 Computer system (manufacture) 30020 Computer terminal unit (manufacture)

30020 Control units for computers (manufacture)30020 Converter for computer (manufacture)

30020 Data processing equipment (electronic (other than electronic calculators)) (manufacture)

30020 Desktop computers (manufacture)30020 Digital computer (manufacture) 30020 Digital machines (manufacture)

30020 Floppy disk drives (manufacture)

30020 Graphics tablets and other input devices (manufacture)

30020 Hand-held computers PDA (manufacture)30020 Hard disk drives (manufacture)

30020 Hybrid computer (manufacture) 30020 Hybrid machines (manufacture) 30020 Information processing equipment

30020 Keyboards for computers (manufacture)30020 Laptop computers (manufacture) 30020 Light pens (manufacture)

30020 Machines for transcribing data media in coded form(manufacture)

30020 Magnetic card readers (manufacture) 30020 Magnetic card storage units (manufacture)30020 Magnetic disk drives (manufacture)

30020 Magnetic flash drives (manufacture) 30020 Magnetic or optical readers (manufacture)

30020 Magnetic storage devices for computers(manufacture)

30020 Mainframe computers (manufacture) 30020 Memory store for computers (manufacture)30020 Mice, joysticks and trackballs (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	30020	Micro-computers (manufacture)
	30020	Mini-computers (manufacture)
	30020	Monitors for computers (manufacture)
	30020	Multi-function office equipment (manufacture)
	30020	Network interface (manufacture)
	30020	Optical CD-RW, CD-ROM, DVD-ROM, DVD-RW disk drives (manufacture)
	30020	Optical disk drives (manufacture)
	30020	Peripheral equipment for computer uses including card punches and verifiers (manufacture)
	30020	Personal computers and workstations (manufacture)
	30020	Point-of-sale (pos) computer terminals not mechanically operated (manufacture)
	30020	Printer ink cartridges (manufacture)
	30020	Printer ink cartridges (refilling)
	30020	Printer servers (manufacture)
	30020	Printers and plotters (manufacture)
	30020	Printers for computers (manufacture)
	30020	Punchcard readers (manufacture)
	30020	Scanners for computer use (manufacture)
	30020	Servers and network servers (manufacture)
	30020	Smart card readers (manufacture)
	30020	Tape reader for computers (manufacture)
	30020	Tape streamers and other magnetic tape storage units (manufacture)
	30020	Virtual reality helmets (manufacture)
	30020	Visual display unit for computer (manufacture)
26301		**Manufacture of telegraph and telephone apparatus and equipment**
	32201	Bells for telephones (manufacture)
	32201	Bridges for telecommunications (manufacture)
	31620	Burglar alarm and system (manufacture)
	32201	Carrier equipment (manufacture)
	32202	Cellular phones (manufacture)
	32201	Communication devices using infrared signal (e.g. Remote controls) (manufacture)
	32201	Cordless telephones (except cellular) (manufacture)
	32201	Data transmission link line (manufacture)
	31620	Delay lines and networks (manufacture)
	32201	Dial for telephone (manufacture)
	32201	Entrance telephones (manufacture)
	32201	Facsimile transmission apparatus (manufacture)
	32201	Fax machines (manufacture)
	31620	Fire alarm and system (manufacture)
	31620	Fire alarm systems, sending signals to a control (manufacture)
	32201	Gateways for telecommunications (manufacture)
	32201	Infrared remote controls (manufacture)
	32201	Line apparatus (carrier, duplex and repeater) (manufacture)
	32201	Line telegraphy apparatus (manufacture)
	32201	Line telephony apparatus (manufacture)
	32202	Mobile telephone (manufacture)
	32201	Modems (manufacture)
	32201	Multiplexers for telephone exchanges (manufacture)
	32201	Pagers (manufacture)
	32201	Picture transmitter (manufacture)
	32201	Private branch exchange (PBX) equipment (manufacture)
	32201	Routers for telecommunications (manufacture)
	31620	Security alarms and systems (manufacture)
	32201	Subscriber apparatus (telephone) (manufacture)
	32201	Switchboard for telecommunications (manufacture)
	32201	Switching equipment for telegraph and telex (manufacture)
	32201	Telegraph apparatus (manufacture)
	32201	Telephone (manufacture)
	32300	Telephone answering machines (manufacture)
	32201	Telephone apparatus (manufacture)
	32201	Telephone exchange equipment (manufacture)
	32201	Telephone exchanges (manufacture)
	32201	Telephone handset (manufacture)
	32201	Teleprinter (manufacture)
	32201	Telewriter (manufacture)
	32201	Telex machine (manufacture)
	32201	Terminal equipment for telegraphic and data communications (manufacture)
	32201	Transmission equipment for telephone and telegraph (manufacture)
26309		**Manufacture of communication equipment (other than telegraph and telephone apparatus**
	32300	Aerial (domestic) (manufacture)
	32300	Aerial (non-domestic) (manufacture)
	32300	Aerial reflectors (manufacture)
	32300	Aerial rotors (manufacture)
	32300	Aerial signal splitters (manufacture)
	32300	Amplifier for broadcasting studio (manufacture)
	32202	Cable television equipment (manufacture)
	32202	Camera for television (manufacture)
	32202	Closed circuit television equipment (CCTV) (manufacture)
	32202	Fixed transmitters (manufacture)
	32202	Ground station for relay satellite communication
	32202	Monitoring equipment for radio and television (manufacture)
	32202	Radio beacons (manufacture)
	32202	Radio communications equipment (manufacture)
	32202	Radio frequency booster stations (manufacture)
	32202	Radio-telephony apparatus (manufacture)
	32202	Reception apparatus for radio-telephony or radio-telegraphy (manufacture)
	32202	Relay link apparatus (manufacture)
	32202	Relay transmitters (manufacture)
	32202	Satellite relay (manufacture) station
	32202	Television camera (manufacture)
	32300	Television receiver (manufacture)
	32202	Television transmitter (manufacture)
	32202	Transmission apparatus for radio-broadcasting (manufacture)
	32202	Transmitter-receivers (manufacture)
	32300	Transmitting and receiving antenna (manufacture)
	32202	Transponders (manufacture)
	32202	Video conferencing equipment (manufacture)
	32202	Video signalling equipment (manufacture)
26400		**Manufacture of consumer electronics**
	32300	Amplifier for audio separates (manufacture)
	32300	Amplifiers and sound amplifier sets (manufacture)
	32300	Audio separate (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

32300 Cassette player (manufacture)
32300 Cassette type recorders (manufacture)
32300 Compact disc players (manufacture)
32300 Dvd recorders and players (manufacture)
32300 Earphone (manufacture)
36509 Electronic games (domestic) (manufacture)
36509 Electronic toys and games with replaceable software (manufacture)
32300 Gramophone (manufacture)
32300 Gramophone accessory (manufacture)
32300 Gramophone cabinet (manufacture)
32300 Headphones (manufacture)
32300 Headset (not telecommunication type) (manufacture)
32300 Hi-fi equipment (manufacture)
32300 Jukeboxes (manufacture)
32300 Karaoke machines (manufacture)
32300 Loudspeaker (manufacture)
32300 Magnetic recording head (manufacture)
32300 Magnetic tape recorders (manufacture)
32300 Megaphone (manufacture)
32300 Microphone (manufacture)
32300 Monitors for videos (manufacture)
32300 Pick-up arm and cartridge for record player (manufacture)
32300 Public address system (manufacture)
32300 Public broadcasting equipment (manufacture)
32300 Radio cabinets made of wood (manufacture)
32300 Radio receiving set (manufacture)
32300 Receivers for radio broadcasting (manufacture)
32300 Receivers for television (manufacture)
32300 Record player accessories (manufacture)
32300 Record player cabinets made of wood (manufacture)
32300 Record players (manufacture)
32300 Record playing mechanism (manufacture)
32300 Sound heads (manufacture)
32300 Sound recording and reproducing equipment (manufacture)
32300 Speaker systems (manufacture)
32300 Stereo systems (manufacture)
32300 Stylus for record player (manufacture)
32300 Tables for turn-tables (manufacture)
32300 Tape player and recorder (audio and visual) (manufacture)
32300 Tape recorder cabinets made of wood (manufacture)
32300 Television cabinets made of wood (manufacture)
32300 Television monitors and displays (manufacture)
32300 Tone arms (manufacture)
32300 Tuner (audio separate) (manufacture)
32300 Tuner for radio and television (other than audio separates) (manufacture)
32300 Turn-tables (record decks) (manufacture)
36509 Video game consoles (manufacture)
32300 Video projector (manufacture)
32300 Video recording or reproducing apparatus including camcorders (manufacture)

26511 Manufacture of electronic instruments and appliances for measuring, testing, and navigation, except industrial process control equipment

33201 Absorptiometer (electronic) (manufacture)

33201 Air navigation instruments and systems (electronic)(manufacture)

33201 Airfield electronic controls and approach aids(manufacture)

33201 Ammeters (electronic) (manufacture) 33201 Automatic pilots (electronic) (manufacture)

33201 Balancing machines (electronic) (manufacture)33201 Barometer (electronic) (manufacture)

33201 Biochemical analysers (electronic) (manufacture)

33201 Checking instruments and appliances (electronic)(manufacture)

33201 Chromatographs (electronic) (manufacture) 33201 Colorimeters (electronic) (manufacture) 33201 Comparators (electronic) (manufacture) 33201 Co-oxymeters (electronic) (manufacture) 33201 Cross-talk meters (electronic) (manufacture)33201 Current checking instruments (electronic) (manufacture)

33201 Cytometers (electronic) (manufacture)

33201 Density measuring optical equipment (electronic)(manufacture)

33201 Diffraction apparatus (electronic) (manufacture) 33201 Echo sounders (manufacture)

33201 Electricity meter (electronic) (manufacture)33201 Electron microscope (manufacture)

33201 Electronic aircraft engine instruments (manufacture)

33201 Electronic apparatus for testing physical and mechanical properties of materials (manufacture)

33201 Electronic automotive emissions testing equipment(manufacture)

33201 Electronic counter (manufacture)

33201 Electronic environmental controls and automaticcontrols for appliances (manufacture)

33201 Electronic flame and burner control (manufacture)33201 Electronic flight recorders (manufacture)

33201 Electronic GPS devices (manufacture)33201 Electronic humidistats (manufacture)

33201 Electronic hydronic limit controls (manufacture)

33201 Electronic instruments and appliances for measuring,testing, and navigation (manufacture)

33201 Electronic laboratory analytical instruments(manufacture)

33201 Electronic laboratory incubators and sundry laboratory apparatus for measuring, testing (manufacture)

33201 Electronic metal detectors (manufacture) 33201 Electronic motion detectors (manufacture)

33201 Electronic physical properties testing and inspection equipment (manufacture)

33201 Electronic pneumatic gauges (manufacture) 33201 Electronic polygraph machines (manufacture) 33201 Electronic pulse (signal) generators (manufacture)33201 Electronic tally counters (manufacture)

33201 Electronic testing equipment (manufacture) 33201 Expansion analysers (electronic) (manufacture)33201 Exposure meter (electric) (manufacture) 31620 Flight recorder (electric) (manufacture)

33201 Flow meters (electronic) (manufacture) 33201 Fluorimeter (electronic) (manufacture) 33201 Frequency meter (electronic) (manufacture)

33201 Gas meter (electronic) (manufacture) 33201 Gauge (electronic) (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

33201 Geophysical instruments and appliances (electronic)(manufacture)
33201 Guided weapon launching gear and launch controlpost (electronic) (manufacture)
33201 Gunnery control instrument (electronic)(manufacture)
33201 Heat meters (electronic) (manufacture)
33201 Hydrographic instrument and apparatus (electronic)(manufacture)
33201 Hydrological instrument (electronic) (manufacture)33201 Hydrometers (electronic) (manufacture)
33201 Instruments for testing physical and mechanical properties of materials (electronic) (manufacture)
33201 Laboratory type sensitive balances (electronic)(manufacture)
33201 Level gauges (electronic) (manufacture)
33201 Level measuring and control instruments (electronic)(manufacture)
33201 Manometers (electronic) (manufacture)
33201 Measuring instruments and appliances (electronic)(manufacture)
33201 Meteorological instruments (electronic)(manufacture)
33201 Meters (other than for electricity and parking)(electronic) (manufacture)
33201 Meters for electricity (electronic) (manufacture) 33201 Meters for liquid supply (electronic) (manufacture)33201 Meters for petrol pumps (electronic) (manufacture)33201 Meters for water (electronic) (manufacture)
31620 Mine detectors (electronic) (manufacture)
33201 Navigational instruments and appliances (electronic)(manufacture)
33201 Nucleonic instrument (manufacture)
33201 Numerical control and indication equipment formachine tools (electronic) (manufacture)
33201 Oceanographic or hydrological instruments (electronic) (manufacture)
33201 Optical density measuring equipment (electronic)(manufacture)
33201 Optical type measuring and checking appliances andinstruments (electronic) (manufacture)
33201 Oscilloscope (manufacture)
33201 Pedometers (electronic) (manufacture)
33201 Ph meters (electronic) (manufacture)
33201 Ph/gas blood analysers (electronic) (manufacture)
33201 Photogrammetric equipment (electronic)(manufacture)
33201 Polarimeters (electronic) (manufacture)
33201 Potentiometric recorder (electronic) (manufacture)33201 Pressure measuring and control instrument (electronic) (manufacture)
33201 Pressure switch (electronic) (manufacture)33201 Proton microscope (manufacture)
33201 Radar equipment (manufacture)
33201 Radiation measuring and detection instruments (electronic) (manufacture)
33201 Radio navigational aid apparatus (manufacture)33201 Radio remote control apparatus (manufacture)33201 Refractometers (electronic) (manufacture) 33201 Resistance checking instruments (electronic) (manufacture)
33201 Revolution counters (electronic) (manufacture)33201 Seismometers (electronic) (manufacture)

33201 Sextant (electronic) (manufacture) 33201 Smoke detection equipment (electronic) (manufactur
e) 33201 Sonar
(manufacture)
33201 Spectrofluorimeter (electronic)
(manufacture)33201 Spectrograph
(electronic) (manufacture) 33201
Spectrometers (electronic)
(manufacture) 33201
Spectrophotometer (manufacture)
33201 Spectrum analysers
(manufacture) 33201 Speedometers
(electronic) (manufacture)
33201 Surface tension instruments (electronic)(manufacture)
33201 Surveying instruments (electronic)
(manufacture)33201 Tachometer
(electronic) (manufacture)
33201 Taximeters (electronic)
(manufacture) 33201 Telemetering
instruments (manufacture)33201
Telemetric equipment (manufacture)
33201 Test benches (electronic)
(manufacture)
33201 Testing instruments and appliances (electronic)(manufacture)
33201 Testing machines and equipment (electronic)(manufacture)
33201 Theodolite (electronic)
(manufacture) 33201 Thermometer
(electronic) (manufacture)33201
Thermostat (electronic)
(manufacture)
33201 Ultrasonic sounding instruments (electronic)(manufacture)
33201 Velocity measuring instruments (electronic)(manufacture)

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33201 Viscometers (electronic)
(manufacture) 33201 Voltage checking
instruments (manufacture)33201
Voltmeter (electronic) (manufacture)
33201 Watt meter (electronic) (manufacture)
33201 Wheel balancing machine (electronic) (manufacture)

26512 Manufacture of electronic industrial process control equipment

33301 Industrial process control equipment (electronic)(manufacture)
33301 Process control equipment (electronic) (manufacture)

26513 Manufacture of non-electronic instruments and appliances for measuring, testing and navigation, except industrial process control equipment

33202 Absorptiometer (non-electronic)
(manufacture) 33202 Air navigation instruments and systems
(non-electronic) (manufacture)
33202 Aircraft engine instruments (non-electronic)(manufacture)
33202 Altimeter (non-electronic)
(manufacture) 33202 Ammeters
(non-electronic) (manufacture)
33202 Artificial horizon (non-electronic) (manufacture)
33202 Automatic pilots (non-electronic)
(manufacture)33202 Automotive emissions testing equipment
(non-electronic) (manufacture)
33202 Balancing machines (non-electronic)
(manufacture)33202 Barometer (non-electronic)
(manufacture)
33202 Calculating instruments (non-electronic) (manufacture)
33202 Callipers (manufacture)
33202 Checking instruments and appliances (non-electronic) (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

33202 Colorimeters (non-electronic) (manufacture) 33202 Comparators (non-electronic) (manufacture) 33202 Compass (drawing) (manufacture)

33202 Compass (magnetic) (manufacture)

33202 Compressibility testing equipment (non-electronic) (manufacture)

33202 Counting instruments (non-electric) (manufacture)33202 Density measuring optical equipment (non-electronic) (manufacture)

33202 Drafting tables and machines (manufacture) 33202 Drawing instrument (manufacture)

33202 Elasticity testing equipment (non-electronic) (manufacture)

33202 Electricity meter (non-electronic) (manufacture) 33202 Environmental controls and automatic controls for appliances (non-electronic) (manufacture)

33202 Equipment for testing physical and mechanicalproperties of materials (non-electronic) (manufacture)

33202 Expansion meter (non-electronic) (manufacture)33202 Flame and burner control (non-electronic) (manufacture)

33202 Flow measuring and control instrument (non-electronic) (manufacture)

33202 Flow meters (non-electronic) (manufacture) 33202 Fluorimeter (non-electronic) (manufacture) 33202 Frequency meter (non-electronic) (manufacture)

33202 Galvanometer (manufacture)

33202 Gas chromatograph (manufacture) 33202 Gas meter (non-electronic) (manufacture)33202 Gauge (non-electronic) (manufacture)

33202 Geophysical instruments and appliances (non-electronic) (manufacture)

33202 GPS devices (non-electronic) (manufacture) 33202 Gunnery control instrument (non-electronic) (manufacture)

33202 Hardness testing instrument (non-electronic) (manufacture)

33202 Heat meters (non-electronic) (manufacture) 33202 Humidistats (non-electronic) (manufacture) 33202 Hydrographic instrument and apparatus (non-electronic) (manufacture)

33202 Hydrological instrument (non-electronic)(manufacture)

33202 Hydrometers (non-electronic) (manufacture)

33202 Hydronic limit controls (non-electronic) (manufacture)

33202 Laboratory analytical instruments (non-electronic)(manufacture)

33202 Laboratory incubators and sundry lab apparatus formeasuring, testing (non-electronic) (manufacture)

33202 Laboratory type sensitive balances (non-electronic)(manufacture)

33202 Level gauges (non-electronic) (manufacture)

33202 Level measuring and control instruments (non-electronic) (manufacture)

33202 Liquid supply meter (non-electronic) (manufacture)33202 Magnetic compass (manufacture)

33202 Manometers (non-electronic) (manufacture)

33202 Mathematical instrument (non-electronic) (manufacture)

33202 Measuring instruments and appliances (non-electronic) (manufacture)

33202 Metal detectors (non-electronic) (manufacture) 33202 Meteorological instruments (non-electronic) (manufacture)

33202 Meteorological optical instruments (non-electronic)(manufacture)

33202 Meters (other than for electricity and parking)(non-electronic) (manufacture)

33202 Meters for electricity (non-electronic) (manufacture)33202 Meters for liquid supply (non-electronic) (manufacture)

33202 Meters for petrol pumps (non-electronic)(manufacture)

33202 Meters for water (non-electronic)

(manufacture)33202 Micrometer

(manufacture)

33202 Microscopes (other than optical)

(manufacture)33202 Mine detectors

(non-electronic) (manufacture)

31620 Mine detectors, pulse (signal) generators; metaldetectors (manufacture)

33202 Mitre (manufacture)

33202 Motion detectors (non-electronic) (manufacture) 33202 Nautical instrument (non-electronic) (manufacture) 33202 Navigational instruments and appliances (non-electronic) (manufacture)

33202 Non-electrical apparatus for testing physical andmechanical properties of materials (manufacture)

33202 Numerical control and indication equipment formachine tools (non-electronic) (manufacture)

33202 Oceanographic or hydrological instruments(non-electronic) (manufacture)

33202 Ohmmeter (manufacture)

33202 Optical density measuring equipment (non-electronic) (manufacture)

33202 Optical type measuring and checking appliances andinstruments (non-electronic) (manufacture)

33202 Pedometers (non-electronic) (manufacture) 33202 Ph meters (non-electronic) (manufacture) 33202 Photogrammetric equipment (non-electronic) (manufacture)

33202 Photometers (non-electronic) (manufacture)

33202 Physical properties testing and inspection equipment (non-electronic) (manufacture)

33202 Pneumatic gauges (non-electronic)

(manufacture)33202 Polarimeters

(non-electronic) (manufacture)

33202 Polygraph machines (non-electronic)

(manufacture) 33202 Porosimeter (manufacture)

33202 Potentiometric recorder (non-electronic) (manufacture)

33202 Precision balance (non-electronic) (manufacture)33202 Precision drawing instrument (manufacture) 33202 Pressure measuring and control instrument (non-electronic) (manufacture)

33202 Pulse (signal) generators (non-electronic) (manufacture)

33202 Pyrometer (non-electronic) (manufacture) 33202 Radiation equipment and detection instruments (non-electronic) (manufacture)

33202 Range finders (non-electronic) (manufacture)

33202 Range finders (optical non-electronic) (manufacture) 33202 Refractometers (non-electronic) (manufacture) 33202 Revolution counters (non-electronic) (manufacture) 33202 Scientific laboratory equipment (non-electrical or non-optical) (manufacture)

33202 Seismometers (non-electronic) (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	33202	Sextant (non-electronic) (manufacture)
	33202	Slide rules (manufacture)
	33202	Spectrofluorimeter (non-electronic) (manufacture)
	33202	Spectrograph (non-electronic) (manufacture)
	33202	Spectrometers (non-electronic) (manufacture)
	33202	Speedometers (non-electronic) (manufacture)
	33202	Spirit level (manufacture)
	33202	Stroboscope (manufacture)
	33202	Surface tension instruments (non-electronic) (manufacture)
	33202	Surveying instruments (non-electronic) (manufacture)
	33202	Surveying instruments (optical non-electronic) (manufacture)
	33202	Tachometer (non-electronic) (manufacture)
	33202	Tally counters (non-electronic) (manufacture)
	33202	Taximeters (non-electronic) (manufacture)
	33202	Temperature measuring and control instrument (non-electronic) (manufacture)
	33202	Test benches (non-electronic) (manufacture)
	33202	Testing instruments and appliances (non-electronic) (manufacture)
	33202	Theodolite (non-electronic) (manufacture)
	33202	Thermometer (non-electronic) (manufacture)
	33202	Thermostat (non-electronic) (manufacture)
	33202	Ultrasonic sounding instruments (non-electronic) (manufacture)
	33202	Vehicle motors testing and regulating apparatus (non-electronic) (manufacture)
	33202	Velocity measuring instruments (non-electronic) (manufacture)
	33202	Viscometers (non-electronic) (manufacture)
	33202	Voltmeter (non-electronic) (manufacture)
	33202	Water meters (non-electronic) (manufacture)
	33202	Watt meter (non-electronic) (manufacture)
	33202	Wheel balancing machine (non-electronic) (manufacture)
26514		**Manufacture of non-electronic industrial process control equipment**
	33302	Industrial process control equipment (non-electronic) (manufacture)
	33302	Process control equipment (electric) (manufacture)
	33302	Sensor for electric process control equipment (manufacture)
26520		**Manufacture of watches and clocks**
	33500	Alarm clock (manufacture)
	33500	Car clock (manufacture)
	33500	Cases for clocks and watches (manufacture)
	33500	Chronometer (manufacture)
	33500	Clock (electric) (manufacture)
	33500	Clock (manufacture)
	33500	Clock case made of wood (manufacture)
	33500	Components for clocks and watches (manufacture)
	33500	Electronic timer (not clock or watch) (manufacture)
	33500	Equipment for measuring and recording (manufacture)
	33500	Industrial timer (manufacture)
	33500	Instrument panel clock (manufacture)
	33500	Movements for clocks and watches (manufacture)
	33500	Parking meters (manufacture)
	33500	Pocket timer (manufacture)
	33500	Pocket watch (manufacture)
	33500	Process timers (manufacture)
	33500	Stop watch (manufacture)
	33500	Time clock (manufacture)
	33500	Time lock (manufacture)
	33500	Time recorder (manufacture)
	33500	Time switch (manufacture)
	33500	Time/date stamps (manufacture)
	33500	Timer for industrial use (manufacture)
	33500	Travelling clock (manufacture)
	33500	Watch (manufacture)
	33500	Watch case (manufacture)
	33500	Watchmakers' jewels (manufacture)
	33500	Wrist watch (manufacture)
26600		**Manufacture of irradiation, electromedical and electrotherapeutic equipment**
	33100	Baggage scanning equipment (manufacture)
	33100	CT scanners (manufacture)
	33100	Echocardiographs (manufacture)
	33100	Electro medical equipment (manufacture)
	33100	Electro medical pacemaker (manufacture)
	33100	Electro medical stimulator (manufacture)
	33100	Electrochemical apparatus for industrial use (manufacture)
	33100	Electro-diagnostic apparatus (manufacture)
	33100	Electro-encephalographs (manufacture)
	33100	Electromyographs (manufacture)
	33100	Electrotherapeutic equipment (manufacture)
	33100	Endoscopes (manufacture)
	33100	Hearing aid (electronic) (manufacture)
	33100	Irradiation equipment (manufacture)
	33100	Magnetic resonance imaging (MRI) equipment (manufacture)
	33100	Mammographs (manufacture)
	33100	Mask and respirator (not medical) (manufacture)
	33100	Medical laser equipment (manufacture)
	33100	Optometer (manufacture)
	33100	Pacemaker (electro medical) (manufacture)
	33100	Pet scanners (manufacture)
	33100	Scintillation scanners (manufacture)
	33100	Thermographs (manufacture)
	33100	Tomographs (manufacture)
	33100	Ultrasonic diagnostic equipment (manufacture)
	33100	X-ray apparatus for industrial use (manufacture)
	33100	X-ray apparatus for medical use (manufacture)
	33100	X-ray diffraction or fluorescence apparatus (manufacture)
	33100	X-ray or alpha, beta or gamma radiation apparatus (manufacture)
	33100	X-ray tubes (manufacture)
26701		**Manufacture of optical precision instruments**
	33402	Astronomical equipment (optical) (manufacture)
	33402	Auto correlator (optical) (manufacture)
	33402	Binoculars (manufacture)
	33402	Correlator (optical) (manufacture)
	33402	Fibre optic apparatus (manufacture)
	33402	Gunnery control instrument (optical) (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	33402	Infrared systems for night vision (manufacture)
	33402	Laser (excluding complete equipment using laser components) (manufacture)
	33401	Lenses (except ophthalmic) (manufacture)
	33402	Magnifying glass (manufacture)
	33201	Meteorological optical instruments (electronic) (manufacture)
	33402	Monocular (manufacture)
	33402	Observation telescopes (manufacture)
	33402	Optical comparators (manufacture)
	33402	Optical fire control equipment (manufacture)
	33402	Optical gun sighting equipment (manufacture)
	33402	Optical instruments and appliances (other than photographic goods) (manufacture)
	33402	Optical machinist's precision tools (manufacture)
	33402	Optical magnifying instruments (manufacture)
	33402	Optical microscope (manufacture)
	33401	Optical mirrors (manufacture)
	33402	Optical positioning equipment (manufacture)
	33402	Optical projector (meteorological) (manufacture)
	33402	Periscopes (manufacture)
	33201	Photometers (electronic) (manufacture)
	33201	Range finder (optical) (manufacture)
	33201	Range finders (optical) (manufacture)
	33402	Sight telescopes (manufacture)
	33201	Surveying instruments (optical) (manufacture)
	33402	Telescope (manufacture)
	33402	Telescopic sights (manufacture)
	33402	Thread counters (manufacture)
	33402	Wedge (optical) (manufacture)
26702		**Manufacture of photographic and cinematographic equipment**
	33403	Accessories for photographic equipment (manufacture)
	33403	Cameras (manufacture)
	33403	Cine camera (manufacture)
	33403	Cinematographic equipment (manufacture)
	33403	Dark room equipment (manufacture)
	32300	Digital photographic cameras (manufacture)
	33403	Discharge lamp (electronic) and other flashlight apparatus (manufacture)
	33403	Episcope (manufacture)
	33403	Flashlight apparatus (manufacture)
	33403	Image projectors (manufacture)
	33403	Microfiche readers (manufacture)
	33403	Microfilm equipment (manufacture)
	33403	Microfilm readers (manufacture)
	33402	Microphotography equipment (manufacture)
	33402	Microprojection equipment (manufacture)
	33403	Negatoscopes (manufacture)
	33403	Overhead transparency projectors (manufacture)
	33201	Photo electric exposure meter (manufacture)
	33403	Photographic enlarger (manufacture)
	33403	Photographic equipment (manufacture)
	33403	Photographic film instrument (manufacture)
	33201	Photographic light meters (manufacture)
	33403	Projection screen (manufacture)
	33403	Projector (photographic or cinematographic) (manufacture)
	33403	Projector for cinema (manufacture)
	33403	Reducer (photographic) (manufacture)
	33403	Screen for cinema (manufacture)
	33403	Slide projector (manufacture)
	33403	Television camera lens (manufacture)
26800		**Manufacture of magnetic and optical media**
	24650	Blank diskettes (manufacture)
	24650	Blank optical discs (manufacture)
	24650	Computer discs and tapes (unrecorded) (manufacture)
	24650	Floppy disk (manufacture)
	24650	Hard drive media (manufacture)
	24650	Magnetic card (manufacture)
	24650	Magnetic disc (unrecorded) (manufacture)
	24650	Magnetic tape (unrecorded) (manufacture)
	24650	Media for sound or video recording (unrecorded) (manufacture)
	24650	Optical media (manufacture)
	24650	Rigid magnetic disk (manufacture)
27110		**Manufacture of electric motors, generators and transformers**
	31620	Actuator (electromagnetic positioner) (manufacture)
	31100	Alternating current (ac) generators (manufacture)
	31100	Alternating current (ac) motors (manufacture)
	31100	Alternators (not for vehicles) (manufacture)
	31100	Arc-welding transformers (manufacture)
	31100	Battery charger (manufacture)
	31100	Converting machinery (electrical) (manufacture)
	31100	Direct current (dc) generator sets (manufacture)
	31100	Direct current (dc) motors and generators (manufacture)
	31100	Dynamo (not for vehicle) (manufacture)
	31100	Electric motors, generators (manufacture)
	31100	Fluorescent ballasts (i.e. Transformers) (manufacture)
	31100	Frequency converter (not power) (manufacture)
	31100	Generator set (manufacture)
	31100	Motor generator sets (manufacture)
	31100	Power generators (manufacture)
	31100	Power supply unit for electronic applications (manufacture)
	31100	Reactor shunt and limiting (manufacture)
	31100	Rewinding of armatures on a factory basis (manufacture)
	31100	Substation transformers for electric power distribution (manufacture)
	31100	Traction motors with or without associated control equipment (manufacture)
	31100	Transformer (generator, transmission system and distribution) (manufacture)
	31100	Transformer for industrial use (manufacture)
	31100	Transmission and distribution voltage regulators (manufacture)
	31100	Turbine for electricity generation (manufacture)
	31100	Turbo alternator (manufacture)
	31100	Universal ac/dc motors (manufacture)
27120		**Manufacture of electricity distribution and control apparatus**
	31200	Bus bar (switchgear type) (manufacture)
	31200	Circuit breaker (moulded case) (manufacture)

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	31200	Circuit breaker for power (manufacture)
	31200	Electric control and distribution boards (manufacture)
	31200	Electric power switches (manufacture)
	31200	Electrical apparatus for switching or protecting electrical circuits (manufacture)
	31200	Electrical relays (manufacture)
	31200	Electricity distribution and control apparatus (manufacture)
	31200	Fuse and fusegear (power) (manufacture)
	31200	Fusebox for domestic use (manufacture)
	31200	Fuses for domestic use (manufacture)
	31200	Miniature circuit breaker (manufacture)
	31200	Motor starting and controlling gear (manufacture)
	31200	Moulded case circuit breaker (manufacture)
	31200	Power switching equipment (manufacture)
	31200	Prime mover generator sets (manufacture)
	31200	Switchgear (power) (manufacture)
	31200	Voltage limiters (manufacture)
27200		**Manufacture of batteries and accumulators**
	31400	Accumulator (manufacture)
	31400	Batteries for vehicles (manufacture)
	31400	Battery for car (manufacture)
	31400	Battery for flash lamp (manufacture)
	31400	Dry battery (non-rechargeable) (manufacture)
	31400	Electric accumulators including parts thereof (manufacture)
	31400	Lead acid batteries (manufacture)
	31400	Lithium batteries (manufacture)
	31400	Manganese dioxide cells (manufacture)
	31400	Mercuric dioxide cells (manufacture)
	31400	NiCad batteries (manufacture)
	31400	NiMH batteries (manufacture)
	31400	Primary battery (manufacture)
	31400	Primary cells (manufacture)
	31400	Secondary battery (manufacture)
	31400	Silver oxide cells (manufacture)
	31400	Traction battery (rechargeable) (manufacture)
	31400	Wet cell batteries (manufacture)
27310		**Manufacture of fibre optic cables**
	31300	Fibre optic cable for data transmission or live transmission of images (manufacture)
	31300	Optical fibre cables for coded data transmission (manufacture)
	33402	Optical fibres, optical fibre bundles and cables (manufacture)
27320		**Manufacture of other electronic and electric wires and cables**
	31300	Cable accessory (manufacture)
	31300	Cable jointing material (manufacture)
	31300	Electric cable (manufacture)
	31300	Insulated electrical cable (manufacture)
	31300	Insulated mains cable for power distribution (manufacture)
	31300	Insulated wire (manufacture)
	31300	Insulated wire and cable made of aluminium (manufacture)
	31300	Insulated wire and cable made of copper (manufacture)
	31300	Insulated wire and cable made of steel (manufacture)
	31300	Overhead line fittings (manufacture)
	31300	Ship's wiring (manufacture)
	31300	Submarine cable (manufacture)
	31300	Telecommunications wire (manufacture)
	31300	Winding wire and strip (manufacture)
27330		**Manufacture of wiring devices**
	31200	Bus bars, electrical conductors (except switchgear-type) (manufacture)
	31200	Electrical outlets or sockets (manufacture)
	31200	GFCI (ground fault circuit interrupters) (manufacture)
	31200	Junction box (manufacture)
	31200	Lamp holder (electric) (manufacture)
	31200	Lightning arresters (manufacture)
	25240	Non-current carrying plastic junction boxes (manufacture)
	25240	Non-current carrying plastic pole line fittings (manufacture)
	25240	Non-current carrying plastic switch covers (manufacture)
	25240	Plastic electrical conduit tubing (manufacture)
	25240	Plastic non-current carrying face plates (manufacture)
	31200	Plug and socket (electric) (manufacture)
	31200	Sockets (electric) (manufacture)
	31200	Switch (electric) (manufacture)
	31200	Switch boxes for electrical wiring (manufacture)
	31200	Transmission pole and line hardware (manufacture)
	31200	Wiring accessories (manufacture)
	31200	Wiring devices (manufacture)
27400		**Manufacture of electric lighting equipment**
	31500	Advertising light (manufacture)
	31500	Arc lamp (manufacture)
	31620	Bug zappers without light (manufacture)
	31500	Bulb for flash lamp (manufacture)
	31500	Candelabra made of base metal (manufacture)
	31500	Candlestick (manufacture)
	31500	Carbide lanterns (manufacture)
	31500	Case for flash lamp (manufacture)
	31500	Chandeliers (manufacture)
	31500	Ceiling rose (manufacture)
	31500	Christmas tree lights (manufacture)
	31500	Discharge lamp (manufacture)
	31500	Electric fireplace logs (manufacture)
	31500	Electric insect lamps (manufacture)
	31500	Electric lanterns (manufacture)
	31500	Electric lighting equipment (manufacture)
	31500	Flash lamp case (manufacture)
	31500	Flashcubes (manufacture)
	31500	Flashlights (manufacture)
	31500	Fluorescent tube (manufacture)
	31500	Gas discharge lamp (manufacture)
	31500	Gas lanterns (manufacture)
	31500	Gasoline lanterns (manufacture)
	31500	Illuminated signs and nameplates (manufacture)
	31500	Illuminated traffic signs (manufacture)
	31500	Infrared lamps (manufacture)
	31500	Kerosene lanterns (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	31500	Lamps (manufacture)
	31610	Lamps for cycles (manufacture)
	31500	Lampshades (not of glass or plastics) (manufacture)
	31500	Light bulb (manufacture)
	31500	Light bulbs including fluorescent and neon tubes (manufacture)
	31500	Lighting equipment (manufacture)
	31610	Lighting equipment for aircraft (manufacture)
	31610	Lighting equipment for boats (manufacture)
	31610	Lighting equipment for motor vehicles (manufacture)
	31500	Lighting fitting (other than glassware) (manufacture)
	31500	Lighting fixture of table lamps (manufacture)
	31500	Mercury vapour lamp (manufacture)
	31500	Miners' lamp (manufacture)
	31500	Neon tube (manufacture)
	31500	Non-electrical lighting equipment (manufacture)
	31500	Outdoor and road lighting (manufacture)
	31500	Photoflash bulb (manufacture)
	31500	Portable lamp (electric) (manufacture)
	31500	Projector lamp (manufacture)
	31500	Search light (manufacture)
	31500	Sodium vapour lamp (manufacture)
	31500	Spotlight (manufacture)
	31500	Stage lighting (manufacture)
	31500	Street lighting fixtures (manufacture)
	31500	Torch (manufacture)
	31500	Ultra-violet lamps (manufacture)
	31500	Vehicle lamps (bulb and sealed beam unit) (manufacture)
27510		**Manufacture of electric domestic appliances**
	29710	Aquarium heater (electric) (manufacture)
	29710	Blankets (electric) (manufacture)
	29710	Blenders for domestic use (electric) (manufacture)
	29710	Brush (electric) (manufacture)
	29710	Clothes airer (electric) (manufacture)
	29710	Coffee or tea makers (electric) (manufacture)
	29710	Coffee percolator (electric) (manufacture)
	29710	Combs (electric) (manufacture)
	29710	Cooker (electric) (manufacture)
	29710	Curlers (electric) (manufacture)
	29710	Deep freeze unit for domestic use (manufacture)
	29710	Dishwasher for domestic use (manufacture)
	29710	Dryers (electric) (manufacture)
	29710	Electric tea makers (manufacture)
	29710	Electricaire unit (manufacture)
	29710	Electrical appliances for domestic use (manufacture)
	29710	Electro-thermic appliances for domestic use (manufacture)
	29710	Fan (electric, domestic) (manufacture)
	29710	Fire (electric) (manufacture)
	29710	Floor polisher (electric) (manufacture)
	29710	Food freezer for domestic use (manufacture)
	29710	Food mixer (electric) (manufacture)
	29710	Frying pans (electric) (manufacture)
	29710	Gas lighter (electric) (manufacture)
	29710	Grills (electric) (manufacture)
	29710	Grinders (electric) (manufacture)
	29710	Hair clippers (electric) (manufacture)
	29710	Hair dryer (electric) (manufacture)
	29710	Heater for motor vehicle (manufacture)
	29710	Heating resistors (electric) (manufacture)
	29710	Hot plates (electric) (manufacture)
	29710	Immersion heater (electric) (manufacture)
	29710	Iron (electric) (manufacture)
	29710	Ironing machine for domestic use (electric) (manufacture)
	29710	Juice squeezers (electric) (manufacture)
	29710	Kettle (electric) (manufacture)
	29710	Knife sharpener (electric) (manufacture)
	29710	Microwave ovens (manufacture)
	29710	Ovens (electric) (manufacture)
	29710	Percolator (electric) (manufacture)
	29710	Plate warmers for domestic use (electric) (manufacture)
	29710	Portable space heaters (manufacture)
	29710	Radiator (electric) (manufacture)
	29710	Razor (electric) (manufacture)
	29710	Refrigerator for domestic use (electric) (manufacture)
	29710	Roasters (electric) (manufacture)
	29710	Shaver (electric) (manufacture)
	29710	Smoothing irons (manufacture)
	29710	Space heaters for domestic use (electric) (manufacture)
	29710	Spin dryer
	29710	Storage heaters (manufacture)
	29710	Tin openers (electric) (manufacture)
	29710	Toaster (electric) (manufacture)
	29710	Tooth brush (electric) (manufacture)
	29710	Towel rail (electric) (manufacture)
	29710	Trash compactor for domestic use (electric) (manufacture)
	29710	Tumble dryer for domestic use (manufacture)
	29710	Vacuum cleaners for domestic use (manufacture)
	29710	Ventilating or recycling hoods (manufacture)
	29710	Waffle irons (manufacture)
	29710	Washing machines for domestic use (manufacture)
	29710	Waste disposers (manufacture)
	29710	Water heaters for domestic use (electric) (manufacture)
27520		**Manufacture of non-electric domestic appliances**
	29720	Boiler for domestic use (oil) (manufacture)
	29720	Boiler for domestic use (solid fuel) (manufacture)
	29720	Calorifier (manufacture)
	29720	Cooker (gas) (manufacture)
	29720	Cooker (oil) (manufacture)
	29720	Cooker (solid fuel) (manufacture)
	29720	Cooking and heating appliances for domestic use (gas) (manufacture)
	29720	Cooking and heating appliances for domestic use (solid fuel) (manufacture)
	29720	Cooking appliances for domestic use (non-electric) (manufacture)
	29720	Domestic non-electric cooking equipment (manufacture)
	29720	Domestic non-electric cooking ranges (manufacture)
	29720	Domestic non-electric heating equipment (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	29720	Fire (gas) (manufacture)
	29720	Fire (oil) (manufacture)
	29720	Grates for domestic use (non-electric) (manufacture)
	29720	Heat emitter (space heating equipment) (non-electric) (manufacture)
	29720	Heating and cooking appliances for domestic use (oil fired) (manufacture)
	29720	Heating appliances for domestic use (non-electric) (manufacture)
	29720	Plate warmers for domestic use (non-electric) (manufacture)
	29720	Refrigerators (gas) (manufacture)
	29720	Space heaters (gas) (manufacture)
	29720	Space heaters (oil) (manufacture)
	29720	Stove (gas) (manufacture)
	29720	Stove (oil) (manufacture)
	29720	Stove (solid fuel) (manufacture)
	29720	Stoves for domestic use (non-electric) (manufacture)
	29720	Warm air generator (non-electric) (manufacture)
	29720	Water heaters (gas) (manufacture)
	29720	Water heaters for domestic use (non-electric) (manufacture)
27900		**Manufacture of other electrical equipment**
	31300	Appliance cords with insulated wire and connectors (manufacture)
	31620	Backward wave oscillator (manufacture)
	31620	Bell apparatus (other than telegraphic or telephonic) (manufacture)
	31620	Bells (other than telephone type) (electric) (manufacture)
	31620	Carbon brush (manufacture)
	31620	Carbon or graphite electrodes (manufacture)
	31300	Contacts and other electrical carbon and graphite products (manufacture)
	31620	Cyclotron (manufacture)
	31620	Detection apparatus (manufacture)
	31620	Electric bells (manufacture)
	31620	Electrical base metal conduit and fittings (manufacture)
	32100	Electrical capacitors (manufacture)
	31620	Electrical carbon (manufacture)
	32100	Electrical condensers and similar components (manufacture)
	31620	Electrical conduit tubing, base metal (manufacture)
	31620	Electrical door opening and closing devices (manufacture)
	31620	Electrical insulators (except glass or porcelain) (manufacture)
	31620	Electrical pedestrian signalling equipment (manufacture)
	31620	Electrical signs (manufacture)
	29430	Electrical soldering equipment (manufacture)
	31620	Electrical traffic lights (manufacture)
	29430	Electrical welding equipment (manufacture)
	31620	Electrodes for welding (manufacture)
	31620	Electromagnets (manufacture)
	31620	Electronic filter (manufacture)
	31620	Electronic miscellaneous unspecified equipment (manufacture)
	31620	Electronic scoreboards (manufacture)
	31300	Extension cords made from purchased insulated wire (manufacture)

SIC 2007	SIC 2003	Activity
	31300	Extension cords with insulated wire and connectors (manufacture)
	31620	Indicator panel (manufacture)
	31620	Particle accelerator (manufacture)
	31620	Railway signalling equipment (electric) (manufacture)
	32100	Rectifier, solid state (manufacture)
	32100	Rectifying valve and tube (manufacture)
	32100	Resistors including rheostats and potentiometers (manufacture)
	31620	Signal generator (manufacture)
	31620	Signalling equipment for road traffic (electric) (manufacture)
	31620	Simulator (battle) (manufacture)
	31620	Simulator (driving) (manufacture)
	31620	Simulator (other training (except flying trainers)) (manufacture)
	29430	Soldering irons (electrical, hand-held) (manufacture)
	29430	Soldering machines (electric) (manufacture)
	31100	Solid state battery chargers (manufacture)
	31100	Solid state fuel cells (manufacture)
	31100	Solid state inverters (manufacture)
	31200	Surge suppressors (manufacture)
	32100	Thyristor (manufacture)
	31620	Ultrasonic cleaning machines (except laboratory and dental) (manufacture)
	31620	Uninterruptible power supplies (UPS) (manufacture)
	31620	Wave form generator (manufacture)
	31620	Welding electrode (manufacture)
	29430	Welding machines (electric) (manufacture)
28110		**Manufacture of engines and turbines, except aircraft, vehicle and cycle engines**
	29110	Blocks for industrial engines (manufacture)
	29110	Boiler-turbine sets (manufacture)
	34300	Camshaft for motor vehicle engine (manufacture)
	34300	Carburettor and parts for motor vehicle engines (manufacture)
	29110	Carburettors and such for all internal combustion engines (manufacture)
	29110	Carburettors for industrial engines (manufacture)
	29110	Compression ignition engines for industrial use (manufacture)
	29110	Compressor engine (manufacture)
	34300	Crankshaft for motor vehicle (manufacture)
	29110	Cylinder heads for industrial engines (manufacture)
	29110	Cylinder inserts for industrial engines (manufacture)
	34300	Cylinder liner for motor vehicle (manufacture)
	29110	Cylinder liners for industrial engines (manufacture)
	29110	Diesel engines for industrial use (manufacture)
	34300	Engine block for motor vehicle (finished) (manufacture)
	29110	Engines and parts for marine use (manufacture)
	29110	Engines and parts for railways (manufacture)
	29110	Engines for agricultural machinery (manufacture)
	29110	Engines for combine harvesters (manufacture)
	29110	Engines for construction equipment (manufacture)
	29110	Engines for forklift trucks (manufacture)
	29110	Engines for industrial application (manufacture)
	29110	Engines for lawn mowers (manufacture)
	29110	Engines for locomotives (manufacture)
	29110	Engines for marine use (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	29110	Engines for railway vehicles (manufacture)
	29110	Exhaust valves for internal combustion engines (manufacture)
	29110	Gas turbine (excluding turbo-jets and turbo-propellers) parts (manufacture)
	29110	Gas turbine (industrial engine) (manufacture)
	29110	Gas turbine for marine use (manufacture)
	29110	Generator engine (manufacture)
	29110	Hydraulic turbine (manufacture)
	29110	Hydraulic turbine and water wheel parts (manufacture)
	29110	Hydraulic turbines and parts thereof (manufacture)
	29110	Industrial engine parts (manufacture)
	29110	Industrial spark and compression ignition engine (manufacture)
	29110	Inlet valves for internal combustion engines (manufacture)
	29110	Internal combustion engines and parts (manufacture)
	29110	Internal combustion piston engines (manufacture)
	29110	Internal combustion piston marine engines (manufacture)
	29110	Internal combustion piston railway engines (manufacture)
	29110	Manifold for industrial engine (manufacture)
	29110	Marine non-propulsion engines (manufacture)
	29110	Petrol industrial engines (manufacture)
	29110	Piston for industrial engine (manufacture)
	34300	Piston for motor vehicle engine (manufacture)
	29110	Piston ring for industrial engine (manufacture)
	34300	Piston ring for motor vehicle engine (manufacture)
	29110	Piston rings for all internal combustion engines (manufacture)
	29110	Pistons for all internal combustion engines (manufacture)
	29110	Propulsion engine for marine use (manufacture)
	29110	Slow speed diesel engine for marine use (manufacture)
	29110	Spark ignition engines for industrial use (manufacture)
	29110	Steam and other vapour turbine parts (manufacture)
	29110	Steam engine (manufacture)
	29110	Steam turbine (not marine or for electricity generation) (manufacture)
	29110	Steam turbine for marine use (manufacture)
	29110	Steam turbines and other vapour turbines (manufacture)
	29110	Turbine-generator sets (manufacture)
	29110	Turbines and parts thereof (manufacture)
	34300	Valves for motor vehicle engines (manufacture)
	29110	Water-wheels (manufacture)
	29110	Waterwheels and regulators and parts thereof: (manufacture)
	29110	Wind turbines (manufacture)
28120		**Manufacture of fluid power equipment**
	29122	Actuator for hydraulic equipment (manufacture)
	29122	Air preparation equipment for use in pneumatic systems (manufacture)
	29130	Automatic process control valves (manufacture)
	29130	Choke manifolds (manufacture)
	29122	Cylinder for hydraulic equipment (manufacture)
	29122	Cylinder for pneumatic control equipment (manufacture)
	29122	Filter for pneumatic control equipment (manufacture)
	29130	Flaps, diaphragms and other parts of hydraulic and pneumatic valves (manufacture)
	29122	Flowline assembly (hydraulic equipment) (manufacture)
	29122	Fluid power equipment (manufacture)
	29122	Fluid power systems (manufacture)
	29122	Hydraulic and pneumatic components (manufacture)
	29122	Hydraulic and pneumatic cylinders (manufacture)
	29122	Hydraulic and pneumatic hoses and fittings (manufacture)
	29122	Hydraulic and pneumatic power engine and motor parts (manufacture)
	29130	Hydraulic and pneumatic valves (manufacture)
	29122	Hydraulic equipment for aircraft (manufacture)
	29122	Hydraulic exhauster (manufacture)
	29122	Hydraulic power engines and motors (manufacture)
	29140	Hydraulic transmission equipment (manufacture)
	29122	Hydro pneumatic device (manufacture)
	29122	Hydrostatic transmissions (manufacture)
	29122	Intensifier for hydraulic equipment (manufacture)
	29122	Intensifier for pneumatic control equipment (manufacture)
	29121	Jet pump (manufacture)
	29121	Liquid elevator parts (manufacture)
	29121	Montejus (compressed air chamber elevators) (manufacture)
	29122	Motor for hydraulic equipment (manufacture)
	29122	Motor for pneumatic equipment (manufacture)
	29122	Pneumatic equipment and systems for aircraft (manufacture)
	29122	Pneumatic power engines and motors (manufacture)
	29122	Positioner for pneumatic control equipment (manufacture)
	29121	Pump for hydraulic equipment (manufacture)
	29122	Reservoir (hydraulic) (manufacture)
	29122	Reservoir (pneumatic) (manufacture)
	29121	Steam pulsators (pulsometers) (manufacture)
	29122	Tube coupling and equipment for pneumatics (manufacture)
	29130	Valve actuators (hydraulic and pneumatic) (manufacture)
	29130	Valves for hydraulic equipment (manufacture)
	29130	Valves for pneumatic control equipment (manufacture)
28131		**Manufacture of pumps**
	29121	Air pump (manufacture)
	29121	Archimedean screw pump (manufacture)
	29121	Axial flow pump (manufacture)
	29121	Bicycle pumps (manufacture)
	29121	Centrifugal pump (manufacture)
	29121	Channel impeller pump (manufacture)
	29121	Circulator pump (manufacture)
	29121	Concrete pumps (manufacture)
	29121	Delivery pump (manufacture)
	29121	Diaphragm pump (manufacture)
	29121	Dosing and proportioning pump (manufacture)
	29121	Ejector pump (manufacture)
	29121	Electro-magnetic pumps (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	29121	Emulsion (gas lift) pumps (manufacture)
	29121	Fuel injection equipment for industrial engines (manufacture)
	29121	Fuel pump for industrial engine (manufacture)
	29121	Fuel pump for internal combustion piston engine, for aircraft (manufacture)
	29121	Gas combustion pumps (manufacture)
	29121	Gear pumps (manufacture)
	29121	Hand or foot operated pumps (manufacture)
	29121	Helical rotor pump (manufacture)
	29121	Helicoidal pumps (manufacture)
	29121	Impeller pumps (manufacture)
	29121	Inflator for cycle type tyres (manufacture)
	29121	Liquid elevators (manufacture)
	29121	Lobe pump (manufacture)
	29121	Lubricating pump (not for internal combustion engine) (manufacture)
	29121	Medicinal pumps (manufacture)
	29121	Metering pump (manufacture)
	29121	Oil-cushion pumps (manufacture)
	29121	Peristaltic pumps (manufacture)
	29121	Petrol station pump (manufacture)
	29121	Positive displacement pump (reciprocating) (manufacture)
	29121	Pump (not for hydraulic or for internal combustion (manufacture)
	29121	Pump parts (manufacture)
	29121	Pumps and parts (non-electric) for oil, gas, petrol or water on motor vehicles (manufacture)
	29121	Pumps for liquids whether or not fitted with measuring devices (manufacture)
	29121	Radial flow pump (manufacture)
	29121	Rotary piston lobe-type pumps (manufacture)
	29121	Screw pump (manufacture)
	29121	Submersible motor pump (manufacture)
	29121	Vacuum pump (manufacture)
	29121	Vane pump (manufacture)
28132		**Manufacture of compressors**
	29122	Air compressor (manufacture)
	29122	Axial compressor (manufacture)
	29122	Centrifugal compressor (manufacture)
	29122	Compressor for air or other gas (manufacture)
	29122	Compressor for refrigerators (manufacture)
	29122	Compressor parts (manufacture)
	29122	Gas compressor (manufacture)
	29122	Reciprocating compressor (manufacture)
	29122	Rotating compressors (manufacture)
	29122	Screw compressor (manufacture)
28140		**Manufacture of other taps and valves**
	29130	Ball valves (manufacture)
	29130	Butterfly valves (manufacture)
	29130	Check valves (manufacture)
	29130	Christmas trees and other assemblies of valves (manufacture)
	29130	Cocks for industrial use (manufacture)
	29130	Diaphragm valves (manufacture)
	29130	Gas cylinder outlet valves (manufacture)
	29130	Gate valves (manufacture)
	29130	Globe valves (manufacture)
	29130	Heating taps (manufacture)
	29130	Heating valves (manufacture)
	29130	Industrial intake taps (manufacture)
	29130	Industrial regulating valves (manufacture)
	29130	Industrial taps (manufacture)
	29130	Knife valves (manufacture)
	29130	Needle valves (manufacture)
	29130	Non-return, reflux and check valves (manufacture)
	29130	Parallel slide valves (manufacture)
	29130	Penstock valves (manufacture)
	29130	Plug valves (manufacture)
	29130	Pressure reducing valves (manufacture)
	29130	Process control valves (manufacture)
	29130	Reducing valves (manufacture)
	29130	Relief valves (manufacture)
	29130	Safety valves (manufacture)
	29130	Sanitary taps (manufacture)
	29130	Sanitary valves (manufacture)
	29130	Stopcocks for domestic use (manufacture)
	29130	Tap parts (manufacture)
	29130	Taps (manufacture)
	29130	Taps for domestic use (manufacture)
	29130	Temperature regulators (manufacture)
	29130	Valve actuators (electrical (other than electricengine) motors)) (manufacture)
	29130	Valve parts (manufacture)
	29130	Valves for industrial use (manufacture)
	29130	Valves for tyres (manufacture)
28150		**Manufacture of bearings, gears, gearing and driving elements**
	29140	Articulated link chain (manufacture)
	29140	Ball bearing (manufacture)
	29140	Bearing housings (manufacture)
	29140	Bearing, gearing and driving element parts (manufacture)
	29140	Bearings (manufacture)
	29140	Bicycle chain
	29140	Bush for bearing (manufacture)
	29140	Camshaft (not for motor vehicle) (manufacture)
	29140	Chain (precision) (manufacture)
	29140	Clutch (not for motor vehicle) (manufacture)
	29140	Cranks (manufacture)
	29140	Crankshaft (not for motor vehicle engine) (manufacture)
	29140	Cylindrical roller bearing (manufacture)
	29140	Driving elements (manufacture)
	29140	Flywheel (not for motor vehicle engine) (manufacture)
	29140	Gear box (not for motor vehicle) (manufacture)
	29140	Gear cutting (not for motor vehicle) (manufacture)
	29140	Geared motor unit (manufacture)
	29140	Gearing (manufacture)
	29140	Gears (manufacture)
	29140	Mechanical power transmission bearing housings (manufacture)
	29140	Mechanical power transmission camshafts (manufacture)
	29140	Mechanical power transmission chain (manufacture)
	29140	Mechanical power transmission cranks (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	29140	Mechanical power transmission crankshafts (manufacture)
	29140	Mechanical power transmission plain shaft bearings (manufacture)
	29140	Mechanical power transmission plant (manufacture)
	29140	Mechanical power transmission shafts (manufacture)
	29140	Needle roller bearings (manufacture)
	29140	Parts of bearings, gearing and driving elements (manufacture)
	29140	Plain bearing (manufacture)
	29140	Precision chain (manufacture)
	29140	Pulley (manufacture)
	29140	Pulley wheel (manufacture)
	29140	Roller bearing (manufacture)
	29140	Shaft bearings (manufacture)
	29140	Shaft couplings (manufacture)
	29140	Speed changers (manufacture)
	29140	Spherical roller bearings (manufacture)
	29140	Sprocket chain (manufacture)
	29140	Tapered roller bearings (manufacture)
	29140	Transmission chain (manufacture)
	29140	Transmission shafts (manufacture)
28210		**Manufacture of ovens, furnaces and furnace burners**
	29210	Annealing lehr (manufacture)
	29210	Blast furnace (manufacture)
	29210	Box furnace (manufacture)
	29210	Burners (manufacture)
	29210	Cement processing kiln (manufacture)
	29210	Dielectric heating equipment (manufacture)
	29210	Direct arc furnace (manufacture)
	29210	Electric and other industrial and laboratory furnaces (manufacture)
	29210	Electric and other industrial and laboratory incinerators (manufacture)
	29210	Electric and other industrial and laboratory ovens (manufacture)
	29710	Electric household heating equipment (permanently mounted) (manufacture)
	29210	Electric household type furnaces (manufacture)
	29210	Electric swimming pool heaters (permanently mounted) (manufacture)
	29210	Electro slag furnace (manufacture)
	29210	Forging furnace (manufacture)
	29210	Fuel burner (other than oil or gas) (manufacture)
	29210	Furnace (electric) (manufacture)
	29210	Furnace for strip processing line (manufacture)
	29210	Furnace, furnace burner and industrial oven parts (manufacture)
	29210	Furnaces and furnace burners (manufacture)
	29210	Gas burner (manufacture)
	29210	Grates (mechanical) (manufacture)
	29210	Heat treatment furnace (manufacture)
	29210	Heating/melting high frequency induction or dielectric equipment (manufacture)
	29210	Incinerator (manufacture)
	29210	Induction furnace (manufacture)
	29210	Laboratory furnace (manufacture)
	29210	Lime processing kiln (manufacture)
	29210	Mechanical ash dischargers (manufacture)
	29210	Mechanical stokers (manufacture)
	29210	Melting furnace (manufacture)
	29720	Non-electric household heating equipment (permanently mounted) (manufacture)
	29210	Non-electric household-type furnaces (manufacture)
	29210	Oil fuel burner (manufacture)
	29210	Ovens for industrial use (except bakery) (manufacture)
	29210	Re-heating furnace (manufacture)
	29210	Smelting furnace (manufacture)
	29720	Solar panels, domestic (other than photovoltaic cell type) (manufacture)
	29720	Solar panels, non-domestic (other than photovoltaic cell type) (manufacture)
	29210	Steelmaking furnace (manufacture)
	29210	Strip processing line furnace (manufacture)
28220		**Manufacture of lifting and handling equipment**
	29220	Aerial ropeway and cableway (manufacture)
	29220	Bucket wheel reclaimer (manufacture)
	29220	Builders' hoist (manufacture)
	29220	Cableway (manufacture)
	29220	Cableway excavator (manufacture)
	29220	Capstan (manufacture)
	29220	Chain pulley block (manufacture)
	29220	Container handling crane (manufacture)
	29220	Conveying plant (hydraulic and pneumatic) (manufacture)
	29220	Conveyor and feeder (not for agriculture or mining) (manufacture)
	29220	Counterbalance truck (manufacture)
	29220	Crane (manufacture)
	29220	Derricks (manufacture)
	29220	Dock leveller (manufacture)
	29220	Dockside cranes (manufacture)
	29220	Drag scraper (manufacture)
	29220	Elevator (manufacture)
	29220	Escalator (manufacture)
	29220	Forklift truck (manufacture)
	29220	Goliath type crane (manufacture)
	35500	Hand truck made of metal (manufacture)
	29220	Handling plant (hydraulic and pneumatic) (manufacture)
	29220	Hand-operated lifting capstans (manufacture)
	29220	Hand-operated lifting hoists (manufacture)
	29220	Hand-operated lifting jacks (manufacture)
	29220	Hand-operated lifting pulley tackle (manufacture)
	29220	Hand-operated lifting winches (manufacture)
	29220	Hoists (electric wire or chain) (manufacture)
	29220	Hoists (hand operated pulley and sheave block)
	29220	Hoists, hydraulic, mechanical, pneumatic (not builders, hand operated and electrical) (manufacture)
	29220	Hydraulic and pneumatic conveying plant (manufacture)
	29220	Hydraulic and pneumatic handling plant (manufacture)
	29220	Industrial special purpose trucks (manufacture)
	29220	Industrial tractor (manufacture)
	29220	Jack for motor vehicle (manufacture)
	29220	Jacks (other than for motor vehicles) (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

29220 Lift (manufacture)
29220 Lift and escalator maintenance (manufacture)29220 Lift for motor vehicle (manufacture)
29220 Lifting and handling equipment (manufacture) 29220 Lifting and handling equipment parts (manufacture)29220 Live storage rack (manufacture)
29220 Lorry loader (manufacture)
29220 Mechanical industrial robots for lifting, handling(manufacture)
29220 Mechanical lifting manipulators (manufacture)29220 Mechanical manipulators (manufacture) 29220 Mobile crane (manufacture)
29220 Mobile lifting frames (manufacture)29220 Moving walkways (manufacture) 29220 Overhead runway (manufacture)
29220 Pallet hoist (manufacture)
29220 Pallet truck (manufacture)29220 Palletizer (manufacture)
29220 Passenger conveyor (manufacture)
29220 Pneumatic and hydraulic conveying plant (manufacture)
29220 Pneumatic and hydraulic handling plant (manufacture)
29220 Portal and pedestal jib cranes (manufacture)29220 Power-driven cranes (manufacture)
29220 Power-driven lifting capstans (manufacture)29220 Power-driven lifting hoists (manufacture) 29220 Power-driven lifting jacks (manufacture)
29220 Power-driven lifting pulley tackle (manufacture)29220 Power-driven lifting winches (manufacture)
29220 Power-driven loading and unloading derricks(manufacture)
29220 Power-driven mobile lifting frames (manufacture)29220 Power-driven straddle carriers (manufacture) 29220 Pulley block (manufacture)
29220 Pulley tackle (manufacture)
29220 Robots designed for lifting and handling in industry(manufacture)
29220 Rough terrain industrial trucks (manufacture)29220 Scissor lift (manufacture)
29220 Side loader (manufacture)
29220 Ski lifts (manufacture)
29220 Special steelworks crane (manufacture)29220 Stacking machines (manufacture) 29220 Stillage truck (manufacture)
29220 Straddle carrier (manufacture)
29220 Suspension railway (manufacture)
29220 Tailboard lift (manufacture)
29220 Teleferics (manufacture)
29220 Tipper (manufacture)
29220 Transporter (manufacture)
29220 Travelling crane (manufacture)
35500 Wheelbarrows made of metal (manufacture) 35500 Wheelbarrows made of plastic (manufacture)35500 Wheelbarrows made of wood (manufacture)29220 Winch (manufacture)
29220 Winding device (manufacture)29220 Windlass (manufacture) 29220 Works trucks (manufacture)

28230 Manufacture of office machinery and equipment (except computers and peripheralequipment)

30010 Accounting machine (manufacture)30010 Adding machines (manufacture)
30010 Address plate embossing machine (manufacture)30010 Addressing machine (manufacture)
30010 Bank note counting machine (manufacture) 30010 Banknote dispensing machine (manufacture)30010 Binding machine (manufacture)
36631 Blackboards (manufacture)
30010 Book keeping machine (manufacture)30010 Calculating machine (manufacture) 30010 Calculator (electronic) (manufacture)
30010 Cash and credit card imprinting and embossingmachine (manufacture)
30010 Cash dispenser (manufacture)30010 Cash register (manufacture)
30010 Cheque writing and signing machine (manufacture)
30010 Coin sorting, wrapping and counting machines(manufacture)
30010 Collating machinery (manufacture)
30010 Copying machine (xerographic) (manufacture) 30010 Counting and dating machines (manufacture) 30010 Data processing equipment (non-electronic) (manufacture)
32300 Dictating machines (manufacture)
30010 Document copying equipment (manufacture)30010 Document handling machine (manufacture) 30010 Document shredder (manufacture)
30010 Duplicating machines (excluding copiers)(manufacture)
30010 Dyeline copying machine (manufacture) 30010 Electrostatic copying machine (manufacture)30010 Envelope stuffing machine (manufacture) 30010 Franking machine (manufacture)
30010 Hectograph (manufacture) 30010 Hole punches (manufacture) 30010 Invoicing machine (manufacture)
30010 Labelling machine for office use (manufacture) 30010 Laminating machine for office use (manufacture)30010 Letter opening machine (manufacture)
30010 Listing machine (manufacture)
30010 Mail handling machines (envelope stuffing, sealing, addressing; opening, sorting) (manufacture)
36120 Marker boards (manufacture)
30010 Non electronic calculators (manufacture)30010 Office machinery (manufacture)
30010 Office machinery and equipment (manufacture)30010 Pencil sharpeners (manufacture)
30010 Pencil-sharpening machines (manufacture)30010 Photocopying machinery (manufacture)
30010 Plastic office-type binding equipment or tapebinding (manufacture)
30010 Point of sale unit (manufacture)
30010 Postage franking machines (manufacture)30010 Postage meters (manufacture)
30010 Printing machines (sheet fed office type offset)(manufacture)
30010 Punched card machine (other than for computer use) (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	30010	Shorthand writing machines (manufacture)
	30010	Staple removers (manufacture)
	30010	Staplers (manufacture)
	30010	Stapling machines for office use (manufacture)
	30010	Stencil duplicating machines (manufacture)
	30010	Stenography machines (manufacture)
	30010	Tabulating machines (manufacture)
	30010	Tape dispensers (manufacture)
	30010	Tape office-type binding equipment (manufacture)
	30010	Terminals for issuing of tickets and reservations (manufacture)
	30010	Ticket issuing machine (manufacture)
	30010	Ticket punch (manufacture)
	30010	Toner cartridges (manufacture)
	30010	Typewriter (manufacture)
	30010	Visible record computer (tabulator) (manufacture)
	30010	Voting machines (manufacture)
	36120	White boards (manufacture)
	30010	Word processing machines (manufacture)
	30010	Xerographic copying machines (manufacture)
28240		**Manufacture of power-driven hand tools**
	29410	Chain saw parts (manufacture)
	29410	Chain saws (manufacture)
	29410	Circular or reciprocating saws (manufacture)
	29410	Disc cutting machines for stone, ceramics, asbestos-cement or similar (portable) (manufacture)
	29410	Drill (powered portable) (manufacture)
	29410	Drills and hammer drills (manufacture)
	29410	Grinding tools (powered portable) (manufacture)
	29410	Hammer (portable, powered) (manufacture)
	29410	Hand tools with non-electric motor parts (manufacture)
	29410	Hand tools with self contained motor or pneumatic drive (manufacture)
	29410	Hedge trimmers (powered portable) (manufacture)
	29410	Mining tool (powered portable) (manufacture)
	29410	Parts for portable hand held power tools (manufacture)
	29410	Pneumatic nailers (manufacture)
	29410	Pneumatic power tools (portable) (manufacture)
	29410	Pneumatic rivet guns (manufacture)
	29410	Portable power tool parts (manufacture)
	29410	Power tool (portable) (manufacture)
	29410	Power tools (portable electric) (manufacture)
	29410	Power-driven buffers (manufacture)
	29410	Power-driven grinders (manufacture)
	29410	Power-driven impact wrenches (manufacture)
	29410	Power-driven planers (manufacture)
	29410	Power-driven powder actuated nailers (manufacture)
	29410	Power-driven routers (manufacture)
	29410	Power-driven shears and nibblers (manufacture)
	29410	Power-driven staplers (manufacture)
	29410	Rock drill (portable) (manufacture)
	29410	Sanding tool (powered portable) (manufacture)
	29410	Saws (powered portable) (manufacture)
28250		**Manufacture of non-domestic cooling and ventilation equipment**
	29230	Air cleansing plant (not for air conditioning equipment) (manufacture)
	29230	Air conditioning equipment for aircraft (manufacture)
	29230	Air conditioning machines (manufacture)
	29230	Air conditioning package (manufacture)
	29230	Air filter for air conditioning equipment (manufacture)
	29230	Atmospheric pollution control plant (manufacture)
	29710	Attic ventilation fans (manufacture)
	29230	Cold storage equipment (manufacture)
	29230	Condenser for air conditioning equipment (air or water cooled) (manufacture)
	29230	Condenser unit for refrigerator (manufacture)
	29230	Cooling equipment for non-domestic use (manufacture)
	29230	Cooling tower for air conditioning (manufacture)
	29230	Display cabinet (refrigerated) (manufacture)
	29230	Dust collector for air conditioning equipment (manufacture)
	29230	Evaporator for refrigeration machinery (manufacture)
	29230	Fan coil unit (manufacture)
	29710	Fans (domestic) (manufacture)
	29230	Fans (non-domestic) (manufacture)
	29230	Food freezer over 12 cubic feet capacity (manufacture)
	29230	Freezing industrial equipment, including assemblies of components (manufacture)
	29230	Gas cleansing plant (manufacture)
	29230	Heat exchange units for air conditioning (manufacture)
	29230	Humidifier for air conditioning equipment (manufacture)
	29230	Ice making machinery (manufacture)
	29230	Induction unit for air conditioning equipment (manufacture)
	29230	Machinery for liquefying air or gas (manufacture)
	29230	Non-domestic cooling and ventilation equipment parts (manufacture)
	29230	Refrigerated service cabinet (manufacture)
	29230	Refrigerating and freezing equipment parts (manufacture)
	29230	Refrigerating equipment (manufacture)
	29230	Refrigerating or freezing equipment for industrial use (manufacture)
	29230	Refrigerator cabinets made of wood (manufacture)
	29230	Refrigerator for commercial use (manufacture)
	29230	Scrubber for air conditioning equipment (manufacture)
	29230	Sectional coldroom (manufacture)
	29230	Ventilating fans (manufacture)
	29230	Ventilating unit (manufacture)
	29710	Ventilation equipment for domestic use (manufacture)
	29230	Ventilation equipment for non-domestic use (manufacture)
28290		**Manufacture of other general-purpose machinery n.e.c.**
	29240	Aeration plant for effluent treatment (manufacture)
	29240	Baling press (not agricultural) (manufacture)
	29240	Base exchange plant for water treatment (manufacture)
	29240	Bottle cleaning and or drying machinery (manufacture)

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29240 Bottling machinery (manufacture) 29240 Calender for rubber or plastics working (manufacture) 29240 Calendering machinery for textiles (manufacture) 29240 Calendering or other rolling machine parts (for plastic or rubber) (manufacture) 29240 Canning machinery (manufacture) 29240 Capsuling machinery (manufacture) 29240 Cartoning machinery (manufacture) 29240 Case packing machinery (manufacture) 29240 Centrifuge (except laboratory type) (manufacture) 29240 Centrifuge parts (except laboratory type) (manufacture) 29240 Chlorination plant for water treatment (manufacture) 29240 Clarification plant for water treatment (manufacture) 29240 Cleaning, filling, packing or wrapping machine parts (manufacture) 29240 Closing machinery (manufacture) 29240 Comminution plant for effluent treatment (manufacture) 29240 Cooling towers and similar for direct cooling by means of re-circulated water (manufacture) 29240 Crating and de-crating machinery (manufacture) 29240 De-aeration plant for water treatment (manufacture) 29240 Desalination plant for water treatment (manufacture) 29240 Dialysis plant for water treatment (manufacture) 29240 Dish washing machine parts (industrial type) (manufacture) 29240 Dishwashing machine for commercial catering (manufacture) 29240 Distilling machinery for potable spirits (manufacture) 29240 Distilling or rectifying plant (manufacture) 29240 Distilling or rectifying plant for beverage industries (manufacture) 29240 Distilling or rectifying plant for chemical industries (manufacture) 29240 Distilling or rectifying plant for petroleum refineries (manufacture) 29240 Dosing plant for water treatment (manufacture) 29240 Effluent treatment plant (manufacture) 29240 Electrostatic precipitator (manufacture) 29240 Equipment for dispersing liquids or powders (manufacture) 29240 Equipment for projecting liquids or powders (manufacture) 29240 Equipment for spraying liquids or powders (manufacture) 29240 Filling machinery (manufacture) 29240 Filtering or purifying machinery parts (manufacture) 29240 Filtration equipment for hydraulic equipment (manufacture) 29240 Filtration equipment for the chemical industry (manufacture) 29240 Fire extinguisher (hand held) (manufacture) 29240 Fire extinguishing apparatus (excluding hand operated chemical extinguishers) (manufacture) 29430 Flexible shaft drive tool (manufacture) 29240 Gas generators (manufacture) 29240 Gas or water generator parts (manufacture) 29240 Gasket (manufacture) 29240 General-purpose machinery parts (manufacture) 29240 Goods vending machines (manufacture)

29240 Grit extraction plant for effluent treatment(manufacture)
29430 Hot spraying electrical machines (metal or metalcarbides) (manufacture)
29240 Ion exchange plant for water treatment (manufacture)
29430 Jigs (manufacture)
29240 Jointing (precision component) (manufacture)29240 Labelling machinery (not for office use) (manufacture
) 33202 Levels
(manufacture)
29240 Lubricator (manufacture)
29240 Machinery (not containing electrical connectors) n.e.c. parts (manufacture)
29240 Machinery for cleaning or drying bottles and foraerating beverages (manufacture)
33202 Machinists precision tools
(manufacture) 33202 Measuring rods
and tapes (manufacture) 33202
Measuring rule (manufacture)
33202 Measuring tape (manufacture)
29240 Metal spraying machine (manufacture)
29430 Non-electrical welding and soldering equipment(manufacture)
29240 Oil filter for motor vehicle (manufacture)
29240 Oil refining industry machinery (other than plant)(manufacture)
29240 Oil seal (manufacture)
29240 Packaging machinery
(manufacture) 29240 Packing
machinery (manufacture) 29240
Paint spraying machine
(manufacture)
29240 Petro-chemical industry machinery (other than plant)(manufacture)
29240 Purifying machinery
(manufacture) 29240 Rectifying
plant (manufacture) 29240 Refuse
disposal plant (manufacture)33202
Rule (measuring) (manufacture)
29240 Sand blasting machines
(manufacture)29240 Scales
(platform) (manufacture) 29240 Scales
for domestic use (manufacture)29240
Scales for postal use (manufacture)
29240 Scales for shop use
(manufacture)
29240 Screening plant (not for mines) (manufacture)
29240 Screening plant for effluent treatment
(manufacture)29240 Sealing machinery
(manufacture)
29240 Sedimentation plant for effluent treatment (manufacture)
29240 Settlement plant for water treatment
(manufacture)29240 Sewage treatment plant
(manufacture)
29430 Soldering machines (gas) (manufacture)
29240 Solvent extraction equipment for the chemicalindustry (manufacture)
29240 Solvent recovery equipment for the chemicalindustry (manufacture)
29240 Spray guns (manufacture)
29240 Spraying machinery parts
(manufacture)29240 Spring balance
(manufacture)
29240 Sprinklers for fire extinguishing
(manufacture)29240 Steam cleaning
machines (manufacture) 33202 Tape
measure (manufacture)
29240 Vending machine
(manufacture) 29240 Water softening
plant (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	29240	Water treatment plant (manufacture)
	29240	Weighbridge (manufacture)
	29240	Weighing machine (manufacture)
	29240	Weights for weighing machine (manufacture)
	29430	Welding machines (gas) (manufacture)
	29430	Welding torch (manufacture)
	29240	Wrapping machinery (manufacture)
28301		**Manufacture of agricultural tractors**
	29310	Safety frame for tractors (manufacture)
	29310	Tractor (half track) (manufacture)
	29310	Tractor (pedestrian controlled) (manufacture)
	29310	Tractor (skidded unit) (manufacture)
	29310	Tractor (wheeled) (manufacture)
	29310	Tractor for agricultural use (manufacture)
	29310	Tractor for forestry use (manufacture)
	29310	Tractor parts for wheeled and half-track tractors (manufacture)
28302		**Manufacture of agricultural and forestry machinery (other than agricultural tractors)**
	29320	Agricultural and forestry machinery parts (except tractor parts) (manufacture)
	29320	Agricultural broadcaster (manufacture)
	29320	Agricultural machinery (manufacture)
	29320	Agricultural machinery for soil preparation (manufacture)
	29320	Agricultural motor drawn trailer (manufacture)
	29320	Agricultural planting machinery (manufacture)
	29320	Agricultural self-loading semi-trailers (manufacture)
	29320	Agricultural self-loading trailers (manufacture)
	29320	Agricultural self-unloading semi-trailers (manufacture)
	29320	Agricultural self-unloading trailers (manufacture)
	29320	Bale handler for agriculture (manufacture)
	29320	Baler for hay and straw (manufacture)
	29320	Bee-keeping machinery (manufacture)
	29320	Broadcaster for agricultural use (manufacture)
	29320	Chemical seed dresser for agricultural use (manufacture)
	29320	Combine harvester (manufacture)
	29320	Conveyor for agricultural use (manufacture)
	29320	Cultivator (manufacture)
	29320	Cultivator tine (manufacture)
	29320	Digger (elevator and shaker) (manufacture)
	29320	Disc harrow (manufacture)
	29320	Drill for agricultural use (manufacture)
	29320	Egg cleaning, sorting and grading machines (manufacture)
	29320	Elevator for agricultural use (manufacture)
	29320	Farmyard manure spreader (manufacture)
	29320	Fertiliser distributor or broadcaster (manufacture)
	29320	Fertilizing plough machinery (manufacture)
	29320	Fodder preparing equipment (manufacture)
	29320	Forage harvester (manufacture)
	29320	Forest machinery (manufacture)
	29320	Fruit cleaning, sorting or grading machines (manufacture)
	29320	Grain auger (manufacture)
	29320	Grain cleaning, sorting and grading machines (manufacture)
	29320	Grain drier (manufacture)
	29320	Grinding mill for agricultural use (manufacture)
	29320	Harrow (manufacture)
	29320	Harvesters (manufacture)
	29320	Harvesting or threshing machinery harvesters, threshers, sorters (manufacture)
	29320	Hay making equipment (manufacture)
	29320	Hedgecutter for agricultural use (manufacture)
	29320	Lawn mower (manufacture)
	29320	Machines for cleaning, sorting or grading eggs, fruit (manufacture)
	29320	Manure spreader (manufacture)
	29320	Milking machine (manufacture)
	29320	Mowers for agricultural use (manufacture)
	29320	Mowers for lawns, parks and sports grounds (manufacture)
	29320	Parts of mining machines and dairy machinery, n.e.c. (manufacturing)
	29320	Pick-up baler (manufacture)
	29320	Planter for agricultural use (manufacture)
	29320	Plough (manufacture)
	29320	Plough disc (manufacture)
	29320	Potato harvester and sorter (manufacture)
	29320	Poultry keeping machinery (manufacture)
	29320	Roller for agricultural use (manufacture)
	29320	Root crop harvesting and sorting machinery (manufacture)
	29320	Seed cleaner or pre-cleaner for agricultural use (manufacture)
	29320	Seed cleaning, sorting or grading machines (manufacture)
	29320	Seeders (manufacture)
	29320	Servicing of agricultural machinery (manufacture)
	29320	Silage making machinery (manufacture)
	29320	Spraying machine for agricultural use (manufacture)
	29320	Sugar beet harvester (manufacture)
	29320	Threshing machine (manufacture)
	29320	Tool bar for agricultural use (manufacture)
	29320	Tractor hoe (manufacture)
	29320	Tractor plough (manufacture)
	29320	Trailers and semi-trailers for agricultural use (manufacture)
	29320	Transplanter for agricultural use (manufacture)
	29320	Vegetable harvesting and sorting machinery (manufacture)
	29320	Winnower for agricultural use (manufacture)
28410		**Manufacture of metal forming machinery**
	29420	Bending machines (metal forming) (manufacture)
	29420	Boring machine (metal cutting) (manufacture)
	28620	Broach for metal working machine tools (manufacture)
	29420	Broaching machine (metal cutting) (manufacture)
	29420	Chemical process machine tool (metal working) (manufacture)
	29420	Computer numerically controlled (CNC) metal cutting machines (manufacture)
	29420	Cutting machine for metal (manufacture)
	29420	Die stamping machines (metal forming) (manufacture)
	29420	Draw bench (metal forming) (manufacture)
	29420	Drawing machine (metal forming) (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	29420	Drilling machine (metal cutting) (manufacture)
	29420	Drop hammers (manufacture)
	29420	Electric discharge metal working tool (manufacture)
	29420	Electrochemical metal working machine tools (manufacture)
	29420	Electro-magnetic-pulse (magnetic-forming) metal forming machines (manufacture)
	28620	End mill (manufacture)
	29420	Filament wire spiralling machines (manufacture)
	29420	Forging machine (metal forming) (metal working) (manufacture)
	29420	Forming machine (high energy rate) (manufacture)
	29420	Gear making or finishing machines (metal cutting) (manufacture)
	29420	Grinding machines (metal cutting) (manufacture)
	29420	Honing machine (metal cutting) (manufacture)
	29420	Hydraulic brakes (manufacture)
	29420	Lapping machine (metal cutting) (manufacture)
	29420	Laser cutting or welding machine tools (metal working) (manufacture)
	29420	Lathe (metal cutting) (manufacture)
	29420	Lathe chuck (manufacture)
	29420	Machine tools (ultrasonic) (metal working) (manufacture)
	29420	Machine tools, for working metal, plasma arc (manufacture)
	29420	Machine tools, for working metals (manufacture)
	29420	Machine tools, for working metals, ultrasonic waves (manufacture)
	29420	Machine tools, for working metals, using a laser beam (manufacture)
	29420	Machine tools, for working metals, using a magnetic pulse (manufacture)
	29420	Machining centre (metal working) (manufacture)
	29420	Metal cutting machine (numerically controlled) (manufacture)
	29420	Metal cutting machine tool (manufacture)
	29420	Metal forming machine (numerically controlled) (manufacture)
	29420	Metal working machine tool (physical process) (manufacture)
	29420	Metal working machine tool parts (manufacture)
	29420	Milling machine (metal cutting) (manufacture)
	29420	Planing machine (metal cutting) (manufacture)
	29420	Press (hydraulic) (metal forming) (manufacture)
	29420	Press (mechanical) (metal forming) (manufacture)
	29420	Press (metal forming) (manufacture)
	29420	Press (pneumatic) (metal forming) (manufacture)
	29420	Punch presses (manufacture)
	29420	Punching machine (metal forming) (manufacture)
	29420	Sawing machine (metal cutting) (manufacture)
	29420	Screwing machines (metal cutting) (manufacture)
	29420	Shaping machine (metal cutting) (manufacture)
	29420	Shearing machine (metal forming) (manufacture)
	29420	Sheet metal forming machine (manufacture)
	29420	Slotting machine (metal working) (manufacture)
	29420	Spark erosion machines (metal working) (manufacture)
	29420	Spinning lathes (metal working) (manufacture)
	29420	Stamping or pressing machine tools (manufacture)
	29420	Surface tempering machines (manufacture)
	29420	Swaging machine (metal forming) (manufacture)
	29420	Thread rollers or machines for working wires (manufacture)
	29420	Thread rolling machines (manufacture)
	29420	Threading machine (metal cutting) (manufacture)
	29420	Turning machine (metal cutting) (manufacture)
	29420	Unit construction and transfer machine (metal working) (manufacture)
28490		**Manufacture of other machine tools**
	29430	Blowpipes (hand held, high or low pressure) (manufacture)
	29430	Brazing machines (electric) (manufacture)
	29430	Brazing machines (gas) (manufacture)
	29430	Cask assembly machines (manufacture)
	29430	Chipboard press (manufacture)
	29430	Cutter for wood (manufacture)
	29430	Cutting torch (manufacture)
	29430	Disc cutting machines for stone, ceramic, asbestos cement and similar (not portable) (manufacture)
	28620	Dividing heads and other special attachments for machine tools (manufacture)
	29430	Drilling or milling machines for stone, ceramics, asbestos-cement and similar articles (manufacture)
	31620	Electrolytic chemical process plant (manufacture)
	31620	Electroplating equipment (manufacture)
	29430	Finishing and polishing machine tools for optical, spectacle or clock or watch faces (manufacture)
	29430	Frame and carcass cramps (manufacture)
	29430	Glass cutting (shaping) machines for faceting or for cut-glass articles (cold glass) (manufacture)
	29430	Glass cutting machines of the wheel or diamond type (cold glass) (manufacture)
	29430	Glass engraving machines of the grinding wheel or diamond type (manufacture)
	29430	Glass polishing machines (manufacture)
	29430	Gluing machines (manufacture)
	29430	Grinding wheel cutting and dressing machines (manufacture)
	29430	Grinding, smoothing, polishing and graining machines for stone, ceramics, asbestos
	29430	Helical-wire cutting machines for stone, ceramics, asbestos-cement or similar (manufacture)
	29430	Log decorticators (manufacture)
	29430	Machine tool special attachments (excluding for metal working) (manufacture)
	29430	Machine tools for cork, bone, hard rubber, hard plastics or similar hard materials (manufacture)
	29430	Machine tools for working cold glass (manufacture)
	29430	Machine tools, for working wood (manufacture)
	29430	Machinery for making wooden clogs, soles and heels for shoes (manufacture)
	29430	Mortising machines (manufacture)
	29430	Moulding machine for wood, etc. (manufacture)
	29430	Nailing machines (manufacture)
	29430	Panel forming machines (manufacture)
	29430	Paring and slicing machines (manufacture)
	31620	Parts and accessories for electroplating machinery (manufacture)
	29430	Parts and accessories for machine tools for working hard materials e.g. wood, stone (manufacture)
	29430	Parts and accessories for stationary drills, machines, riveters, sheet metal cutters (manufacture)
	29430	Parts and accessories for stationary machine tools for nailing, stapling, glueing etc. (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	29430	Pencil-making machinery (manufacture)
	29430	Planing machine for wood (not portable powered) (manufacture)
	29430	Plank glueing machines (manufacture)
	29430	Plywood press (manufacture)
	29430	Post peeling machines (manufacture)
	29430	Press for chipboard (manufacture)
	29430	Presses for the manufacture of particle board (manufacture)
	29430	Sanding and polishing machines for wood (not portable) (manufacture)
	28620	Saw blades for machines including wood cutting (manufacture)
	29430	Sawing machine for wood (manufacture)
	29430	Sawing machines for stone, ceramics, asbestos-cement or similar materials (manufacture)
	29430	Splitting or cleaving machines for stone, ceramics, asbestos-cement or similar (manufacture)
	29430	Splitting, stamping and fragmenting machines (manufacture)
	29430	Squeeze presses (manufacture)
	29430	Stapling machines (machine tools) (manufacture)
	29430	Stapling machines for industrial use (manufacture)
	29430	Stationary machines for nailing, glueing or otherwise assembling wood, cork bone, etc. (manufacture)
	29430	Stationary rotary or rotary percussion drills, filing machines, sheet metal cutters (manufacture)
	29430	Stave and cask croze cutting machines (manufacture)
	29430	Stave jointing, planing, bending machinery (manufacture)
	29430	Tool holder (manufacture)
	29430	Trueing and grinding machines for cold working of glass (manufacture)
	29430	Turning, engraving, carving etc. machines for stone, ceramics, and similar (manufacture)
	29430	Veneer press (manufacture)
	29430	Veneer shearing machines (manufacture)
	29430	Veneer splicing machines (manufacture)
	29430	Wire weaving machine (manufacture)
	29430	Wood sculpturing and engraving machines (manufacture)
	29430	Wooden button making machinery (manufacture)
	29430	Woodworking machinery (manufacture)
	29430	Work holders (engineers' small tools) (manufacture)
	29430	Work holders for machine tools (manufacture)
28910		**Manufacture of machinery for metallurgy**
	29510	Casting machines (manufacture)
	29510	Casting machines for foundries (manufacture)
	29510	Converters for hot metal handling (manufacture)
	29510	Die casting machines for foundries (manufacture)
	29510	Hot metals handling machinery and equipment (manufacture)
	29510	Ingot mould and bottom (manufacture)
	29510	Investment casting equipment (manufacture)
	29510	Ladles for handling hot metals (manufacture)
	29510	Metal rolling mills and rolls for such mills (manufacture)
	29510	Metallurgy machinery (manufacture)
	29510	Rolling mill for metals (manufacture)
	29510	Rolls made of iron or steel (manufacture)
	29510	Tube mill plant (manufacture)

SIC 2007	SIC 2003	Activity
28921		**Manufacture of machinery for mining**
	29521	Blow-out prevention apparatus (manufacture)
	29521	Borers (mining machinery) (manufacture)
	29521	Bridge plugs (manufacture)
	29521	Cage plant for mining (manufacture)
	29521	Casing hangars (manufacture)
	29521	Coal cutter (manufacture)
	29521	Coal plough (manufacture)
	29521	Coal preparation plant (manufacture)
	29521	Continuous miner (manufacture)
	29521	Conveyor for underground mining (manufacture)
	29521	Crushing machine for mining (manufacture)
	29521	Cutting machinery for coal or rock (manufacture)
	29521	Dinting machine for mining (manufacture)
	28620	Drill bits for well drilling (manufacture)
	29521	Drilling jars for mining (manufacture)
	29521	Earth boring machine (manufacture)
	29521	Elevators with continuous action for underground use (manufacture)
	29521	Hauling engine for mining (stationary) (manufacture)
	29521	Heading machine for mining (manufacture)
	29521	Iron roughnecks (manufacture)
	29521	Liner hanger equipment (manufacture)
	29521	Loader for mining (manufacture)
	29521	Machinery for treating minerals by screening, sorting, separating, washing, crushing (manufacture)
	29521	Mineral cutter (manufacture)
	29521	Mineral dressing plant (manufacture)
	29521	Minerals treatment machinery (manufacture)
	29521	Mining machinery (manufacture)
	28620	Mining tool (bit) (manufacture)
	29521	Moles for mining (manufacture)
	29521	Motion compensation equipment for oil drilling rigs (manufacture)
	29521	Mudline suspension and tie-back equipment (manufacture)
	29521	Petroleum drilling equipment (manufacture)
	29521	Pit bottom machinery (manufacture)
	29521	Powered roof support for mining (manufacture)
	29521	Production riser tensioners (manufacture)
	29521	Production riser tie-back equipment (manufacture)
	29521	Ranging drum shearer for mining (manufacture)
	29521	Riser connector apparatus (manufacture)
	29521	Road ripper for mining (manufacture)
	29521	Rock drilling machinery (manufacture)
	29521	Rock cutting machinery (manufacture)
	29521	Rocker shovel for mining (manufacture)
	29521	Roof support (hydraulic) (manufacture)
	29521	Rotary tables (manufacture)
	29521	Sinking machine for mining (manufacture)
	29521	Skip plant for mining (manufacture)
	29521	Stowing machine for mining (manufacture)
	29521	Track laying tractors and other tractors used in mining (manufacture)
	29521	Tunnelling machine for mining (manufacture)
	29521	Well drilling equipment (manufacture)
	29521	Wellhead running tools (manufacture)
	29521	Wellheads (manufacture)
	29521	Winding machine for mining (manufacture)

UK SIC 2007	UK SIC 2003	Activity
28922		**Manufacture of earthmoving equipment**
	29522	Angle-dozers (manufacture)
	29522	Bucket for construction machinery (manufacture)
	29522	Bulldozer and angle-dozer blades (manufacture)
	29522	Bulldozers (manufacture)
	29522	Crawler loader (manufacture)
	29522	Crawler tractor (manufacture)
	29522	Dragline excavator (manufacture)
	34100	Dumpers for off road use (manufacture)
	29522	Earth leveller (manufacture)
	29522	Earth mover (construction equipment) (manufacture)
	29522	Earth moving machinery (manufacture)
	29522	Excavator (manufacture)
	29522	Grab (manufacture)
	29522	Grader (manufacture)
	29522	Land clearing equipment and machinery (manufacture)
	29522	Levellers (manufacture)
	29522	Loading shovel (manufacture)
	29522	Mechanical shovels (manufacture)
	29522	Powered barrow (manufacture)
	29522	Rear digger (manufacture)
	29522	Rear digger unit (manufacture)
	29522	Ripper (manufacture)
	29522	Rooter (not agricultural) (manufacture)
	29522	Scraper (earth moving equipment) (manufacture)
	29522	Shovel loaders (manufacture)
	29522	Tractor shovel (manufacture)
	29522	Tractor winch (manufacture)
	29522	Trencher (manufacture)
	29522	Walking draglines (manufacture)
28923		**Manufacture of equipment for concrete crushing and screening roadworks**
	29523	Asphalt laying plant (manufacture)
	29523	Asphalt processing plant (manufacture)
	29523	Bitumen spreaders (manufacture)
	29523	Chippers for road surfacing (manufacture)
	29523	Concrete mixer (manufacture)
	29523	Concrete placing machinery (manufacture)
	29523	Concrete surfacing machinery (manufacture)
	29523	Construction equipment (manufacture)
	29523	Crushing plant (not for mines) (manufacture)
	29523	Equipment for concrete crushing and screening roadworks (manufacture)
	29523	Grinding and other mineral processing machinery (manufacture)
	29523	Gritting machine (manufacture)
	29523	Mortar mixers (manufacture)
	29523	Mortar spreaders (manufacture)
	29523	Paving machinery (manufacture)
	29523	Pile driving equipment (manufacture)
	29523	Pile-drivers (manufacture)
	29523	Pile-extractors (manufacture)
	29523	Planers for road surfacing (manufacture)
	29523	Pulverising machinery (not for mines) (manufacture)
	29523	Road roller (manufacture)
	29523	Snow blowers (manufacture)
	29523	Snow ploughs (manufacture)
	29523	Sorting, grinding and mixing machinery for earth, stones and other mineral substances (manufacture)
	29523	Tar laying plant (manufacture)
	29523	Tar processing plant (manufacture)
	29523	Tarmacadam laying plant (manufacture)
	29523	Tarmacadam processing plant (manufacture)
	29523	Track laying and other tractors used in construction (manufacture)
28930		**Manufacture of machinery for food, beverage and tobacco processing**
	29530	Animal fat or oils extraction and preparation machinery (manufacture)
	29530	Aspirator separators (manufacture)
	29530	Bakery machinery and ovens (manufacture)
	29530	Bakery moulders (manufacture)
	29530	Bakery ovens (industrial) (manufacture)
	29530	Beverage processing machinery (manufacture)
	29530	Biscuit making machinery and ovens (manufacture)
	29530	Blenders for the food industry (manufacture)
	29530	Blenders for the grain milling industry (manufacture)
	29530	Bran cleaners (manufacture)
	29530	Bran cleaners for the grain milling industry (manufacture)
	29530	Breading rolls or mills (manufacture)
	29530	Brewing machinery and plant (manufacture)
	29530	Butter churns (manufacture)
	29530	Butter workers (manufacture)
	29530	Cake depositing machines (manufacture)
	29530	Catering equipment (electric) (manufacture)
	29530	Cheese making machines (manufacture)
	29530	Cheese moulding machinery (manufacture)
	29530	Cheese press (manufacture)
	29530	Cheese pressing machinery (manufacture)
	29530	Chocolate and cocoa making machinery (manufacture)
	29530	Cider making machinery (manufacture)
	29530	Cigar making machinery (manufacture)
	29530	Cigarette making machinery (manufacture)
	29530	Cleaning, sorting or grading machines for seeds, grain or dried leguminous vegetables (manufacture)
	29530	Coffee processing machinery (manufacture)
	29530	Confectionery machines and processing equipment (manufacture)
	29530	Cooking appliance for commercial catering (non-electric) (manufacture)
	29530	Cooking equipment for commercial catering (electric) (manufacture)
	29530	Cream separator for industrial use (manufacture)
	29530	Crusher (food or drink machinery) (manufacture)
	29530	Cyclone separators (manufacture)
	29530	Dairy industry machinery (manufacture)
	29530	Dairy machinery and plant (not agricultural) (manufacture)
	29530	Dairy moulding machinery (manufacture)
	29530	Dough dividers (manufacture)
	29530	Dough making machinery (manufacture)
	29530	Drink processing including combined processing and packaging or bottling machinery (manufacture)
	29530	Dryers for agriculture (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	29530	Edible oil and fat processing machinery (manufacture)
	29530	Feeders (manufacture)
	29530	Filtering and purifying machinery for the industrial preparation of food or drink (manufacture)
	29530	Fish processing machines and equipment (manufacture)
	29530	Flour and meal manufacturing machinery (manufacture)
	29530	Flour confectionery machinery (manufacture)
	29530	Food and drink press (manufacture)
	29530	Food preparation machinery for hotels and restaurants (manufacture)
	29530	Food processing equipment (industrial) (manufacture)
	29530	Food processing machinery incl. combined processing, packaging or bottling machinery (manufacture)
	29530	Fruit juice preparation machinery (manufacture)
	29530	Fruit processing machines and equipment (manufacture)
	29530	Grain brushing machines (manufacture)
	29530	Grain milling industry machinery (manufacture)
	29530	Grain processing machinery and plant (manufacture)
	29530	Grinding mills (manufacture)
	29530	Homogenisers (manufacture)
	29530	Irradiators (manufacture)
	29530	Macaroni, spaghetti or similar products machinery (manufacture)
	29530	Meat processing machinery (manufacture)
	29530	Milk converting machinery (manufacture)
	29530	Milk pasteurisation plant (manufacture)
	29530	Milk processing machinery (manufacture)
	29530	Milling machine (food processing) (manufacture)
	29530	Moulders for bakery (manufacture)
	29530	Moulding machines for dairies (manufacture)
	29530	Mustard processing machine (manufacture)
	29530	Nut processing machines and equipment (manufacture)
	29530	Oven (food processing) machine (manufacture)
	29530	Pastry roller food preparation machinery (manufacture)
	29530	Pea splitters (manufacture)
	29530	Poultry processing machines and equipment (manufacture)
	29530	Press for food and drink (manufacture)
	29530	Press used to make wine, cider, fruit juices, etc. (manufacture)
	29530	Rice hullers (manufacture)
	29530	Sea-food processing machines and equipment (manufacture)
	29530	Separators for the grain milling industry (manufacture)
	29530	Shell fish processing machines and equipment (manufacture)
	29530	Sieving belts (manufacture)
	29530	Sifters (manufacture)
	29530	Slaughterhouse machinery (manufacture)
	29530	Slicers for bakeries (manufacture)
	29530	Soft drinks machinery (manufacture)
	29530	Sterilisation equipment for food and drink (manufacture)
	29530	Sugar confectionery making machinery (manufacture)
	29530	Sugar making and refining machinery (manufacture)
	29530	Tea processing machinery and plant (manufacture)
	29530	Tobacco processing machinery (manufacture)
	29530	Vegetable fats or oils extraction or preparation machinery (manufacture)
	29530	Vegetable processing machines and equipment (manufacture)
	29530	Vinegar processing machinery (manufacture)
	29530	Wine making machinery (manufacture)
	29530	Wine, cider, fruit juice, etc. press (manufacture)
	29530	Winnowers for milling (manufacture)
28940		**Manufacture of machinery for textile, apparel and leather production**
	29540	Apparel and leather production machinery (manufacture)
	29540	Apparel production machinery (manufacture)
	29540	Automatic stop motions (textile machinery) (manufacture)
	29540	Backing and curling machinery (carpet making) (manufacture)
	29540	Bale breakers (manufacture)
	29540	Beaming machinery (textile) (manufacture)
	29540	Bleaching machinery (textile) (manufacture)
	29540	Blowroom machinery (textile) (manufacture)
	29540	Bobbins for textile machinery (manufacture)
	29540	Card tape reader for textile machinery (manufacture)
	29540	Carders (manufacture)
	29540	Carding machinery for textiles (manufacture)
	29540	Carpet making machinery (manufacture)
	29540	Coating machinery for textiles (manufacture)
	29540	Comb for textile machinery (manufacture)
	29540	Combing machinery for textiles (manufacture)
	29540	Cots (textile machinery accessory) (manufacture)
	29540	Cotton gins (manufacture)
	29540	Cotton spreaders (manufacture)
	29540	Crabbing machinery for textiles (manufacture)
	29540	Cropping machinery for textiles (manufacture)
	29540	Curing machinery for textiles (manufacture)
	29540	Cutting machine for textile fibres (manufacture)
	29540	Cutting machinery for textile fabrics (manufacture)
	29540	Decatising machinery for textiles (manufacture)
	29540	De-sizing machinery for textiles (manufacture)
	29540	Dobbies (textile machinery) (manufacture)
	29540	Doubling machinery for textiles (manufacture)
	29540	Drawing machinery for textiles (manufacture)
	29540	Dry cleaning machinery (manufacture)
	29540	Drying machinery (commercial) for textiles (manufacture)
	29540	Drying machines for laundries or dry cleaners (manufacture)
	29540	Dye cycle controller (textile machinery) (manufacture)
	29540	Dyesprings (textile machinery accessory)
	29540	Dyeing machinery for textiles (manufacture)
	29540	Embossing machinery for textiles (manufacture)
	29540	Extruding machinery for textiles (manufacture)
	29540	Fabric processing machinery (manufacture)
	29540	Faller (textile machinery accessory) (manufacture)
	29540	Felt or non-woven fabric production or finishing machines (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	29540	Felts or non-wovens production and finishing machines (manufacture)
	29540	Film reader for textile machinery (manufacture)
	29540	Finishing machinery for textiles (manufacture)
	29540	Flatwork machine for laundry (manufacture)
	29540	Footwear making or repairing machinery (manufacture)
	29540	Fusing presses (manufacture)
	29540	Garnetters (manufacture)
	29540	Heald (textile machinery accessory) (manufacture)
	29540	Heat setting machinery for textiles (manufacture)
	29540	Hides and skins preparation, tanning, working or repairing machinery (manufacture)
	29540	Hosiery knitting machinery (manufacture)
	29540	Ironing machine for non-domestic use (manufacture)
	29540	Jacquard machinery for carpet making (manufacture)
	29540	Jacquard textile machinery (manufacture)
	29540	Knitting machine (manufacture)
	29540	Knotted net, tulle, lace, braid etc. making machines (manufacture)
	29540	Laundry machinery (manufacture)
	29540	Leather working machine (manufacture)
	29540	Loom (manufacture)
	29540	Loom winder (manufacture)
	29540	Man-made textile fibre or yarn producing machinery (manufacture)
	29540	Mercerising machinery for textiles (manufacture)
	29540	Milling machinery for textiles (manufacture)
	29540	Needles for sewing machines (manufacture)
	29540	Pirns (textile machinery accessory) (manufacture)
	29540	Plaiting machinery for textiles (manufacture)
	29540	Printing machinery for textiles (manufacture)
	29540	Programmer for textile machinery (manufacture)
	29540	Raising machinery for textiles (manufacture)
	29540	Reaching-in machinery for textiles (manufacture)
	29540	Reed (textile machinery accessory) (manufacture)
	29540	Reeling machinery for textiles (manufacture)
	29540	Rigging machinery for textiles (manufacture)
	29540	Ring traveller for textile machinery (manufacture)
	29540	Roller (textile machinery accessory) (manufacture)
	29540	Roving frames (manufacture)
	29540	Scouring machinery for textiles (manufacture)
	29540	Sewing machine (manufacture)
	29540	Sewing machine heads (manufacture)
	29540	Shearing machinery for textiles (manufacture)
	29540	Shrinking machines for textiles (manufacture)
	29540	Shuttle (textile machinery accessory) (manufacture)
	29540	Shuttle changing machinery (manufacture)
	29540	Singeing machinery for textiles (manufacture)
	29540	Sizing machinery for textiles (manufacture)
	29540	Slitting machinery for textiles (manufacture)
	29540	Sliver can (textile machinery accessory) (manufacture)
	29540	Spindles (textile machinery accessories) (manufacture)
	29540	Spindles and spindle flyers (manufacture)
	29540	Spinning machinery for textiles (manufacture)
	29540	Spinning machines (manufacture)
	29540	Spool (textile machinery accessory) (manufacture)
	29540	Spooling machinery for carpet making (manufacture)
	29540	Spotting table (manufacture)
	29540	Steaming machinery for textiles (manufacture)
	29540	Stentering machinery for textiles (manufacture)
	29540	Teasel rod (textile machinery accessory) (manufacture)
	29540	Textile dressing or impregnating machinery (manufacture)
	29540	Textile fabric making machinery (manufacture)
	29540	Textile fibre preparation machinery (manufacture)
	29540	Textile machinery (manufacture)
	29560	Textile printing machinery (manufacture)
	29540	Textile unreeling, folding, or pinking machinery (manufacture)
	29540	Textile yarn preparation machinery (manufacture)
	29540	Texturing and softening machinery for textiles (manufacture)
	29540	Thread guide (textile machinery accessory) (manufacture)
	29540	Tufting machinery for carpet making (manufacture)
	29540	Twisting machinery for textiles (manufacture)
	29540	Warpers for preparing textile yarns (manufacture)
	29540	Warping machinery (manufacture)
	29540	Washing machines (laundry) (manufacture)
	29540	Washing machines (textile) (non-domestic) (manufacture)
	29540	Weaving machinery (looms) (manufacture)
	29540	Weaving machines (manufacture)
	29540	Winding machine for textiles (manufacture)
	29540	Wool carbonisers (manufacture)
	29540	Wool scourers (manufacture)
28950		**Manufacture of machinery for paper and paperboard production**
	29550	Board making machinery (except chipboard) (manufacture)
	29550	Cardboard box making machine (manufacture)
	29550	Carton making machinery (manufacture)
	29550	Embossing machines for working paper and board (manufacture)
	29550	Envelope making machine (manufacture)
	29550	Folding machinery for paper and board (not for office use) (manufacture)
	29550	Fourdrinier (manufacture)
	29550	Laminating machinery (paper working) (manufacture)
	29550	Paper and paperboard production machinery (manufacture)
	29550	Paper bag making machinery (manufacture)
	29550	Paper making machinery (manufacture)
	29550	Pulp making machinery (manufacture)
	29550	Slitting machine for paper (manufacture)
	29550	Stock preparation plant for paper and board (manufacture)
28960		**Manufacture of plastics and rubber machinery**
	29560	Blow moulding machine for rubber or plastic (manufacture)
	29560	Extruder for rubber or plastics (manufacture)
	29560	Forming machine for rubber or plastics (manufacture)
	29560	Injection moulding equipment (for rubber or plastic) (manufacture)
	29560	Mixing machine for working rubber or plastic (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

29560 Moulders for rubber or plastic (manufacture)

29560 Moulding machine for rubber or plastic (manufacture)29560 Plastic product making machines (manufacture) 29560 Plastics working machinery (manufacture)

29560 Pneumatic tyre making or retreading machines(manufacture)

29560 Press machinery for working rubber or plastics(manufacture)

29560 Pressure forming machines for rubber or plastic(manufacture)

29560 Roll mill for rubber or plastic (manufacture) 29560 Rubber working machinery (manufacture) 29560 Transfer moulding press for rubber or plastics (manufacture)

29560 Vulcanizing machines for working rubber andplastics (manufacture)

28990 Manufacture of other special-purpose machinery n.e.c.

29560 Accumulator for hydraulic equipment (manufacture)35300 Aircraft carrier catapults and related equipment (manufacture)

35300 Aircraft launching gear and related equipment(manufacture)

33403 Apparatus and equipment for automatically developing photographic film

29560 Battery making machine (manufacture)

29560 Blackboard chalk making machinery (manufacture)29560 Blocking machine (manufacture)

29560 Bookbinding machine (manufacture)29560 Bow thruster (manufacture)

36501 Bowling alley equipment (manufacture)29560 Brick making machinery (manufacture)29560 Cable making machine (manufacture)

29560 Carpet shampoo appliance (not domestic electric)(manufacture)

29560 Carpet sweeper (industrial) (manufacture) 35300 Catapult for launching aircraft (manufacture) 29560 Cement block making machine (manufacture)29560 Central greasing systems (manufacture) 29560 Centrifugal clothes dryer (manufacture) 29560 Ceramic making machine (manufacture)

29560 Ceramic pastes production machinery (shaped) (manufacture)

29560 Coating machine for bookbinding or paper working(manufacture)

29560 Collating machine for bookbinders (manufacture)29560 Composing room equipment (manufacture) 29560 Concrete block making machinery (manufacture)29560 Creasing machine for bookbinding (manufacture)29560 Crystalliser for chemical industry (manufacture) 29560 Cutting machine for bookbinding (manufacture) 35300 Deck arresters for aircraft (manufacture)

29560 Decompression chamber (manufacture)

29560 Diving equipment (excluding breathing apparatus)(manufacture)

29560 Dryers for wood, paper pulp, paper or paperboard(manufacture)

29560 Drying machine for the chemical industry (manufacture)

36639 Fairground rides (manufacture)

29560 Flexographic printing machine (manufacture)

29560 Forming machine for glass working (multi-head)(manufacture)
29560 Foundry moulds forming machinery (manufacture)29560 Foundry moulds (for rubber or plastic) production machines (manufacture)
29560 Gathering machine (paper working) (manufacture)29560 Glass, glassware and glass fibre or yarn production machinery (manufacture)
29560 Gluing machinery for bookbinders, etc. (manufacture)29560 Granulator for the chemical industry (manufacture) 29560 Graphite electrodes production machinery (manufacture)
29560 Gravure printing machine (manufacture) 29560 Grinding machines for glass (manufacture)33202 Gyroscope (manufacture)
29560 Hatch cover (mechanically operated) (manufacture)29560 Hot glass working machinery (manufacture)
29560 Industrial carpet sweeper (manufacture)
29560 Industrial mixing equipment for the chemical industry (manufacture)
29560 Industrial robots for multiple uses (manufacture)29560 Isotopic separation machinery or apparatus (manufacture)
29560 Lamp making machine (manufacture) 35300 Launching gear for aircraft (manufacture) 29560 Letterpress printing machine (manufacture)
29560 Machines for the assembly of electric or electronic lamps, tubes (valves) or bulbs (manufacture)
29560 Offset litho printing machine (manufacture)29560 Photo-engraving machine (manufacture) 29560 Photogravure machine (manufacture)
29560 Photolitho machine (manufacture)
33403 Photolithography equipment for the manufacture of semi-conductors (manufacturing)
29560 Pipe making machinery (manufacture) 29560 Polishing machine for glass (manufacture)29560 Pottery making machinery (manufacture)29560 Printing machine or press (manufacture)
29560 Pulverising machinery for the chemical industry(manufacture)
29560 Reduction gear for marine use (manufacture) 29560 Robots for multiple industrial uses (manufacture)29560 Rope making machines (manufacture)
36639 Roundabout for fairground (manufacture) 29560 Ruling machinery for printing (manufacture)
29560 Sand handling, mixing, treatment or reclamation plant for foundries (manufacture)
29560 Scanner (printing machinery) (manufacture) 29560 Sewing machinery for bookbinding (manufacture)36639 Shooting galleries (manufacture)
29560 Size reduction equipment for the chemical industry(manufacture)
29560 Size separation equipment for the chemical industry(manufacture)
29560 Soap making machinery (manufacture)29560 Stabiliser for ship (manufacture)
29560 Steering gear for marine use (manufacture)29560 Stern gear (manufacture)
29560 Stitching machine for bookbinding (manufacture)
29560 Surge damper for hydraulic equipment(manufacture)

UK SIC 2007	UK SIC 2003	Activity
	36639	Swings (fairground equipment) (manufacture)
	31620	Tanning beds (manufacture)
	29560	Thermo forming machines (manufacture)
	29560	Tile making machine (not plastic working) (manufacture)
	29560	Trawl door (manufacture)
	29560	Tubes (valves) or bulbs producing machinery (manufacture)
	29560	Type setting machine (manufacture)
	29560	Tyre alignment and balancing equipment (except wheel balancing) (manufacture)
	29560	Vacuum cleaners for industrial and commercial use (manufacture)
	29560	Vacuum forming machine (manufacture)
	29560	Wire coiling machine (manufacture)
	29560	Wire rope making machine (manufacture)
29100		**Manufacture of motor vehicles**
	34100	Ambulance (manufacture)
	34100	Amphibious vehicles (manufacture)
	34100	Armoured car (except military fighting vehicles) (manufacture)
	34100	ATVs, go-carts and similar including race cars (manufacture)
	34100	Battery powered electric commercial vehicle (manufacture)
	34100	Breakdown lorry (manufacture)
	34100	Bus (manufacture)
	34100	Cars (manufacture)
	34100	Chassis fitted with engine (manufacture)
	34100	Chassis for motor vehicles (manufacture)
	34100	Chassis with engine for commercial vehicle (manufacture)
	34100	Coach (manufacture)
	34100	Coach engine (manufacture)
	34100	Commercial vehicles (manufacture)
	34100	Concrete-mixer lorries (manufacture)
	34100	Crane lorry (manufacture)
	34100	Dump truck (manufacture)
	34100	Electrically powered commercial vehicles (manufacture)
	34100	Engine for motor vehicle (manufacture)
	34100	Engines (internal combustion) for motor vehicles (manufacture)
	34100	Estate car (manufacture)
	34100	Factory rebuilding of motor vehicle engines (manufacture)
	34100	Fire engine (manufacture)
	34100	Fire tender (manufacture)
	34100	Golf carts (manufacture)
	34100	Heavy goods vehicle (manufacture)
	34100	Internal combustion engine for motor vehicles (manufacture)
	34100	Internal combustion engines for tractors (manufacture)
	34100	KD sets for cars at least 50% of value of complete vehicle (manufacture)
	34100	KD sets for commercial vehicles at least 50% of value of complete vehicle (manufacture)
	34100	Lorry (manufacture)
	34100	Minibus (manufacture)
	34100	Mobile library (not trailer) (manufacture)

SIC 2007	SIC 2003	Activity
	34100	Mobile x-ray unit (not trailer) (manufacture)
	34100	Motor car (manufacture)
	34100	Motor coach (manufacture)
	34100	Motor vehicle reconditioning by manufacturer (manufacture)
	34100	Motor vehicles (manufacture)
	34100	Motor vehicles for commercial use (manufacture)
	34100	Motorised caravans (manufacture)
	34100	Passenger cars (manufacture)
	34100	Refrigerated lorry (manufacture)
	34100	Refuse disposal vehicle (manufacture)
	34100	Road tanker (not trailer) (manufacture)
	34100	Road tractor unit (manufacture)
	34100	Snow mobiles (manufacture)
	34100	Spraying lorry (manufacture)
	34100	Station wagon (manufacture)
	34100	Street sweepers (manufacture)
	34100	Street sweeping lorry (manufacture)
	34100	Taxi (manufacture)
	34100	Tractors for semi-trailers (manufacture)
	34100	Travelling libraries, banks, etc. (not trailers) (manufacture)
	34100	Trolley bus (manufacture)
	34100	Truck (commercial vehicle) (manufacture)
	34100	Van (manufacture)
29201		**Manufacture of bodies (coachwork) for motor vehicles (except caravans)**
	34201	Bodies (coachworks) for motor vehicles (manufacture)
	34201	Body building for motor vehicles (manufacture)
	34201	Body for bus (manufacture)
	34201	Body for car (manufacture)
	34201	Body for coach (manufacture)
	34201	Body for commercial vehicle (manufacture)
	34201	Body shell for motor vehicle made of fibre glass (manufacture)
	34201	Body shell for motor vehicle made of plastic (manufacture)
	34201	Cabs for motor vehicles (manufacture)
	34201	Coachwork for motor vehicles (manufacture)
	34201	Outfitting of all types of motor vehicles (except caravans) (manufacture)
29202		**Manufacture of trailers and semi-trailers**
	34202	Bowsers (tanks on wheels) (manufacture)
	34202	Containers for carriage by one or more modes of transport (manufacture)
	34202	Containers for freight (manufacture)
	34202	Flat trailer (motor drawn) (manufacture)
	34202	Horse box trailers (manufacture)
	34202	Low loader trailer (manufacture)
	34202	Outfitting of tankers and removal trailers for transport of goods (manufacture)
	34202	Outfitting of trailers and semi-trailers for transport of goods (manufacture)
	34202	Platform trailer (motor drawn) (manufacture)
	34202	Road tractor trailer (manufacture)
	34202	Semi-trailers (manufacture)
	34202	Skeletal trailer (motor drawn) (manufacture)
	34202	Tanker trailer (motor drawn) (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	34202	Trailer (motor drawn) (manufacture)
	34202	Trailers and semi-trailers (manufacture)
29203		**Manufacture of caravans**
	34203	Caravan (manufacture)
	34203	Caravan chassis (manufacture)
	34203	Caravan trailers (manufacture)
	34203	Conversion of complete vehicles to motor caravans (manufacture)
	34203	Mobile bank (not self propelled) (manufacture)
	34203	Mobile canteen (not self propelled) (manufacture)
	34203	Outfitting of caravans (manufacture)
	34203	Permanent residential caravan (manufacture)
	34203	Special purpose caravans (manufacture)
	34203	Touring caravan (manufacture)
29310		**Manufacture of electrical and electronic equipment for motor vehicles**
	31610	Alternator for vehicle (manufacture)
	31610	Auto electrical equipment (manufacture)
	31610	Coil ignition (manufacture)
	31610	Dashboard instruments (electric) (manufacture)
	31610	Defrosting and demisting equipment for vehicles (manufacture)
	31610	Demisters (electrical) (manufacture)
	31610	Dynamo for vehicle (manufacture)
	31610	Dynamo lighting set for cycles (manufacture)
	31610	Electrical and electronic equipment for motor vehicles (manufacture)
	31610	Electrical equipment for engines and vehicles (manufacture)
	31610	Electrical equipment for vehicles and aircraft (manufacture)
	31610	Generators (dynamos and alternators) (manufacture)
	31610	Glow plugs (manufacture)
	31610	Horns for motor vehicle (electric) (manufacture)
	31610	Ignition coil (manufacture)
	31610	Ignition equipment (other than coils and magnetos) (manufacture)
	31610	Ignition magnetos (manufacture)
	31610	Indicating measuring instrument for vehicles and aircraft (electric) (manufacture)
	31610	Insulating fittings (other than ceramic for vehicles and aircraft) (manufacture)
	31610	Magneto (manufacture)
	31610	Magneto-dynamos (manufacture)
	31610	Motor vehicle electrical generators (manufacture)
	31610	Motor vehicle electrical ignition wiring harnesses (manufacture)
	31610	Motor vehicle electrical power window and door systems (manufacture)
	31610	Motor vehicle purchased gauges into instrument panels (manufacture)
	31610	Sirens for motor vehicles (manufacture)
	31610	Sound or visual signalling equipment for cycles and motor vehicles (manufacture)
	31610	Sparking plug (manufacture)
	31610	Starter motor for vehicle (manufacture)
	31610	Traffic indicators for motor vehicles (manufacture)
	31610	Voltage regulators for vehicles (manufacture)
	31610	Windscreen wipers (manufacture)
	31610	Wiring sets (manufacture)

SIC 2007	SIC 2003	Activity
29320		**Manufacture of other parts and accessories for motor vehicles**
	34300	Accessories and parts for motor vehicles and their engines (manufacture)
	34300	Airbags for motor vehicle (manufacture)
	34300	Anti-roll bars for motor vehicles (manufacture)
	36110	Arm rest for motor vehicle (manufacture)
	34300	Auto spare parts (manufacture)
	34300	Axle for motor vehicle (manufacture)
	34300	Brakes and parts (excluding linings for motor vehicles) (manufacture)
	34300	Bumpers for motor vehicles (manufacture)
	34300	Caps for petrol, oil or radiator for motor vehicle (manufacture)
	34300	Car body parts (manufacture)
	34300	Car components (manufacture)
	34300	Catalyzers (manufacture)
	34300	Chassis and parts for coaches (manufacture)
	34300	Clutch and parts for motor vehicles (manufacture)
	34300	Coupling for articulated motor vehicle (manufacture)
	34300	Differential unit for motor vehicle (manufacture)
	34300	Disc brakes (manufacture)
	34300	Doors for motor vehicles (manufacture)
	34300	Drive shaft for motor vehicles (manufacture)
	34300	Exhaust pipes for motor vehicles (manufacture)
	34300	Exhaust systems and components for motor vehicles (manufacture)
	34300	Fuel tank for motor vehicle (manufacture)
	34300	Gear box for motor vehicle (manual or automatic) (manufacture)
	34300	Half shaft (manufacture)
	34300	Independent suspension units for motor vehicles (manufacture)
	34300	KD sets for vehicles if the value is less than half the value of the complete vehicle (manufacture)
	34300	Panels for motor vehicle bodywork, made of metal or fibreglass (manufacture)
	34300	Parts for motor vehicles (not electric) (manufacture)
	34300	Pipes for motor vehicles (manufacture)
	34300	Propeller shaft for motor vehicle (manufacture)
	34300	Radiator for motor vehicle (manufacture)
	34300	Radiator grill for motor vehicle (manufacture)
	34300	Registration plate for motor vehicle (manufacture)
	34300	Road wheels for motor vehicle (manufacture)
	34300	Running gear for motor vehicles (manufacture)
	34300	Safety belts for cars (manufacture)
	36110	Seats for motor vehicles (manufacture)
	34300	Shock absorber for motor vehicle (manufacture)
	34300	Silencer for motor vehicle (manufacture)
	34300	Spring suspension for motor vehicles (manufacture)
	34300	Steering box for motor vehicle (manufacture)
	34300	Steering column for motor vehicle (manufacture)
	34300	Steering equipment components for motor vehicles (manufacture)
	34300	Steering wheels for motor vehicle (manufacture)
	34300	Suspension shock absorbers for motor vehicle (manufacture)
	34300	Suspension springs for motor vehicle (manufacture)
	34300	Tipping gear and parts thereof for motor vehicles (not hydraulic) (manufacture)
	34300	Track rods for motor vehicles (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

34300 Universal joints for motor vehicles (manufacture) 34300 Wheels and hubs for motor vehicles (manufacture) 34300 Window winding gear for motor vehicles (not electric) (manufacture)

34300 Windscreen wipers for motor vehicles (non-electric) (manufacture)

30110 Building of ships and floating structures

35110 Barge (manufacture)

35110 Beacon for shipping (manufacture) 35110 Beacons for ships (manufacture)

35110 Building of commercial vessels (manufacture) 35110 Building of ferry-boats (manufacture)

35110 Building of fish-processing factory vessels (manufacture)

35110 Building of passenger vessels (manufacture) 35110 Bulk carrier (cargo ship) (manufacture) 35110 Buoys (not plastic) (manufacture)

35110 Buoys made of plastic (manufacture) 35110 Cable ship (manufacture)

35110 Caisson (manufacture) 35110 Cargo ship (manufacture)

35110 Cementing of ships (manufacture) 35110 Coffer-dam construction (manufacture)

35110 Construction of drilling platforms, floating or submersible (manufacture)

35110 Construction of non-recreational inflatable rafts 35110 Container ship (manufacture)

35110 Conversion of ships (manufacture) 35110 Deck for oil platform (manufacture) 35110 Decking for ships (manufacture) 35110 Dredger (manufacture)

35110 Drilling ship (manufacture) 35110 Ferry manufacture

35110 Fishing boats (manufacture) 35110 Fishing vessel (manufacture) 35110 Fleet tender (manufacture)

35110 Floating crane (manufacture)

35110 Floating docks construction (manufacture) 35110 Floating harbour (manufacture)

35110 Floating landing stages construction (manufacture) 35110 Floating tanks construction (manufacture)

35110 Flotation vessel of steel, for oil platform (manufacture)

35110 Hovercraft (manufacture)

35110 Hydrofoil (manufacture)

35110 Jacket leg of steel plate for oil platform (manufacture) 35110 Landing stage (floating) (manufacture)

35110 Lifeboat (manufacture)

35110 Lifebuoy made of rubber (manufacture) 35110 Liferaft (not rubber inflatable) (manufacture) 35110 Lighter (ship) (manufacture)

35110 Lightship (manufacture)

35110 Liner (ship) (manufacture)

35110 Masts and spars for ships (manufacture)

35110 Model ship made by shipbuilder (manufacture) 35110 Modules for oil platform (manufacture)

35110 Naval dockyard (shipbuilding and repairing) (manufacture)

35110 Naval ships of all types (manufacture)

35110 Offshore floating drilling rig (manufacture) 35110 Offshore support vessel (manufacture)
35110 Oil platform fabrication of steel plate (manufacture) 35110 Oil platform structural sections (manufacture) 35110 Passenger cargo liner (manufacture)
35110 Passenger vessel building (manufacture) 35110 Platform for drilling rig (manufacture) 35110 Pontoons construction (manufacture) 35110 Refitting of ships (manufacture)
35110 Research vessel (manufacture) 35110 Salvage vessel (manufacture)
35110 Sea going luxury yachts of 100 gross tons or more (manufacture)
36110 Seats for ships and floating structures (manufacture) 35110 Sections for ships and floating structures (manufacture)
35110 Shipbuilding (manufacture) 35110 Sludge vessel (manufacture) 35110 Submarine (manufacture) 35110 Tanker (ship) (manufacture) 35110 Trawler (manufacture)
35110 Tubular modules for oil rigs (manufacture) 35110 Tug (manufacture)
35110 Warship (manufacture)
35110 Whaler (manufacture)

30120 Building of pleasure and sporting boats

35120 Boat kits for assembly (manufacture) 35120 Boatbuilding (manufacture)
35120 Building of motor boats (manufacture)
35120 Building of recreation-type hovercraft (manufacture)
35120 Building of sailboats with or without auxiliary motor (manufacture)
35120 Canal cruiser (manufacture) 35120 Canoe (manufacture)
35120 Catamaran (manufacture)
35120 Cleat for pleasure boat (manufacture) 35120 Collapsible boat (not inflatable dinghy) (manufacture)
35120 Dinghy made of rubber (manufacture) 35120 Folding boat made of rubber (manufacture) 35120 Houseboat (manufacture)
35120 Inflatable boats (manufacture)
35120 Inflatable dinghy made of rubber (manufacture) 35120 Inflatable liferaft made of rubber (manufacture) 35120 Inflatable motor boats (manufacture)
35120 Inflatable rafts (manufacture) 35120 Kayak building (manufacture)
35120 Leisure craft made of rubber (manufacture) 35120 Masts and spars for pleasure boats (manufacture) 35120 Motor boats (manufacture)
35120 Personal watercraft (manufacture)
35120 Pleasure and sporting boats (manufacture) 35120 Power boats of all types (manufacture) 35120 Punt (manufacture)
35120 Refitting of pleasure craft (manufacture) 35120 Rowing boat (manufacture)
35120 Sailboat building (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	35120	Sailing boats less than 100 gross tons (manufacture)
	35120	Skiff building (manufacture)
	35120	Yacht building (manufacture)
30200		**Manufacture of railway locomotives and rolling stock**
	35200	Airfield mechanical or electro-mechanical signalling, safety, traffic control equipment(manufacture)
	35200	Assembled rail sections (manufacture)
	35200	Axles and wheels for locomotive and rolling stock (manufacture)
	35200	Axles for rail and tramway vehicles (manufacture)
	35200	Axles made of steel for railway and tramway vehicles (manufacture)
	35200	Body for locomotive (manufacture)
	35200	Bogie for locomotive (manufacture)
	35200	Bogies (manufacture)
	35200	Brakes and parts of brakes for locomotive and rolling stock (manufacture)
	35200	Braking systems for locomotives (manufacture)
	35200	Buffers and buffer parts (manufacture)
	35200	Chassis for locomotive (manufacture)
	35200	Crane vans (manufacture)
	35200	Diesel electric locomotive (manufacture)
	35200	Diesel locomotive (manufacture)
	35200	Electric rail locomotives (manufacture)
	35200	Fog signalling equipment (manufacture)
	35200	Goods van for railways (manufacture)
	35200	Goods wagon for railways (manufacture)
	35200	Hooks and coupling devices (manufacture)
	35200	Inland waterways signalling, safety or traffic control equipment (manufacture)
	35200	Level crossing control gear (manufacture)
	35200	Locomotive (manufacture)
	35200	Locomotive parts and accessories (manufacture)
	35200	Luggage van for railway (manufacture)
	35200	Mining locomotives and mining rail cars (manufacture)
	35200	Passenger carriage for railways (manufacture)
	35200	Point locks (manufacture)
	35200	Post van for railways (manufacture)
	35200	Rail locomotives (manufacture)
	35200	Railbrakes (manufacture)
	35200	Railway and tramway coaches (manufacture)
	35200	Railway and tramway locomotives and specialised parts (manufacture)
	35200	Railway and tramway rolling stock (manufacture)
	36110	Railway car seats (manufacture)
	35200	Railway coach (manufacture)
	35200	Railway locomotives and rolling stock (manufacture)
	35200	Railway or tramway not self-propelled passenger coaches, goods vans and other wagons (manufacture)
	35200	Railway self-propelled car (manufacture)
	35200	Railway signalling equipment (mechanical) (manufacture)
	35200	Railway test wagon (manufacture)
	35200	Railway track equipment (mechanical) (manufacture)
	35200	Railway wagon (manufacture)
	35200	Railway wagon axle box and axle lubricator (manufacture)
	35200	Refrigerated wagon for railway (manufacture)
	35200	Rolling stock (manufacture)
	35200	Self-propelled railway car (manufacture)
	35200	Self-propelled railway or tramway coaches, vans, maintenance or service vehicles (manufacture)
	35200	Shock absorbers; bodies; etc. of railway or tramway locomotives or of rolling stock (manufacture)
	35200	Signal box equipment (manufacture)
	35200	Signalling equipment for airports, inland waterways, ports, roads and tramways (manufacture)
	31620	Signalling equipment for railways (electro mechanical) (manufacture)
	35200	Signalling, safety and traffic control equipment for railways (manufacture)
	31620	Signalling, safety or traffic control equipment (electrical) (manufacture)
	35200	Special purpose railway wagon (manufacture)
	35200	Steam rail locomotives (manufacture)
	35200	Tanker wagon for railway (manufacture)
	35200	Tenders (manufacture)
	35200	Test wagons for railway (manufacture)
	31620	Traffic control equipment for roads and inland waterways (manufacture)
	35200	Wagon and locomotive frames (manufacture)
	35200	Workshop wagon for railways (manufacture)
30300		**Manufacture of air and spacecraft and related machinery**
	35300	Aero engine manufacture (all types) (manufacture)
	35300	Aero engine parts and sub assemblies (manufacture)
	35300	Aeroplanes (manufacture)
	35300	Aerospace equipment (manufacture)
	35300	Air cushion vehicle (manufacture)
	35300	Aircraft (manufacture)
	35300	Aircraft brake (not brake lining) (manufacture)
	35300	Aircraft galley (manufacture)
	35300	Aircraft parts and sub assemblies (not electric) (manufacture)
	35300	Aircraft propeller (manufacture)
	36110	Aircraft seat (manufacture)
	35300	Airframe (manufacture)
	35300	Airframe parts and sub assemblies (not electric) (manufacture)
	35300	Airscrew (manufacture)
	35300	Airship (manufacture)
	35300	Anti-icing equipment and systems for aircraft (manufacture)
	35300	Auxiliary power unit for aircraft (manufacture)
	35300	Balloon (not toy) (manufacture)
	35300	Control surfaces for aircraft (manufacture)
	35300	De-icing equipment for aircraft (manufacture)
	35300	Dirigibles (manufacture)
	35300	Doors for aircraft (manufacture)
	35300	Ejector seat for aircraft (manufacture)
	35300	Engines for aircraft (manufacture)
	35300	Flight simulator (electronic) (manufacture)
	35300	Fuel tanks for aircraft (manufacture)
	35300	Fuselage for aircraft (manufacture)
	35300	Glider (manufacture)
	35300	Ground effect vehicles (manufacture)
	35300	Ground equipment for spacecraft (excluding electronic or telemetric equipment) (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	35300	Ground flying trainers (manufacture)
	35300	Hang glider (manufacture)
	35300	Helicopter (manufacture)
	35300	Helicopter rotors for aircraft (manufacture)
	35300	Hot air balloons (manufacture)
	29600	Intercontinental ballistic missiles (ICBM) (manufacture)
	35300	Jet engine (manufacture)
	35300	Kite (not toy) (manufacture)
	35300	Landing gear for aircraft (manufacture)
	35300	Launch vehicle for spacecraft (manufacture)
	35300	Motors and engines of a kind typically found on aircraft (manufacture)
	35300	Motors for aircraft (manufacture)
	35300	Nacelles for aircraft (manufacture)
	35300	Nozzle for gas turbine aero engine (manufacture)
	35300	Orbital stations (manufacture)
	35300	Overhaul and conversion of aircraft or aircraft engines (manufacture)
	35300	Planetary probes (manufacture)
	35300	Power control for aircraft (manufacture)
	35300	Propeller for aircraft (manufacture)
	35300	Propeller rotor blades (manufacture)
	35300	Rocket (aerospace) (manufacture)
	35300	Rocket motor (manufacture)
	35300	Rotor blades for aircraft (manufacture)
	35300	Safety belt or harness for aircraft crew or passengers (manufacture)
	35300	Sailplane (manufacture)
	35300	Satellites (manufacture)
	36110	Seats for aircraft (manufacture)
	35300	Space shuttles (manufacture)
	35300	Spacecraft (manufacture)
	35300	Turbo-jets and parts for aircraft (manufacture)
	35300	Turbo-propellers and parts for aircraft (manufacture)
	35300	Wings for aircraft (manufacture)
30400		**Manufacture of military fighting vehicles**
	29600	Armoured amphibious military vehicles (manufacture)
	29600	Bridgelayer (tracked military) (manufacture)
	29600	Military fighting tanks (manufacture)
	29600	Military fighting vehicles (manufacture)
	29600	Personnel carrier (armoured fighting vehicle) (manufacture)
	29600	Recovery vehicle (tracked military type) (manufacture)
	29600	Tanks (tracked armoured fighting vehicles) (manufacture)
	29600	Tanks and other fighting vehicles (manufacture)
	29600	Troop carrier (armoured) (manufacture)
30910		**Manufacture of motorcycles**
	35410	Autocycle (manufacture)
	35410	Axle for motorcycle (manufacture)
	35410	Cycles fitted with an auxiliary engine (manufacture)
	35410	Engines (internal combustion) for motorcycles (manufacture)
	34100	Engines for motorcycles (manufacture)
	35410	Frame for motor tricycle (manufacture)
	35410	Frame for motorcycle (manufacture)
	35410	Gear box for motorcycle (manufacture)
	35410	Handlebar for motorcycle (manufacture)
	35410	Internal combustion engines for motorcycles (manufacture)
	35410	Moped (manufacture)
	35410	Motor scooter (manufacture)
	35410	Motor tricycle and parts (manufacture)
	35410	Motorcycle (manufacture)
	35410	Motorcycle parts and accessories (manufacture)
	35410	Pillion seats for motorcycles (manufacture)
	35410	Saddles for motorcycles (manufacture)
	35410	Sidecars for motorcycles (manufacture)
	35410	Wheels for motorcycles (manufacture)
30920		**Manufacture of bicycles and invalid carriages**
	36639	Baby carriage (manufacture)
	35430	Bath chair (manufacture)
	35420	Bicycles (non-motorised) (manufacture)
	35420	Bicycles and parts (manufacture)
	35430	Body shell for invalid carriage (manufacture)
	35430	Chassis for powered invalid carriage (manufacture)
	35420	Children's bicycles and tricycles (non-motorised) (manufacture)
	36639	Children's carriage (manufacture)
	35420	Crank wheel for pedal cycle (manufacture)
	35420	Cycles (non-motorised) (manufacture)
	35420	Cycles and parts (manufacture)
	35420	Cyclometer (manufacture)
	35420	Delivery tricycles (non-motorised) (manufacture)
	36639	Folding perambulator (manufacture)
	35420	Frame for pedal cycle (manufacture)
	35420	Frame for pedal tricycle (manufacture)
	35420	Free wheel for pedal cycle (manufacture)
	35420	Gear for pedal cycle (manufacture)
	35420	Handlebar for pedal cycle (manufacture)
	35430	Invalid carriage (electrically propelled) (manufacture)
	35430	Invalid carriage (manually propelled) (manufacture)
	35430	Invalid carriage (power operated) (manufacture)
	35430	Invalid carriage parts and accessories (manufacture)
	35420	Pedals for bicycles (manufacture)
	36639	Perambulator (manufacture)
	36639	Push chair (manufacture)
	35420	Saddles for pedal cycles (manufacture)
	35430	Steering column and gear for powered invalid carriage (manufacture)
	35420	Tandems (manufacture)
	35420	Tricycles (including delivery tricycles) (manufacture)
	35420	Tricycles and parts (manufacture)
	35430	Wheel chair (manufacture)
	35430	Wheelchair (manufacture)
	35420	Wheels for pedal cycles (manufacture)
30990		**Manufacture of other transport equipment n.e.c.**
	35500	Donkey-carts (manufacture)
	35500	Handcarts (manufacture)
	35500	Hearses drawn by animals (manufacture)
	35500	Horse drawn trailer (manufacture)
	35500	Horse drawn truck (manufacture)
	35500	Luggage trucks (hand propelled) (manufacture)
	35500	Manually propelled trucks (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	35500	Shopping carts (hand-propelled) (manufacture)
	35500	Sledges (hand-propelled) (manufacture)
	35500	Vehicles drawn by animals (manufacture)
31010		**Manufacture of office and shop furniture**
	36120	Bookcase (non-domestic) (manufacture)
	36120	Cabinets (non-domestic) (manufacture)
	36120	Chairs and seats for offices, workrooms, hotels, restaurants and public premises (manufacture)
	36120	Coat stand (non-domestic) (manufacture)
	36120	Counters for shops (manufacture)
	35500	Decorative restaurant carts, dessert cart, food wagons (manufacture)
	36120	Desks (manufacture)
	36120	Display cases for shops (manufacture)
	36120	Drawers (non-domestic) (manufacture)
	36120	Easel (manufacture)
	36120	Filing cabinet (manufacture)
	36120	Fittings and furnishing for hotels (manufacture)
	36120	Fittings and furnishings for banks (manufacture)
	36120	Fittings and furnishings for bars (manufacture)
	36120	Fittings and furnishings for laboratories (manufacture)
	36120	Fittings and furnishings for libraries (manufacture)
	36120	Fittings and furnishings for museums (manufacture)
	36120	Fittings and furnishings for offices (manufacture)
	36120	Fittings and furnishings for public houses (manufacture)
	36120	Fittings and furnishings for restaurants (manufacture)
	36120	Fittings and furnishings for shops (manufacture)
	36120	Furniture for churches (manufacture)
	36120	Furniture for cinemas (manufacture)
	36120	Furniture for drawing offices (manufacture)
	36120	Furniture for laboratories (manufacture)
	36120	Furniture for libraries (manufacture)
	36120	Furniture for museums (manufacture)
	36120	Furniture for offices (manufacture)
	36120	Furniture for public houses (manufacture)
	36120	Furniture for restaurants (manufacture)
	36120	Furniture for schools (manufacture)
	36120	Furniture for ships (manufacture)
	36120	Furniture for shops (manufacture)
	36120	Furniture for workrooms (manufacture)
	36120	Laboratory benches, stools, and other laboratory seating (manufacture)
	36120	Laboratory furniture, cabinets and tables (manufacture)
	36120	Lectern (manufacture)
	36120	Locker (manufacture)
	36110	Office seating (manufacture)
	36120	Partitions (non-domestic) (manufacture)
	36120	Pulpit (manufacture)
	36120	Racking (manufacture)
	36120	Screens (non-domestic) (manufacture)
	36110	Seating for office or school (manufacture)
	36110	Seats for cinema (manufacture)
	36110	Seats for theatre (manufacture)
	36120	Shelving (non-domestic) (manufacture)
	36120	Shop fixtures for display and storage of goods (manufacture)
	36120	Show case (manufacture)
	36120	Tables for office or school (manufacture)
31020		**Manufacture of kitchen furniture**
	36130	Cabinets for kitchens (manufacture)
	36130	Cupboards for kitchens (manufacture)
	36130	Dressers for kitchens (manufacture)
	36130	Furniture for kitchens (manufacture)
	36110	Kitchen seating (fitted) (manufacture)
31030		**Manufacture of mattresses**
	36150	Beds (mattress and mattress support) (manufacture)
	36150	Box spring mattress (manufacture)
	36150	Cot mattress (manufacture)
	36150	Divan bed (mattress and mattress support) (manufacture)
	36150	Interior sprung mattress (manufacture)
	36150	Mattress base (manufacture)
	36150	Mattress made of plastic foam (manufacture)
	36150	Mattress made of sponge (manufacture)
	36150	Mattress support made of metal (manufacture)
	36150	Spring wire mattress (manufacture)
	36150	Upholstered base for mattress (manufacture)
31090		**Manufacture of other furniture**
	36110	Armchair (manufacture)
	36140	Bamboo furniture (other than seating) (manufacture)
	36110	Basket chair (manufacture)
	36140	Basket furniture (manufacture)
	36140	Bed heads made of metal (manufacture)
	36110	Bed settee (manufacture)
	36140	Bedsteads made of metal (manufacture)
	36140	Bedsteads made of wood (manufacture)
	36110	Bench seat (manufacture)
	36140	Bentwood furniture (manufacture)
	36140	Bookcase made of wood (manufacture)
	36140	Bunk beds made of metal (manufacture)
	36140	Bunk beds made of wood (manufacture)
	36140	Cabinet case made of wood (manufacture)
	36140	Cabinets for sewing machines (manufacture)
	36140	Cabinets for televisions (manufacture)
	36140	Camp furniture made of wood (manufacture)
	36110	Cane chair (manufacture)
	36140	Cane furniture (manufacture)
	36110	Chair (non-upholstered) (manufacture)
	36110	Chair (upholstered) (manufacture)
	36110	Chair frames made of wood (manufacture)
	36110	Chair seating made of cane or wicker (manufacture)
	36110	Chairs made of metal (manufacture)
	36110	Chairs made of plastic (manufacture)
	36110	Chaise longue (manufacture)
	36140	Chest of drawers (manufacture)
	36140	Cocktail cabinet (manufacture)
	36140	Coffee table (manufacture)
	36110	Convertible furniture (manufacture)
	36140	Cot frame (manufacture)
	36110	Couch (manufacture)
	36140	Cupboard (manufacture)
	36110	Deck chairs made of wood (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	36110	Dining chair (manufacture)
	36140	Dining table (manufacture)
	36140	Display cabinet for domestic use (manufacture)
	36140	Dressing table (manufacture)
	36110	Finishing of chairs and seats
	36140	Fire screen (manufacture)
	36140	Folding bed (manufacture)
	36140	Frames for mattress support made of wood (manufacture)
	36140	French polishing (manufacture)
	36140	Fume cupboards (manufacture)
	36140	Furniture components made of wood (manufacture)
	36140	Furniture finishing (except chairs and seats) (manufacture)
	36140	Furniture for bedrooms (other than mattresses and mattress supports) (manufacture)
	36140	Furniture for gardens (manufacture)
	36140	Furniture for living rooms (manufacture)
	36140	Furniture for nurseries (manufacture)
	36140	Furniture kit (manufacture)
	36140	Furniture made of bamboo (other than seating) (manufacture)
	36140	Furniture parts made of wood (manufacture)
	36110	Garden chairs (manufacture)
	36110	Garden seating (manufacture)
	36140	Hall stand (manufacture)
	36140	Ice box made of wood (manufacture)
	36140	Ice chest made of wood (manufacture)
	36140	Insulated cabinets made of wood (manufacture)
	36140	Lacquering, varnishing and gilding of furniture (manufacture)
	36110	Metal framed upholstery for seating (manufacture)
	36140	Other plastic furniture (manufacture)
	36110	Ottoman (manufacture)
	36140	Outdoor furniture (non-upholstered) (manufacture)
	36140	Outdoor furniture made of metal (manufacture)
	36110	Outdoor seating (manufacture)
	36140	Painting of furniture (manufacture)
	36110	Pew (manufacture)
	36110	Plastic shell upholstery (manufacture)
	36140	Room divide system (manufacture)
	36140	Rustic furniture (manufacture)
	36110	Seating (manufacture)
	36110	Seating made of metal (not for road vehicle or aircraft) (manufacture)
	36110	Settee (manufacture)
	36140	Sideboard (manufacture)
	36110	Sofa (manufacture)
	36110	Sofa sets (manufacture)
	36110	Sofabeds (manufacture)
	36140	Spraying of furniture (manufacture)
	36140	Storage cabinets for domestic use (manufacture)
	36110	Studio couch (manufacture)
	36140	Tables for domestic use (manufacture)
	36140	Unit furniture (non-upholstered) (manufacture)
	36110	Unit seating for domestic use (upholstered) (manufacture)
	36140	Upholstered furniture (other than chairs and seats) (manufacture)
	36110	Upholsterer (not repair and maintenance) (manufacture)

SIC 2007	SIC 2003	Activity
	36110	Upholstery of chairs and seats (manufacture)
	36140	Wall unit (manufacture)
	36140	Wardrobes (manufacture)
	36140	Wardrobes made of metal (manufacture)
	36140	Wicker furniture (manufacture)
	36140	Work benches made of wood (manufacture)
	36140	Woven fibre furniture (manufacture)
32110		**Striking of coins**
	36210	Coin striking (manufacture)
	36210	Coins (manufacture)
	36210	Royal Mint (manufacture)
32120		**Manufacture of jewellery and related articles**
	36220	Articles for religious use of base metals clad with precious metals (manufacture)
	36220	Cutlery made of precious metal (manufacture)
	36220	Diamond cutting (manufacture)
	36220	Diamond working (manufacture)
	36220	Dinnerware flatware hollowware of base metals clad with precious metals (manufacture)
	36220	Engraving (personalised) on precious metal (manufacture)
	36220	Engraving of personal non-precious metal products (manufacture)
	36220	Findings of stampings made of precious metals for jewellery (manufacture)
	36220	Gold and silver braid (manufacture)
	36220	Gold and silver embroidery (manufacture)
	36220	Gold and silver mounting (manufacture)
	36220	Gold laceman (manufacture)
	36220	Gold leaf (manufacture)
	36220	Goldsmiths' articles (manufacture)
	36220	Goldsmiths' articles of base metals clad with precious metals (manufacture)
	36220	Goldsmiths' articles of precious metals (manufacture)
	36220	Industrial quality stones (manufacture)
	36220	Jet ornaments and jewellery (manufacture)
	36220	Jewellery (gold or silver plated) (manufacture)
	36220	Jewellery engraving (not distributive trades) (manufacture)
	36220	Jewellery made of platinum (manufacture)
	36220	Jewellery made of precious metal (manufacture)
	36220	Jewellery made of semi-precious stones (manufacture)
	36220	Jewellery of base metal clad with precious metal (manufacture)
	36220	Jewellery polishing (manufacture)
	36220	Jewellery with precious stones (manufacture)
	36220	Office or desk articles of base metals clad with precious metals (manufacture)
	36220	Ornaments made of precious metal (manufacture)
	36220	Ornaments that are gold or silver plated (manufacture)
	36220	Pearl drilling (manufacture)
	36220	Pearl stringing (manufacture)
	36220	Pearls production (manufacture)
	36220	Precious and semi-precious stones in the worked state production (manufacture)
	36220	Precious stone cutting (manufacture)
	36220	Silver burnishing (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	36220	Silversmiths' work (manufacture)
	36220	Synthetic precious and semi-precious stones (manufacture)
	36220	Tableware made of precious metal (manufacture)
	36220	Teapots made of precious metal (manufacture)
	36220	Toilet articles of base metals clad with precious metals (manufacture)
	33500	Watchbands, wristbands and watch straps, of precious metal (manufacture)
	36220	Worked pearls (manufacture)
32130		**Manufacture of imitation jewellery and related articles**
	36610	Bags made of chain (manufacture)
	36610	Britannia metalware (manufacture)
	36610	Buhl cutting (manufacture)
	36610	Costume jewellery (manufacture)
	36610	Costume or imitation jewellery (manufacture)
	36610	Cuff link (not of, or clad in, precious metal, or of precious/semi precious stones) (manufacture)
	36610	Fashion jewellery (manufacture)
	36610	Findings and stampings made of base metal for jewellery (manufacture)
	36610	Gilt (manufacture)
	36610	Imitation jewellery (manufacture)
	36610	Imitation pearls (manufacture)
	36610	Jewellery (gilded and silvered) (manufacture)
	36610	Jewellery containing imitation gem stones (manufacture)
	36610	Jewellery made of ceramic (manufacture)
	36610	Rings, bracelets, necklaces made from base metals plated with precious metals (manufacture)
	36610	Tie pin (not of, or clad in, precious metal, or of precious/semi precious stones) (manufacture)
	33500	Watch straps, bands and bracelets made of non-precious metal (manufacture)
32200		**Manufacture of musical instruments**
	36300	Accordion (manufacture)
	36300	Automatic pianos (manufacture)
	36300	Bagpipes and reeds (manufacture)
	36300	Call horns (manufacture)
	36300	Calliopes (manufacture)
	36300	Cards for automatic mechanical instruments (manufacture)
	36300	Cello (manufacture)
	36300	Concertina (manufacture)
	36300	Discs for automatic mechanical instruments (manufacture)
	36300	Double bass (manufacture)
	36300	Drum (musical instrument) (manufacture)
	36300	Electronic musical instrument (manufacture)
	36300	Fairground organs (manufacture)
	36300	Guitar (manufacture)
	36300	Harmoniums (manufacture)
	36300	Harmoniums with free metal reeds (manufacture)
	36300	Harpsichord (manufacture)
	36300	Horns (musical) (manufacture)
	36300	Keyboard instruments (manufacture)
	36300	Keyboard pipe organs with free metal reeds (manufacture)
	36300	Keyboard stringed instruments (manufacture)
	36300	Metronome (electronic or mechanical) (manufacture)
	36300	Mouth blown signalling instruments (manufacture)
	36300	Mouth organ (manufacture)
	36300	Music box mechanisms (manufacture)
	36300	Musical box (manufacture)
	36300	Musical instrument parts and accessories (manufacture)
	36300	Musical instrument tuners (electronic) (manufacture)
	36300	Musical instruments including electronic (manufacture)
	36300	Organ tuning (manufacture)
	36300	Percussion instrument (manufacture)
	36300	Piano (manufacture)
	36300	Pipe organ (manufacture)
	36300	Pitch pipes (manufacture)
	36300	Recorders made of plastic or wood (manufacture)
	36300	Reed for musical instrument (manufacture)
	36300	Rolls for automatic mechanical instruments (manufacture)
	36300	Stringed instruments (manufacture)
	36300	Strings for musical instruments (manufacture)
	36300	Tuning fork (manufacture)
	36300	Viola (manufacture)
	36300	Violin (manufacture)
	36300	Whistles (manufacture)
	36300	Wind instrument (manufacture)
	36300	Woodwind instruments (manufacture)
32300		**Manufacture of sports goods**
	36400	Archery equipment (manufacture)
	36400	Athletic equipment (manufacture)
	36400	Badminton shuttlecock (manufacture)
	36400	Balls for all sports (finished) (manufacture)
	36400	Basins for swimming and paddling pools (manufacture)
	36400	Bats (manufacture)
	36400	Bowls and bowls equipment (manufacture)
	36400	Bows (manufacture)
	36400	Boxing glove (manufacture)
	36400	Climbing frame (manufacture)
	36400	Clubs (manufacture)
	36400	Cricket ball and equipment (manufacture)
	36400	Crossbows (manufacture)
	36400	Fish hook (manufacture)
	36400	Fishing tackle (manufacture)
	36400	Fitness centre equipment and appliances (manufacture)
	36400	Fly dressing (manufacture)
	36400	Football case made of leather (manufacture)
	36400	Golf ball (finished) (manufacture)
	36400	Golf club (manufacture)
	36400	Gymnasium equipment and appliances (manufacture)
	36400	Headgear for sports (manufacture)
	36400	Hockey stick (manufacture)
	36400	Hunting requisites (manufacture)
	36400	Ice-skates (manufacture)
	36400	Landing nets (manufacture)
	36400	Mountaineering equipment (manufacture)
	36400	Nursery equipment (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	36400	Playground equipment (manufacture)
	36400	Racket and racket frames (manufacture)
	36400	Rock climbing equipment (manufacture)
	36400	Roller skates (manufacture)
	36400	Sailboards (manufacture)
	36400	Skateboards (manufacture)
	36400	Ski bindings and poles (manufacture)
	36400	Ski-boots (manufacture)
	36400	Skiing equipment (manufacture)
	36400	Skis (manufacture)
	36400	Sport fishing requisites (manufacture)
	36400	Sports and outdoor and indoor games, articles and equipment (manufacture)
	36400	Sports equipment made of plastic (manufacture)
	36400	Sports gloves (specialist) (manufacture)
	36400	Sports goods (manufacture)
	36400	Squash racket (manufacture)
	36400	Surfboard (manufacture)
	36400	Swings for playgrounds (manufacture)
	36400	Table tennis ball (manufacture)
	36400	Table tennis equipment (manufacture)
	36400	Tennis balls (finished) (manufacture)
	36400	Tennis racket (manufacture)
	36400	Water sports equipment (manufacture)
	36400	Waterwings made of rubber (manufacture)
32401		**Manufacture of professional and arcade games and toys**
	36501	Amusement machines (manufacture)
	36501	Billiard ball (manufacture)
	36501	Billiard cue (manufacture)
	36501	Billiard table (manufacture)
	36501	Coin operated games (manufacture)
	36501	Cue for billiards or snooker (manufacture)
	36501	Dart (manufacture)
	36501	Dartboard (manufacture)
	36501	Funfair articles (manufacture)
	36501	Funfair games (manufacture)
	36501	Games for professional and arcade use (manufacture)
	36501	Gaming (automatic slot) machines (manufacture)
	36501	Pin-tables (manufacture)
	36501	Tables for casino games (manufacture)
	36501	Toys for professional and arcade use (manufacture)
32409		**Manufacture of games and toys (other than professional and arcade games and toys) n.e.c.**
	36509	Action figures (manufacture)
	36509	Bagatelle board (manufacture)
	36509	Bicycles for children (manufacture)
	36509	Board game (manufacture)
	36509	Boxed game (manufacture)
	36509	Chess (electronic) (manufacture)
	36509	Chess set (manufacture)
	36509	Construction model (manufacture)
	36509	Construction sets (manufacture)
	36509	Constructional toy (manufacture)
	36509	Dolls (manufacture)
	36509	Dolls and doll garments, parts and accessories (manufacture)
	36509	Dolls' clothes (manufacture)
	36509	Dolls' cots (manufacture)
	36509	Dolls' houses (manufacture)
	36509	Dolls made of rubber (manufacture)
	36509	Dolls' prams (manufacture)
	36509	Draughts set (manufacture)
	36509	Games and toys (manufacture)
	36509	Indoor game (manufacture)
	36509	Jigsaw puzzle (manufacture)
	36509	Model kit (manufacture)
	36509	Models for recreational use (manufacture)
	36509	Plastic bicycles and tricycles designed to be ridden (manufacture)
	36509	Plastic game (manufacture)
	36509	Playballs made of rubber (manufacture)
	36509	Playing cards (manufacture)
	36509	Puppet (manufacture)
	36509	Push toy on wheels (manufacture)
	36509	Puzzles (manufacture)
	36509	Reduced-size (scale) models (manufacture)
	36509	Reduced-size scale model electrical trains (manufacture)
	36509	Reduced-size scale models construction sets (manufacture)
	36509	Soft toys (manufacture)
	36509	Stuffed toy (manufacture)
	36509	Table or parlour games (manufacture)
	36509	Technical toy (manufacture)
	36509	Toy animal (manufacture)
	36509	Toy balloon (manufacture)
	36509	Toy car circuit (electric) (manufacture)
	36509	Toy cars (electric) (manufacture)
	36509	Toy cars (pedal) (manufacture)
	36509	Toy furniture (manufacture)
	36509	Toy guns (not operated by compressed air) (manufacture)
	36509	Toy musical instruments including electronic
	36509	Toy perambulators and pushchairs (manufacture)
	36509	Toy push cart (manufacture)
	36509	Toy trains (electric) (manufacture)
	36509	Toy wheelbarrow (manufacture)
	36509	Toys (mechanical) (manufacture)
	36509	Toys and games (electronic) with fixed (non replaceable software) (manufacture)
	36509	Toys and games made of paper (manufacture)
	36509	Toys and games made of wood (manufacture)
	36509	Toys made of cardboard (manufacture)
	36509	Toys made of metal (manufacture)
	36509	Toys made of plastic (manufacture)
	36509	Tricycles for children (manufacture)
	36509	Video games machines (manufacture)
	36509	Wheeled toys designed to be ridden (manufacture)
32500		**Manufacture of medical and dental instruments and supplies**
	24422	Absorbable haemostatics (manufacture)
	24422	Adhesive plaster and surgical bandage (manufacture)
	33100	Anaesthetic equipment (manufacture)

36509 Toys made of rubber (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

33100 Artificial eye (manufacture)33100 Artificial limb (manufacture)
33100 Artificial parts for the heart (manufacture) 33100 Artificial respiration equipment (manufacture)33100 Artificial teeth (manufacture)
33100 Aseptic hospital furniture (manufacture)33100 Audiometers (manufacture)
33100 Autoclaves (manufacture)
33100 Bone plates and screws (manufacture) 24422 Bone reconstruction cements (manufacture) 33100 Breathing apparatus for diving (manufacture)33100 Bridges made in dental labs (manufacture)
33100 Cannulae (manufacture)
33100 Catheter (manufacture)
33100 Cautery and light unit (manufacture) 29240 Centrifuge (laboratory type) (manufacture)33401 Colour filter (unmounted) (manufacture)
33401 Contact lens (manufacture)
33401 Corrective glasses (manufacture) 24422 Cotton wool and tissues (manufacture)33100 Crutches (manufacture)
33100 Cutter for dental use (manufacture)33100 Dental brush (manufacture)
24422 Dental cement (manufacture)33100 Dental chair (manufacture)
33100 Dental drill engines (manufacture)24422 Dental filling (manufacture) 33100 Dental instrument (manufacture)
29240 Dental laboratory furnaces (manufacture)
33100 Dental laboratory instruments and equipment(manufacture)
33100 Dental mirror (manufacture)
33100 Dental surgical instruments and equipment (manufacture)
24422 Dental wax and other dental plaster preparations(manufacture)
33100 Denture (manufacture)
33100 Diathermy apparatus (manufacture)33100 Dissecting instrument (manufacture)33100 Foot support (manufacture)
33100 Furniture for medical, surgical, dental or veterinaryuse (manufacture)
24422 Gauze (surgical) (manufacture)33100 Glass eyes (manufacture) 33401 Goggles (manufacture)
33401 Grating (mounted, (not photographic)) (manufacture)33401 Grating (unmounted, optical) (manufacture)
33100 Hospital beds with mechanical fittings (manufacture)33100 Hyperbaric chambers (manufacture)
33100 Hypodermic syringe and equipment (manufacture)33100 Instep support (manufacture)
33100 Instruments and apparatus used for medical, surgical, dental or veterinary purposes (manufacture)
29240 Laboratory sterilisers (manufacture)
29240 Laboratory type distilling apparatus (manufacture)29240 Laboratory ultrasonic cleaning machinery (manufacture)
24422 Laminaria (manufacture)
33100 Laser surgical apparatus (manufacture)
33401 Lens (mounted, (not photographic)) (manufacture)

33401 Lens (unmounted) (manufacture) 33100 Lithotriptors (manufacture)
33100 Massage apparatus (manufacture)
33100 Mechano-therapy appliances (manufacture)
33100 Medical and dental instruments and supplies (manufacture)
33100 Medical appliances (manufacture)
33100 Medical instrument (non-optical) (manufacture) 33100 Medical nucleonic apparatus (manufacture)
25130 Medical rubber dressings (manufacture)
25130 Medical rubber goods (not dressings) (manufacture)
33202 Medical thermometers (manufacture)
33100 Medical, surgical, dental or veterinary examination tables (manufacture)
33100 Medical, surgical, dental or veterinary operating tables (manufacture)
24422 Medicated dressings (manufacture)
33100 Mirrors for medical use (manufacture)
33401 Monocle (manufacture)
33100 Myograph (manufacture)
33100 Needles used in medicine (manufacture)
33100 Nuclear magnetic resonance apparatus (manufacture)
33100 Nucleonic medical apparatus (manufacture)
33100 Operating tables (manufacture)
33401 Ophthalmic eyeglasses (manufacture)
33100 Ophthalmic instrument (manufacture)
33401 Ophthalmic lenses ground to prescription, safety goggles (manufacture)
33401 Optical element (mounted, (not photographic))(manufacture)
33401 Optical element (unmounted) (manufacture)
33100 Orthopaedic appliances (not footwear) (manufacture)
33100 Orthopaedic footwear (manufacture)
33100 Orthopedic and prosthetic devices (manufacture)
33100 Oxygen breathing equipment for medical use (manufacture)
33100 Oxygen therapy apparatus (manufacture)
33100 Ozone therapy apparatus (manufacture)
24422 Pharmaceutical non-medicament products (manufacture)
24422 Plaster bandages (manufacture)
33401 Polarising elements (manufacture)
33401 Prisms (mounted, (not photographic)) (manufacture)
33401 Prisms (unmounted) (manufacture)
33401 Protective glasses (manufacture)
33100 Psychological testing apparatus (manufacture)
33100 Psychology testing apparatus (manufacture)
33401 Reading glasses (manufacture)
33100 Reflectors used in medicine (manufacture)
33100 Respirator and mask for medical use (manufacture)
33100 Resuscitation equipment (manufacture)
25130 Rubber gloves (medical) (manufacture)
33100 Scintigraphy apparatus (manufacture)
24422 Sheep and cattle dressings (manufacture)
17403 Shroud and cerement (manufacture)
33401 Spectacle frames (manufacture)
33401 Spectacle lens (manufacture)
33401 Spectacle mounts (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	33401	Spectacles (manufacture)
	33100	Splints (manufacture)
	33100	Sterilising equipment for medical use (manufacture)
	33100	Sterilizers (manufacture)
	24422	Sticking plaster (surgical) (manufacture)
	33401	Sunglasses (manufacture)
	24422	Surgical bandage (manufacture)
	33100	Surgical belts (manufacture)
	33100	Surgical boot (manufacture)
	33100	Surgical corset (manufacture)
	17403	Surgical drapes and sterile string and tissue (manufacture)
	24422	Surgical dressing (manufacture)
	33100	Surgical equipment (manufacture)
	24422	Surgical gauze (manufacture)
	25130	Surgical goods made of rubber (manufacture)
	24422	Surgical gut string (manufacture)
	33100	Surgical hosiery (manufacture)
	33100	Surgical implants (manufacture)
	33100	Surgical instrument (manufacture)
	24422	Surgical lint (manufacture)
	24422	Surgical sutures (manufacture)
	33100	Surgical truss (manufacture)
	24422	Surgical wadding (manufacture)
	33100	Syringes (manufacture)
	33100	Traction or suspension devices for medical beds (manufacture)
	33100	Transfusion apparatus (manufacture)
	33100	Transfusion pods (manufacture)
	33100	Urine bottle holders and other accessories for medical beds (manufacture)
	33100	Vascular prostheses (manufacture)
	33100	Veterinary equipment (manufacture)
	33100	Zimmer frames and other walking aids (manufacture)
32910		**Manufacture of brooms and brushes**
	36620	Artists' brush (manufacture)
	36620	Besom (manufacture)
	36620	Birch broom (manufacture)
	36620	Bristle dressing for brushes (manufacture)
	36620	Broom (manufacture)
	36620	Brooms and brushes for household use (manufacture)
	36620	Brush (manufacture)
	36620	Brush (not electrical) for machines (manufacture)
	36620	Brush for cosmetics (manufacture)
	36620	Clothes brush (manufacture)
	36620	Distemper brush (manufacture)
	36620	Feather duster (manufacture)
	36620	Fibre dressing for brushes (manufacture)
	36620	Floor sweepers (hand operated mechanical) (manufacture)
	36620	Flue brush (manufacture)
	36620	Hair brush (manufacture)
	36620	Hair dressing for brushes (manufacture)
	36620	Hearth brush (manufacture)
	36620	Industrial broom and mop (manufacture)
	36620	Industrial brush (manufacture)
	36620	Laundry brush (manufacture)
	36620	Mop (manufacture)
	36620	Mops for household use (manufacture)
	36620	Nail brush (manufacture)
	36620	Paint brush (manufacture)
	36620	Paint pads (manufacture)
	36620	Paste brush (manufacture)
	36620	Pastry brush (manufacture)
	36620	Plastic brush (complete) (manufacture)
	36620	Polishing mop (manufacture)
	36620	Rollers for paint (manufacture)
	36620	Scrubbing brush (manufacture)
	36620	Shaving brush (manufacture)
	36620	Shoe brush (manufacture)
	36620	Squeegees (manufacture)
	36620	Toilet brush (manufacture)
	36620	Tooth brush (not electric) (manufacture)
	36620	Whitewash brush (manufacture)
	36620	Wire brush (manufacture)
32990		**Other manufacturing n.e.c.**
	36639	Amber turning (manufacture)
	36639	Artificial flowers and fruit made of paper (manufacture)
	36639	Artificial flowers and fruit made of plastic (manufacture)
	36639	Artificial flowers and fruit made of textiles (manufacture)
	36631	Ballpoint pen and refill (manufacture)
	36639	Bedfolder (manufacture)
	36639	Bladder dressing (manufacture)
	36639	Boiler covering (not asbestos or slag wool) (manufacture)
	36639	Boiler packing (not asbestos or slag wool) (manufacture)
	36639	Bone working (manufacture)
	36639	Briar pipe (manufacture)
	36639	Buttons (manufacture)
	36639	Buttons made of glass (manufacture)
	36631	Carbon ribbon (manufacture)
	36639	Carnival article (manufacture)
	36639	Carry cot (manufacture)
	36631	Cartridge refill for fountain pen (manufacture)
	36639	Catgut (manufacture)
	36631	Chalk for drawing or writing (manufacture)
	36639	Cigarette lighter (manufacture)
	20510	Coffin board (manufacture)
	20510	Coffins (manufacture)
	36639	Collar stud (manufacture)
	36639	Combs (other than of hard rubber, plastic or metal) (manufacture)
	36639	Conjuring apparatus (manufacture)
	20520	Cork life preservers (manufacture)
	36631	Crayon (manufacture)
	18243	Cut, make, trim of fire-resistant and protective safety clothing, fee or contract basis (manufacture)
	36639	Cutlery handles made of horn, ivory, tortoise shell, etc. (manufacture)
	36631	Date sealing stamps (manufacture)
	36631	Date stamp and accessories (manufacture)
	36639	Devotional article (manufacture)

UK SIC 2007	UK SIC 2003 Activity

SIC 2007	SIC 2003 Activity

36400 Ear and noise plugs (e.g. for swimming and noiseprotection) (manufacture)
36631 Embossing devices (hand operated) for labels(manufacture)
36639 False beard (manufacture) 36639 False eyebrow (manufacture) 36639 Feather curling (manufacture)
36639 Feather ornament (manufacture)36639 Feather purifying (manufacture) 36639 Feather sorting (manufacture)
36631 Felt tipped pen (manufacture) 36631 Fibre tipped pen (manufacture)
18100 Fire resistant and protective safety clothing ofleather (manufacture)
18249 Fire-fighting protection suits (manufacture)36639 Firelighter (manufacture)
18249 Fire-resistant and protective safety clothing (manufacture)
36639 Flint for lighters (manufacture) 36631 Fountain pen (manufacture) 36631 Fountain pen nib (manufacture)
33100 Gas masks (manufacture)
18249 Gauntlet (protective) (manufacture)22110 Globes (manufacture)
36639 Gut for musical instruments and sports goods(manufacture)
36639 Gut scraping and spinning (manufacture)36639 Hair pad making (manufacture)
36639 Hair preparation for wig making (manufacture)36639 Hair slides (manufacture)
36631 Hand printing sets (manufacture)36639 Hand riddles (manufacture) 36639 Hand sieves (manufacture)
25240 Hard hats and other personal safety equipment ofplastics (manufacture)
36639 Horn and tortoise shell working (manufacture)36639 Horn pressing (manufacture)
18241 Industrial protective headgear (manufacture)
36631 Ink pad (manufacture)
36639 Instruments for educational or exhibition purposes(manufacture)
36639 Ivory working (manufacture)
36639 Jokes and novelties (manufacture)25130 Life vests (manufacture)
25130 Lifebelts (manufacture)
20520 Lifebelts made of cork (manufacture) 20520 Lifebuoy made of cork (manufacture) 25130 Lifejacket (manufacture)
20520 Lifejacket made of cork (manufacture)
36639 Lighter fuel in containers not exceeding 300 cc (liquid or liquefied gas) (manufacture)
19200 Linemen's safety belts and other belts for occupational use (manufacture)
36631 Marker pen (manufacture)
36639 Models for educational or exhibition purposes(manufacture)
36639 Models for geographical use made of wax or plaster(manufacture)
36639 Models made of plaster (manufacture)
36639 Models made of wax (manufacture)
36639 Natural sponge preparation (manufacture)

36639 Nightlight (manufacture)
36631 Numbering stamps (manufacture)
36639 Parasol (manufacture)
36631 Pastel (manufacture)
36631 Pen nibs (manufacture)
36631 Pencil (manufacture)
36631 Pencil leads (manufacture)
36631 Penholder (manufacture)
36631 Pens for writing or drawing (manufacture)
28750 Personal safety devices of metal (manufacture)
36639 Plaster cast (manufacture)
36631 Prepared typewriter ribbons (manufacture)
36639 Press-fasteners (manufacture)
36639 Press-studs (manufacture)
36631 Printing devices (hand operated) (manufacture)
36631 Propelling pencil (manufacture)
18249 Protective gloves for industrial use (manufacture)
18241 Protective headgear (manufacture)
18241 Protective headgear for industrial use (manufacture)
36631 Ribbon (inked) (manufacture)
18241 Riding caps (manufacture)
36631 Roller pens and refills (manufacture)
28750 Safety headgear made of metal (manufacture)
25240 Safety helmets made of plastic (manufacture)
36639 Scent sprays (manufacture)
36639 Scientific models for educational and exhibition purposes (manufacture)
36631 Sealing stamps (manufacture)
36631 Seals for use with sealing wax (manufacture)
36639 Seat-sticks (manufacture)
36631 Slates for writing (manufacture)
36639 Slide fasteners (manufacture)
36639 Smokers' requisites (manufacture)
36639 Smoking pipes (manufacture)
36639 Snap fasteners (manufacture)
36639 Sponge bleaching (manufacture)
36639 Sponge trimming (manufacture)
36631 Stamps made of rubber (manufacture)
36631 Stylographic pen (manufacture)
36639 Sun car (manufacture)
36639 Sunshade (manufacture)
36639 Sun-umbrellas (manufacture)
36631 Tailors' chalk (manufacture)
36639 Tailors' dummy (not plastic) (manufacture)
36639 Tapers and the like (manufacture)
36639 Taxidermy activities (manufacture)
36639 Teaching aids (electronic) (manufacture)
36639 Toothpicks made of bone (manufacture)
36639 Trainer (electronic training equipment) (manufacture)
36631 Typewriter ribbons (manufacture)
36639 Umbrella (manufacture)
18241 Uniform helmets (manufacture)
36639 Vacuum flask (complete) (manufacture)
36639 Vacuum jar (manufacture)
36639 Vacuum vessels for personal or household use (manufacture)
36639 Walking sticks (manufacture)
36639 Whalebone cutting and splitting (manufacture)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

36639 Wig (manufacture)

36631 Writing instrument sets (manufacture)

33110 Repair of fabricated metal products

28520 Mobile welding repair of fabricated metal products(not of machinery) (manufacture)

28220 Platework repair of central heating boilers andradiators (manufacture)

28520 Repair and maintenance for pipes and pipelines(manufacture)

28300 Repair and maintenance of auxiliary plant for steamcollectors and accumulators (manufacture)

28300 Repair and maintenance of auxiliary plant for usewith steam condensers (manufacture)

28300 Repair and maintenance of auxiliary plant for usewith steam economisers (manufacture)

28300 Repair and maintenance of auxiliary plant for usewith steam generators (manufacture)

28300 Repair and maintenance of auxiliary plant for usewith steam superheaters (manufacture)

34202 Repair and maintenance of containers for freight(manufacture)

29600 Repair and maintenance of firearms and ordnance(manufacture)

28220 Repair and maintenance of non-domestic centralheating boilers (manufacture)

28300 Repair and maintenance of nuclear reactors (manufacture)

28300 Repair and maintenance of parts for marine orpower boilers (manufacture)

35500 Repair and maintenance of shopping carts (manufacture)

29600 Repair and maintenance of sporting and recreationalguns (manufacture)

28300 Repair and maintenance of steam generators (manufacture)

28300 Repair and maintenance of steam or other vapourgenerators (manufacture)

28210 Repair and maintenance of tanks, reservoirs andcontainers of metal (manufacture)

29600 Repair and maintenance of weapons and weaponsystems (manufacture)

28610 Repair of cutlery (manufacture)

28630 Repair of locks and hinges (manufacture) 28110 Repair of metal structures (manufacture) 28710 Repair of steel shipping drums (manufacture)28620 Repair of tools (manufacture)

33120 Repair of machinery

28520 General mechanical maintenance and repair of machinery (manufacture)

72500 Repair and maintenance of accounting machinery(manufacture)

29320 Repair and maintenance of agricultural machinery(manufacture)

29310 Repair and maintenance of agricultural tractors (manufacture)

72500 Repair and maintenance of cash registers (manufacture)

29240 Repair and maintenance of commercial-type generalpurpose machinery (manufacture)

29122 Repair and maintenance of compressors (manufacture)

29522 Repair and maintenance of construction machinery(earth moving type) (manufacture)

29523 Repair and maintenance of construction machinery(except earth moving type) (manufacture)

29522 Repair and maintenance of earth-moving andexcavating equipment (manufacture)

29110 Repair and maintenance of engines and turbines(except aircraft, vehicle and cycle) (manufacture)

29523 Repair and maintenance of equipment for concrete crushing and screening and roadworks (manufacture)

29122 Repair and maintenance of fluid power machinery(compressors) (manufacture)

29121 Repair and maintenance of fluid power machinery(pumps) (manufacture)

29320 Repair and maintenance of forestry and loggingmachinery (manufacture)

29210 Repair and maintenance of furnaces and furnaceburners (manufacture)

29110 Repair and maintenance of gas turbines(manufacture)

29240 Repair and maintenance of general purposemachinery n.e.c. (manufacture)

29210 Repair and maintenance of industrial processfurnaces (manufacture)

29230 Repair and maintenance of industrial refrigerationequipment, air purifying equipment (manufacture)

29230 Repair and maintenance of industrial type airconditioning (manufacture)

29220 Repair and maintenance of lifting and handlingequipment (manufacture)

29220 Repair and maintenance of lifting, handling equipment, elevators, moving walkways etc.(manufacture)

29220 Repair and maintenance of lifts and escalators (notin buildings or civil engineering) (manufacture)

29560 Repair and maintenance of machinery forbookbinding (manufacture)

29530 Repair and maintenance of machinery for food,beverage and tobacco processing (manufacture)

29510 Repair and maintenance of machinery for metallurgy (manufacture)

29521 Repair and maintenance of machinery for mining(manufacture)

29550 Repair and maintenance of machinery for paper and paperboard production (manufacture)

29560 Repair and maintenance of machinery for printing(manufacture)

29540 Repair and maintenance of machinery for textile,apparel and leather production (manufacture)

29560 Repair and maintenance of machinery for workingrubber or plastics (manufacture)

29110 Repair and maintenance of marine engines(manufacture)

29420 Repair and maintenance of metal cutting or metalforming machine tools and accessories (manufacture)

29420 Repair and maintenance of metal working machinetools (manufacture)

29230 Repair and maintenance of non-domestic coolingand ventilating equipment (manufacture)

29560 Repair and maintenance of non-domestic machinery for drying wood, paper pulp, etc.(manufacture)

72500 Repair and maintenance of office machinery (otherthan computers)

29521 Repair and maintenance of oil and gas extractionmachinery (manufacture)

29430 Repair and maintenance of other machine tools(except metal working) (manufacture)

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	29420	Repair and maintenance of other machine tools (metal working) (manufacture)
	29550	Repair and maintenance of papermaking machinery (manufacture)
	72500	Repair and maintenance of photocopy machines (manufacture)
	29560	Repair and maintenance of plastic and rubber working machinery (manufacture)
	29121	Repair and maintenance of pumps (manufacture)
	29110	Repair and maintenance of railway diesel engines (manufacture)
	72500	Repair and maintenance of reprographic machinery
	29560	Repair and maintenance of special purpose machinery n.e.c. (manufacture)
	29110	Repair and maintenance of steam turbines (manufacture)
	29130	Repair and maintenance of taps (manufacture)
	29130	Repair and maintenance of valves (manufacture)
	29240	Repair and maintenance of vending machines (manufacture)
	29240	Repair and maintenance of weighing equipment (manufacture)
	72500	Repair of calculators (manufacture)
	29140	Repair of gearing and driving elements (manufacture)
	29410	Repair of other power-driven hand-tools (manufacture)
	72500	Repair of typewriters (manufacture)
	29130	Repair of valves for machinery (manufacture)
33130		**Repair of electronic and optical equipment**
	33201	Repair and maintenance of aircraft engine instruments (manufacture)
	33201	Repair and maintenance of automotive emissions testing equipment (manufacture)
	33500	Repair and maintenance of clocks in church towers and the like
	33100	Repair and maintenance of electrocardiographs (manufacture)
	33100	Repair and maintenance of electromedical endoscopic equipment (manufacture)
	33201	Repair and maintenance of electronic equipment for measuring, checking, testing, etc. (manufacture)
	33100	Repair and maintenance of hearing aids (manufacture)
	33500	Repair and maintenance of industrial time measuring instruments and apparatus (manufacture)
	33100	Repair and maintenance of irradiation apparatus (manufacture)
	33100	Repair and maintenance of magnetic resonance imaging equipment (manufacture)
	33201	Repair and maintenance of materials' properties testing and inspection equipment (manufacture)
	33100	Repair and maintenance of medical and surgical equipment and apparatus (manufacture)
	33100	Repair and maintenance of medical ultrasound equipment (manufacture)
	33201	Repair and maintenance of meteorological instruments (manufacture)
	33402	Repair and maintenance of optical precision instruments (manufacture)
	33100	Repair and maintenance of pacemakers (manufacture)
	29710	Repair and maintenance of professional electric appliances (manufacture)
	33403	Repair and maintenance of professional photographic and cinematographic equipment (manufacture)
	33201	Repair and maintenance of radiation detection and monitoring instruments (manufacture)
	33201	Repair and maintenance of surveying instruments (manufacture)
	33402	Repair of binoculars (manufacture)
	33301	Repair of electronic industrial process control equipment (manufacture)
	33402	Repair of electronic optical equipment (manufacture)
	31100	Repair of electronic transformers (solid state), coils, chokes, and other inductors (manufacture)
	32100	Repair of electronic valves and tubes and other electronic components (manufacture)
	32300	Repair of heads (pickup, recording, read/write, etc.), phonograph needles (manufacturing)
	29240	Repair of laboratory distilling apparatus, centrifuges, ultrasonic cleaning machinery (manufacture)
	33402	Repair of microscopes (manufacture)
	31620	Repair of mine detectors (manufacture)
	33302	Repair of non-electronic industrial process control equipment (manufacture)
	33403	Repair of photographic equipment (manufacture)
	33401	Repair of prisms and lenses (manufacture)
	33402	Repair of telescopes (manufacture)
33140		**Repair of electrical equipment**
	31500	Repair and maintenance of electric lighting equipment (manufacture)
	31620	Repair and maintenance of electrical signalling equipment (manufacture)
	31200	Repair and maintenance of electricity distribution and control apparatus (manufacture)
	33100	Repair and maintenance of medical equipment, electrical (manufacture)
	31100	Repair and maintenance of motor generator sets (manufacture)
	33202	Repair and maintenance of non-electronic measuring, checking, testing etc. equipment (manufacture)
	31400	Repair and maintenance of primary and storage batteries (manufacture)
	31200	Repair and maintenance of relays and industrial controls (manufacture)
	31620	Repair and maintenance of road and other non-domestic exterior lighting equipment (manufacture)
	31200	Repair and maintenance of switchgear and switchboard apparatus (manufacture)
	31200	Repair and maintenance of wiring devices for wiring electrical circuits (manufacture)
	31100	Repair and rewiring of armatures (manufacture)
	31100	Repair, maintenance and rewinding of electric motors, generators and transformers (manufacture)
	31100	Rewind electric motor (manufacture)
33150		**Repair and maintenance of ships and boats**
	35110	Painting of ships
	35120	Repair and maintenance of boats (manufacture)
	35120	Repair and maintenance of pleasure and sporting craft (manufacture)
	35110	Repair and maintenance or alteration of ships (manufacture)
	35120	Repair and routine maintenance performed on boats by floating dry docks (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	35110	Repair and routine maintenance performed on ships by floating dry docks (manufacture)
33160		**Repair and maintenance of aircraft and spacecraft**
	35300	Repair and maintenance of aero-engine parts and sub assemblies (manufacture)
	35300	Repair and maintenance of aero-space equipment (manufacture)
	35300	Repair and maintenance of air cushion vehicles (manufacture)
	35300	Repair and maintenance of aircraft (manufacture)
	35300	Repair and maintenance of aircraft engines of all types (manufacture)
	35300	Repair and maintenance of helicopters (manufacture)
	35300	Repair and maintenance of spacecraft (manufacture)
33170		**Repair and maintenance of other transport equipment n.e.c.**
	35500	Repair and maintenance of animal-drawn buggies and wagons (manufacture)
	35430	Repair and maintenance of invalid carriages (manufacture)
	35200	Repair and maintenance of railway cars (manufacture)
	35200	Repair and maintenance of railway locomotives (manufacture)
	35200	Repair and maintenance of railway rolling stock (major) (manufacture)
	35200	Repair and maintenance of tramway rolling stock (manufacture)
	35200	Repair and maintenance of transmissions and other parts for locomotives (manufacture)
	34203	Repair of caravans
	35430	Wheelchair repair and maintenance (manufacture)
33190		**Repair of other equipment**
	26400	Repair and maintenance of ceramic pipes, etc. And systems thereof in industrial plants (manufacture)
	26150	Repair and maintenance of glass tubes, etc. And systems thereof in industrial plants (manufacture)
	26810	Repair and maintenance of millstones, grindstones, polishing stones and the like (manufacture)
	25130	Repair and maintenance of other rubber products (excluding tyres) (manufacture)
	25210	Repair and maintenance of plastic tubes etc. And systems thereof in industrial plants (manufacture)
	20510	Repair and maintenance of wooden products n.e.c. (manufacture)
	36300	Repair and rebuilding of organs (in factory) (manufacture)
	17402	Repair of camping goods made of canvas (manufacture)
	17520	Repair of fishing nets (manufacture)
	36300	Repair of pianos (in factory) (manufacture)
	36501	Repair of pinball machines and other coin-operated games (manufacture)
	25240	Repair of plexiglas plane windows (manufacture)
	17520	Repair of rigging (manufacture)
	17520	Repair of ropes (manufacture)
	17402	Repair of sails (manufacture)
	17402	Repair of tarpaulins (manufacture)
	20400	Repair or reconditioning of wooden pallets, shipping drums or barrels (manufacture)
	36300	Restoring of organs and other historical musical instruments (manufacture)

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33200		**Installation of industrial machinery and equipment**
	28520	Activities of millwrights (manufacture)
	33301	Assembling of electronic industrial process control equipment (manufacture)
	33302	Assembling of non-electronic industrial process control equipment (manufacture)
	28520	Dismantling of large-scale machinery and equipment (manufacture)
	31400	Installation of accumulators, primary cells and primary batteries (manufacture)
	29320	Installation of agricultural and forestry machinery (manufacture)
	34100	Installation of assemblies and sub-assemblies and the like, into motor vehicles (manufacture)
	29140	Installation of bearings, gears, gearing and driving elements (manufacture)
	36501	Installation of bowling alley equipment (manufacture)
	29530	Installation of catering equipment (manufacture)
	26400	Installation of ceramic pipes, conduit, guttering and pipe fittings (manufacture)
	33500	Installation of clocks (manufacture)
	29122	Installation of compressors (manufacture)
	35110	Installation of drilling platforms and the like (manufacture)
	29522	Installation of earth-moving and excavating equipment (manufacture)
	31100	Installation of electric motors, generators and transformers (manufacture)
	31610	Installation of electrical equipment for engines and vehicles n.e.c. (manufacture)
	31200	Installation of electricity distribution and control apparatus (manufacture)
	32100	Installation of electronic valves and tubes and other electronic components (manufacture)
	29110	Installation of engines and turbines (except aircraft, vehicle and cycle) (manufacture)
	29523	Installation of equipment for concrete crushing and screening and roadworks (manufacture)
	28750	Installation of fabricated metal products (manufacture)
	28520	Installation of factory assembly lines (manufacture)
	28740	Installation of fasteners, screw machine products, chain and springs (manufacture)
	29210	Installation of furnaces and furnace burners (manufacture)
	29240	Installation of general purpose machinery n.e.c. (manufacture)
	33100	Installation of industrial irradiation and electromedical equipment (manufacture)
	28110	Installation of industrial machinery and equipment (manufacture)
	30020	Installation of industrial mainframe and similar computers (manufacture)
	33201	Installation of instruments and apparatus for measuring, checking, testing, navigating (manufacture)
	31300	Installation of insulated wire and cable (manufacture)
	28220	Installation of large scale central heating boilers e.g. For large residential blocks (manufacture)
	29220	Installation of lifting and handling equipment (except lifts and escalators) (manufacture)
	28630	Installation of locks and hinges (manufacture)
	29420	Installation of machine tools (metal working) (manufacture)

UK SIC 2007	UK SIC 2003	Activity
	29430	Installation of machine tools (other than metal working) (manufacture)
	29560	Installation of machinery for bookbinding (manufacture)
	29530	Installation of machinery for food, beverage and tobacco processing (manufacture)
	29510	Installation of machinery for metallurgy (manufacture)
	29521	Installation of machinery for mining (manufacture)
	29550	Installation of machinery for paper and paperboard production (manufacture)
	29560	Installation of machinery for printing (manufacture)
	29540	Installation of machinery for textile, apparel and leather production (manufacture)
	29560	Installation of machinery for working rubber or plastics and making products of these (manufacture)
	30020	Installation of mainframe and similar computers and peripheral equipment (manufacture)
	33100	Installation of medical and surgical equipment and apparatus (manufacture)
	28210	Installation of metal tanks (manufacture)
	26810	Installation of millstones, grindstones, polishing stones and the like (manufacturing)
	29230	Installation of non-domestic cooling and ventilating equipment (manufacture)
	29560	Installation of non-domestic machinery for drying wood, paper pulp etc. (manufacture)
	33202	Installation of non-electronic instruments and appliances for measuring, testing, etc. (manufacture)
	30010	Installation of office machinery (manufacture)
	33402	Installation of optical precision instruments (manufacture)
	31620	Installation of other electrical apparatus (manufacture)
	33403	Installation of photographic and cinematographic equipment (manufacture)
	32300	Installation of professional radio, television, sound video equipment (manufacture)
	29121	Installation of pumps (manufacture)
	32202	Installation of radio and television transmitters (manufacture)
	36110	Installation of seats in aircraft, ships, trains and the like
	29560	Installation of special purpose machinery n.e.c. (manufacture)
	28300	Installation of steam generators (not central heating boilers) incl. related pipework (manufacture)
	28710	Installation of steel drums and similar (manufacture)
	29130	Installation of taps and valves (manufacture)
	32201	Installation of telecommunications equipment
	28620	Installation of tools (manufacture)
	26150	Installation of tubes and pipes of glass, including installation of glass pipe (manufacture)
	25210	Installation of tubes, pipes and hoses, of plastics (manufacture)
	33401	Installation of unmounted lenses (manufacture)
	29600	Installation of weapons and weapon systems (manufacture)
	28730	Installation of wire products (manufacture)
	28520	Machine rigging (manufacture)
35110		**Production of electricity**
	40110	Electricity generation
	40110	Electricity generation by gas turbine
	40110	Electricity production
	40110	Electricity production from diesel and renewables generation facilities
	40110	Electricity production from hydroelectric generation facilities
	40110	Electricity production from thermal generation facilities
	40110	Generating station
	40110	Hydro electric power station
	40110	Nuclear power station
	40110	Power station
	40110	Wind farms
35120		**Transmission of electricity**
	40120	Electricity transmission
35130		**Distribution of electricity**
	40130	Electricity distribution
	40130	Electricity distribution operations by lines, poles, meters, and wiring
	33202	Repair and maintenance of electricity meters
35140		**Trade of electricity**
	40130	Electricity power agents
	40130	Electricity power brokers
	40130	Electricity sales
	40130	Electricity sales agents
	40130	Electricity sales to the user
	40130	Operation of electricity and transmission capacity exchanges for electric power
35210		**Manufacture of gas**
	40210	Benzole (crude) from gas works
	40210	Coal tar (crude) from gas works
	40210	Coke gas
	40210	Gas production for the purpose of gas supply and
	40210	Gas works
	40210	Sulphate of ammonia from gas works
	40210	Town gas production
35220		**Distribution of gaseous fuels through mains**
	40220	Distribution and supply of gaseous fuels of all kinds through a system of mains
	40220	Natural gas booster/compression site
	40220	Natural gas distribution
	40220	Natural gas storage
	33202	Repair and maintenance of gas meters
	33202	Repair and maintenance of gas meters (non-electronic) (manufacture)
	40220	Town gas distribution
35230		**Trade of gas through mains**
	40220	Commodity and transport capacity exchanges for gaseous fuels
	40220	Gas agents (mains gas)
	40220	Gas brokers (mains gas)
	40220	Sale of gas to the user through mains
35300		**Steam and air conditioning supply**
	40300	Chilled water for cooling purposes production and distribution
	40300	Community heating plant
	40300	Compressed air production and distribution

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

40300 Hot water production and distribution 40300 Hydraulic power production and distribution 15980 Ice (for human consumption)
40300 Ice (not for human consumption)
40300 Production and distribution of cooled air
40300 Production of ice for cooling purposes (manufacture) 15980 Production of ice for food (manufacture)
40300 Steam production, collection and distribution

36000 Water collection, treatment and supply

41000 Collection of rain water
41000 Collection of water from rivers, lakes, wells
41000 Desalting of sea or ground water to produce water 41000 Distribution of water through mains, by trucks or other means
41000 Operation of irrigation canals 41000 River management
41000 Sea water desalination
41000 Treatment of water for industrial and other purposes 41000 Water authority (headquarters and water supply) 41000 Water collection, purification and distribution
41000 Water company
41000 Water conservation

37000 Sewerage

90010 Cesspools emptying and cleaning 90010 Chemical toilets servicing
90010 Drains maintenance
90010 Human waste water collection and transport by sewers, collectors, tanks and other means of transport
90010 Local authority drainage services 90010 Local authority sewage services
90010 Rain water collection and transportation by sewers, collectors, tanks and other means of transport
90010 Septic tanks emptying and cleaning 90010 Sewage farm
90010 Sewage works
90010 Sewerage system maintenance and operation 90010 Treatment of human waste water by means of physical, chemical and biological processes
90010 Treatment of waste water (human, industrial, from swimming pools etc.) by various processes

38110 Collection of non-hazardous waste

90020 Building debris removal
90020 Collection and removal of non hazardous debris and rubble
90020 Collection of non hazardous construction and demolition waste
90020 Collection of non hazardous recyclable materials 90020 Collection of non hazardous waste output of textile mills
90030 Collection of refuse in litter bins in public places 90020 Construction and demolition waste collection 90020 Dustman
90020 Garbage collection
90020 Litter box refuse collection (public)
90020 Operation of waste transfer facilities for non-hazardous waste
90020 Refuse collection by local authority cleansing department

90020 Rubbish collection

90020 Skip hire (waste transportation)90020 Trash collection

90020 Waste collection 90020 Waste collection centre

38120 Collection of hazardous waste

23300 Collection and treatment of radioactive nuclearwaste

90020 Collection of bio-hazardous waste90020 Collection of nuclear waste

90020 Collection of used oil from shipment or garages

90020 Hazardous waste collection (e.g. Batteries, usedcooking oils, etc.)

90020 Operation of waste transfer stations for hazardouswaste

40110 Spent (irradiated) fuel elements (cartridges) ofnuclear reactors

38210 Treatment and disposal of non-hazardouswaste

14500 Ashes and residues of incineration of mining andquarrying waste

90020 Disposal of non-hazardous waste by combustion orincineration or other methods

90020 Landfill for the disposal of refuse and waste90020 Local authority refuse disposal

90020 Operation of landfills for the disposal ofnon-hazardous waste

90020 Production of compost from organic waste 90020 Refuse disposal plant or tip (local authority or municipally owned)

90020 Refuse disposal service (not especially for agriculture)

90020 Refuse disposal tip operator

90020 Treatment and disposal of non-hazardous waste90020 Treatment of organic waste for disposal

90020 Waste disposal

90020 Waste incineration

90020 Waste treatment by composting of plant materials

38220 Treatment and disposal of hazardous waste

23300 Disposal of nuclear waste

90020 Disposal of sick or dead animals (toxic)

90020 Disposal of used goods such as refrigerators toeliminate harmful waste

23300 Encapsulation, preparation and other treatment ofnuclear waste for storage

90020 Incineration of hazardous waste

90020 Operation of facilities for treatment of hazardouswaste

90020 Toxic waste treatment service

90020 Treatment and disposal of foul liquids (e.g. leachate)90020 Treatment and disposal of hazardous waste

23300 Treatment and disposal of nuclear waste

90020 Treatment and disposal of radioactive waste fromhospitals, etc.

90020 Treatment and disposal of toxic live or dead animalsand other contaminated waste

23300 Treatment and disposal of transition radioactivewaste

23300 Treatment, disposal and storage of radioactivenuclear waste

UK SIC 2007	UK SIC 2003	Activity
38310		**Dismantling of wrecks**
	37100	Dismantling of automobile wrecks for materials recovery
	37100	Dismantling of computers for materials recovery
	37100	Dismantling of ship wrecks for materials recovery
	37100	Dismantling of televisions for materials recovery
	37100	Dismantling of wrecks for materials recovery
38320		**Recovery of sorted materials**
	37200	Crushing, cleaning and sorting of demolition waste to obtain secondary raw materials
	37200	Crushing, cleaning and sorting of glass
	37200	Crushing, cleaning and sorting of glass to produce secondary raw materials
	37100	Mechanical crushing of metal waste (cars, washing machines, etc.) with sorting and separation
	37100	Mechanical crushing of metal waste from used bikes
	37100	Mechanical reduction of large iron pieces such as railway wagons into secondary raw materials
	37200	Non-metal waste and scrap recycling into secondary raw materials
	37200	Processing cleaning, melting, grinding of plastic or rubber waste to granulates
	37200	Processing of food, beverage and tobacco waste and residual substances into secondary raw materials
	37200	Processing of used cooking oils and fats into secondary raw materials
	37100	Reclaiming metals out of photographic waste, e.g. Fixer solution or photographic films and paper
	37200	Reclaiming of chemicals from chemical waste
	37200	Reclaiming of rubber to produce secondary raw materials
	37100	Scrap metal recycling into new raw materials (except remelting of ferrous waste and scrap)
	37100	Shredding of metal waste, end-of-life vehicles
	37200	Sorting and pelleting of plastics to produce secondary raw material for tubes, flower pots, pallets
	37200	Sorting and pelleting of plastics to produce secondary raw materials
39000		**Remediation activities and other waste management services**
	45250	Asbestos removal work
	90030	Asbestos, lead paint, and other toxic material abatement
	90030	Cleaning up oil spills and other pollutions in ocean and seas including coastal areas
	90030	Cleaning up oil spills and other pollutions in surface water
	90030	Cleaning up oil spills and other pollutions on land
	90030	Decontamination and cleaning up of surface water following accidental pollution
	90030	Decontamination of industrial plants or sites
	90030	Decontamination of nuclear plants and sites
	90030	Decontamination of soil and groundwater
	90030	Decontamination of soils and groundwater at the place of pollution using biological methods
	90030	Decontamination of soils and groundwater at the place of pollution using chemical methods
	90030	Decontamination of soils and groundwater at the place of pollution using mechanical methods
	90030	Decontamination of surface water
	90030	Minefield clearance
	90030	Oil spill clearance on land
	90030	Oil spill pollution control services
	90030	Oil spills at sea containment, dispersion and clean up services
	90030	Remediation activities and other waste management services
	90030	Specialised pollution control activities
41100		**Development of building projects**
	70110	Developing building projects for commercial buildings hotels, stores, shopping malls, restaurants
	70110	Development of building projects for residential buildings
	70110	Land and building company
	70110	Land investment company
	70110	Property developer
	70110	Property investment company
	70110	Real estate project development
41201		**Construction of commercial buildings**
	45211	Arts, cultural or leisure facilities buildings construction
	45211	Assembly and erection of prefabricated non-residential constructions on the site
	28110	Assembly and installation of self-manufactured commercial buildings of metal on site
	25239	Assembly and installation of self-manufactured commercial buildings of plastic on site
	20300	Assembly and installation of self-manufactured commercial buildings of wood on site
	45211	Builder and contractor for commercial buildings
	45211	Building maintenance and restoration commercial buildings
	45230	Car park construction
	45211	Churches and other ecclesiastical buildings construction
	45211	Commercial buildings construction
	45211	Construction factories
	45211	Construction of airport buildings
	45211	Construction of arts, cultural or leisure facilities buildings
	45211	Construction of assembly plants
	45211	Construction of commercial buildings
	45211	Construction of hospitals
	45211	Construction of indoor sports facilities
	45211	Construction of office buildings
	45211	Construction of parking garages
	45211	Construction of primary, secondary and other schools
	45211	Construction of religious buildings
	45211	Construction of warehouses
	45211	Construction of workshops
	45230	Flatwork for sport and recreational installations (commercial buildings)
	45211	Office and shop construction
	45211	Prefabricated constructions (commercial) assembly and erection
	45211	Primary, secondary and other schools construction
	45230	Swimming pools construction
41202		**Construction of domestic buildings**
	28110	Assembly and installation of self-manufactured domestic buildings of metal on site

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

25239 Assembly and installation of self-manufactured domestic buildings of plastic on site

20300 Assembly and installation of self-manufactured domestic buildings of wood on site

45212 Builder and contractor for domestic buildings 45212 Building maintenance and restoration domestic buildings

45212 Construction of domestic buildings

45212 Construction of housing association and local authority housing

45212 Construction of multi-family buildings, including high-rise buildings

45212 Construction of residential buildings: 45212 Construction of single-family houses 45212 House building and repairing

45212 Housing association (building work)

45212 Local authority house building and maintenance 45212 Local authority or new town direct labour department (domestic dwellings)

45212 Prefabricated constructions (domestic) assembly and erection

45212 Remodelling or renovating existing residential structures

45212 Scottish Special Housing Association (building work)

42110 Construction of roads and motorways

45230 Airfield runway construction 45230 Airport runway construction 45230 Asphalt paving of roads

45230 Asphalting contractor (civil engineering)

45230 Construction of other vehicular and pedestrian ways 45230 Erection of roadway barriers

45230 Ground work contracting 45230 Highway construction 45230 Installation of crash barriers

45230 Installation of non-illuminated road signs, bollards etc.

45230 Local authority highways construction and maintenance

45230 Local authority road construction and major repairs 45230 Motorway and other dual carriageway construction 45230 Parking lot markings painting

45230 Paving contractor

45230 Pedestrian ways construction

45230 Road construction and repair

45230 Road surface markings painting

45230 Street construction

45230 Surface work on elevated highways, bridges and in tunnels

45230 Surface work on streets, roads, highways, bridges or tunnels

45230 Tar spraying contractor (civil engineering)

45230 Tarmacadam laying contracting

42120 Construction of railways and underground railways

45230 Cable supported transport systems construction 45230 Construction of underground railways

45230 Railway construction

45213 Railway tunnel construction

45213 Railway tunnelling contractor

45213 Subway construction

45213 Supply line (third rail) for railway construction 45230 Tramways construction 45213 Transmission line construction

42130 Construction of bridges and tunnels

45213 Bridge construction 45213 Construction of tunnels 45213 Elevated highways construction 45213 Viaduct construction

42210 Construction of utility projects for fluids

45250 Artesian well contractor
45213 Construction of civil engineering constructions for long-distance and urban pipelines
45240 Construction of irrigation systems (canals) 45213 Construction of pumping stations
45213 Construction of sewage disposal plants 45213 Construction of sewer systems
45213 Gas offshore pipeline laying
45213 Installation of offshore pipelines from oil or gas wells 45240 Irrigation system construction
45213 Offshore oil pipeline laying 45213 Pipeline construction
45213 Pipeline contracting 45213 Repair of sewer systems
45240 Reservoir construction
45213 Sewerage construction 45213 Urban pipelines construction
45213 Water main and line construction 45240 Water treatment plant construction 45250 Water well drilling

42220 Construction of utility projects for electricity and telecommunications

45213 Cable laying
45213 Civil engineering constructions for long-distance communication
45213 Civil engineering constructions for power lines 45213 Civil engineering constructions for power plants 45213 Civil engineering constructions for urban communication
45213 Communication lines construction
45213 Construction of utility projects for electricity 45213 Construction of utility projects for telecommunications
45213 Overhead line construction 45213 Power line construction
45213 Repair and maintenance of above-ground telecommunication lines
45213 Repair and maintenance of underground communication lines
45213 Urban communication and powerlines construction

42910 Construction of water projects

45240 Aqueduct construction 45240 Coastal defence construction 45240 Dam construction
45240 Dredging contractor
45240 Dredging for water projects 45240 Dredging of waterways 45240 Dry dock construction

UK SIC 2007	UK SIC 2003	Activity
	45240	Dyke construction
	45240	Dykes and static barrages construction
	45240	Floodgates, movable barrages and hydro-mechanical structures construction
	45240	Harbour construction
	45240	Lock construction
	45240	Marina construction
	45240	Pleasure port construction
	45240	River work construction
	45240	Water project construction
	45240	Waterway construction
42990		**Construction of other civil engineering projects n.e.c.**
	45213	Civil engineering construction
	45213	Civil engineering contractor
	45213	Construction of chemical plants (except buildings)
	45213	Construction of industrial facilities (except buildings)
	45230	Construction of outdoor sports facilities (except buildings)
	45213	Construction of refineries (except buildings)
	45213	Constructional engineering
	45230	Foot and cycle path construction
	45230	Golf course construction
	45213	Government department (building and civil engineering works division)
	45230	Land subdivision with land improvement (e.g. Adding of roads etc.)
	45213	Local authority civil engineering department
	45213	Local authority engineer's department
	45213	Prefabricated constructions (civil engineering) assembly and erection
	45213	Public works contractor
	45230	Sport facilities construction
	45230	Sports and recreation grounds, laying out
	45230	Stadium construction
	45230	Tennis courts construction
43110		**Demolition**
	45110	Building demolition and wrecking
	45110	Demolition contracting
	45110	Demolition or wrecking of buildings and other structures
43120		**Site preparation**
	45110	Agricultural land drainage
	45110	Blasting and associated rock removal work
	45110	Blasting of construction sites
	45110	Building site drainage
	45110	Building sites clearance
	45110	Development and preparation of mineral properties and sites
	45110	Drainage of agricultural or forestry land
	45110	Earth moving excavation
	45110	Earthmoving contractor
	45110	Excavation
	45110	Forestry land drainage
	45110	Land drainage contractor
	45110	Land reclamation work
	45110	Landfill for construction
	45110	Levelling and grading of construction sites
	45110	Mining site preparation and overburden removal
	45110	Overburden removal and other development of mineral properties and sites
	45110	Rock removal
	45110	Site preparation
	45110	Top soil stripping work
	45110	Trench digging
43130		**Test drilling and boring**
	45120	Borehole drilling
	45120	Core sampling for construction
	45120	Geological test drilling, test boring and core sampling
	45120	Geophysical test drilling, test boring and core sampling
	45120	Test boring for construction
	45120	Test drilling for construction
43210		**Electrical installation**
	45310	Aerial erection (domestic)
	45310	Connecting of electric appliances and household equipment, including baseboard heating
	45310	Electrical contractor (construction)
	45310	Electrical wiring of buildings
	45310	Installation of aerials and residential antennas
	45340	Installation of airport runway lighting
	45310	Installation of burglar alarm systems
	45310	Installation of cables
	45310	Installation of computer network cabling and other telecommunications system cables
	45310	Installation of electrical systems in cable television wiring, including fibre optic
	45310	Installation of electrical systems in computer network, including fibre optic
	45310	Installation of electrical wiring and fittings
	45310	Installation of fire alarms
	45340	Installation of illuminated road signs and street furniture
	45340	Installation of illumination and signalling systems for roads, railways, airports and harbours
	45310	Installation of intelecommunications wiring
	45310	Installation of lighting systems
	45310	Installation of office switchboards and telephone lines
	45340	Installation of outdoor transformer and other outdoor electrical distribution apparatus
	45340	Installation of roadway traffic monitoring and guidance equipment
	45310	Installation of satellite dishes
	45310	Installation of security alarms
	45340	Installation of street lighting and electrical signals
	45310	Installation of telecommunications wiring systems
	45310	Installation of telephone lines
	45340	Local authority street lighting
	45340	Sign (electric) erection and maintenance
43220		**Plumbing, heat and air-conditioning installation**
	45330	Air conditioning contracting
	45330	Heat and air-conditioning installation
	45330	Heating and plumbing contracting
	45330	Heating engineering (buildings)

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45330 Heating service contracting45330 Hot water engineer
45330 Installation of air conditioning equipment and ducts45330 Installation of air conditioning plant
45330 Installation of coldrooms 45330 Installation of cooling towers45330 Installation of duct work
45310 Installation of electric solar energy collectors
45310 Installation of electrical heating systems (exceptbaseboard heating)
45330 Installation of fire sprinkler systems45330 Installation of furnaces
45330 Installation of gas fittings
45330 Installation of gas heating systems45330 Installation of gas meters
45330 Installation of heating and ventilation apparatus45330 Installation of lawn sprinkler systems
45330 Installation of non-electric solar energy collectors45330 Installation of oil heating systems
45330 Installation of plumbing 45330 Installation of refrigeration
45330 Installation of sanitary equipment45330 Installation of sprinkler systems 45330 Installation of steam piping 45330 Installation of ventilation
45330 Plumbing contractor
45330 Repair and maintenance of domestic air conditioning45330 Repair and maintenance of domestic boilers
45330 Repair and maintenance of office, shop andcomputer centre air conditioning
45330 Sanitary engineering for buildings

43290 Other construction installation

45320 Acoustical engineering
45320 Cavity wall insulation
45340 Fencing contractor (not agricultural)45320 Fireproofing work
45340 Installation in buildings of fittings and fixtures n.e.c.45310 Installation of automated and revolving doors 45340 Installation of blinds and awnings
45310 Installation of elevators
45310 Installation of escalators
45310 Installation of lifts
45310 Installation of lightning conductors
45340 Installation of outdoor pumping or filtrationequipment
45320 Installation of sound insulation 45320 Installation of thermal insulation
45310 Installation of vacuum cleaning systems45320 Installation of vibration insulation 45320 Insulating contractor (buildings)
45320 Insulating work activities
29220 Repair and maintenance of elevators and escalators 28120 Repair of automated and revolving doors in buildings and civil engineering works (manufacture)45320 Roof insulation contractor

43310 Plastering

45410 Exterior plaster application in buildings or otherconstructions incl. related lathing materials

45410 Exterior stucco application in buildings or otherconstructions incl. related lathing materials

45410 Interior plaster application in buildings or otherconstructions incl. related lathing materials

45410 Interior stucco application in buildings or otherconstructions incl. related lathing materials

45410 Plastering contractor

45410 Stucco application in buildings

43320 Joinery installation45420 Builder and joiner 45420 Carpenter n.e.c.

45420 Carpentry (not structural)45420 Completion of ceilings

28120 Installation (erection) work of self-manufactured builders' ware of metal

25239 Installation (erection) work of self-manufacturedbuilders' ware of plastic

20300 Installation (erection) work of self-manufacturedbuilders' ware of wood

45420 Installation of built-in furniture45420 Installation of ceilings

45420 Installation of doors 45420 Installation of furniture45420 Installation of joinery

45420 Installation of metal grilles and gates45420 Installation of metal partitioning 45420 Installation of metal shutters

45420 Installation of movable wooden partitions45420 Installation of suspended ceilings

45420 Installation of windows made of any material45420 Installation of wooden door-frames

45420 Installation of wooden fitted kitchens45420 Installation of wooden shop fittings 45420 Installation of wooden staircases

45420 Installation of wooden wall coverings45420 Metal window fixing

45420 Shop fitter

43330 Floor and wall covering

45430 Carpet fitter

45430 Ceramic stove fitting45430 Claddings (internal) 45430 Floor covering laying45430 Flooring contractor

45430 Hanging or fitting wooden wall coverings 45430 Installation of false floors and computer floors

45430 Laying or fitting carpets and linoleum floor coverings including of rubber or plastic

45430 Laying or fitting other wooden floor coverings 45430 Laying tiling or fitting marble, granite or slate floor coverings

45430 Laying tiling or fitting terrazzo, marble, granite orslate wall coverings

45430 Laying, tiling, hanging or fitting ceramic wall or floortiles

45430 Laying, tiling, hanging or fitting concrete stone wallor floor tiles

45430 Laying, tiling, hanging or fitting cut stone wall orfloor tiles

45430 Laying, tiling, hanging or fitting floor and wallcovering

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

45430 Linoleum laying
45430 Paperhanging
45430 Parquet floor laying (not by manufacturer)45430 Terrazzo work (building)
45430 Tiles laying or fitting
45430 Tiling contractor (floors and walls)45430 Wall covering
45430 Wallpaper hanging

43341 Painting

45440 Anti-corrosive coatings application work45440 Builder and decorator (own account) 45440 Buildings painting
45440 Civil engineering structure painting45440 Decorating of buildings
45440 Exterior painting of buildings45440 Interior painting of buildings
45440 Non-specialised painting of metal structures(including ships)
45440 Painting contractor
45440 Protective coatings application work

43342 Glazing

45440 Glazing
45440 Glazing contractor
45440 Installation of glass 45440 Installation of mirrors

43390 Other building completion and finishing

45450 Building completion work 45450 Ornamentation fitting work45450 Sandblasting of buildings
45450 Shotblasting of buildings 45450 Steam cleaning of buildings
45450 Stonework cleaning and renovation

43910 Roofing activities

45220 Building and roofing contractor
45220 Erection of roofs
20300 Installation of builders carpentry and joinery (roofingmaterials)
45220 Roof covering
45220 Roof covering erection45220 Roofing contractor
45220 Thatching

43991 Scaffold erection

45250 Renting of scaffolds and work platforms witherection and dismantling
45250 Scaffolding hiring and erecting
45250 Scaffolds and work platform erecting and dismantling

43999 Specialised construction activities (other thanscaffold erection) n.e.c.

45250 Aerial mast (self supporting) erection
45250 Boring (civil engineering)
45250 Brick furnace construction45250 Brick kiln construction 45250 Bricklaying
45220 Carpenter on building site

45220 Carpentry (structural)
45250 Chimney construction
45250 Claddings (external) 45250 Concrete work (building)
45500 Construction machinery and equipment rental withoperator
45211 Construction of outdoor swimming pools45220 Damp proofing of buildings
45250 De-humidification of buildings
45500 Demolition equipment rental with operator 45250 Diamond drilling of concrete and asphalt 45250 Drying out of buildings (incl. Water damage) 45500 Earth moving equipment rental with operator
45250 Ferro concrete bar bending and fixing contractor45250 Flare stack and flareboom erection work
45250 Floor screeding
45250 Formwork (civil engineering) 45250 Foundations construction
45250 Grouting contractor (building)
45250 Grouting contractor (civil engineering)45250 Helideck erection work
45240 Hydraulic construction (subsurface work)45250 Industrial ovens erection
45250 Mason (building)
45250 Mine sinking
45250 Oil production platform (fixed concrete or compositesteel/concrete) construction
45450 Outdoor private swimming pools45250 Pile driving
45250 Piling (building)
45250 Piling contractor (civil engineering)
45500 Plant hire for construction rental with operator45250 Pylon erection
45250 Reinforced concrete engineer (civil engineering)45500 Renting of cranes with operator
45500 Renting of other building equipment with operator45250 Retort setting
45250 Sand blasting for building exteriors45250 Screed laying
45250 Shaft drilling (civil engineering)45250 Shaft sinking
45250 Steam cleaning for building exteriors45250 Steel bending
45250 Steel elements (not self-manufactured) erection45250 Steelwork erection (building)
45250 Steelwork erection (civil engineering)45250 Steeplejacking
45250 Stone carving
45250 Stone setting
45250 Stone walling
45250 Stonemasonry (building)
45250 Structural steelwork erection (building)
45250 Structural steelwork erection (civil engineering)45240 Subsurface work
45220 Waterproofing of buildings 45250 Well sinking (except gas or oil)
45250 Work with specialist access requirements necessitating climbing skills and related equipment

UK SIC 2007	UK SIC 2003	Activity
45111		**Sale of new cars and light motor vehicles**
	50101	Ambulances with a weight not exceeding 3.5 tonnes (new) (retail)
	50101	Ambulances with a weight not exceeding 3.5 tonnes(new) (wholesale)
	50101	Four wheel drive vehicles with a weight notexceeding 3.5 tonnes (new) (retail)
	50101	Four wheel drive vehicles with a weight notexceeding 3.5 tonnes (new) (wholesale)
	50101	Minibuses with a weight not exceeding 3.5 tonnes(new) (retail)
	50101	Minibuses with a weight not exceeding 3.5 tonnes(new) (wholesale)
	50101	Motor vehicle with a weight not exceeding 3.5 tonnes (new) exporter
	50101	Motor vehicle with a weight not exceeding 3.5 tonnes (new) importer
	50101	Motor vehicles with a weight not exceeding 3.5 tonnes (new) (retail)
	50101	Motor vehicles with a weight not exceeding 3.5 tonnes (new) (wholesale)
	50101	Off-road motor vehicles with a weight not exceeding 3.5 tonnes (new) (retail)
	50101	Off-road motor vehicles with a weight not exceeding 3.5 tonnes (new) (wholesale)
45112		**Sale of used cars and light motor vehicles**
	50102	Ambulances with a weight not exceeding 3.5 tonnes (used) (retail)
	50102	Ambulances with a weight not exceeding 3.5 tonnes(used) (wholesale)
	50102	Car auctions
	50102	Four wheel drive vehicles with a weight notexceeding 3.5 tonnes (used) (retail)
	50102	Four wheel drive vehicles with a weight notexceeding 3.5 tonnes (used) (wholesale)
	50102	Garage selling used motor vehicles (retail)
	50102	Internet car auctions
	50102	Minibuses with a weight not exceeding 3.5 tonnes(used) (retail)
	50102	Minibuses with a weight not exceeding 3.5 tonnes(used) (wholesale)
	50102	Motor vehicle with a weight not exceeding 3.5 tonnes (used) importer
	50102	Motor vehicles with a weight not exceeding 3.5 tonnes (used) (retail)
	50102	Motor vehicles with a weight not exceeding 3.5 tonnes (used) (wholesale)
	50102	Off-road motor vehicles with a weight not exceeding 3.5 tonnes (used) (retail)
	50102	Off-road motor vehicles with a weight not exceeding 3.5 tonnes (used) (wholesale)
	50102	Lorries (used) (wholesale)
	50101	Lorries (wholesale)
	50102	Motor homes (used) (retail)
	50102	Motor homes (used) (wholesale)
	50102	Motor vehicle (used) exporter
	50101	Motorhomes (retail)
	50101	Motorhomes (wholesale)
	50101	Off-road motor vehicles with a weight exceeding 3.5 tonnes (new) (retail)
	50101	Off-road motor vehicles with a weight exceeding 3.5 tonnes (new) (wholesale)
	50102	Off-road motor vehicles with a weight exceeding 3.5 tonnes (used) (retail)
	50102	Off-road motor vehicles with a weight exceeding 3.5 tonnes (used) (wholesa
	50101	Semi-trailers (retail)
	50102	Semi-trailers (used) (retail)
	50102	Semi-trailers (used) (wholesale)
	50101	Semi-trailers (wholesale)
	50101	Trailers (new) (wholesale)
	50102	Trailers (used) (retail)
	50101	Trailers (retail)
	50102	Trailers (used) (wholesale)
45200		**Maintenance and repair of motor vehicles**
	50200	Anti-rust treatment of motor vehicles
	50200	Automobile association service centres
	50200	Car valeting
	50200	Car wash
	50200	Installation of motor vehicle parts and accessories(not as part of production process)
	50200	Installation of motor vehicle parts and accessories,not part of the manufacturing process
	50200	Maintenance of motor vehicles
	50200	Motor repair depot
	50200	Motor vehicle painting and body repairing
	50200	Motor vehicle servicing
	50200	Motor vehicle spraying
	50200	Omnibus repair depot
	50200	Painting of motor vehicles
	50200	Panel beating services
	50200	REME workshop
	50200	Repair and maintenance of auto electricals
	50200	Repair and maintenance of commercial vehicles
	50200	Repair and maintenance of trailers and semi-trailer S
	50200	Repair and servicing in garages, of motor vehicles
	50200	Repair of car bodies
	50200	Repair of car electrical systems

45190 Sale of other motor vehicles

50101 Camping vehicles (retail)

50102 Camping vehicles (used) (retail)

50102 Camping vehicles (used) (wholesale)

50101 Camping vehicles (wholesale)
50102 Caravan (used) (retail)
50102 Caravan (used) (wholesale)
50101 Caravans (retail)
50101 Caravans (wholesale)
50101 Lorries (retail)
50102 Lorries (used) (retail)

50200 Repair of car electronics
50200 Repair of fuel injection systems for motor vehicles
50200 Repair of motor cars (except roadside assistance)
50200 Repair of motor vehicle parts
50200 Repair of motor vehicle seats
50200 Repair of motor vehicle windows
50200 Repair of motor vehicle windscreens
50200 Repair of motor vehicles (except roadside assistance)
50200 Repair of tyres and tubes (fitting or replacement)
50200 Repair to bodywork of motor vehicles
50200 Servicing of motor vehicles
50200 Windscreen replacement services

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

45310 Wholesale trade of motor vehicle parts and accessories

50300 Motor accessories dealer (wholesale)
50300 Motor vehicle parts and accessories (wholesale)

45320 Retail trade of motor vehicle parts and accessories

50300 Car batteries (retail)
50300 Exhaust sales and fitting centre (retail) 50300 Mail order sales of motor vehicle parts and accessories (retail)
50300 Motor accessories dealer (retail)
50300 Motor vehicle parts and accessories (retail)50300 Tyre dealer (retail)

45400 Sale, maintenance and repair of motorcycles and related parts and accessories

50400 Moped sales (retail)
50400 Moped sales (wholesale)
50400 Motorcycle exporter (wholesale)50400 Motorcycle importer (wholesale)
50400 Motorcycle parts and accessories (retail) 50400 Motorcycle parts and accessories (wholesale)50400 Motorcycle sales (retail)
50400 Motorcycle sales (wholesale)
50400 Repair and maintenance of motor cycles

46110 Agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-finished goods

51110 Agricultural raw materials (commission agent) 51110 Beer or distilling dregs for animal feed (commission agent)
51110 Coffee husks and skins (commission agent)51110 Corn exchange (commission agent)
51110 Corn factor (commission agent) 51110 Cotton broker (commission agent)51110 Grain broker (commission agent)
51110 Hide and skin broker (commission agent)51110 Leather (commission agent)
51110 Live animals (commission agent)
51110 Textile raw materials (commission agent)51110 Tobacco refuse (commission agent) 51110 Wool broker (commission agent)
51110 Wool exchange (commission agent)
51110 Wool grease including lanolin (commission agent)

46120 Agents involved in the sale of fuels, ores, metals and industrial chemicals

51120 Acrylic polymers in primary forms (commission agent)51120 Acyclic and cyclic hydrocarbons (commission agent) 51120 Aldehyde function compounds (commission agent) 51120 Alkili or alkaline earth metals (commission agent) 51120 Amine function compounds (commission agent)
51120 Amino resins, phenolic resins and polyurethanes in primary forms (commission agent)
51120 Ammonium chloride, nitrites and carbonates (commission agent)
51120 Anti-freezing preparations and prepared de-icing fluids (commission agent)
51120 Anti-knock preparations and additives for mineral oils and similar products (commission agent)

51120 Bottled gas (commission agent)

51120 Carbonates (commission agent)

51120 Catalytic preparations (commission agent)

51120 Chemical elements in disk form and compounds doped for use in electronics (commission agent)

51120 Chemical products and residual products of the chemical or allied industries (commission agent)

51120 Chemically modified animal or vegetable fats and mixtures (commission agent)

51120 Coal (commission agent)

51120 Coal factor (commission agent)

51120 Coke or semi-coke of coal (commission agent)

51120 Colloidal precious metals (commission agent)

51120 Compound plasticisers and stabilisers for rubber or plastics (commission agent)

51120 Compounds of rare earth metals, yttrium or scandium (commission agent)

51120 Compounds with nitrogen functions (commission agent)

51120 Dental wax and other preparations for use in dentistry with a basis of plaster (commission agent)

51120 Diols, polyalcohols, cyclical alcohols and their derivatives (commission agent)

51120 Disinfectants (commission agent)

51120 Distilled water (commission agent)

51120 Enriched uranium and plutonium and their compounds (commission agent)

51120 Enzymes and other organic compounds (commission agent)

51120 Essential oils and mixtures of odiferous substances (commission agent)

51120 Ethers, organic peroxides, epoxides, acetals and hemiacetals and their compounds (commission agent)

51120 Fertilisers (commission agent)

51120 Finishing agents, dye carriers and similar industrial chemical products (commission agent)

51120 Fire extinguisher charges and preparations (commission agent)

51120 Fireworks (commission agent)

51120 Flux (commission agent)

51120 Fuel (commission agent)

51120 Fungicides, rodenticides and similar products (commission agent)

51120 Glues (commission agent)

51120 Glycerol (commission agent)

51120 Halogen or sulphur compounds of non-metals (commission agent)

51120 Heterocyclic compounds (commission agent)

51120 Hydraulic brake fluids (commission agent)

51120 Hydrocarbon derivatives (commission agent)

51120 Hydrogen chloride (commission agent)

51120 Hydrogen, argon, nitrogen, oxygen and rare gases (commission agent)

51120 Industrial chemicals (commission agent)

51120 Industrial fatty acids (commission agent)

51120 Industrial monocarboxylic fatty acids (commission agent)

51120 Inorganic acids (commission agent)

51120 Insecticides, herbicides, plant growth regulators and anti-sprouting products (commission agent)

51120 Iron (commission agent)

51120 Isotopes and compounds thereof (commission agent)

UK SIC 2007	UK SIC 2003	Activity
	51120	Ketone and quinone function compounds (commission agent)
	51120	Light, medium and heavy petroleum oils (commission agent)
	51120	Lignite or peat (commission agent)
	51120	Liquefied gas for motor purposes (commission agent)
	51120	Liquid and compressed air (commission agent)
	51120	Lubricating oils (commission agent)
	51120	Man-made fibres and yarns (commission agent)
	51120	Metal broker (not scrap) (commission agent)
	51120	Metal oxides, hydroxides and peroxides (commission agent)
	51120	Metal waste and scrap (commission agent)
	51120	Metallic halogenates (commission agent)
	51120	Metalloids (commission agent)
	51120	Metals (commission agent)
	51120	Modelling pastes (commission agent)
	51120	Monohydric alcohols (commission agent)
	51120	Motor and aviation spirit (commission agent)
	51120	Natural uranium and plutonium and their compounds (commission agent)
	51120	Nitrates of potassium (commission agent)
	51120	Nitric acid, sulphonitric acid and ammonia (commission agent)
	51120	Oil trading (commodity broking) (commission agent)
	51120	Ores (commission agent)
	51120	Peptones/protein substances and derivatives (commission agent)
	51120	Petroleum coke, bitumen and other residues of petroleum (commission agent)
	51120	Petroleum gases and gaseous hydrocarbons (excluding natural gas) (commission agent)
	51120	Petroleum jelly and paraffin wax (commission agent)
	51120	Phenols, phenol-alcohols and phenol derivatives (commission agent)
	51120	Phosphates of triammonium (commission agent)
	51120	Phosphides, carbides, hydrides, nitrides, azides, silicides and borides (commission agent)
	51120	Phosphinates, phosphonates, phosphates and polyphosphates (commission agent)
	51120	Phosphoric esters and esters of other inorganic acids, their salts and derivatives (commission agent)
	51120	Pickling preparations (commission agent)
	51120	Piezo-electric quartz (commission agent)
	51120	Polyamides in primary forms (commission agent)
	51120	Polycarbonates, alkyd and epoxide resins (commission agent)
	51120	Polyethers and polyesters (commission agent)
	51120	Polymers of ethylene in primary forms (commission agent)
	51120	Polymers of propylene and other olefins in primary forms (commission agent)
	51120	Polymers of styrene in primary forms (commission agent)
	51120	Polymers of vinyl acetate, other vinyl esters and vinyl polymers in primary forms (commission agent)
	51120	Polymers of vinyl chloride and other halogenated olefins in primary forms (commission agent)
	51120	Prepared binders for foundry moulds or cores (commission agent)
	51120	Prepared rubber accelerators (commission agent)
	51120	Printing ink (commission agent)
	51120	Propellant powders and prepared explosives (commission agent)
	51120	Raw earth metals (commission agent)
	51120	Refined sulphur (commission agent)
	51120	Retort carbon (commission agent)
	51120	Roasted iron pyrites (commission agent)
	51120	Safety fuses, detonating fuses, caps, igniters and electric detonators (commission agent)
	51120	Salts of oxometallic or perometallic acids (commission agent)
	51120	Scandium, yttrium and mercury (commission agent)
	51120	Signalling flares, rain rockets, fog signals and other pyrotechnic articles (commission agent)
	51120	Silicon and sulphur dioxide (commission agent)
	51120	Silicones in primary forms (commission agent)
	51120	Sodium nitrate (commission agent)
	51120	Synthetic and organic colouring matter, colouring lakes and preparations (commission agent)
	51120	Synthetic or reconstructed precious or semi-precious unworked stones (commission agent)
	51120	Synthetic rubber (commission agent)
	51120	Synthetic, organic or inorganic tanning extracts and preparations (commission agent)
	51120	Urea, thiourea and melamine resins in primary forms (commission agent)
	51120	Vegetable or resin product derivatives (commission agent)
	51120	Vulcanized and unvulcanized rubber and articles thereof (commission agent)
	51120	Waste, parings and scrap of rubber (commission agent)
	51120	Wood charcoal for fuel (commission agent)
46130		**Agents involved in the sale of timber and building materials**
	51130	Bituminous construction materials (commission agent)
	51130	Building materials (commission agent)
	51130	Ceramic articles used in construction (commission agent)
	51130	Clay (commission agent)
	51130	Construction materials made of glass (commission agent)
	51130	Containers made of wood (commission agent)
	51130	Paints and varnishes (commission agent)
	51130	Pallets, pallet boards and other load boards made of wood (commission agent)
	51130	Prefabricated buildings made of wood (commission agent)
	51130	Prepared pigments, opacifiers and colours (commission agent)
	51130	Timber (commission agent)
	51130	Timber broker (commission agent)
	51130	Vitrifiable enamels and glazes, englobes, liquid lustres and glass frit (commission agent)
	51130	Wood (commission agent)
46140		**Agents involved in the sale of machinery, industrial equipment, ships and aircraft**
	51140	Agricultural machinery (commission agent)
	51140	Aircraft (commission agent)
	51140	Computer equipment (commission agent)
	51140	Industrial equipment (commission agent)
	51140	Machine broker (commission agent)

UK SIC 2007	UK SIC 2003	Activity
	51140	Machinery (commission agent)
	51140	Office machinery (commission agent)
	51140	Ships (commission agent)
46150		**Agents involved in the sale of furniture, household goods, hardware and ironmongery**
	51150	Bicycles (commission agent)
	51150	Cutlery (commission agent)
	51150	Domestic electrical appliances (commission agent)
	51150	Furniture (commission agent)
	51150	Hardware (commission agent)
	51150	Household goods (commission agent)
	51150	Ironmongery (commission agent)
	51150	Statuettes and other ornaments made of wood (commission agent)
	51150	Tableware and kitchenware made of wood (commission agent)
46160		**Agents involved in the sale of textiles, clothing, fur, footwear and leather goods**
	51160	Bed and table linen (commission agent)
	51160	Carpets (commission agent)
	51160	Clothing (commission agent)
	51160	Curtains, drapes and interior blinds (commission agent)
	51160	Footwear (commission agent)
	51160	Fur broker (commission agent)
	51160	Furs (commission agent)
	51160	Kits for embroidery, etc. (commission agent)
	51160	Leather goods (commission agent)
	51160	Parachutes and rotochutes (commission agent)
	51160	Sacks and bags used for packing of goods (commission agent)
	51160	Sport nets (commission agent)
	51160	Tarpaulins, awnings, sunblinds and circus tents (commission agent)
	51160	Textiles (commission agent)
	51160	Workwear (commission agent)
	51160	Yarn (commission agent)
46170		**Agents involved in the sale of food, beverages and tobacco**
	51170	Alcoholic beverages (commission agent)
	51170	Beverages (commission agent)
	51170	Cigars, cheroots, cigarillos and cigarettes (commission agent)
	51170	Confectionery (commission agent)
	51170	Fish factor (commission agent)
	51170	Food (commission agent)
	51170	Fruit and vegetables (commission agent)
	51170	Herb infusions (commission agent)
	51170	Non-alcoholic beverages (commission agent)
	51170	Peptic substances, mucilages and thickeners (commission agent)
	51170	Provision exchange (commission agent)
	51170	Spice broker (commission agent)
	51170	Tea exchange (commission agent)
	51170	Tobacco (commission agent)
	51170	Tobacco broker (commission agent)
	51170	Vegetable saps and extracts (commission agent)
	51170	Yeasts and prepared baking powders (commission agent)

SIC 2007	SIC 2003	Activity
46180		**Agents specialised in the sale of other particular products**
	51180	Adhesive dressings, catgut and similar materials (commission agent)
	51180	Amides and their derivatives and salts (commission agent)
	51180	Amusement goods (commission agent)
	51180	Antibiotics (commission agent)
	51180	Antisera and vaccines (commission agent)
	51180	Artists', students' and sign board painters' colours, modifying tints and similar (commission agent)
	51180	Beauty, make-up and skin-care preparations including sun tan preparations (commission agent)
	51180	Chemical contraceptive preparations based on hormones or spermicides (commission agent)
	51180	Chemical preparations and sensitized emulsions for photographic use (commission agent)
	51180	Cosmetics (commission agent)
	51180	Diagnostic reagents and other pharmaceutical products (commission agent)
	51180	First aid boxes (commission agent)
	51180	Glands and other organs, extracts thereof and other human or animal substances (commission agent)
	51180	Glycosides, vegetable alkaloids, their salts, ethers, esters and other derivatives (commission agent)
	51180	Hormones and their derivatives (commission agent)
	51120	Jewellery (commission agent)
	51180	Lip make-up and eye make-up preparations (commission agent)
	51180	Lysine, glutamic acid and their salts (commission agent)
	51180	Manicure and pedicure preparations (commission agent)
	51180	Man-made fibre waste (commission agent)
	51180	Medical goods (commission agent)
	51180	Medicaments containing hormones but (not antibiotics) (commission agent)
	51180	Medicaments containing penicillins or other antibiotics (commission agent)
	51180	Musical instruments (commission agent)
	51180	Natural cork in plates, sheets, strips, crushed, granulated or ground (commission agent)
	51180	Oral and dental hygiene preparations including denture fixative pastes and powders (commission agent)
	51180	Perfumery, cosmetic and toilet and bath preparations (commission agent)
	51180	Pharmaceutical goods (commission agent)
	51180	Photographic equipment (commission agent)
	51180	Photographic paper (commission agent)
	51180	Photographic plates and film and instant print film (commission agent)
	51180	Posphoaminolipids (commission agent)
	51180	Powders for cosmetic or toilet use (commission agent)
	51180	Provitamins, vitamins and their derivatives (commission agent)
	51180	Quaternary ammonium salts and hydroxides (commission agent)
	51180	Sails for boats, sailboards or landcraft (commission agents)
	51180	Salicylic acids, o-acetylsalicylic acid and their salts and esters (commission agent)

51180 Diamond broker (commission agent)

UK SIC 2007	UK SIC 2003	Activity
	51180	Shampoos, hair lacquers and permanent waving or straightening preparations (commission agent)
	51180	Shaving preparations, personal deodorants and antiperspirants (commission agent)
	51180	Sleeping bags (commission agent)
	51180	Soap and organic surface-active products and preparations for use as soap (commission agent)
	51180	Soft goods (commission agent)
	51180	Sporting goods (commission agent)
	51180	Stationery (commission agent)
	51180	Steroids used primarily as hormones (commission agent)
	51180	Sugar ethers, sugar esters and their salts and chemically pure sugar (commission agent)
	51180	Sulphonamides (commission agent)
	51180	Tents and other camping goods (commission agent)
	51180	Unrecorded media for sound recording or similar recording of other phenomena (commission agent)
	51180	Waste and scrap (commission agent)
46190		**Agents involved in the sale of a variety of goods**
	51190	Export confirming house, general or undefined (commission agent)
	51190	Export purchasing, general or undefined (commission agent)
46210		**Wholesale of grain, unmanufactured tobacco, seeds and animal feeds**
	51210	Animal feed (wholesale)
	51210	Animal hair (wholesale)
	51210	Compound feed stuff (wholesale)
	51210	Corn (wholesale)
	51210	Corn chandler (wholesale)
	51210	Corn merchant (wholesale)
	51210	Cotton (wholesale)
	51210	Flax (wholesale)
	51210	Fodder (wholesale)
	51210	Forage (wholesale)
	51210	Grain (wholesale)
	51210	Grain, seeds and animal feeds exporter (wholesale)
	51210	Grain, seeds and animal feeds importer (wholesale)
	51210	Hay (wholesale)
	51210	Hemp (unprocessed) (wholesale)
	51210	Hops (wholesale)
	51210	Horsehair (wholesale)
	51210	Materials, residues and by-products used as animal feed (wholesale)
	51210	Oil cake (wholesale)
	51210	Oil seeds (wholesale)
	51210	Oleaginous fruits (wholesale)
	51210	Poultry spice (wholesale)
	51210	Prepared feeds for farm animals (wholesale)
	51210	Provender (wholesale)
	51210	Raw wool (wholesale)
	51210	Seed potatoes (wholesale)
	51210	Seeds (wholesale)
	51210	Sponge importer (wholesale)
	51210	Straw (wholesale)
	51250	Tobacco (unmanufactured) (wholesale)
	51250	Tobacco exporter (unmanufactured) (wholesale)
	51250	Tobacco importer (unmanufactured) (wholesale)
	51210	Tulip bulbs (wholesale)
46220		**Wholesale of flowers and plants**
	51220	Bulbs (wholesale)
	51220	Flower and plants exporter (wholesale)
	51220	Flower and plants importer (wholesale)
	51220	Flower salesman (wholesale)
	51220	Flowers (wholesale)
	51220	Plants (wholesale)
46230		**Wholesale of live animals**
	51230	Horses (wholesale)
	51230	Live animal exporter (wholesale)
	51230	Live animal importer (wholesale)
	51230	Live animals (wholesale)
	51230	Live poultry (wholesale)
	51230	Livestock (wholesale)
	51230	Pig jobber (wholesale)
	51230	Pigs (wholesale)
	51230	Sheep (wholesale)
46240		**Wholesale of hides, skins and leather**
	51241	Furskins (wholesale)
	51241	Furskins exporter (wholesale)
	51241	Furskins importer (wholesale)
	51249	Hides (wholesale)
	51249	Hides, skins and leather exporter (wholesale)
	51249	Hides, skins and leather importer (wholesale)
	51249	Leather (wholesale)
	51249	Skins (wholesale)
46310		**Wholesale of fruit and vegetables**
	51310	Edible nuts (wholesale)
	51310	Fresh fruit (wholesale)
	51310	Fruit and vegetable exporter (wholesale)
	51310	Fruit and vegetable importer (wholesale)
	51310	Fruit and vegetable market porterage (wholesale)
	51380	Fruit and vegetables (processed) (wholesale)
	51310	Fruit and vegetables (unprocessed) (wholesale)
	51310	Fruit salesman (wholesale)
	51310	Fruiterer (wholesale)
	51310	Herbs (wholesale)
	51310	Mushrooms (wholesale)
	51380	Potato products (wholesale)
	51310	Potatoes (wholesale)
	51380	Preserved fruit (wholesale)
	51310	Pulses (wholesale)
	51310	Vegetables (unprocessed) (wholesale)
	51310	Vegetables (wholesale)
46320		**Wholesale of meat and meat products**
	51320	Game (wholesale)
	51320	Meat (wholesale)
	51320	Meat and meat products exporter (wholesale)
	51320	Meat and meat products importer (wholesale)
	51320	Meat porter (wholesale)
	51320	Meat salesman (wholesale)
	51320	Offal salesman (wholesale)

UK SIC 2007	UK SIC 2003	Activity
	51320	Pork butcher (wholesale)
	51320	Poultry (wholesale)
	51320	Processed meat and meat products (wholesale)
	51320	Sausage skins (wholesale)
46330		**Wholesale of dairy products, eggs and edible oils and fats**
	51331	Butter (wholesale)
	51331	Cheese (wholesale)
	51331	Cream (wholesale)
	51331	Dairy produce exporter (wholesale)
	51331	Dairy produce importer (wholesale)
	51331	Dairy produce n.e.c (wholesale)
	51333	Edible oils and fats (wholesale)
	51333	Edible oils and fats exporter (wholesale)
	51333	Edible oils and fats importer (wholesale)
	51333	Edible oils and fats of animal or vegetable origin (wholesale)
	51332	Egg grading and packing (wholesale)
	51332	Egg packing station (wholesale)
	51333	Egg products (wholesale)
	51332	Eggs (wholesale)
	51332	Eggs exporter (wholesale)
	51332	Eggs importer (wholesale)
	51333	Herring oil (wholesale)
	51333	Lard (wholesale)
	51333	Margarine (wholesale)
	51331	Milk (wholesale)
	51333	Palm oil (wholesale)
	51333	Whale oil (wholesale)
	51331	Yoghurt (wholesale)
46341		**Wholesale of fruit and vegetable juices, mineral waters and soft drinks**
	51341	Fruit and vegetable juices (wholesale)
	51341	Fruit and vegetable juices exporter (wholesale)
	51341	Fruit and vegetable juices importer (wholesale)
	51341	Mineral water exporter (wholesale)
	51341	Mineral water importer (wholesale)
	51341	Mineral waters (wholesale)
	51341	Soft drinks (wholesale)
	51341	Soft drinks exporter (wholesale)
	51341	Soft drinks importer (wholesale)
46342		**Wholesale of wine, beer, spirits and other alcoholic beverages**
	51342	Alcoholic beverages (wholesale)
	51342	Alcoholic beverages exporter (wholesale)
	51342	Alcoholic beverages importer (wholesale)
	51342	Beer, wines and liqueurs (wholesale)
	51342	Buying of wine in bulk and bottling without transformation (wholesale)
	51342	Cider merchant (wholesale)
	51342	Liqueurs (wholesale)
	51342	Spirits (wholesale)
	51342	Wine and spirit merchant (wholesale)
	51342	Wine importer (wholesale)
46350		**Wholesale of tobacco products**
	51350	Cigar importer (wholesale)
	51350	Cigar merchant (wholesale)

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	51350	Cigarette importer (wholesale)
	51350	Cigarette merchant (wholesale)
	51350	Tobacco merchant (wholesale)
	51350	Tobacco products exporter (wholesale)
	51350	Tobacco products importer (wholesale)
	51350	Tobacconist (wholesale)
	51350	Tobacconists' sundriesman (wholesale)
46360		**Wholesale of sugar and chocolate and sugar confectionery**
	51360	Bakery products (wholesale)
	51360	Bread (wholesale)
	51360	Chocolate and sugar confectionery (wholesale)
	51360	Confectionery (wholesale)
	51360	Flour confectionery (wholesale)
	51360	Ice cream (wholesale)
	51360	Sugar (wholesale)
	51360	Sugar and chocolate and sugar confectionery exporter (wholesale)
	51360	Sugar and chocolate and sugar confectionery importer (wholesale)
46370		**Wholesale of coffee, tea, cocoa and spices**
	51370	Cocoa (wholesale)
	51370	Coffee (wholesale)
	51370	Coffee, tea, cocoa and spices exporter (wholesale)
	51370	Coffee, tea, cocoa and spices importer (wholesale)
	51370	Spice (wholesale)
	51370	Tea (wholesale)
	51370	Tea merchant (wholesale)
46380		**Wholesale of other food, including fish, crustaceans and molluscs**
	51380	Baby food (wholesale)
	51380	Crustaceans (wholesale)
	51380	Dietetic foods (wholesale)
	51380	Dried fish (wholesale)
	51380	Dried fruit (wholesale)
	51380	Eels (wholesale)
	51380	Fish (wholesale)
	51380	Fish distribution (wholesale)
	51380	Fishmonger (wholesale)
	51380	Flour (wholesale)
	51380	Food n.e.c. including fish, crustaceans and molluscs exporter (wholesale)
	51380	Food n.e.c. including fish, crustaceans and molluscs importer (wholesale)
	51380	Honey (wholesale)
	51380	Meat for domestic animals (wholesale)
	51380	Molluscs distribution (wholesale)
	51380	Oysters (wholesale)
	51380	Pet animal food (wholesale)
	51380	Processed fruit (wholesale)
	51380	Processed vegetables (wholesale)
	51380	Shellfish (wholesale)
	51380	Shrimps (wholesale)
	51380	Starch (wholesale)
	51380	Wet fish dealer (wholesale)
	51380	Yeast (wholesale)

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46390		**Non-specialised wholesale of food, beverages and tobacco**
	51390	Beverages (non-specialised) (wholesale)
	51390	Cash and carry predominantly food (wholesale)
	51390	Food (non-specialised) (wholesale)
	51390	Food, beverages and tobacco (non-specialised) exporter (wholesale)
	51390	Food, beverages and tobacco (non-specialised) importer (wholesale)
	51390	Meat and fish market porterage (wholesale)
	51390	Provisions (wholesale)
	51390	Quick frozen foods (wholesale)
	51390	Wholesale grocer (wholesale)
46410		**Wholesale of textiles**
	51410	Awnings and sun blinds (wholesale)
	51410	Cloth (wholesale)
	51410	Cloth merchant (wholesale)
	51410	Clothing textiles (wholesale)
	51410	Draper (wholesale)
	51410	Fabrics (wholesale)
	51410	Flock (wholesale)
	51410	Haberdashery (wholesale)
	51410	Hand knitting yarns (wholesale)
	51410	Hand mending yarns (wholesale)
	51410	Hessian (wholesale)
	51410	Household linen (wholesale)
	51410	Household textiles (wholesale)
	51410	Linen and linen goods (wholesale)
	51410	Merchant converter (textiles) (wholesale)
	51410	Needles, etc. for sewing (wholesale)
	51410	Oilcloth (wholesale)
	51410	Piece goods (wholesale)
	51410	Rope (new) (wholesale)
	51410	Sacks and bags (wholesale)
	51410	Sewing thread, etc. (wholesale)
	51410	Silk yarn and fabrics (wholesale)
	51410	Tarpaulins (wholesale)
	51410	Textile converter (wholesale)
	51410	Textiles (wholesale)
	51410	Textiles exporter (wholesale)
	51410	Textiles importer (wholesale)
	51410	Thread (wholesale)
	51410	Twine (wholesale)
	51410	Woollen flock (wholesale)
	51410	Woollens (wholesale)
	51410	Yarn (wholesale)
46420		**Wholesale of clothing and footwear**
	51421	Adults' fur and leather clothing exporter (wholesale)
	51421	Adults' fur and leather clothing importer (wholesale)
	51429	Braces (wholesale)
	51422	Children's clothing (exporter) (wholesale)
	51422	Children's clothing (importer) (wholesale)
	51422	Children's clothing (wholesale)
	51429	Clothing (wholesale)
	51429	Clothing accessories (wholesale)
	51421	Clothing accessories made of fur or leather (wholesale)
	51429	Clothing exporter (wholesale)
	51429	Clothing importer (wholesale)
	51429	Clothing outfitter (wholesale)
	51423	Footwear (wholesale)
	51423	Footwear exporter (wholesale)
	51423	Footwear importer (wholesale)
	51429	Fur articles (wholesale)
	51421	Fur clothing for adults (wholesale)
	51421	Fur merchant (wholesale)
	51421	Furrier (wholesale)
	51429	Gloves (wholesale)
	51421	Gloves made of fur or leather (wholesale)
	51429	Hat materials (wholesale)
	51429	Hosiery (wholesale)
	51422	Infants' clothing (wholesale)
	51421	Leather clothing for adults (wholesale)
	51429	Men's clothing (wholesale)
	51429	Millinery (wholesale)
	51429	Millinery importer (wholesale)
	51423	Shoes (wholesale)
	51429	Sports clothes (wholesale)
	51429	Straw and felt hats (wholesale)
	51429	Ties (wholesale)
	51429	Umbrellas (wholesale)
	51429	Walking sticks and seat sticks (wholesale)
	51429	Women's clothing (wholesale)
46431		**Wholesale of gramophone records, audio tapes, compact discs and video tapes and of the equipment on which these are played**
	51431	Audio separates (wholesale)
	51431	Compact discs (recorded) (wholesale)
	51431	Dvds (recorded) (wholesale)
	51431	Gramophone records (wholesale)
	51431	Gramophone records, recorded tapes, CDs etc. and equipment for playing them, exporter (wholesale)
	51431	Gramophone records, recorded tapes, CDs etc. and equipment for playing them, importer (wholesale)
	51431	Record players (wholesale)
	51431	Recorded audio and video tapes, CDs, DVDs and the equipment on which these are played (wholesale)
	51431	Tapes (recorded) (wholesale)
	51431	Videos (recorded) (wholesale)
46439		**Wholesale of radio and television goods and of electrical household appliances (other than of gramophone records, audio tapes, compact discs and video tapes and the equipment on which these are played) n.e.c.**
	51439	Burglar and fire alarms for household use (wholesale)
	51439	Clothes washing and drying machines for domestic use (wholesale)
	51439	Co-axial cable and co-axial conductors for domestic use (wholesale)
	51439	Dish washing machines for domestic use (wholesale)
	51439	Domestic machinery (wholesale)
	51439	Electric blankets (wholesale)
	51439	Electrical heating appliances (wholesale)
	51439	Electrical household appliances (excluding radios, televisions, etc) (wholesale)
	51439	Electrical installation equipment for domestic use (wholesale)

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	51439	Electro-thermic hair-dressing or hand drying apparatus (wholesale)
	51439	Fans and ventilating or recycling hoods for domestic use (wholesale)
	51439	Immersion heaters (wholesale)
	51439	Instantaneous or storage water heaters (electric) (wholesale)
	51479	Instantaneous or storage water heaters (non-electric) (wholesale)
	51439	Microwave ovens (wholesale)
	51479	Optical goods (wholesale)
	51439	Ovens, cookers, cooking plates, boiling rings, grills and roasters (electric) (wholesale)
	51476	Photographic flashbulbs and flashcubes (wholesale)
	51476	Photographic goods (wholesale)
	51476	Photographic goods exporter (wholesale)
	51476	Photographic goods importer (wholesale)
	51439	Plugs, sockets and other apparatus for protecting electrical circuits for domestic use (wholesale)
	51439	Primary cells and primary batteries for domestic use (wholesale)
	51439	Radio, television and electrical household equipment n.e.c. exporter (wholesale)
	51439	Radio, television and electrical household goods n.e.c. importer (wholesale)
	51439	Radios and televisions (wholesale)
	51439	Refrigerators and freezers for domestic use (wholesale)
	51439	Shavers and hair clippers with self-contained motors (wholesale)
	51439	Smoothing irons (electric) (wholesale)
	51439	Space heating and soil heating apparatus (electric) (wholesale)
	51439	Television cameras for domestic use (wholesale)
46440		**Wholesale of china and glassware and cleaning materials**
	51440	China (wholesale)
	51440	China, glassware, wallpaper and cleaning materials exporter (wholesale)
	51440	China, glassware, wallpaper and cleaning materials importer (wholesale)
	51440	Cleaning materials (wholesale)
	51440	Glassware (wholesale)
	51440	Pottery (wholesale)
	51440	Washing products (e.g. washing powder) (wholesale)
46450		**Wholesale of perfume and cosmetics**
	51450	Cosmetics (wholesale)
	51450	Hairdressers' sundriesman (wholesale)
	51450	Perfume (wholesale)
	51450	Perfumes and cosmetics exporter (wholesale)
	51450	Perfumes and cosmetics importer (wholesale)
	51450	Soap (wholesale)
	51450	Toilet preparations (wholesale)
46460		**Wholesale of pharmaceutical goods**
	51460	Adhesive dressings, catgut and similar materials (wholesale)
	51460	Antibiotics (wholesale)
	51460	Antisera and vaccines (wholesale)
	51460	Artificial joints and parts for the body (wholesale)
	51460	Artificial teeth and dental fittings (wholesale)
	51460	Barbers' and similar chairs (wholesale)
	51460	Breathing appliances for medical use (wholesale)
	51460	Catgut and similar materials (wholesale)
	51460	Chemically pure sugars, sugar ethers and sugar esters and their salts (wholesale)
	51460	Contraceptive chemical preparations based on hormones or spermicides (wholesale)
	51460	Diagnostic reagents n.e.c. (wholesale)
	51460	Druggists' sundries (wholesale)
	51460	Druggists' sundriesman (wholesale)
	51460	Drugs (wholesale)
	51460	Electro-diagnostic apparatus for medical use (wholesale)
	51460	First aid boxes (wholesale)
	51460	Glands, other organs and their extracts and other human or animal substances n.e.c. (wholesale)
	51460	Glycoside, vegetable alkaloids and their salts, ethers, esters and other derivatives (wholesale)
	51460	Hearing aids (wholesale)
	51460	Hormones and their derivatives (wholesale)
	51460	Instruments and appliances for dental science (wholesale)
	51460	Instruments and devices for doctors and hospitals (wholesale)
	51460	Invalid carriages with or without motor (wholesale)
	51460	Lactones (wholesale)
	51460	Lysine and glutamic acid and salts thereof (wholesale)
	51460	Medical goods (wholesale)
	51460	Medical, surgical, dental and veterinary furniture (wholesale)
	51460	Medicaments containing alkaloids or their derivatives (wholesale)
	51460	Medicaments containing hormones (wholesale)
	51460	Medicaments containing penicillins or other antibiotics (wholesale)
	51460	Orthopaedic goods (wholesale)
	51460	Pace-makers (wholesale)
	51460	Patent medicines (wholesale)
	51460	Pharmaceutical chemist (wholesale)
	51460	Pharmaceutical goods exporter (wholesale)
	51460	Pharmaceutical goods importer (wholesale)
	51460	Posphoaminolipids, amides and their salts and derivatives (wholesale)
	51460	Prosthesis and orthopaedic appliances (wholesale)
	51460	Provitamins, vitamins and their derivatives (wholesale)
	51460	Quaternary ammonium salts and hydroxides (wholesale)
	51460	Sterilisers for medical, surgical or laboratory use (wholesale)
	51460	Steroids used primarily as hormones (wholesale)
	51460	Sulphonamides (wholesale)
	51460	Surgical and dental instruments and appliances (wholesale)
	51460	Syringes, needles, catheters and cannulae (wholesale)
	51460	Ultra-violet and infra-red apparatus for medical use (wholesale)
	51460	Veterinary drugs (wholesale)
46470		**Wholesale of furniture, carpets and lighting equipment**
	51479	Antiques (wholesale)
	51479	Carpets (wholesale)

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51439 Christmas tree lights (wholesale) 51471 Furnishing contractor (wholesale)51471 Furniture (wholesale)
51471 Furniture exporter (wholesale) 51471 Furniture importer (wholesale) 51439 Lighting equipment (wholesale)
51479 Non-electrical lamps and light fittings (wholesale)51479 Rugs (wholesale)
51439 Wires and switches for domestic lighting use(wholesale)

46480 Wholesale of watches and jewellery

51479 Clocks (wholesale)
51474 Imitation jewellery (wholesale)
51474 Imitation jewellery exporter (wholesale) 51474 Imitation jewellery importer (wholesale) 51474 Imitation pearls (wholesale)
51473 Jewellery (wholesale)
51473 Jewellery exporter (wholesale) 51473 Jewellery importer (wholesale) 51479 Watches and clocks (wholesale)

46491 Wholesale of musical instruments -

51475 Musical instruments (wholesale)
51475 Musical instruments exporter (wholesale) 51475 Musical instruments importer (wholesale)

46499 Wholesale of household goods (other than musical instruments) n.e.c.

51479 Air heaters and hot air distributors (non-electric)(wholesale)
51479 Artificial flowers, foliage and fruit (wholesale)51479 Baby carriages (wholesale)
51479 Balloons, dirigibles and other non-powered aircraft (wholesale)
51479 Ball-point, felt-tipped and other porous-tipped pens and markers (wholesale)
51479 Bicycles and their parts and accessories (wholesale)51479 Books (wholesale)
51479 Brooms and brushes for domestic use (wholesale)51479 Candles and tapers (wholesale)
51479 Cigarette lighters (wholesale)
51479 Collectors stamps and coins (wholesale)
51479 Combs, hair-slides, hairpins, curling pins (wholesale)51477 Construction and constructional toys (wholesale) 51479 Cork goods (wholesale)
51440 Cutlery (wholesale)
51479 Cycles (wholesale)
51477 Dolls (wholesale)
51477 Dolls' carriages (wholesale)
51479 Domestic ironmongery (wholesale)51440 Earthenware (wholesale)
51478 Fancy goods (wholesale)
51477 Festive, carnival or other entertainment articles, conjuring tricks and novelty jokes (wholesale)
51479 Fishing rods, line fishing tackle and articles for hunting or fishing (wholesale)
51479 Fountain pens, Indian ink drawing pens, stylograph pens and other pens (wholesale)
51477 Games and toys (wholesale)
51479 Gliders and hang-gliders (wholesale)

51479 Greeting cards (wholesale)
51479 Gymnasium and athletic articles and equipment(wholesale)
51479 Handbags (wholesale)
51479 Household goods n.e.c. exporter (wholesale) 51479 Household goods n.e.c. Importer (wholesale) 51479 Household non-electrical appliances (wholesale) 51479 Inflatable boats for pleasure or sports (wholesale) 51479 Inflatable vessels for pleasure or sports (wholesale)51479 Jewellers' materials (wholesale)
51479 Leather goods (wholesale)
51479 Liquid or liquefied-gas fuels for lighters in containers (300 cc or more) (wholesale)
51479 Magazines (wholesale)
51479 Matches (wholesale)
51440 Metalware for domestic use (wholesale)51479 Newspapers (wholesale)
51479 Ovens, cookers, cooking plates, boiling rings, grillsand roasters (non-electric) (wholesale)
51479 Pencils, crayons, leads, drawing charcoals, writing ordrawing chalks and tailors chalk (wholesale)
51479 Perambulators (wholesale)51477 Playing cards (wholesale)
51479 Propelling or sliding pencils (wholesale)51477 Puzzles (wholesale)
51479 Saddlery and leather goods (wholesale) 51479 Sailboats for pleasure or sports (wholesale)51479 Sails (wholesale)
51477 Scale models (wholesale)
51479 Scuba diving breathing equipment (wholesale) 51479 Sealing or numbering stamps (wholesale) 51479 Smoking pipes and cigarette and cigar holders (wholesale)
51479 Snow skis, ice skates and roller skates (wholesale)51479 Special sports footwear such as ski boots (wholesale)
51479 Sports goods (wholesale)
51479 Stationers' sundries (wholesale)51479 Stationery (wholesale)
51479 Sun umbrellas and garden umbrellas (wholesale)51479 Swimming and paddling pools (wholesale) 51479 Tents (wholesale)
51479 Tooth brushes (wholesale)
51477 Toy trains and accessories (wholesale)51477 Toys (wholesale)
51477 Toys and games exporter (wholesale) 51477 Toys and games importer (wholesale) 51478 Travel accessories (wholesale)
51478 Travel and fancy goods exporter (wholesale) 51478 Travel and fancy goods importer (wholesale) 51479 Typewriter ribbons (wholesale)
51479 Vessels for pleasure or sports (wholesale) 51477 Video games (wholesale)
51477 Video games of a kind used with a television receiver(wholesale)
51479 Watch and clock movements (wholesale) 51479 Water-skis, surf-boards, sail-boards and other water-sport equipment (wholesale)
51477 Wheeled toys designed to be ridden by children(wholesale)

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	51479	Whips and riding crops (wholesale)
	51479	Wickerwork (wholesale)
	51479	Wooden ware (wholesale)
	51479	Writing implement sets (wholesale)
	51479	Yachts (wholesale)
46510		**Wholesale of computers, computer peripheral equipment and software**
	51840	Computers and peripheral equipment (wholesale)
	51840	Laser printers (wholesale)
	51840	Magnetic or optical readers (wholesale)
	51840	Software (non customised) (wholesale)
46520		**Wholesale of electronic and telecommunications equipment and parts**
	51431	Blank audio and video tapes and diskettes, magnetic optical disks (CDs, DVDs) (wholesale)
	51860	Cathode-ray oscilloscopes and cathode-ray oscillographs (wholesale)
	51860	Cathode-ray television picture tubes, television camera tubes, other cathode-ray tubes (wholesale)
	51860	Diodes, transistors, thyristors, diacs and triacs (wholesale)
	51860	Direction finding compasses, other navigational instruments and appliances (electronic) (wholesale)
	51860	Electronic and telecommunications equipment and parts (wholesale)
	51860	Electronic components (wholesale)
	51860	Electronic integrated circuits and micro-assemblies (wholesale)
	51860	Electronic machinery, apparatus and materials for professional use (wholesale)
	51860	Electronic tubes (wholesale)
	51860	Electronic valves (wholesale)
	51860	Instruments and apparatus for measuring electrical quantities (electronic) (wholesale)
	51860	Instruments for measuring flow, level, pressure etc. liquids or gassed (electronic) (wholesale)
	51860	Integrated circuits (wholesale)
	51860	Light emitting diodes (wholesale)
	51860	Line telegraphy or telegraphy apparatus (wholesale)
	51860	Magnetrons, klystrons and microwave tubes (wholesale)
	51860	Microchips (wholesale)
	51860	Mounted piezo-electric crystals (wholesale)
	51860	Printed circuits (wholesale)
	51860	Radar apparatus (wholesale)
	51860	Radio navigational aid apparatus (wholesale)
	51860	Radio remote control apparatus (wholesale)
	51860	Reception apparatus for radio telephony or telegraphy for professional use (wholesale)
	51860	Satellite navigation (wholesale)
	51860	Semi-conductor devices (wholesale)
	51860	Telecommunication instruments and apparatus (wholesale)
	51860	Telecommunications equipment (wholesale)
	51860	Telecommunications machinery, equipment and materials for professional use (wholesale)
	51860	Telephone and communications equipment (wholesale)
	51860	Television cameras for professional use (wholesale)
	51860	Transmission kit for radio-telephony and telegraphy, or television broadcasting (wholesale)
	51860	X-ray, alpha, beta or gamma radiation apparatus (wholesale)
46610		**Wholesale of agricultural machinery, equipment and supplies**
	51880	Agricultural and forestry machinery (wholesale)
	51880	Agricultural machinery and accessories and implements, including tractors exporter (wholesale)
	51880	Agricultural machinery and accessories and implements, including tractors importer (wholesale)
	51880	Bee-keeping machines (wholesale)
	51880	Dairy farm machinery (wholesale)
	51880	Forestry machinery, accessories and implements (wholesale)
	51880	Gardening tools (wholesale)
	51880	Harvesters (wholesale)
	51880	Horticultural machinery (wholesale)
	51880	Lawn mowers however operated (wholesale)
	51880	Manure spreaders, seeders (wholesale)
	51880	Milking machines (wholesale)
	51880	Ploughs (wholesale)
	51880	Poultry-keeping machines (wholesale)
	51880	Threshers (wholesale)
	51880	Tractors (wholesale)
	51880	Tractors for agricultural use (wholesale)
	51880	Tractors used in forestry (wholesale)
	51880	Wheeled tractor (wholesale)
46620		**Wholesale of machine tools**
	51810	Computer numerically controlled (CNC) machine tools (wholesale)
	51810	Computer-controlled machine tools (wholesale)
	51810	Jigs and gauges (wholesale)
	51810	Machine tools (wholesale)
	51810	Machine tools exporter (wholesale)
	51810	Machine tools importer (wholesale)
46630		**Wholesale of mining, construction and civil engineering machinery**
	51820	Blades for bulldozers and angle-dozers (wholesale)
	51820	Boring and sinking machinery (wholesale)
	51820	Bulldozers and angle-dozers (wholesale)
	51820	Civil engineering machinery and equipment (wholesale)
	51820	Coal or rock cutters and tunnelling machinery (wholesale)
	51820	Construction machinery (wholesale)
	51820	Construction machinery exporter (wholesale)
	51820	Construction machinery importer (wholesale)
	51820	Contractors' plant (wholesale)
	51820	Front-end shovel loaders (wholesale)
	51820	Graders and levellers (wholesale)
	51820	Mechanical shovels, shovel loaders, excavators, with 360 degree revolving superstructure (wholesale)
	51820	Mining machinery and equipment (wholesale)
	51820	Pit-head winding gear (wholesale)
	51820	Pumps for concrete (wholesale)
	51820	Road rollers (wholesale)
	51820	Scrapers (wholesale)
	51820	Tamping machines (wholesale)
	51820	Winches specially designed for use undergroundradio (wholesale)

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46640 Wholesale of machinery for the textile industry and of sewing and knitting machines

51830 Auxiliary machinery for use with machines forworking textiles (wholesale)

51830 Cleaning, wringing, ironing, pressing, dyeing, etc.Machines for textile yarn and fibres (wholesale)

51830 Computer-controlled machinery for sewing andknitting machines (wholesale)

51830 Computer-controlled machinery for the textileindustry (wholesale)

51830 Extruding, drawing, texturing or cutting machineryfor man-made textile materials (wholesale)

51830 Felt finishing machinery (wholesale)

51830 Footwear manufacturing and repairing machinery(wholesale)

51830 Knitting machines (wholesale)

51830 Leather, hides and skins working machinery(wholesale)

51830 Sewing machines (wholesale)

51830 Stitch bonding machinery (wholesale)

51830 Textile fibre preparation machinery (wholesale)51830 Textile industry machinery (wholesale)

51830 Textile spinning, doubling or twisting machinery(wholesale)

51830 Textile weaving machinery (wholesale)

51830 Textile winding or reeling machinery (wholesale)51830 Tufting machinery (wholesale)

46650 Wholesale of office furniture

51850 Furniture for offices (wholesale) 51850 Furniture for schools (wholesale)51850 Office furniture (wholesale)

46660 Wholesale of other office machinery andequipment

51850 Adding machines (wholesale)

51850 Armoured or reinforced safes, strong boxes anddoors made of base metal (wholesale)

51850 Automatic typewriters and word-processingmachines (wholesale)

51850 Calculating and accounting machines (wholesale) 51850 Cash registers and similar machines incorporating a calculating device (wholesale)

51850 Machinery and equipment for offices (wholesale) 51850 Offset sheet fed printing machinery for offices (wholesale)

51850 Photo-copying apparatus (wholesale)

51850 Typewriters (wholesale)

46690 Wholesale of other machinery and equipment

51870 AC and DC electrical motors (single or multi-phase)(wholesale)

51870 Acetylene gas generators (wholesale)

51870 Air conditioning machines (wholesale)51870 Aircraft (wholesale)

51870 Aircraft launching gear and deck arresters (wholesale)

51870 Articulated link chain (except for motor vehicles andbicycles) (wholesale)

51870 Automatic regulating or controlling instruments andapparatus (wholesale)

51870 Bakery ovens (wholesale)

51870 Balances and scales (wholesale)

51870 Ball and roller bearings (wholesale)

51870 Ballasts for discharge lamps or tubes (wholesale)51870 Bearing housings and plain shaft bearings (wholesale)

51870 Bombs, missiles and other projectiles (wholesale)51870 Book-binding and book-sewing machinery (wholesale)

51870 Buckets, grabs, shovels and grips for cranes, excavators and the like (wholesale)

51870 Carbon electrodes and other articles of graphite or other carbon for electrical purposes (wholesale)

51870 Cartridges and other ammunition (wholesale) 51870 Centrifuges (wholesale)

51870 Cereal and dried vegetable milling or working machinery (wholesale)

51870 Clutches and shaft couplings including universal joints (excluding motor vehicles) (wholesale)

51870 Co-axial cable and co-axial conductors for industrial use (wholesale)

51870 Compressors for refrigerating equipment (wholesale)

51870 Compressors for use in civil aircraft (wholesale) 51870 Containers designed for carriage by one or more means of transport (wholesale)

51870 Converters, ladles, ingot moulds and casting machines (wholesale)

51870 Cooking or heating equipment for non-domestic use (wholesale)

51870 Crown corks and stoppers (wholesale) 51870 Dairy machinery (not farm) (wholesale)

51870 Derricks, cranes, mobile lifting frames (wholesale)

51870 Direction finding compasses and other navigational instruments and appliances (wholesale)

51870 Dish washing machines for commercial use (wholesale)

51870 Distilling or rectifying plant (wholesale)

51870 Drafting tables and other drawing, marking out or mathematical calculating instruments (wholesale)

51870 Dry cleaning machines and laundry type washing machines (wholesale)

51870 Dryers for wood, paper pulp, paper or paperboard (wholesale)

51870 Drying machines with a capacity exceeding 10 kgs (wholesale)

51870 Electrical apparatus for line telephony or telegraphy (wholesale)

51870 Electrical appliances, accessories and fittings for industry (wholesale)

51870 Electrical insulators and insulating fittings for electrical machines or equipment (wholesale)

51870 Electrical machinery and apparatus and materials for professional use (wholesale)

51870 Electrical motors (wholesale)

51870 Engineers' plant and stores (wholesale)51870 Engines for aircraft (wholesale)

51870 Filters for oil, petrol and air for internal combustion engines (not motor vehicle) (wholesale)

51870 Filtration equipment and apparatus (wholesale) 51870 Fire extinguishers (excluding motor vehicle) (wholesale)

51870 Firearms, sporting, hunting or target shooting rifles (wholesale)

51870 Flywheels and pulleys including pulley blocks (wholesale)

51870 Food and beverage machinery (wholesale)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

51870 Food and drink preparation and manufacturing machinery for industrial use (wholesale)

51870 Food, beverage and tobacco industry machinery (wholesale)

51870 Forklift trucks (wholesale)

51870 Furnace burners, mechanical stokers and grates and mechanical ash dischargers (wholesale)

51870 Furnaces, ovens, incinerators, for industrial or laboratory use (excluding bakery ovens) (wholesale)

51870 Fuses, relays and apparatus for protecting electrical circuits (wholesale)

51870 Garage tools (wholesale)

51870 Gaskets (excluding motor vehicle) (wholesale)

51870 Gears, gearing, ball screws, gear boxes, other speed changers (excluding motor vehicles) (wholesale)

51870 Generating sets (wholesale)

51870 Ground flying trainers (wholesale)

51870 Hand or foot operated air pumps (wholesale)

51870 Heat exchange units and machinery for liquefying air and other gases (wholesale)

51870 Helicopters (wholesale)

51870 Hydraulic and pneumatic power engines and motors (wholesale)

51870 Hydraulic turbines and water wheels (wholesale)

51870 Hydrometers, non-medical thermometers, pyrometers, barometers, hygrometers and the like (wholesale)

51870 Illuminated signs and name-plates (wholesale)

51870 Induction or dielectric heating equipment for industrial or laboratory use (wholesale)

51870 Instruments for measuring or checking flow, level, pressure etc. of liquids or gases (wholesale)

51870 Insulated winding wire (wholesale)

51870 Jacks and hoists of a kind used for raising vehicles (wholesale)

51870 Laundry-type washing and dry-cleaning machines (wholesale)

51870 Lifting and handling equipment (wholesale)

51870 Lifts, skip hoists, escalators and moving walkways (wholesale)

51870 Light metal containers (wholesale)

51870 Linear acting (cylinders) hydraulic and pneumatic power engines and motors (wholesale)

51870 Liquid dielectric transformers (wholesale)

51870 Locomotives (wholesale)

51870 Machinery and apparatus for filtering or purifying gases (wholesale)

51870 Machinery n.e.c., for use in trade, navigation and other services (wholesale)

51870 Machinery n.e.c., for industrial use (except mining, construction, textile) (wholesale)

51870 Machinery n.e.c., for industrial use (except mining, construction, textile) exporter (wholesale)

51870 Machinery n.e.c., for industrial use (except mining, construction, textile) importer (wholesale)

51870 Machines and appliances for testing the mechanical properties of materials (wholesale)

51870 Magnetic lifting heads (wholesale)

51870 Marine propulsion engines (wholesale)

51870 Measuring instruments and equipment (wholesale)

51870 Metal rolling mills (wholesale)

51870 Microscopes (except optical) and diffraction equipment (wholesale)

51870 Motorised tanks and other armoured fighting vehicles (wholesale)

51870 Moulds, moulding boxes for metal foundries, mouldbases and moulding patterns (wholesale)

51870 Navigation machinery (wholesale) 51870 Ophthalmic instruments (wholesale)

51870 Optical fibre cables made up of individually sheathed fibres (wholesale)

51870 Paper and paperboard production machinery(wholesale)

51870 Permanent magnets and electro-magnetic couplings, clutches and brakes (wholesale)

51870 Physical or chemical analysis instruments andapparatus (non-electronic) (wholesale)

51870 Plugs, sockets and the like, for switching or protecting industrial electrical circuits (wholesale)

51870 Pneumatic and other continuous action elevatorsand conveyors for goods or materials (wholesale)

51870 Primary cells and primary batteries for industrial use(wholesale)

51870 Printing block and plates preparation and production machinery, equipment and apparatus (wholesale)

51870 Printing machinery (wholesale)

51870 Process control valves, gate valves, globe valves andother valves (wholesale)

51870 Producer gas or water gas generators (wholesale)51870 Production line robot (wholesale)

51870 Public address equipment (wholesale)51870 Pulley tackle and hoists (wholesale) 51870 Pumping plant (wholesale)

51870 Pumps for liquids (excluding motor vehicles)(wholesale)

51870 Railway or tramway coaches, vans and wagons(wholesale)

51870 Reciprocating displacement compressors (wholesale)51870 Reciprocating positive displacement pumps for liquids (wholesale)

51870 Refrigerating and freezing equipment and heat pumps (commercial) (wholesale)

51870 Reservoirs, tanks and containers of metal (not forcentral heating) (300 litres or more) (wholesale)

51870 Revolution and production counters (wholesale) 51870 Revolvers, pistols and other firearms and similar devices (wholesale)

51870 Rotary displacement compressors (single or multishaft) (wholesale)

51870 Rotary positive displacement pumps for liquids(wholesale)

51870 Rubber or plastics working machinery (wholesale) 51870 Scene lighting, road lighting and other lighting (not domestic) (wholesale)

51870 Ships and boats for the carriage of passengers orgoods (wholesale)

51870 Ships and boats propellers and blades (wholesale)51870 Snow-ploughs and blowers (wholesale)

51870 Spark ignition and compression ignition engines (except motor vehicle and outboard) (wholesale)

51870 Special purpose machinery n.e.c. (wholesale) 51870 Speed indicators and tachometers (wholesale)51870 Static converters (wholesale)

51870 Steam and sand blasting machinery and appliances(excluding agricultural) (wholesale)

51870 Steam generators (wholesale)

51870 Straddle carriers and works trucks fitted with a crane (wholesale)

UK SIC 2007	UK SIC 2003	Activity
	51870	Stranded wires, cables, plaited bands, slings and the like (not electrically insulated) (wholesale)
	51870	Stroboscopes (wholesale)
	51870	Surveying, hydrographic, oceanographic, hydrological and meteorological instruments (wholesale)
	51870	Switches (wholesale)
	51870	Swords, cutlasses, bayonets, lances and similar arms (wholesale)
	51870	Tanks, casks, drums, cans, boxes and similar containers (excluding for gas) (wholesale)
	51870	Taximeters (wholesale)
	51870	Therapeutic instruments and appliances (wholesale)
	51870	Tobacco preparation and making-up machinery (wholesale)
	51870	Tractors of a type used on railway station platforms (wholesale)
	51870	Transformers (wholesale)
	51870	Transport equipment (except motor vehicles, motorcycles and bicycles) (wholesale)
	51870	Tugs and pusher craft (wholesale)
	51870	Turbo-compressors (wholesale)
	51870	Type-setting machinery, equipment and apparatus (wholesale)
	51870	Vacuum pumps (wholesale)
	51870	Vending machines (wholesale)
	51870	Weighing machines and scales for commercial use (wholesale)
	51870	Winches and capstans (wholesale)
	51870	Wine, cider, fruit beverage production machinery (wholesale)
	51870	Wire for industrial use (wholesale)
	51870	Wire, switches and other installation equipment for industrial use (wholesale)
	51870	Works trucks (wholesale)
46711		**Wholesale of petroleum and petroleum products**
	51511	Butane (wholesale)
	51511	Crude oil (wholesale)
	51511	Crude petroleum (wholesale)
	51511	Diesel fuel (wholesale)
	51511	Fuel oil bulk distribution (wholesale)
	51511	Gaseous petroleum fuels (wholesale)
	51511	Gasoline (wholesale)
	51511	Liquefied petroleum gases (wholesale)
	51511	Liquid petroleum fuels (wholesale)
	51511	Motor spirit distribution (wholesale)
	51511	Petroleum and petroleum products exporter (wholesale)
	51511	Petroleum and petroleum products importer (wholesale)
	51511	Petroleum products distribution (wholesale)
	51511	Propane gas (wholesale)
	51511	Refined petroleum products (wholesale)
46719		**Wholesale of fuels and related products (other than petroleum and petroleum products)**
	51519	Charcoal (wholesale)
	51519	Coal (wholesale)
	51519	Coal depot (wholesale)
	51519	Coal merchant (wholesale)
	51519	Coke (wholesale)
	51519	Coke merchant (wholesale)
	51519	Culm (wholesale)
	51519	Enriched uranium supply to nuclear reactors (wholesale)
	51519	Fuels (other than petroleum) (wholesale)
	51519	Fuels exporter (other than petroleum) (wholesale)
	51519	Fuels importer (other than petroleum) (wholesale)
	51519	Gas bottling and distribution (wholesale)
	51519	Gas oil (wholesale)
	51519	Gaseous fuels (other than petroleum) (wholesale)
	51519	Greases (wholesale)
	51519	Heating oil (wholesale)
	51519	Kerosene (wholesale)
	51519	Liquid fuels (other than petroleum) (wholesale)
	51519	Lubricants (wholesale)
	51519	Lubricating oils and greases (wholesale)
	51519	Oil merchant (wholesale)
	51519	Patent fuel (wholesale)
	51519	Peat (wholesale)
	51519	Solid fuels (wholesale)
46720		**Wholesale of metals and metal ores**
	51520	Copper (wholesale)
	51520	Ferrous and non-ferrous metal ores (wholesale)
	51520	Ferrous and non-ferrous metals in primary forms (wholesale)
	51520	Ferrous and non-ferrous semi-finished metal products n.e.c. (wholesale)
	51520	Galvanised sheets (wholesale)
	51520	Gold and other precious metals (wholesale)
	51520	Iron (wholesale)
	51520	Iron yard (wholesale)
	51520	Lead (wholesale)
	51520	Metal stockholder (wholesale)
	51520	Metals (wholesale)
	51520	Metals and metal ores exporter (wholesale)
	51520	Metals and metal ores importer (wholesale)
	51520	Ores (wholesale)
	51520	Spelter (wholesale)
	51520	Steel (wholesale)
	51520	Steel stockholder (wholesale)
	51520	Tinplate (wholesale)
	51520	Zinc (wholesale)
46730		**Wholesale of wood, construction materials and sanitary equipment**
	51530	Baths (wholesale)
	51530	Builders' carpentry and joinery of metal (wholesale)
	51530	Cement (wholesale)
	51530	Clay (wholesale)
	51530	Construction materials (wholesale)
	51530	Doors (wholesale)
	51530	Flagstone merchant (wholesale)
	51530	Flat glass (wholesale)
	51479	Floor coverings (wholesale)
	51530	Ganister (wholesale)
	51530	Granite (wholesale)
	51530	Gravel (wholesale)
	51530	Hardwoods (wholesale)
	51530	Limestone (wholesale)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

51479 Linoleum (wholesale) 51530 Logged timber (wholesale)51530 Marble (wholesale)
51530 Mastics and sealants (wholesale)51530 Paint and varnish (wholesale)
51530 Paint, varnish and lacquer (wholesale)51530 Pit props (wholesale)
51530 Plaster (wholesale)
51530 Plasterboards (wholesale)
51530 Plywood (wholesale)
51530 Precast concrete products (wholesale)51530 Prefabricated buildings (wholesale) 51530 Sand (wholesale)
51530 Sand and gravel merchant (wholesale)51530 Sanitary porcelain (wholesale)
51530 Sanitary ware (wholesale)
51530 Sheet glass merchant (wholesale)51530 Slate (wholesale)
51530 Slate slabs (wholesale)
51479 Slates and boards (wholesale)51530 Sleepers (wholesale)
51530 Stones (wholesale)
51530 Tiles (wholesale)
51530 Timber importer (wholesale) 51530 Timber merchant (wholesale)51530 Timber yard (wholesale) 51530 Toilets (wholesale)
51530 Varnishes (wholesale) 51530 Wall boards (wholesale)51440 Wallpaper (wholesale)
51530 Washbasins (wholesale)
51530 Wood (wholesale)
51530 Wood in the rough (wholesale)
51530 Wood products of primary processing (wholesale)51530 Wood, construction materials and sanitary equipment exporter (wholesale)
51530 Wood, construction materials and sanitary equipment importer (wholesale)

46740 Wholesale of hardware, plumbing and heating equipment and supplies

51540 Barbed wire and stranded wire (wholesale)
51540 Drainpipes (wholesale)
51540 Fittings and fixtures (wholesale)
51540 Hammers (wholesale)
51540 Hand tools (wholesale)
51540 Hardware equipment and supplies (wholesale)51540 Hardware, plumbing and heating equipment (wholesale)
51540 Hardware, plumbing and heating equipment andsupplies exporter (wholesale)
51540 Hardware, plumbing and heating equipment andsupplies importer (wholesale)
51540 Heat insulated tanks for central heating (wholesale)51540 Heating equipment and supplies (wholesale)
51540 Hot water heaters (wholesale)
51540 Ironmonger (wholesale)
51540 Locks (wholesale)
51540 Nails, tacks, drawing pins and staples (wholesale)
51540 Plumbers' merchant (wholesale)

51540 Plumbing equipment and supplies (wholesale) 51540 Reservoirs, tanks and containers of metal for central heating (300 litres or more) (wholesale)

51540 Sanitary installation connections, rubber pipes(wholesale)

51540 Sanitary installation equipment (wholesale) 51540 Sanitary installation taps, t-pieces (wholesale)

51540 Sanitary installation tubes, pipes, fittings (wholesale) 51540 Saws and sawblades (wholesale)

51540 Saws, screwdrivers and similar hand tools (wholesale)

51540 Screwdrivers (wholesale)

51540 Threaded and non-threaded fasteners (wholesale)51540 Tools (wholesale)

51540 Ventilation equipment (wholesale)51540 Wire netting (wholesale)

46750 Wholesale of chemical products

51550 Acids (wholesale)

51550 Acrylic polymers in primary forms (wholesale)51550 Agro-chemical products (wholesale)

51550 Aldehyde function compounds (wholesale)

51550 Amino resins, phenolic resins and polyurethanes inprimary forms (wholesale)

51550 Aniline (wholesale)

51550 Anti-sprouting products (wholesale)51550 Carbonates (wholesale)

51550 Chemical glues (wholesale) 51550 Chemical products (wholesale)

51550 Chemical products exporter (wholesale) 51550 Chemical products importer (wholesale)

51550 Chromium, manganese, lead and copper oxides andhydroxides (wholesale)

51550 Colouring matter (wholesale)

51550 Compounds of rare earth metals (wholesale) 51550 Compounds of yttrium and scandium (wholesale) 51550 Cotton size (wholesale)

51550 Cyanides, cyanide oxides and complex cyanides(wholesale)

51550 Cyclic hydrocarbons (wholesale)

51550 Depleted uranium and thorium and their compounds(wholesale)

51550 Diols, polyalcohols, cyclical alcohols and theirderivatives (wholesale)

51550 Distilled water (wholesale)51550 Dyes (wholesale)

51550 Enzymes (wholesale)

51550 Essential oils (wholesale)

51550 Essential oils merchant (wholesale)

51550 Ethers, organic peroxides, epoxides, acetals andhemiacetals and their derivatives (wholesale)

51550 Explosives (wholesale)

51550 Fertilisers (wholesale)

51550 Flavourings (wholesale)

51550 Fulminates, cyanates and thiocyanates (wholesale)51550 Fungicides, rodenticides and similar products (wholesale)

51550 Guano (wholesale)

51550 Gums (wholesale)

51550 Halogen or sulphur compounds of non-metals (wholesale)

UK SIC 2007	UK SIC 2003	Activity
	51550	Herbicides and insecticides (wholesale)
	51550	Heterocyclic compounds (wholesale)
	51550	Hydrogen chloride (wholesale)
	51550	Hydrogen peroxide (wholesale)
	51550	Hypochlorites, chlorates and perchlorates (wholesale)
	51550	Indigo (wholesale)
	51550	Industrial chemicals (wholesale)
	51550	Industrial dyes (wholesale)
	51550	Industrial fatty alcohols (wholesale)
	51550	Industrial gases (wholesale)
	51550	Industrial monocarboxylic fatty acids and acid oils from refining (wholesale)
	51550	Industrial salt (wholesale)
	51550	Insecticides (wholesale)
	51550	Ketone and quinone function compounds (wholesale)
	51550	Liquid and compressed air (wholesale)
	51550	Manure (wholesale)
	51550	Metal oxides, hydroxides and peroxides (wholesale)
	51550	Metallic halogenates (wholesale)
	51550	Metalloids (wholesale)
	51550	Methanol (wholesale)
	51550	Monohydric alcohols (wholesale)
	51550	Nitrate of soda importer (wholesale)
	51550	Oils and other products of distilling of high temperature coal tar, pitch and pitch tar (wholesale)
	51550	Organo-sulphur and other organo-inorganic compounds (wholesale)
	51550	Paraffin (wholesale)
	51550	Petroleum coke, bitumen and other residues of petroleum oils (wholesale)
	51550	Phenols, phenol-alcohols and derivatives of phenols (wholesale)
	51550	Phosphides, carbides, hydrides, nitrides azides, silicides and borides (wholesale)
	51550	Phosphinates, phosphonates, phosphates and polyphosphates (wholesale)
	51550	Phosphoric esters and esters of other inorganic acids and their derivatives (wholesale)
	51550	Piezo-electric quartz (wholesale)
	51550	Plant growth regulators (wholesale)
	51550	Polymers of vinyl chloride and other halogenated olefins in primary forms (wholesale)
	51550	Printing ink (wholesale)
	51550	Radioactive residues (wholesale)
	51550	Refined sulphur (wholesale)
	51550	Roasted iron pyrites (wholesale)
	51550	Scents (wholesale)
	51550	Silicates, borates, perborates and other salts of inorganic acids or peroxoacids (wholesale)
	51550	Silicon and sulphur dioxide (wholesale)
	51550	Soda (wholesale)
	51550	Sodium nitrate (wholesale)
	51550	Starch derivatives (wholesale)
	51550	Sulphides, sulphites and sulphates (wholesale)
	51550	Sulphur (wholesale)
	51550	Synthetic organic colouring matter and colouring lakes and preparations based on them (wholesale)
	51550	Synthetic resin (wholesale)
	51550	Tanning preparations (wholesale)
	51550	Titanium oxide (wholesale)
	51550	Urea, thiourea and melamine resins in primary forms (wholesale)
	51550	Vegetable or resin product derivatives (wholesale)
	51550	Wood charcoal (not fuel) (wholesale)
	51550	Zinc oxide and peroxide (wholesale)
46760		**Wholesale of other intermediate products**
	51560	Fluorspar (wholesale)
	51560	Moss litter (wholesale)
	51560	Mungo (carded or combed) (wholesale)
	51560	Noil (wholesale)
	51560	Other intermediate products exporter (wholesale)
	51560	Other intermediate products importer (wholesale)
	51560	Paper bags (wholesale)
	51560	Paper boards (wholesale)
	51560	Paper in bulk (wholesale)
	51560	Paper merchant (wholesale)
	51550	Plastic materials in primary forms (wholesale)
	51560	Plastic packaging (wholesale)
	51550	Polyamides in primary forms (wholesale)
	51550	Polyethers, polyesters, polycarbonates, alkyd and epoxide resins (wholesale)
	51550	Polymers of ethylene and styrene in primary forms (wholesale)
	51560	Precious stones (wholesale)
	51550	Rubber (wholesale)
	51560	Shoddy (carded or combed) (wholesale)
	51550	Silicones in primary forms (wholesale)
	51550	Synthetic or reconstructed precious or semi-precious unworked stones (wholesale)
	51550	Synthetic rubber (wholesale)
	51560	Tallow (wholesale)
	51560	Textile fibres (wholesale)
	51560	Tops (wholesale)
	51550	Waste, parings and scrap of plastic (wholesale)
	51560	Woodpulp and paper making materials (wholesale)
	51560	Wool merchant (wholesale)
46770		**Wholesale of waste and scrap**
	51570	Car dismantlers (wholesale)
	51570	Collecting, sorting, separating, stripping of used goods to obtain reusable parts (wholesale)
	51570	Construction materials from demolished buildings (wholesale)
	51570	Cotton rags (wholesale)
	51570	Cotton waste (wholesale)
	51570	Dismantling of automobiles, computers, and other equipment for re-sale of usable parts (wholesale)
	51570	Engine cleaning waste (wholesale)
	51570	Glass waste (wholesale)
	51570	Marine store waste (wholesale)
	51570	Metal and non-metal waste and scrap and materials for recycling (wholesale)
	51570	Packing, repacking, storage and delivery of waste and scrap without transformation (wholesale)
	51570	Rag and bone dealer (wholesale)
	51570	Rag merchant
	51570	Sawdust (wholesale)
	51570	Scrap (wholesale)
	51570	Scrap iron (wholesale)

UK SIC 2007	UK SIC 2003	Activity
	51570	Scrap leather (wholesale)
	51570	Scrap merchant (general dealer) (wholesale)
	51570	Scrap metal (wholesale)
	51570	Tailors' trimmings (wholesale)
	51570	Textile waste (wholesale)
	51570	Upholsterers' trimmings (wholesale)
	51570	Waste (wholesale)
	51570	Waste and scrap exporter (wholesale)
	51570	Waste and scrap importer (wholesale)
	51570	Waste paper (wholesale)
	51570	Waste rubber (wholesale)
	51570	Waste string (wholesale)
	51570	Woollen rag (wholesale)
46900		**Non-specialised wholesale trade**
	51900	Educational supplies (except furniture) (wholesale)
	51900	Feathers (wholesale)
	51900	General dealer (wholesale)
	51900	Goods n.e.c. exporter (wholesale)
	51900	Goods n.e.c. importer (wholesale)
	51900	Industrial materials (general or undefined) (wholesale)
	51900	Machinery (undefined) (wholesale)
	51900	Machinery stockist (undefined) (wholesale)
	51900	Ships chandler (wholesale)
	51900	Wholesale of a variety of goods without any particular specialisation (wholesale)
47110		**Retail sale in non-specialised stores with food, beverages or tobacco predominating**
	52113	Cinema kiosk (retail)
	52111	Confectioners, tobacconists and newsagents (CTN's) (retail)
	52113	Food (general) (retail)
	52113	Frozen food store (retail)
	52112	General store with predominant sale of food beverages or tobacco products (licensed) (retail)
	52113	General store with predominant sale of food beverages or tobacco products (unlicensed) (retail)
	52112	Grocer with alcohol licence (retail)
	52113	Grocer without alcohol licence (retail)
	52112	Hypermarket selling mainly foodstuffs with alcohol licence (retail)
	52113	Hypermarket selling mainly foodstuffs without alcohol licence (retail)
	52112	NAAFI shop with alcohol licence (retail)
	52113	NAAFI shop without alcohol licence (retail)
	52112	Supermarket (selling mainly foodstuffs) with alcohol licence (retail)
	52113	Supermarket (selling mainly foodstuffs) without alcohol licence (retail)
	52112	Superstore (selling mainly foodstuffs) with alcohol licence (retail)
	52113	Superstore (selling mainly foodstuffs) without alcohol licence (retail)
	52112	Village general store (selling mainly foodstuffs) with alcohol licence (retail)
	52113	Village general store (selling mainly foodstuffs) without alcohol licence (retail)
47190		**Other retail sale in non-specialised stores**
	52120	Department stores (retail)
	52120	General stores in which the sale of food beverages or tobacco products is not predominant (retail)
	52120	Household stores (retail)
	52120	Mixed business retailing both food and non food goods but non-food predominating (retail)
47210		**Retail sale of fruit and vegetables in specialised stores**
	52210	Edible nuts (retail)
	52210	Fruit shop (retail)
	52210	Fruiterer (retail)
	52210	Greengrocer (retail)
	52210	Herb seller (food) (retail)
	52210	Herbalist (food) (retail)
	52210	Mushrooms (retail)
	52210	Potatoes (retail)
	52270	Preserved fruit and vegetables (retail)
	52210	Vegetables (retail)
47220		**Retail sale of meat and meat products in specialised stores**
	52220	Butchers shop (retail)
	52220	Cooked meats (retail)
	52220	Game (retail)
	52220	Meat and meat products (retail)
	52220	Meat and meat products in specialised stores (retail)
	52220	Meat dealer (retail)
	52220	Pork butcher (retail)
	52220	Poultry and game (retail)
	52220	Tripe (retail)
47230		**Retail sale of fish, crustaceans and molluscs in specialised stores**
	52230	Crustaceans (retail)
	52230	Eels (retail)
	52230	Fish (retail)
	52230	Fishmonger (retail)
	52230	Molluscs (retail)
	52230	Seafood and seafood products (retail)
	52230	Shellfish (retail)
	52230	Wet fish (retail)
47240		**Retail sale of bread, cakes, flour confectionery and sugar confectionery in specialised stores**
	52240	Baker (retail)
	52240	Bakery (selling main activity) (retail)
	52240	Bread (retail)
	52240	Cakes (retail)
	52240	Chocolate and sweets (retail)
	52240	Flour confectionery (retail)
	52240	Pastry (retail)
	52240	Sugar confectionery (retail)
	52240	Sweets (retail)
47250		**Retail sale of beverages in specialised stores**
	52250	Alcoholic beverages (retail)
	52250	Beer (retail)
	52250	Non-alcoholic beverages (retail)
	52250	Off licence (not public house) (retail)
	52250	Soft drinks (retail)
	52250	Wine and spirit merchant (retail)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

52250 Wine and spirits (retail)

47260 Retail sale of tobacco products in specialised stores

52260 Cigarettes (retail)
52260 Cigars (retail)
52260 Smokers' requisites (retail)
52260 Tobacco (retail)
52260 Tobacconist (retail)

47290 Other retail sale of food in specialised stores

52270 Dairy grocer's shop (retail)
52270 Dairy products (retail)
52270 Dairyman (retail)
52270 Delicatessen shop (retail)
52270 Eggs (retail)
52270 Health foods (retail)
52270 Tea and coffee grocer (retail)
52270 Tea merchant (retail)
52270 Vegetarian foods (retail)

47300 Retail sale of automotive fuel in specialised stores

50500 Cooling products for motor vehicles
50500 Filling station (motor fuel and lubricants)
50500 Fuel for motor vehicles and motorcycles
50500 Lubricating products for motor vehicles
50500 Motorway services petrol filling station
50500 Petrol filling station

47410 Retail sale of computers, peripheral units and software in specialised stores

52482 Calculating machines (retail)
52485 Computer games (retail)
52482 Computer peripheral equipment (retail)
52482 Computers and non-customised software (retail)
52482 Office equipment (retail)
52482 Photocopiers (retail)
52482 Software (non-customised) (retail)
52482 Typewriters (retail)
52482 Video game consoles (retail)

47421 Retail sale of mobile telephones in specialised stores

52488 Car telephones (retail)
52488 Cellular telephones (retail)
52488 Installation of car telephones (retail)
52488 Mobile telephones (retail)
52488 Mobile telephones for motor vehicles (retail)

47429 Retail sale of telecommunications equipment (other than mobile telephones) n.e.c., in specialised stores

52482 Telecommunications equipment other than mobile telephones (retail)

47430 Retail sale of audio and video equipment in specialised stores

52450 Audio equipment (retail)
52450 Audio/visual cassettes (retail)
52450 Audio/visual equipment (retail)
52450 CD, DVD recorders (retail)

52450 Compact disc players (retail)52450 Dvd players (retail)
52450 Hi-fi equipment (retail)
52450 Installation of radios in motor vehicles (retail)52450 Radio sets and equipment (retail)
52450 Record players (retail) 52450 Tape recorders (retail)
52450 Television goods (retail)
52450 Television sets and equipment (retail)52450 Video equipment (retail)
52450 Video recorders (retail)

47510 Retail sale of textiles in specialised stores

52410 Awnings and sunblinds (retail)52410 Bed linen (retail)
52410 Bedding (retail)
52410 Clothing fabrics (retail)52410 Draper (retail)
52410 Dress materials (retail)
52410 Embroidery making materials (retail)52410 Fabrics (retail)
52410 Haberdashery (retail) 52410 Hand knitting yarns (retail)
52410 Household textiles (retail) 52410 Knitting yarn (retail)
52410 Needles for sewing (retail) 52410 Piece goods (retail)
52410 Rug making materials (retail)52410 Sewing thread (retail)
52410 Sheets made of textiles (retail)52410 Table linen (retail)
52410 Table-cloths (retail)
52410 Tapestry making materials (retail)52410 Tarpaulins (retail)
52410 Textiles (retail)
52410 Towels (retail)
52410 Woollen draper (retail)

47520 Retail sale of hardware, paints and glass in specialised stores

52460 Building materials such as bricks, wood, sanitary equipment (retail)
52460 Construction materials (retail)52460 DIY equipment (retail)
52460 DIY materials (retail)52460 Doors (retail)
52460 Double glazing (retail)52460 Flat glass (retail) 52460 Gardening tools (retail)52460 Glass (retail)
52460 Hardware (retail)
52460 Ironmonger (retail)
52460 Lacquers (retail)
52460 Lawn mowers (retail)
52460 Paint and varnish (retail) 52460 Sanitary equipment (retail)52460 Saunas (retail)
52460 Tiles for wall or floor made of ceramic (retail)52460 Tools (not machine tools) (retail)

UK SIC 2007	UK SIC 2003	Activity
	52460	Varnishes (retail)
47530		**Retail sale of carpets, rugs, wall and floor coverings in specialised stores**
	52481	Carpet tiles (retail)
	52481	Carpets (retail)
	52440	Curtain material (retail)
	52440	Curtains (retail)
	52481	Floor coverings (retail)
	52481	Floor tiles (not ceramic) (retail)
	52481	Lino tiles (retail)
	52440	Net curtains (retail)
	52481	Rugs (retail)
	52489	Wallpaper (retail)
47540		**Retail sale of electrical household appliances in specialised stores**
	52450	Domestic electrical appliances (retail)
	52450	Electrical appliances, accessories and fittings (retail)
	52450	Electrical household appliances (retail)
	52450	Knitting machines (retail)
	52450	Sewing machines (retail)
47591		**Retail sale of musical instruments and scores in specialised stores**
	52450	Music shop (retail)
	52450	Musical instruments (retail)
	52450	Musical scores (retail)
	52450	Pianofortes (retail)
	52450	Sheet music (retail)

SIC 2007	SIC 2003	Activity
47610		**Retail sale of books in specialised stores**
	52470	Books (retail)
47620		**Retail sale of newspapers and stationery in specialised stores**
	52470	Chart seller (retail)
	52470	Greetings cards (retail)
	52470	Map seller (retail)
	52470	Newspapers (retail)
	52470	Office supplies (retail)
	52470	Paper (retail)
	52470	Pencils (retail)
	52470	Pens (retail)
	52470	Stationery (retail)
47630		**Retail sale of music and video recordings in specialised stores**
	52450	Audio and video recordings (retail)
	52450	Audio tapes and cassettes (retail)
	52450	Blank tapes and discs (retail)
	52450	Dvds (retail)
	52450	Gramophone records (retail)
	52450	Records, compact discs and tapes (retail)
	52450	Video tapes (retail)
47640		**Retail sale of sporting equipment in specialised stores**
	52485	Bicycles (retail)
	52485	Boats (retail)
	52485	Camping goods (retail)
	52485	Cycle accessories (retail)

47599 Retail sale of furniture, lighting equipment and other household articles (other than musical instruments) n.e.c., in specialised stores

52440 Beds (retail)

52440 China (retail)

52440 Cork goods

(retail) 52440

Crockery (retail)

52440 Cutlery (retail)

52440 Domestic furniture

(retail) 52440 Earthenware

(retail)

52482 Electrical security alarm systems e.g. Safes and vaults (not installed or maintained) (retail)

52440 Gas appliances

(retail) 52440 Glassware

(retail) 52440 House

furnisher (retail)

52440 Household articles and equipment n.e.c. (retail)

52440 Household furnishing articles made of textile materials (retail)

52440 Household furniture (retail)

52440 Household non-electrical appliances (retail)

52440 Household utensils (retail)

52440 Kitchen units (retail)

52440 Lampshades (retail)

52485 Cycle agent (retail)
52485 Fishing gear (retail)
52485 Fishing tackle (retail)
52485 Sports goods (retail)
52485 Sports outfitter (retail)

47650 Retail sale of games and toys in specialised stores

52485 Games and toys (retail)
52485 Games apparatus (retail)
52485 Toys (retail)

52440 Lighting equipment (retail)
52482 Office furniture (retail)
52440 Pottery (retail)
52440 Soft furnishings (retail)
52440 Wickerwork goods (retail)
52440 Window blinds (retail)
52440 Wooden ware (retail)

47710 Retail sale of clothing in specialised stores

52421 Articles of fur (retail)
52424 Braces (retail)
52422 Children's wear (retail)
52421 Clothing accessories made of fur or leather (retail)
52422 Clothing accessories, children's, other than of fur or leather (retail)

52424 Clothing accessories, men's, other than of fur orleather (retail)

52423 Clothing accessories, women's, other than of fur orleather (retail)

52423 Corsetiere (retail)
52423 Dress shop (retail)
52423 Dressmaker (retail)
52421 Furrier (retail)
52421 Gloves made of fur or leather (retail)
52422 Gloves, children's, other than of fur or leather (retail)
52424 Gloves, men's, other than of fur or leather (retail)

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	52423	Gloves, women's, other than of fur or leather (retail)
	52422	Infants' clothing (retail)
	52422	Juvenile outfitter (retail)
	52423	Ladies' outfitter (retail)
	52421	Leather clothing for adults (retail)
	52424	Men's bespoke tailor (retail)
	52424	Men's clothier and outfitter (retail)
	52424	Men's clothing (retail)
	52424	Men's outfitter (retail)
	52424	Men's wear dealer (retail)
	52423	Millinery dealer (retail)
	52424	Hats (retail)
	52423	Women's bespoke tailor (retail)
	52423	Women's clothier and outfitter (retail)
	52423	Women's clothing (retail)
	52423	Women's clothing accessories (retail)
	52423	Women's hats (retail)
	52423	Women's hosiery (retail)
	52423	Women's outfitter (retail)
	52423	Women's tailor (retail)
	52423	Women's wear (retail)
47721		**Retail sale of footwear in specialised stores**
	52431	Boots and shoes (retail)
	52431	Footwear (retail)
	52431	Shoes (retail)
47722		**Retail sale of leather goods in specialised stores**
	52432	Handbags (retail)
	52432	Leather goods (retail)
	52432	Saddlery (retail)
	52432	Travel accessories made of leather and leather substitutes (retail)
	52432	Travel goods (retail)
	52432	Wallets (retail)
47730		**Dispensing chemist in specialised stores**
	52310	Dispensing chemist (retail)
	52310	Drug store (retail)
	52310	Druggist (retail)
	52310	Drugs (retail)
	52310	Medicine dealer (retail)
	52310	Pharmaceutical chemist (retail)
	52310	Pharmacy (retail)
47741		**Retail sale of hearing aids in specialised stores**
	52321	Hearing aids (retail)
47749		**Retail sale of medical and orthopaedic goods (other than hearing aids) n.e.c., in specialised stores**
	52329	Invalid carriages with or without motor (retail)
	52329	Medical goods (retail)
	52329	Orthopaedic appliances (retail)
	52329	Surgical appliances (retail)
47750		**Retail sale of cosmetic and toilet articles in specialised stores**
	52330	Cosmetics (retail)
	52330	Perfume (retail)
	52330	Toilet goods (retail)
47760		**Retail sale of flowers, plants, seeds, fertilisers, pet animals and pet food in specialised stores**
	52489	Fertilisers (retail)
	52489	Flowers (retail)
	52489	Garden centre (retail)
	52489	Garden seeds and plants (retail)
	52489	Pet animals (retail)
	52489	Pet food (retail)
	52489	Pet shop (retail)
	52489	Plants (retail)
	52489	Seeds (retail)
47770		**Retail sale of watches and jewellery in specialised stores**
	52484	Clocks (retail)
	52484	Jewellery (retail)
	52484	Watches and clocks (retail)
47781		**Retail sale in commercial art galleries**
	52486	Art (retail)
	52486	Commercial art gallery (retail)
	52486	Works of art (retail)
47782		**Retail sale by opticians**
	52487	Contact lenses (retail)
	52487	Dispensing ophthalmic optician (retail)
	52487	Dispensing optician (retail)
	52487	Dispensing optometrist (retail)
	52487	Spectacles (retail)
47789		**Other retail sale of new goods in specialised stores (other than by opticians or commercial art galleries), n.e.c**
	52489	Ammunition (retail)
	52489	Baby carriages (retail)
	52489	Cleaning materials (retail)
	52489	Coal and coke (retail)
	52485	Coins (retail)
	52489	Copper goods (retail)
	52489	Cordage, rope, twine and nets (retail)
	52489	Craftwork (retail)
	52489	Curios (retail)
	52489	Fancy goods (retail)
	52489	Firewood (retail)
	52489	Fuel oil for household use (retail)
	52489	Fuel wood (retail)
	52489	Gas (bottled) (retail)
	52489	Gift shop (retail)
	52489	Handicrafts shop (retail)
	52485	Medals (new) (retail)
	52485	Numismatist (retail)
	52489	Oil merchant (retail)
	52482	Optical and precision goods (retail)
	52489	Oriental goods (retail)
	52489	Packaging products for food e.g. aluminium foil, plastics foil, bags, etc. (retail)
	52489	Paraffin (retail)
	52489	Perambulators (retail)

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	52485	Philatelist (retail)
	52482	Photo pick-up services (retail)
	52482	Photographic goods (retail)
	52489	Picture framing (retail)
	52489	Picture postcards (retail)
	52489	Religious goods (retail)
	52489	Silverware (retail)
	52489	Souvenirs (retail)
	52485	Stamp dealer (retail)
	52485	Stamps (retail)
	52489	Umbrellas (retail)
	52489	Weapons (retail)
	52489	Yacht chandler (retail)
47791		**Retail sale of antiques including antique books, in stores**
	52501	Antique books (retail)
	52501	Antiques (retail)
	52501	Incunabula (retail)
	52630	Retail sale of antiques including antique books in retail auction houses (except internet auctions)
47799		**Retail sale of second-hand goods (other than antiques and antique books) in stores**
	52509	Pawnshops (principally dealing in second-hand goods) (retail)
	52630	Retail auction house, second-hand goods other than antiques (except internet auctions) (retail)
	52509	Second-hand books (retail)
	52509	Second-hand clothing (retail)
	52509	Second-hand furniture (retail)
	52509	Second-hand general goods (retail)
47810		**Retail sale via stalls and markets of food, beverages and tobacco products**
	52620	Fish stall (retail)
	52620	Fruit stall keeper (retail)
	52620	Grocery stall (retail)
	52620	Sale of food beverages and tobacco via stalls and markets (retail)
47820		**Retail sale via stalls and markets of textiles, clothing and footwear**
	52620	Sale via stalls and markets of clothing
	52620	Sale via stalls and markets of footwear (retail)
	52620	Sale via stalls and markets of textiles (retail)
47890		**Retail sale via stalls and markets of other goods**
	52620	Newsvendor (retail)
	52620	Sale via stalls and markets of books (retail)
	52620	Sale via stalls and markets of carpets and rugs (retail)
	52620	Sale via stalls and markets of consumer electronics (retail)
	52620	Sale via stalls and markets of games and toys (retail)
	52620	Sale via stalls and markets of household appliances (retail)
	52620	Sale via stalls and markets of music and video recordings (retail)
47910		**Retail sale via mail order houses or via Internet**
	52630	Internet auctions (retail)
	52610	Internet retail sales (retail)

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	52610	Mail order (retail)
	52610	Radio direct sales (retail)
	52610	Telephone direct sales (retail)
	52610	Television direct sales (retail)
47990		**Other retail sale not in stores, stalls or markets**
	52630	Auction houses (except antiques and second hand goods) (retail)
	52630	Credit trader (retail)
	52630	Direct selling of firewood to the customers premises (retail)
	52630	Direct selling of fuel to the customers premises (retail)
	52630	Direct selling of heating oil to the customers premises (retail)
	52630	Door-to-door sales (retail)
	52630	Milk roundsman (not farmer) (retail)
	52630	Milkman (not farmer) (retail)
	52630	Non-store auctions (retail)
	52630	Non-store commission agents (retail)
	52630	Vending machine sales (retail)
49100		**Passenger rail transport, interurban**
	60101	Passenger transport by inter-city rail services
	60109	Passenger transport by inter-urban railways (other than inter-city services)
	60109	Rail transport (inter-urban)
	60101	Railway dining cars operated as an integrated operation of railway companies
	60101	Railway sleeping cars operated as an integrated operation of railway companies
49200		**Freight rail transport**
	60109	Freight transport by inter-urban railways
	60109	Freight transport on mainline rail networks
	60109	Shortline freight railways
49311		**Urban, suburban or metropolitan area passenger railway transportation by underground, metro and similar systems**
	60213	Elevated railways (scheduled passenger transport)
	60213	Metropolitan area passenger railway transportation by underground, metro and similar systems
	60213	Suburban area passenger railway transportation by underground, metro and similar systems
	60213	Town-to-airport transport by rail
	60213	Town-to-station transport by rail
	60213	Underground railways (scheduled passenger transport)
	60213	Urban area passenger railway transportation by underground, metro and similar systems
49319		**Urban, suburban or metropolitan area passenger land transport other than railway transportation by underground, metro and similar systems**
	60219	Aerial cable-ways operation
	60219	Bus service
	60219	Bus transport (other than inter-city services) (scheduled passenger transport)
	60219	Funicular railway
	60219	Local authority road passenger transport services
	60219	Local authority transport department

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	60219	Metropolitan scheduled passenger land transport other than underground, metro and similar systems
	60219	Motor bus scheduled passenger transport
	60219	Municipal bus service
	60219	Omnibus service
	60219	Operation of aerial cableways as part of urban, suburban or metropolitan transit
	60219	Operation of funicular railways as part of urban, suburban or metropolitan transit
	60219	Passenger scheduled land transport (other than interurban railways or inter-city coach services)
	60219	Public service vehicle operator
	60219	Rack railway
	60219	Street car (scheduled passenger transport)
	60219	Suburban scheduled passenger land transport other than by underground, metro and similar systems
	60219	Town-to-airport transport by bus
	60219	Town-to-station transport by bus
	60219	Tramway (scheduled passenger transport)
	60219	Trolley bus (scheduled passenger transport)
	60219	Urban area scheduled passenger land transport other than by underground, metro and similar systems
49320		**Taxi operation**
	60220	Cab hire
	60220	Car rental with driver
	60220	Chauffeur driven service
	60220	Motor bike taxi service
	60220	Private hire car with driver
	60220	Taxi cab service
49390		**Other passenger land transport n.e.c.**
	60219	Airline coach service (scheduled)
	60231	Airport shuttles
	60239	Animal drawn vehicle transport
	60231	Buses operated for transport of employees
	60231	Charters, excursions and other occasional coach services
	60231	Coach hire with driver
	60231	Coach services (non-scheduled)
	60211	Express coach service on scheduled routes
	60219	Factory bus service
	60211	Inter-city coach services on scheduled routes
	60239	Lift operating company
	60239	Lift operator
	60231	Motor coach service
	60231	Motor coach with driver (private hire)
	60239	Non-scheduled passenger transport n.e.c.
	60239	Operation of teleferics, funiculars
	60239	Passenger transport by animal-drawn vehicles
	60239	Passenger transport by man-drawn vehicles
	60211	Scheduled long-distance bus services
	60219	School bus service
	60231	Sightseeing buses
	60239	Ski and cable lifts operation
	60239	Trishaw (cycle rickshaw) taxi service
49410		**Freight transport by road**
	60249	Bulk haulage in tanker trucks
	60249	Bulk haulage milk collection at farms

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	60249	Bulk road haulage
	60249	Car delivery service (by independent contractors)
	60249	Car delivery service (by motor manufacturers)
	60249	Carrier (for general hire or reward)
	60249	Cartage contractor
	60249	Commercial vehicle hire with driver
	60249	Concrete haulage by a unit which is (not the manufacturer)
	60249	Freight transport by animal-drawn vehicles
	60249	Freight transport by man-drawn vehicles
	60249	Freight transport operation by road
	60249	Haulage in tanker trucks by road
	60249	Haulage of automobiles by road
	60249	Haulage of logs by road
	60249	Heavy haulage by road
	60249	Milk collection by tanker
	60249	Motor vehicle collection
	60249	Refrigerated haulage by road
	60249	Road haulage contracting for general hire or reward
	60249	Road haulage contractor
	60249	Stock haulage by road
	60249	Transport of waste and waste materials
	60249	Truck rental (with driver)
49420		**Removal services**
	60241	Furniture removal
	60241	Removal by road transport
	60241	Removal contractor
49500		**Transport via pipeline**
	60300	Coal pumping station
	60300	Gas transport via pipelines
	60300	Liquids transport via pipelines
	60300	Offshore natural gas pipeline operation
	60300	Offshore oil pipeline operation
	60300	Oil pipeline terminal operating (not petroleum)
	60300	Pipeline operator
	60300	Pump stations operation
	60300	Slurry transport via pipelines
	60300	Transport of gases slurry via pipelines
	60300	Transport of water via pipelines
	60300	Transport via pipeline
50100		**Sea and coastal passenger water transport**
	61101	Boat rental for passenger conveyance with crew (except for inland waterway services)
	61101	Coastal water transport for passengers
	61101	Excursion, cruise or sightseeing boat operation (except for inland waterway service)
	61101	Hovercraft operator between UK and international ports (passenger)
	61101	Passenger ferry between UK and international ports
	61101	Passenger ferry on domestic or coastal routes
	61101	Passenger shipping service (sea and coastal)
	61101	Pleasure boat rental with crew (e.g. for fishing cruises) (except for inland waterway service)
	61101	Sea ferry (passenger)
	61101	Transport of passengers over seas and coastal waters
	61101	Transport of passengers over water (except for inland waterway service)

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	61101	Water taxis operation (except for inland waterway service)
50200		**Sea and coastal freight water transport**
	61102	Anchor handling services
	61102	Anti-pollution vessel services
	61102	Barge transport (except for inland waterway) freight service
	61102	Boat rental for transport of freight with crew (except for inland waterway service)
	61102	Cable-laying vessel services
	61102	Coastal water transport (freight)
	61102	Freight ferry (domestic or coastal)
	61102	Freight ferry (sea going)
	61102	Freight shipping service (except for inland waterway service)
	61102	Freight shipping service (sea and coastal)
	61102	Heavy lift vessel services
	61102	Launch barge services
	61102	Marine tow out services
	61102	Merchant Navy
	61102	Offshore supply vessel services
	61102	Oil-rig transportation by towing or pushing
	61102	Rental of vessels with crew for coastal freight water transport
	61102	Rental of vessels with crew for sea freight water transport
	61102	Royal Fleet Auxiliary
	61102	Standby vessel services
	61102	Transport by towing or pushing of barges (except inland waterway)
	61102	Transport of freight over seas and coastal waters (whether scheduled or not)
	61102	Waterborne freight transport (except for inland waterway service)
50300		**Inland passenger water transport**
	61201	Barge lessee or owner (passenger) (inland waterway service)
	61201	Boat rental for passenger conveyance with crew (inland waterway service)
	61201	Canal carrier (passenger)
	61201	Excursion, cruise or sightseeing boats operation (inland waterway service)
	61201	Ferry transport for passengers (inland waterway
	61201	Inland water transport (passenger)
	61201	Lake steamer service
	61201	Local authority passenger ferry services on rivers, canals and lakes
	61201	Passenger ferry (river or estuary)
	61201	Passenger ferry transport (inland waterway)
	61201	Rental of pleasure boats with crew for inland water transport
	61201	Transport of passengers over water (inland waterway service)
	61201	Transport of passengers via canals
	61201	Transport of passengers via inside harbours
	61201	Transport of passengers via lakes
	61201	Transport of passengers via ports
	61201	Transport of passengers via rivers
	61201	Water taxis operation (inland waterway service)

SIC 2007	SIC 2003	Activity
50400		**Inland freight water transport**
	61209	Barge lessee or owner (freight)
	61209	Boat rental for transport of freight with crew (inland waterway service)
	61209	Canal carrier (freight)
	61209	Freight ferry (river or estuary)
	61209	Freight ferry transport (inland waterway service)
	61209	Freight vessel rental with crew (inland waterway service)
	61209	Inland water transport (freight)
	61209	Local authority freight ferry services on rivers, canals and lakes
	61209	Transport of freight via canals
	61209	Transport of freight via lakes
	61209	Transport of freight via ports
	61209	Transport of freight via rivers
	61209	Water transport of freight inside harbours and docks
51101		**Scheduled passenger air transport**
	62101	Air-transport equipment renting with operator, for scheduled passenger transportation
	62101	Passenger air transport (scheduled)
	62101	Passenger air transport over regular routes
51102		**Non-scheduled passenger air transport**
	62201	Air charter service (passenger)
	62201	Air taxi service
	62201	Air transport of passengers by aero clubs for instruction or pleasure
	62201	Charter flights (passenger)
	62201	Helicopter passenger services (non-scheduled)
	62201	Non-scheduled air transport of passengers
	62201	Passenger air transport (non-scheduled)
	62201	Passenger aircraft rental services with crew (non-scheduled)
	62201	Regular charter flights for passengers
	62201	Scenic and sightseeing flights
51210		**Freight air transport**
	62209	Air charter service (freight)
	62109	Air transport of freight over regular routes
	62209	Charter flights (freight)
	62209	Freight air transport (non-scheduled)
	62109	Freight air transport (scheduled) service)
	62209	Freight aircraft rental services with crew (non-scheduled)
	62209	Helicopter freight services (non-scheduled)
51220		**Space transport**
	62300	Satellite launching
	62300	Space transport
	62300	Space transport of freight
	62300	Space transport of passengers
	62300	Space vehicle launching
52101		**Operation of warehousing and storage facilities for water transport activities of division 50**
	63121	Blast freezing for water transport activities
	63129	Bonded store, vault or warehouse for water transport activities
	63122	Bulk liquid and gases storage services for water transport activities

UK SIC 2007	UK SIC 2003	Activity
	63129	Coal stockyard for water transport activities
	63121	Cold store for water transport activities
	63129	Cotton warehouse for water transport activities
	63129	Film bonded warehouse for water transport activities
	63121	Frozen and refrigerated goods storage services, for water transport activities
	63129	Furniture repository for water transport activities
	63123	Grain silos operation for water transport activities
	63123	Grain warehouse for water transport activities
	63123	Granary for water transport activities
	63121	Refrigerated warehouses operation for water transport activities
	63129	Repository for water transport activities
	63129	Storage facilities n.e.c. for water transport activities
	63129	Storage of goods in foreign trade zones for water transport activities
	63122	Storage tanks operation for water transport activities
	63129	Tea warehouse for water transport activities
	63129	Warehouse (general) operation for water transport activities
	63129	Wool warehouse for water transport activities
52102		**Operation of warehousing and storage facilities for air transport activities of division 51**
	63121	Blast freezing for air transport activities
	63129	Bonded store, vault or warehouse for air transport activities
	63122	Bulk liquid and gases storage services for air transport activities
	63121	Cold store for air transport activities
	63129	Cotton warehouse for air transport activities
	63129	Film bonded warehouse for air transport activities
	63121	Frozen and refrigerated goods storage services, for air transport activities
	63129	Furniture repository for air transport activities
	63129	General merchandise warehouses for air transport activities
	63123	Grain silos operation for air transport activities
	63123	Grain warehouse for air transport activities
	63123	Granary for air transport activities
	63121	Refrigerated warehouses operation for air transport activities
	63129	Storage facilities n.e.c. for air transport activities
	63129	Storage of goods in foreign trade zones for air transport activities
	63122	Storage tanks operation for air transport activities
	63129	Tea warehouse for air transport activities
	63129	Warehouse (general) operation for air transport activities
	63129	Wool warehouse for air transport activities
52103		**Operation of warehousing and storage facilities for land transport activities of division 49**
	63121	Blast freezing for land transport activities
	63129	Bonded store, vault or warehouse for land transport activities
	63122	Bulk liquid and gases storage services for land transport activities
	63129	Coal stockyard for land transport activities
	63121	Cold store for land transport activities
	63129	Cotton warehouse for land transport activities

SIC 2007	SIC 2003	Activity
	63129	Film bonded warehouse for land transport activities
	63121	Frozen and refrigerated goods storage services, for land transport activities
	63129	Furniture repository for land transport activities
	63123	Grain silos operation for land transport activities
	63123	Grain warehouse for land transport activities
	63123	Granary for land transport activities
	63121	Refrigerated warehouses operation for land transport activities
	63129	Safe deposit company
	63129	Storage facilities n.e.c. for land transport activities
	63129	Storage of goods in foreign trade zones for land transport activities
	63122	Storage tanks operation for land transport activities
	63129	Tea warehouse for land transport activities
	63129	Warehouse (general) operation for land transport activities
	63129	Wool warehouse for land transport activities
52211		**Operation of rail freight terminals**
	63210	Rail freight terminals operation
52212		**Operation of rail passenger facilities at railway stations**
	63210	Operation of rail passenger facilities at railway stations
52213		**Operation of bus and coach passenger facilities at bus and coach stations**
	63210	Bus and coach passenger facilities at bus and coach stations
	63210	Terminal facilities operation (land transport)
52219		**Other service activities incidental to land transportation, n.e.c. (not including operation of rail freight terminals, passenger facilities at railway stations or passenger facilities at bus and coach stations)**
	50200	Automobile association road patrols
	63210	Bicycle parking operations
	63210	Bridge operation
	63210	Bus station operation
	63210	Car park
	63210	Caravan winter storage
	63210	Clamping and towing away of vehicles
	63210	Commercial vehicle park
	63210	Garage (parking)
	11100	Gas liquefaction for land transportation purposes
	63210	Goods handling station operation
	63210	Lessee of tolls
	63210	Local authority car parks
	63210	Motive power depot (railway)
	50200	Motorists' organisation (road patrol)
	63210	Motorway maintenance unit
	63210	Parking lot operation
	63210	Parking meter services
	63210	Radio despatch offices for taxis, bicycle couriers etc.
	63210	Railway running shed
	63210	Railway station operation
	63210	Repair and maintenance of rolling stock (minor)
	63210	Roads operation
	50200	Roadside assistance for motor vehicles

UK SIC 2007	UK SIC 2003	Activity
	50200	Royal Automobile Club road patrols
	60109	Switching and shunting
	60101	Switching and shunting on railways
	63210	Toll bridge, road or tunnel
	50200	Towing and road side assistance
	63210	Towing away of vehicles
	63210	Tunnels operation
	63210	Weighbridge services
52220		**Service activities incidental to water transportation**
	63220	Berthing activities
	63220	Bunkering services
	63220	Canal maintenance
	63220	Canal operation
	63220	Cargo superintendent
	63220	Cargo terminal
	63220	Commissioners of northern lighthouses
	63220	Diving contracting (non leisure)
	63220	Dock authority
	63220	Floating bridge company
	11100	Gas liquefaction for water transportation purposes
	63220	Harbour authority
	63220	Harbour operation
	63220	Ice breaking services
	63220	Landing stage
	63220	Lighter lessee or owner
	63220	Lighterage activities
	63220	Lighthouse activities
	63220	Lighthouse Authority
	63220	Lightship
	63220	Local authority canal services
	63220	Local authority docks and harbours
	63220	Local authority lighthouse service
	63220	Marine cargo lighterage
	63220	Marine cargo superintendent
	63220	Marine salvage
	63220	Navigation activities
	63220	Offshore positioning services
	63220	Passenger terminal services
	63220	Pier operation (not amusement)
	63220	Pier owner or authority (not amusement)
	63220	Pilotage activities
	63220	Port Authority
	63220	Port of London Authority
	63220	Salvage activities supporting water transport activities
	63220	Shore base (sea transport)
	63220	Terminal facilities operation (water transport)
	61209	Towing services for distressed freight vessels in inland waters
	61102	Towing services for distressed freight vessels on sea coastal waters
	61201	Towing services for distressed passenger vessels in inland waters
	61101	Towing services for distressed passenger vessels on and coastal waters
	63220	Trinity House
	63220	Tug boat service for inland waterways
	63220	Tug boat service for offshore installations
	63220	Tug boat service for sea barge or off-shore well
	63220	Tug boat service for sea barges on domestic coastal routes
	63220	Tug lessee or owner for inland waterways service
	63220	Tug owner or lessee for in port service or salvage
	63220	Vessel laying up and storage services
	63220	Vessel registration services
	63220	Water transport (supporting activities)
	63220	Waterway locks operation
	63220	Wharfinger
	63220	Wreck raising
52230		**Service activities incidental to air transportation**
	63230	Aerodrome
	63230	Air terminal operated by airline
	63230	Air traffic control activities
	63230	Air traffic control centre
	63230	Air transport supporting activities
	63230	Aircraft refuelling services
	63230	Airfield ground service activities
	63230	Airport activities
	63230	Airport fire fighting and fire-prevention services
	63230	Airway terminals operation
	63230	British Airports Authority
	63230	Communication centre (civil air)
	63230	Local authority municipal airport
	63230	Service activities incidental to air transportation
	62300	Service activities incidental to space transportation
	63230	Terminal facilities operation (air transport)
52241		**Cargo handling for water transport activities of division 50**
	63110	Cargo handling for water transport activities
	63110	Container handling services for water transport activities
	63110	Loading and unloading of goods travelling via water transport
	63110	Loading and unloading of passengers' luggage travelling via water transport
	63110	Stevedoring
52242		**Cargo handling for air transport activities of division 51**
	63110	Air passenger baggage handling services
	63110	Cargo handling for air transport activities
	63110	Loading and unloading of goods travelling via air transport
	63110	Loading and unloading of passengers' luggage travelling via air transport
52243		**Cargo handling for land transport activities of division 49**
	63110	Cargo handling for land transport activities and
	63110	Loading and unloading of freight railway cars
	63110	Loading and unloading of goods travelling via rail transportation
	63110	Loading and unloading passengers' luggage sea travelling via rail transportation
52290		**Other transportation support activities**
	63400	Air cargo agents activities

UK SIC 2007	UK SIC 2003	Activity
	63400	Air freight agent or broker
	63400	Customs clearance agents activities
	63400	Export packer
	63400	Forwarding agents
	63400	Freight broker
	63400	Freight contractor
	63400	Freight forwarding
	63400	Goods agent (not transport authority)
	63400	Goods handling operations
	63400	Maritime agent
	63400	Packer and shipper
	63400	Packing service incidental to transport
	63400	Railway agent (not transport authority)
	63400	Railway wagon agent
	63400	Sea freight forwarder activities
	63400	Shipping agent or broker
	63400	Textile packing incidental to transport
	63400	Transport documents issue and procurement
	63400	Transport operations arranging or carrying outby air
	63400	Transport operations arranging or carrying outby road
	63400	Transport operations arranging or carrying outby sea
53100		**Postal activities under universal service obligation**
	64110	Mail distribution and delivery
	64110	Parcels, distribution and delivery of, by the post office
	64110	Post activities
	64110	Post office regional headquarters
	64110	Postal headquarters
	64110	Postal sorting office
	64110	Poste restante
	64110	Sub post office (principally devoted to post officebusiness)
53201		**Licensed Carriers**
	64120	Courier activities (other than national post activities) licensed
	64120	Licensed carriers
	64120	Messenger licensed
	64120	Messenger service licensed

SIC 2007	SIC 2003	Activity
55201		**Holiday centres and villages**
	55231	Chalets in holiday centres and holiday villages(provision of short-stay lodging in)
	55231	Cottages and cabins without housekeeping services,provided in holiday centres and holiday villages
	55231	Cottages in holiday centres and holiday villages(provision of short-stay lodging in)
	55231	Flats in holiday centres and holiday villages (provisionof short-stay lodging in)
	55231	Holiday and other short stay accommodation, provided in holiday centres and holiday villages
	55231	Holiday camp
	55231	Holiday centres and villages
	55231	Visitor flats and bungalows provided in holidaycentres and holiday villages
55202		**Youth hostels**
	55210	Mountain refuges
	55210	Youth hostel
55209		**Other holiday and other short stay accommodation (not including holiday centres and villages or youth hostels) n.e.c.**
	55232	Apartment letting (self catering) other than holiday centres and holiday villages or youth hostels
	55232	Chalets, not holiday centres, holiday villages or youth hostels (self catering short-stay lodging)
	55239	Children's and other holiday homes
	55232	Cottages, not in holiday centres, holiday villages,youth hostels (self catering short-stay lodging)
	55239	Farmhouse short stay accommodation
	55232	Flats, not in holiday centres, holiday villages or youth hostels (self catering short-stay lodging)
	55239	Guest house (licensed)
	55239	Guest house (unlicensed)
	55232	Holiday home (not charitable)
	55239	Hydro (accommodation)
	55239	Inns with letting rooms (short-stay lodgings)
55300		**Camping grounds, recreational vehicle parks and trailer parks**
	55210	Accommodation in protective shelters or plain bivouac facilities for tents and/or sleeping bags
	55220	Camping sites
	55220	Caravan holiday site operator, owner or proprietor
	55220	Caravan sites

64120 Parcels delivery service (not post office) licensed

53202 Unlicensed Carriers

64120 Courier activities (other than national post activities) unlicensed
64120 Messenger service unlicensed
64120 Messenger unlicensed
64120 Parcels delivery service (not post office) unlicensed
64120 Unlicensed carriers

55100 Hotels and similar accommodation

55101 Hotel (licensed with restaurant)
55102 Hotel (unlicensed with restaurant)
55103 Hotel without restaurant
55101 Motel (licensed with restaurant)
55102 Motel (unlicensed with restaurant)
55103 Motel without restaurant
55220 Recreational vehicle parks and trailer parks

55900 Other accommodation

55239 Boarding house
55239 Boarding school accommodation
55239 Halls of residence
55239 Hostels (not social work)
55239 Landlord (boarding house)
55239 Lodging house (private)
55239 Migrant worker accommodation
55239 Pension (accommodation)
55239 Private lodging house
55239 Railway sleeping cars when operated by separate units from the transport provider
55239 Rooming and boarding houses
55239 School dormitories
55239 Student house accommodation

UK SIC 2007	UK SIC 2003	Activity
	55239	Student residences
	55239	University halls of residence
	55239	Workers' hostels
	55239	YMCA hostel
56101		**Licensed restaurants**
	55301	Buffet (licensed)
	55301	Cafeteria (licensed)
	55301	Chop house (licensed)
	55301	Civic restaurant (licensed)
	55301	Fast-food restaurants, licensed
	55301	Function room (licensed)
	55301	Luncheon bar (licensed)
	55301	Oyster bar (licensed)
	55301	Railway dining car or buffet (licensed)
	55301	Restaurant (licensed)
	55301	Self-service restaurant (licensed)
	55301	Steak houses (licensed)
56102		**Unlicensed restaurants and cafes**
	55302	Burger bar restaurant (unlicensed)
	55302	Cafeteria (unlicensed)
	55302	Coffee bar, room or saloon (unlicensed)
	55302	Dining room (unlicensed)
	55302	Fast food outlet with restaurant (unlicensed)
	55302	Fast-food restaurants, unlicensed
	55302	Local authority restaurants, cafes, snack bars, etc. (unlicensed)
	55302	Motorway services cafeteria (unlicensed)
	55302	Refreshment room (unlicensed)
	55302	Restaurant (unlicensed)
	55302	Self-service restaurant (unlicensed)
	55302	Supper bar or room (unlicensed)
	55302	Tea garden (unlicensed)
	55302	Tea room or shop (unlicensed)
	55302	Temperance buffet
56103		**Take away food shops and mobile food stands**
	55303	Burger bar (take-away)
	55304	Burger stand
	55303	Eel pie shop
	55303	Fish and chip shop
	55304	Fish and chip stand
	55304	Food preparation in market stalls
	55303	Fried fish shop
	55304	Hot dog vendor
	55303	Ice cream parlour
	55303	Ice cream retailer (take away)
	55304	Ice cream vans
	55303	Jellied eel shop
	55303	Meat pie shop
	55303	Milk bar
	55304	Mobile food carts
	55303	Pea and pie vendor
	55303	Sandwich bar
	55303	Snack bar
	55303	Take away food shop
	55304	Take-out eating places
	55304	Tea bar

SIC 2007	SIC 2003	Activity
56210		**Event catering activities**
	55520	Banquet catering
	55520	Catering contractor
	55520	Corporate hospitality catering
	55520	Wedding catering
56290		**Other food service activities**
	55520	Airline catering
	55510	Factory or office canteens
	55520	Industrial canteen (run by catering contractor)
	55510	Local authority school meals service
	55510	Luncheon club
	55520	Meals on wheels catering
	55510	NAAFI canteen
	55520	NAAFI headquarters
	55510	Officers' messes
	55510	Other ranks' messes
	55520	Pleasure steamer caterer
	55510	Refreshment club
	55520	Refreshment contracting
	55510	School canteen
	55520	School canteen (run by catering contractor)
	55510	Sergeants' messes
	55520	Staff canteen (run by catering contractor)
	55510	University canteen
	55510	University dining halls
56301		**Licensed clubs**
	55401	Discotheques (licensed to sell alcohol)
	55401	Night-clubs (licensed to sell alcohol)
	55401	Social clubs (licensed to sell alcohol)
	55401	Working men's clubs (licensed to sell alcohol)
56302		**Public houses and bars**
	55402	Beer gardens (independent)
	55404	Beer gardens (managed)
	55403	Beer gardens (tenanted)
	55402	Beer halls (independent)
	55404	Beer halls (managed)
	55403	Beer halls (tenanted)
	55402	Licensed bars (independent)
	55404	Licensed bars (managed)
	55403	Licensed bars (tenanted)
	55402	Licensed victualler (independent)
	55404	Licensed victualler (managed)
	55403	Licensed victualler (tenanted)
	55404	NAAFI clubs
	55402	Public houses (independent)
	55404	Public houses (managed)
	55403	Public houses (tenanted)
	55402	Taverns (independent)
	55404	Taverns (managed)
	55403	Taverns (tenanted)
58110		**Book publishing**
	22110	Architectural drawing publishing
	22110	Atlas publishing
	22110	Audio book publishing
	22110	Book publishing

UK SIC 2007	UK SIC 2003	Activity
	22110	Brochure publishing
	22110	Chart publishing
	22110	Dictionary publishing
	22110	Electronic publishing of books
	22110	Encyclopaedia publishing
	22110	Engineering drawing publishing
	22110	Geographical publishing
	22110	Leaflet publishing
	22110	Map and plan publishing
	72400	On-line book publishing
	22110	Pamphlet publishing
	22110	Publishing on CD- ROM
	22110	Religious tract publishing
	22110	The Stationery Office
58120		**Publishing of directories and mailing lists**
	22110	Directories and compilations (in print) publishing
	22110	Mailing lists (in print) publishing
	72400	On-line database publishing
	72400	On-line directory publishing
	72400	On-line mailing list publishing
	22110	Telephone books (in print) publishing
58130		**Publishing of newspapers**
	22120	Advertising newspaper publishing
	22120	Newspaper publishing
	72400	On-line newspaper publishing
58141		**Publishing of learned journals**
	22130	Learned journal publishing
	72400	On-line learned journal publishing
58142		**Publishing of consumer, business and professional journals and periodicals**
	22130	Amusement guide periodical publishing
	22130	Journal and periodical publishing
	22130	Magazine publishing
	72400	On-line journal (other than learned journals) and periodical publishing
	22130	Periodical publishing
	22130	Review publishing
	22130	Trade journal publishing
58190		**Other publishing activities**
	22150	Advertising material publishing
	22150	Art publishing
	22150	Catalogue publishing
	22150	Forms publishing
	22150	Greeting cards publishing
	22150	Law publishing
	22150	Letterpress publishing
	72400	On-line advertising material publishing
	72400	On-line catalogue publishing
	72400	On-line forms publishing
	72400	On-line greeting cards and postcards publishing
	72400	On-line publishing n.e.c.
	72400	On-line publishing of posters and reproductions of works of art
	72400	On-line publishing of statistics and other information
	72400	On-line publishing photos and engravings
	22150	Photo and engraving publishing
	22150	Postcard publishing
	22150	Poster publishing
	22150	Printed matter publishing
	22150	Publishers (other than of newspapers, books and periodicals)
	22220	Publishing of stamps, banknotes, advertising material, catalogues and other printed matter n.e.c.
	22150	Reproduction of works of art publishing
	22150	Timetable publishing
58210		**Publishing of computer games**
	72210	Computer games publishing
	72400	On-line computer games publishing
58290		**Other software publishing**
	72210	Licensing for the right to reproduce, distribute and use computer software
	72400	On-line software publishing (except computer games on-line publishing)
	72210	Publishing of software for business
	72210	Publishing of software for operating systems
	72210	Ready-made software publishing (except computer games publishing)
	72210	Software (ready-made) publishing (except computer games publishing)
59111		**Motion picture production activities**
	92111	Advertising film production
	92111	Animated film production
	92111	Film producer (own account)
	92111	Cartoon film production
	92111	Film production for projection or broadcasting
	92111	Film studios
	92111	Motion picture production
	92111	Training film production
59112		**Video production activities**
	92111	Advertising video production
	92111	Animated video production
	92111	Cartoon video production
	92111	Training video production
	92111	Video producer (own account)
	92111	Video production
	92111	Video studios
59113		**Television programme production activities**
	92111	Production of theatrical and non-theatrical television programmes
	92202	Television programme production activities
	92202	Television studio
59120		**Motion picture, video and television programme post-production activities**
	92119	Cinematographic film colouring, developing, printing or repairing
	92119	Film cutting activities
	92119	Film editing
	92119	Film processing activities
	92119	Film sound track dubbing and synchronisation
	92119	Film title printing
	92119	Motion picture film laboratory activities

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UK SIC 2007	UK SIC 2003	Activity
	92119	Motion pictures post-production activities
	92119	Photographic film processing activities (for the motion picture and television industries)
	92119	Post production film activities
	92119	Stock footage, film library activities
	92202	Television post-production activities
	92119	Video post-production activities
59131		**Motion picture distribution activities**
	92120	Film broker
	92120	Film distribution
	92120	Film distribution rights acquisition
	92120	Film hiring agency
	92120	Film library
	92120	Film rental
	92120	Motion picture distribution activities
	92120	Motion pictures distribution to other industries
59132		**Video distribution activities**
	92120	Dvd distribution
	92120	Video tape and dvd distribution rights acquisition
	92120	Video tapes distribution to other industries
59133		**Television programme distribution activities**
	92202	Television distribution rights acquisition
	92120	Television programme distribution activities
59140		**Motion picture projection activities**
	92130	Cine club
	92130	Cinema
	92130	Cinema club
	92130	Motion picture projection
	92130	Video tape projection
59200		**Sound recording and music publishing activities**
	22140	Compact disc sound recording publishing
	74879	Copyright acquisition and registration for musical compositions
	22140	Gramophone record publishing
	22140	Matrice for record production
	22140	Music (printed) publishing
	72400	Music downloads (on-line publishing with provision of downloaded content)
	22140	Music tape publishing
	92119	Printing of sound tracks
	22140	Publishing of music and sheet books
	92201	Recording studio (radio)
	22140	Sound recording publishing
	92119	Sound recording studios
	92201	Taped radio programming production
60100		**Radio broadcasting**
	92201	British Broadcasting Corporation (radio broadcasting)
	92201	Data broadcasting integrated with radio
	92201	Independent Broadcasting Authority (radio broadcasting)
	72400	Internet radio broadcasting
	92201	Local radio station (broadcasting)
	92201	Radio broadcasting station
	64200	Radio programme transmission
	64200	Radio station (telecommunications)
	92201	Radio studio
	92201	Transmission of aural programming via over-the-air broadcasts, cable or satellite
60200		**Television programming and broadcasting activities**
	92202	British Broadcasting Corporation (television broadcasting)
	92202	Data broadcasting integrated with television
	72400	Image with sound internet broadcasting
	92202	Recording studio (television)
	92202	Television broadcasting station
	92202	Television channel programme creation from purchased and/or self produced programme components
	64200	Television programmes transmission
	64200	Television relay service
	92202	Television service
61100		**Wired telecommunications activities**
	64200	Cable service
	64200	Data network management and support services (wired telecommunications)
	64200	Data transmission (via cables, broadcasting, relay or satellite)
	64200	Dedicated business telephone network services (wired telecommunications)
	64200	Electronic mail services (wired telecommunications)
	64200	Hull telephone service
	64200	Image transmission via cables, broadcasting, relay or satellite
	64200	Shared business telephone network services (wired telecommunications)
	64200	Sound transmission via cables, broadcasting, relay or satellite
	64200	Telecommunication network maintenance (wired telecommunications)
	64200	Teleconferencing services (wired telecommunications)
	64200	Telegram service
	64200	Telegraph communication
	64200	Telephone communication (wired telecommunications)
	64200	Telephone exchange
	64200	Telephone service (wired telecommunications)
	64200	Telephone service operation of 0898 numbers
	64200	Teletext and other electronic message and information services (wired telecommunications)
	64200	Telex service (wired telecommunications)
61200		**Wireless telecommunications activities**
	64200	Cellular network operations
	64200	Electronic bulletin board services (wireless telecommunications)
	64200	Electronic message and information services (wireless telecommunications)
	64200	Internet access providers (wireless telecommunications)
	64200	Mobile telephone services
	64200	Paging activities and maintenance
	64200	Paging services

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

64200 Purchase of wireless access and network capacity 64200 Radio relay service
64200 Wireless telecommunications activities

61300 Satellite telecommunications activities

64200 Satellite circuit rental services
64200 Telecommunications satellite relay station

61900 Other telecommunications activities

64200 Communications telemetry 64200 Dial-up internet access provision 64200 Radar station operation
64200 Satellite terminal stations 64200 Satellite tracking
64200 Telecommunications resellers
64200 Telephone and internet access in public facilities 64200 VOIP (voice over internet protocol) provision

62011 Ready-made interactive leisure and entertainment software developmen

72220 Computer games design
72400 Designing of structure and content of an interactive leisure and entertainment software database
72220 Ready-made interactive leisure and entertainment software development

62012 Business and domestic software development

72220 Business and domestic software development
72220 Custom software development

72220 Data analysis consultancy services 72400 Database structure and content design
72400 Designing of structure and content of business and domestic software databases
72400 Made-to-order software
72220 Programming services
72220 Software house
72220 Software systems maintenance services
72220 System maintenance and support services 72220 Systems analysis (computer)
72220 Web page design

62020 Computer consultancy activities

72100 Computer audit consultancy services
72220 Computer consultancy (software)

72100 Computer hardware acceptance testing services 72100 Computer site planning services
72100 Hardware consultancy
72100 Hardware disaster recovery services
72100 Hardware installation services
72220 Information systems strategic review and planning services
72220 Information technology consultancy activities 72220 Software consultancy
72220 System software acceptance testing consultancy services
72220 Systems and technical consultancy services

62030 Computer facilities management activities

72300 Computer facilities management activities
72300 Management and operation on a continuing basis of data processing facilities belonging to others

62090 Other information technology and computer service activities

72600 Computer related activities
(other) 72220 Data archiving and backup services
30020 Installation of personal computers and peripheral equipment
72220 Software disaster recovery services 72220 Software installation services

63110 Data processing, hosting and related activities

72300 Batch processing
72300 Data conversion
72300 Data preparation services 72300 Data processing
72400 Data storage services 72400 Database running activities 72300 Tabulating service
72300 Time sharing services (computer) 72300 Web hosting

63120 Web portals

72400 Web search portals

63910 News agency activities

92400 News agency activities
92400 Stock market reporting service

63990 Other information service activities n.e.c.

74879 Information search services on a fee or contract basis
92400 News clipping service 92400 Press clipping service 92400 Press cutting agency
74879 Telephone based information services

64110 Central banking

65110 Bank of England

64191 Banks

65121 Banks (deposit taking)
65121 Discount houses (monetary intermediation) 65121 Money order activities
65121 National savings bank
65121 Postal giro and postal savings bank activities 65121 Savings bank

64192 Building societies

65122 Building societies

64201 Activities of agricultural holding companies

74159 Holding company in agricultural sector

64202 Activities of production holding companies

74158 Holding company in production sector

64203 Activities of construction holding companies

74153 Holding company in construction sector

64204 Activities of distribution holding companies

74155 Holding company in motor trades sector 74157 Holding company in retail sector
74151 Holding company in wholesale sector

UK SIC 2007	UK SIC 2003	Activity
64205		**Activities of financial services holding companies**
	65234	Bank holding companies
	65234	Holding company activities for banks
	65239	Holding company in financial services sector
64209		**Activities of other holding companies (not including agricultural, production, construction, distribution and financial services companies) n.e.c.**
	74156	Activities of service trades holding companies not engaged in management
	74154	Holding company in catering sector
	74159	Holding company in property sector
	74152	Holding company in transport sector
	74159	Holding company n.e.c.
64301		**Activities of investment trusts**
	65231	Investment fund activities
	65231	Investment trusts activities
64302		**Activities of unit trusts**
	65232	In-house trust activities
	65232	Unit trust activities
64303		**Activities of venture and development capital companies**
	65235	Development capital company
	65235	Venture and development capital companies and activities
64304		**Activities of open-ended investment companies**
	65237	Open-ended investment companies
64305		**Activities of property unit trusts**
	65238	Property unit trusts
64306		**Activities of real estate investment trusts**
	65231	Real estate investment trusts
64910		**Financial leasing**
	65210	Financial leasing
64921		**granting by non-deposit taking finance houses and other specialist consumer credit grantors**
	65221	Building societies' personal finance subsidiaries activities
	65221	Check trader activities
	65221	Consumer credit granting company (other than banks or building societies)
	65221	Credit card issuer (sole activity – requiring full payment at end of credit period)
	65221	Credit unions
	65221	Finance house activities (non-deposit taking)
	65221	Hire purchase company (other than in banks' sector)
	65221	Loan company (other than in banks' sector)
	65221	Money lender
	65221	Pawnbroker (principally lending money)
	65221	Vehicle fuel credit card services
64922		**Activities of mortgage finance companies**
	65223	Mortgage finance companies' activities (other than banks and building societies)
	65223	Ship mortgage finance company
64929		**Other credit granting (not including credit granting by non-deposit taking finance houses and other specialist consumer credit grantors and activities of mortgage finance companies) n.e.c.**
	65229	Banking institutions in Channel Islands and Isle of Man activities (not in UK banking sector) **holding**
	65229	Banks not authorised by the FSA as deposit taking
	65229	Channel Islands and Isle of Man banking institutes
	65229	Export finance company (other than in banks' sector)
	65229	Finance corporation for industry
	65229	Mortgage corporation for agriculture
64991		**Security dealing on own account**
	65233	Bill broker on own account (other than discount house)
	65233	Bullion dealer in investment grades
	65233	Commodities dealing for investment purposes
	65233	Dealer in stocks and shares on own account
	65233	Financial futures, options and other derivatives dealing in on own account
	65233	Inter-dealer brokers
	65233	Securities dealer on own account
	65233	Share dealer on own account
	65233	Stock exchange money broker activitiesfunds
64992		**Factoring**
	65222	Debt purchasing
	65222	Discount company (e.g. Debt factoring)
	65222	Factoring company (buying book debts)
	65222	Invoice discounting
64999		**Other financial service activities, except insurance and pension funding, (not including security dealing on own account and factoring) n.e.c.**
	65239	Financial intermediation n.e.c.
	65239	Securitization activities
	65239	Swaps, options and other hedging arrangements
	65239	Underwriter (stock and share issues) **Credit**
	65239	Viatical settlement company activities
65110		**Life insurance**
	66011	Assurance company (life)
	66011	Friendly society (not collecting society)
	66011	Life assurance
	66011	Provident fund (life)
	66011	Underwriter (life insurance)
65120		**Non-life insurance**
	66031	Accident insurance
	66031	Aviation insurance
	66031	Benevolent society (insurance)
	66031	Boiler insurance
	66031	Collecting society
	66031	Contingency insurance
	66031	Export credit guarantee department
	66031	Fire insurance
	66031	Health insurance
	66031	Hospital contribution scheme

UK SIC 2007	UK SIC 2003	Activity
	66031	Hospital saving association
	66031	House insurance
	66031	Industrial insurance
	66031	Injury insurance
	66031	Insurance (non-life)
	66031	Liability insurance
	66031	Livestock insurance
	66031	Lloyd's underwriter (non-life)
	66031	Marine insurance
	66031	Motor insurance
	66031	Pecuniary loss insurance
	66031	Personal injury insurance
	66031	Plate glass insurance
	66031	Pluvium insurance
	66031	Property insurance
	66031	Provident fund (non-life)
	66031	Sports insurance
	66031	Transport insurance
	66031	Travel insurance
	66031	Underwriter (non-life insurance)
	66031	Weather insurance
65201		**Life reinsurance**
	66012	Life re-insurance
65202		**Non-life reinsurance**
	66032	Non-life reinsurance
	66020	Non-life reinsurance related to pension funding
	66032	Re-insurance company (non-life)
65300		**Pension funding**
	66020	Employee benefit plans
	66020	Pension fund (autonomous)
	66020	Pension funding except compulsory social security
	66020	Pension funds and plans
	66020	Retirement incomes provision
	66020	Retirement plans
	66020	Superannuation fund (autonomous)
66110		**Administration of financial markets**
	67110	Bankers' clearing house
	67110	Clearing house (banking)
	67110	Commodity contracts exchanges administration
	67110	Company registration agent
	67110	Financial markets administration
	67110	Futures commodity contracts exchanges administration
	67110	Securities exchanges administration
	67110	Stock exchange activities
	67110	Stock or commodity options exchanges administration
66120		**Security and commodity contracts brokerage**
	67122	Bill broking on behalf of others (other than discount house)
	67130	Bureaux de change activities
	67122	Commodity contracts brokerage
	67122	Corporate finance companies
	67130	Currency broking
	67122	Custodians and settlement services
	67122	Dealing in finance markets for others (e.g. Stock broking), related activities (not fund management)

SIC 2007	SIC 2003	Activity
	67122	Dealing in securities on behalf of others
	67130	Foreign exchange broker
	67122	Investment broking
	67130	Money changer
	67122	Securities broking
	67122	Securities dealing on behalf of others
	67122	Security and commodity contracts dealing activities
	67122	Share dealer on behalf of others
	67122	Trustees
66190		**Other activities auxiliary to financial services, except insurance and pension funding**
	67130	Bullion trading on behalf of others
	67130	Company promoting
	67130	Credit or finance broking
	67130	Deposit broker
	67130	Financial advisor
	67130	Financial transactions centre
	67130	Independent financial advisors (not specialising in insurance or pensions advice)
	67130	Interbank (worldwide financial telecommunications society)
	67130	Investment advisory services
	67130	Issuing house
	67130	Mortgage agent
	67130	Mortgage broker activities
	67130	Nominee company
	67130	Organisation and development of electronic money circulation
	67130	Paying agent
	67130	Public trust office
	67130	Trustee, fiduciary and custody services on a fee or contract basis
66210		**Risk and damage evaluation**
	67200	Adjuster (insurance)
	67200	Average adjuster
	67200	Damage evaluators activities
	67200	Insurance risk evaluators activities
	67200	Loss adjuster
66220		**Activities of insurance agents and brokers**
	67200	Insurance agent (not employed by insurance company)
	67200	Insurance agents activities
	67200	Insurance broker (not employed by insurance company)
	67200	Insurance brokers activities
	67200	Insurance consultancy services
	67200	Underwriting brokers
66290		**Other activities auxiliary to insurance and pension funding**
	67200	Actuarial services
	67200	Pension consultancy services
	67200	Pension consultants (own account)
66300		**Fund management activities**
	67121	Fund management activities
	67121	Mutual funds management
	67121	Pension fund management
	67121	Portfolio management services

UK SIC 2007	UK SIC 2003	Activity
68100		**Buying and selling of own real estate**
	70120	Apartment buildings buying and selling
	70120	Building sales and purchase
	70120	Dwellings buying and selling
	70120	Land buying and selling
	70120	Real estate buying and selling
	70120	Real estate owner
	70120	Static caravan sales
68201		**Renting and operating of Housing Association real estate**
	70209	Housing association (social housing for rental)
	70209	Renting and operating of housing association real estate
68202		**Letting and operating of conference and exhibition centres**
	70201	Conference centre letting (self owned)
	70201	Exhibition centre letting (self owned)
68209		**Letting and operating of own or leased real estate (other than Housing Association real estate and conference and exhibition services) n.e.c.**
	70209	Agricultural land letting
	70209	Apartment buildings letting
	70209	Caravan residential site letting
	70209	Development for building projects for own operation
	70209	Dwellings letting
	70209	Estate company (owning and managing)
	70209	Factory letting
	70209	Flat letting
	70209	Freeholder of leasehold property
	70209	Garage letting (lock up)
	70209	Ground, landlord
	70209	House letting (private)
	70209	Industrial estate letting
	70209	Land letting
	70209	Landlord of real estate
	70209	Maisonettes letting
	70209	Mansions letting
	70209	Mobile home letting (residential)
	70209	Non-residential buildings letting
	70209	Offices letting
	70209	Property leasing (other than conference centres and exhibition halls)
	70209	Renting and operating of self-owned or leased real estate
	70209	Residential chambers letting
	70209	Residential mobile home sites operation
	70209	Service flat letting
	70209	Shop letting
	70209	Timeshare operations (real estate)
68310		**Real estate agencies**
	70310	Advisory services in connection with buying, selling and renting of real estate
	70310	Conference centre letting (not self-owned)
	70310	Estate agent
	70310	Exhibition centre letting (not self-owned)
	70310	Flat letting agency

SIC 2007	SIC 2003	Activity
	70310	House agent
	70310	House letting agency
	70310	Intermediation in buying selling and renting of real estate
	70310	Land agent
	70310	Land valuer or surveyor
	70310	Property consultant (own account)
	70310	Real estate agencies
	70310	Real estate escrow agents activities
	70310	Surveyor and valuer (real estate)
	70310	Valuer (real estate)
68320		**Management of real estate on a fee or contract basis**
	70320	Property management (as agents for owners)
	70320	Real estate management on a fee or contract basis
	70320	Rent collecting agencies
69101		**Barristers at law**
	74112	Advocate of the Scottish bar
	74112	Barrister
	74112	Queen's counsel
69102		**Solicitors**
	74113	Attorney
	74113	Lawyer
	74113	Solicitor (own account)
69109		**Activities of patent and copyright agents; other legal activities (other than those of barristers and solicitors) n.e.c.**
	74119	Arbitrators legal activities
	74119	Bailiffs activities
	74111	Copyrights preparation
	74119	Deeds preparation
	74119	Law agent
	74119	Law writing
	74119	Legal activities n.e.c.
	74119	Legal documentation and certification activities
	74119	Legal examiner activities
	74119	Legal services in connection with the disposal of assets by auction
	74119	Notary activities
	74119	Notary public
	74119	Parliamentary agent
	74111	Patent agent
	74111	Patents preparation
	74119	Process server
	74119	Referees legal activities
	74119	Scrivenery
	74119	Sheriff's officer
	74111	Software copyright consultancy activities
	74111	Trade mark agent
	74119	Trusts preparation
	74119	Wills preparation
	74119	Writer to the signet
69201		**Accounting, and auditing activities**
	74121	Accountancy services
	74121	Accounting activities

UK SIC 2007	UK SIC 2003	Activity
	74121	Attestations, valuations and preparation of pro forma statements
	74121	Auditing activities
	74121	Compilation of financial statements
	74121	Cost accountant
	74121	Cost draughtsman (legal)
69202		**Bookkeeping activities**
	74122	Book-keeping activities
	74122	Company secretary
	74122	Payroll bureau
69203		**Tax consultancy**
	74123	Tax consultancy
70100		**Activities of head offices**
	74154	Head office of catering company
	74153	Head office of construction company
	74155	Head office of motor trades company
	74159	Head office of other non-financial company
	74158	Head office of production company
	74157	Head office of retail company
	74156	Head office of service trades company
	74152	Head office of transport company
	74151	Head office of wholesale company
70210		**Public relations and communication activities**
	74141	Lobbying activities
	74141	Public relations and communication
	74141	Public relations consultant (not advertising agency)
70221		**Financial management**
	74142	Accounting systems design
	74142	Analysis of capital investment proposals consultancy services
	74142	Budgetary control procedures design
	74142	Business valuation services prior to mergers and/or acquisitions
	74142	Capital structure consultancy services
	74142	Chartered secretary (firm acting as)
	74142	Cost accounting programmes design
	74142	Financial management consultancy services (except corporate tax)
	74142	Insolvency management
	74142	Working capital and liquidity management consultancy services
70229		**Management consultancy activities (other than financial management)**
	74149	Advisory, conciliation and arbitration service
	74143	Advisory, guidance and operational assistance services concerning business policy and strategy
	74149	Arbitrators between management and labour
	74143	Business consultancy activities
	74143	Business consultant
	74143	Business systems consultant
	74143	Business turnaround consultancy services
	74143	Economist
	05010	Fish stock management consultancy services
	74149	Human resources management consultancy services
	74149	Industrial development consultancy services
	74143	Management audits consultancy services
	74143	Management consultancy activities
	74149	Marketing management consultancy activities
	74143	Overall planning, structuring and control of organisation consultancy services
	74143	Policy formulation consultancy services
	74149	Production management consultancy services (otherthan for construction)
	74143	Profit improvement programmes consultancy services
	74143	Strategic business plan consultancy services
	74149	Tourism development consultancy services
71111		**Architectural activities**
	74201	Advisory and pre-design architectural activities
	74201	Architectural activities and related technical consultancy
	74201	Architectural draughtsman
	74201	Building design and drafting
	74201	Construction supervision
	74201	Making of architectural maquettes
71112		**Urban planning and landscape architectural activities**
	74202	Landscape architecture
	74202	Town and city planning
	74202	Urban planning activities
71121		**Engineering design activities for industrial process and production**
	74205	Automotive production design
	74205	Consultant design engineer
	74205	Consultant engineer (other than civil or structural)
	74205	Design consultant for industrial process and production
	74205	Design office for industrial process and production
	74205	Draughtsman for industrial process and production
	74205	Electrical power systems instrumentation design activities
	74205	Electronic design consultant
	74205	Engineering design services for industrial process and production
	74205	Engineers' draughtsman
	74205	Equipment layout and other plant design services
	74205	Industrial consultants
	74205	Industrial design consultants
	74205	Industrial design service
	74205	Machinery and industrial plant design
	74205	Motor vehicle design
	74205	Naval architect
71122		**Engineering related scientific and technical consulting activities**
	74206	Aerial survey
	74206	Borehole surveying
	74206	Boundary surveying activities
	74206	Cartographic and spatial information activities
	74206	Chartered surveyor
	74206	Core preparation and analysis activities
	74206	Crude oil exploration
	74206	Digital mapping activities
	74206	Dimensional survey activities
	74206	Exploration for gas or oil

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

74206 Fire and explosion protection and control consultancy activities
74206 Geodetic surveying activities
74206 Geological and prospecting activities
74206 Geological surveying for petroleum or natural gas (not geological consultancy)
74206 Geologist (consultant)
74206 Geophysical consultancy activities (engineering related)
74206 Geophysical, geologic and seismic surveying
74206 Health and safety and other hazard protection and control consultancy activities
74206 Hydrographic surveying activities
74206 Hydrologic surveying activities
74206 Land surveying activities
74206 Land surveyor (not valuer)
74206 Magnetometric (subsurface) surveying activities
74206 Micropalaeontogical analysis activities
74206 Mineral surveyor
74206 Natural gas exploration
74206 Petroleum exploration
74206 Petroleum geologist
74206 Petrophysical interpretation activities
74206 Seismic surveying for petroleum
74206 Sewage treatment consultancy activities
74206 Sub-surface surveying activities
74206 Surveying activities (industrial and engineering)
74206 Surveyor (other than valuer)
74206 Telecommunications consultancy activities
74206 Water divining and other scientific prospecting activities

71129 Other engineering activities (not including engineering design for industrial process and production or engineering related scientific and technical consulting activities) C1.2 8/0

74204 Acoustical engineering design
74204 Architectural engineering activities
74204 Building structure design for ancillary services
74204 Chemical engineering design projects
74204 Consultant civil or structural engineer
74204 Consultant engineer (civil or structural)
74204 Corrosion engineering activities
74204 Design consultant for civil and structural engineering
74204 Design office for civil and structural engineering
74204 Electrical and electronic engineering design projects
74209 Engineering contractor responsible for complete process plant
74204 Engineering design activities for the construction of civil engineering works
74204 Environmental consultants
74204 Environmental engineering consultancy activities
74204 Geotechnical engineering consultancy activities
74204 Heating systems for buildings design activities
74204 Hydraulic engineering design projects
74209 Integrated engineering activities for turnkey projects
74204 Jacket substructure design and other foundation design services
74204 Mechanical and electrical installation for buildings design activities

74204 Mechanical, industrial and systems engineering design projects
74204 Mining engineering design projects 74204 Pipeline design activities
74209 Process engineering contractor 74209 Project management
74204 Traffic engineering design projects 74204 Water management projects design

71200 Technical testing and analysis 74300 Acoustics and vibration testing 74300 Agricultural grain electrophoresis 74300 Air measuring related to cleanness 74300 Aircraft certification
74300 Analytical chemist
74300 Assay office
74300 Bacteriologist (non medical) 74300 Chemist
74300 Composition and purity testing and analysis 74300 Electrophoresis
74300 Food hygiene testing activities
74300 Integrated mechanical and electrical system testing and analysis
74300 Leak testing and flow monitoring activities 74300 Lloyd's Register of Shipping
74300 Marine cargo surveyor
74300 Marine insurance survey activities 74300 Marine surveyor
74300 Metallurgist (private practice) 74300 MOT testing station
74300 Motor vehicles certification 74300 Nuclear plant certification
74300 Performance testing of complete machinery 74300 Physicist
74300 Pipeline and ancillary equipment testing activities 75240 Police laboratories
74300 Pollution measuring
74300 Pressurised containers certification 74300 Public analyst
74300 Quality control
74300 Radioactivity measuring
74300 Radiographic testing of welds and joints 74300 Road-safety testing of motor vehicles 74300 Ship surveyor
74300 Ships certification
74300 Strength and failure testing 74300 Sworn timber measurer 74300 Sworn weigher
74300 Technical and non-destructive testing services 74300 Technical automobile inspection activities 74300 Technical inspection services of buildings
74300 Technical testing of bridges and other engineering structures
74300 Technical testing of lifting and handling equipment 74300 Testing and measuring of environmental indicators: air and water pollution
74300 Testing of calculations for building elements 74300 Testing of composition and purity of minerals 74300 Testing of physical characteristics and performance of materials

UK SIC 2007	UK SIC 2003	Activity
	74300	Testing or analysing laboratory
	74300	Timber measurer
	74300	Water measuring related to cleanness
72110		**Research and experimental development on biotechnology**
	73100	Biology research and experimental development
	73100	Biotechnology research and experimental development
	73100	Research and experimental development on bioinformatics
	73100	Research and experimental development on cell and tissue culture and engineering
	73100	Research and experimental development on DNA/RNA
	73100	Research and experimental development on gene RNA vectors
	73100	Research and experimental development on nanobiotechnology
	73100	Research and experimental development on process biotechnology techniques
	73100	Research and experimental development on proteins other molecules
72190		**Other research and experimental development on natural sciences and engineering**
	73100	Agricultural research (other than biotechnological)
	73100	Astronomy research and experimental development
	73100	Atomic energy research and experimental development
	73100	Building research and experimental development
	73100	Cancer research and experimental development (other than biotechnological)
	73100	Chemistry research and experimental development
	73100	Civil engineering research and experimental development
	73100	Computer hardware research and experimental development
	73100	Earth sciences research and experimental development (other than biotechnological)
	73100	Engineering research and experimental development
	73100	Environmental pollution research and experimental development
	73100	Explorer
	73100	Government research establishment (other than biotechnological)
	73100	Hydraulic research station
	73100	Life sciences research and experimental development (other than biotechnological)
	73100	Mathematical research and experimental development
	73100	Medical research establishment not attached to hospital (other than biotechnological)
	73100	Medical sciences research and experimental development (other than biotechnological)
	73100	Mining research establishment
	73100	Ministry of Defence research and development (other than biotechnological)
	73100	Multi-disciplinary research and development (not biotechnological or social sciences and humanities)
	73100	National physical laboratory
	73100	Natural environment research council
	73100	Natural sciences research and experimental development (other than biotechnological)
	73100	Palaeontologist (consultant)
	73100	Physical sciences research and experimental development
	73100	Physics research and experimental development
	73100	Research and development consultants (other than biotechnological)
	73100	Research association (other than biotechnological)
	73100	Research chemist (private practice)
	73100	Research institution (other than biotechnological)
	73100	Research laboratory (other than biotechnological)
	73100	Royal Observatory
	73100	Science research council
72200		**Research and experimental development on social sciences and humanities**
	73200	Economic and Social Research Council
	73200	Economics, research and experimental development
	73200	Educational research and experimental development
	73200	Humanities research and experimental development
	73200	Languages research and experimental development
	73200	Law research and experimental development
	73200	Legal sciences research and experimental development
	73200	Linguistics research and experimental development
	73100	Multi-disciplinary research and development predominantly on social sciences and humanities
	73200	National foundation for educational research
	73200	Psychology research and experimental development
	73200	Social Science Research Council
	73200	Social sciences research and experimental development
	73200	Sociology research and experimental development
73110		**Advertising agencies**
	74402	Advertising agencies
	74402	Advertising campaign creation and realisation
	74402	Advertising consultants
	74402	Advertising contractor
	74409	Advertising material or samples delivery or distribution
	74409	Aerial and outdoor advertising services
	74402	Bill posting agency
	74402	Bus carding
	74402	Commercial artist
	74402	Copywriter
	74402	Creating and placing advertising
	74402	Creation of stands and other display structures and sites
	74402	Marketing campaigns
	74402	Poster advertising
	74402	Showroom design
	74402	Signwriting
	74402	Window dressing
73120		**Media representation**
	74401	Advertising space or time (sales or leasing thereof)
	74401	Media representation
73200		**Market research and public opinion polling**
	74130	Export consultant

UK SIC 2007	UK SIC 2003	Activity
	74130	Market research agency
	74130	Market research consultant
	74130	Market research organisation
	74130	Market, social and economic research services
	74130	Public opinion polling
	74130	Survey analysis and other social and economic intelligence services
	74130	Survey design services
74100		**Specialised design activities**
	74872	Boot and shoe designing
	74872	Calico printers' designing
	74872	Clothes designer
	74872	Costume designing
	74872	Fashion designing
	74872	Furniture designing
	74872	Graphic designer
	74872	Interior decor design
	74872	Interior decorator activities
	74872	Interior designers
	74872	Jewellery designing
	74872	Lace designing
	74872	Textile or wallpaper printing designing
74201		**Portrait photographic activities**
	74812	Passport photography
	74812	Photographic studio
	74812	Portrait photographer
	74812	Portrait photography
	74812	School photography
74202		**Other specialist photography (not including portrait photography)**
	74813	Aerial photography (other than for cartographic and spatial activity purposes)
	74206	Aerial photography for cartographic and spatial activity purposes
	74813	Downhole photography services
	74813	Medical and biological photography
	74813	Micro-filming activities
	74813	Photomicrography
	74813	Underwater photography services
	74813	X-ray and other speciality photography activities
74203		**Film processing**
	74814	Film copying (not motion picture)
	74814	Film processing
	74814	Motion picture developing
	74814	One hour photo shop (not part of camera shop)
	74814	Photograph colouring
	74814	Photograph copying
	74814	Photograph developing
	74814	Photograph enlarging
	74814	Photograph finishing
	74814	Photograph mounting
	74814	Photograph printing
	74814	Photographic colour printing
	74814	Restoration, copying and retouching of photographs
	74814	Slide and negative duplicating
	74814	Slide mounting

SIC 2007	SIC 2003	Activity
74209		**Other photographic activities (not including portrait and other specialist photography and film processing) n.e.c.**
	74819	Fashion photography
	74819	Photographing of live events such as weddings, graduations, conventions, fashion shows, etc.
	74819	Photography for commercials, publishers or tourism purposes
	92400	Photojournalists
	92400	Picture agency
	74819	Real estate photography
	92400	Press photographers
	74819	Street photographer
	74819	Videoing of live events such as weddings, graduations, conventions, fashion shows, etc.
	74819	Wedding photography
74300		**Translation and interpretation activities**
	74850	Interpreter
	74850	Transcribing services from tapes, discs, etc.
	74850	Translation activities
74901		**Environmental consulting activities**
	74206	Energy efficiency consultancy activities
	74206	Environmental project consultancy activities
	74206	Noise control consultancy activities
74902		**Quantity surveying activities**
	74203	Cost draughtsman (quantity surveyor)
	74203	Quantity surveying activities
74909		**Other professional, scientific and technical activities (not including environmental consultancy or quantity surveying) n.e.c.**
	74879	Agents and agencies in motion picture theatrical
	74879	Agents and agencies in entertainment
	74879	Agents and agencies in placement of artworks with publishers
	74879	Agents and agencies in placement of books with publishers
	74879	Agents and agencies in placement of photographs publishers
	74879	Agents and agencies in placement of plays with publishers producers
	74879	Agents and agencies in sports attractions
	74879	Agricultural valuer
	74149	Agronomy consulting
	74879	Appraiser and valuer (not insurance or real estate)
	74879	Band agency
	63400	Bill auditing and freight rate information
	74879	Business brokerage activities
	74879	Business brokerage and appraisal activities
	74879	Business transfer agent
	74879	Franchisers
	74879	Literary agency
	74206	Marine consultant (other than environmental consultancy)
	74879	Partnership agent
	74879	Patent broker
	74879	Publicans' broker
	74149	Quality assurance consultancy activities

UK SIC 2007	UK SIC 2003	Activity
	74602	Security consultancy for industrial, household and public services
	74879	Theatrical agency
	74879	Valuer (any trade except real estate)
	74879	Variety agency
	63400	Way-bills issue and procurement
	74206	Weather forecasting activities
75000		**Veterinary activities**
	85200	Animal ambulance activities
	85200	Animal health care and control activities for farm animals
	85200	Animal health care and control activities for pet animals
	85200	Animal hospital (RSPCA, PDSA, Blue Cross)
	85200	Animal hospital run by veterinary surgeon
	85200	Animal hospital supervised or run by registered veterinarian
	85200	Clinico-pathological and other diagnostic activities pertaining to animals
	85200	People's dispensary for sick animals (not animal care units)
	85200	Registered veterinarian
	85200	Veterinary activities
	85200	Veterinary assistants or other auxiliary veterinary personnel
	85200	Veterinary laboratory
	85200	Veterinary surgery
77110		**Renting and leasing of cars and light motor vehicles**
	71100	Automobile rental (self drive)
	71100	Car hire (self drive)
	71100	Car leasing
	71100	Car rental (self drive)
	71100	Contract car hire (self drive)
	71100	Light motor vehicle (not exceeding 3.5 tonnes) renting or leasing
	71100	Van rental (self drive not exceeding 3.5 tonnes)
77120		**Renting and leasing of trucks**
	71219	Commercial vehicle (light) hire (without driver)
	71219	Commercial vehicle (medium and heavy type) contract hire (without driver)
	71219	Commercial vehicle (medium and heavy type) hire (without driver)
	71219	Freight container hire
	71219	Haulage tractors rental (without driver)
	71219	Recreational vehicles renting and leasing
	71219	Road trailer hire
	71219	Trailers and semi-trailers rental
	71219	Truck rental (without driver)
	71219	Trucks and other heavy vehicles exceeding 3.5 tonnes renting and leasing
	71219	Van hire (exceeding 3.5 tonnes without driver)
77210		**Renting and leasing of recreational and sports goods**
	71401	Beach chairs and umbrellas renting and leasing
	71401	Bicycle hire
	71401	Book rental
	71401	Camera hire
	71401	Canoes and sailboats renting and leasing

SIC 2007	SIC 2003	Activity
	71401	Fancy dress hire
	71401	Journal rental
	71401	Juke boxes leasing
	71401	Magazines rental
	71401	Marquee hire
	71401	Musical instrument rental
	71401	Photographic equipment hire
	71401	Piano hire
	71401	Pleasure boats rental
	71401	Recreational and sports goods renting and leasing
	71401	Scenery rental
	71401	Skis renting and leasing
	71401	Sound equipment rental
	71401	Sports equipment rental
	71401	Theatrical costumes rental
77220		**Renting of video tapes and disks**
	71404	CDs and disks rental
	71405	Dvd rental
	71404	Records rental
	71405	Video tape rental
77291		**Renting and leasing of media entertainment equipment**
	71403	Media entertainment equipment renting and leasing
	71403	Radio (domestic) hire
	71403	Television (domestic) hire
	71403	Video recorder/player (domestic) hire
77299		**Renting and leasing of other personal and household goods (other than media entertainment equipment) n.e.c.**
	71409	Books, journals and magazine renting and leasing
	71409	Clothes hire
	71409	Crockery hire
	71409	Cutlery hire
	71401	Do-it-yourself machinery and equipment hire
	71409	Electrical domestic appliance rental and leasing
	71409	Electronic equipment for household use renting leasing
	71409	Flowers and plants rental and leasing
	71409	Footwear rental and leasing
	71409	Furniture rental and leasing
	71401	Garden tool hire
	71409	Glass rental and leasing
	71409	Household goods hire
	71409	Housewares rental and leasing
	71409	Jewellery rental and leasing
	71409	Kitchenware rental and leasing
	71409	Machinery and equipment used by amateurs or as a hobby e.g. Home repair tools rental and leasing
	71409	Medical and paramedical equipment (e.g. crutches) rental and leasing
	71409	Musical instruments rental and leasing
	71409	Pottery rental and leasing
	71409	Tableware rental and leasing
	71409	Textiles rental and leasing
	71409	Theatrical costumes leasing
	71409	Theatrical scenery leasing
	71409	Wearing apparel rental and leasing

UK SIC 2007	UK SIC 2003	Activity
77310		**Renting and leasing of agricultural machinery and equipment**
	71310	Agricultural and forestry machinery and equipment operational leasing (without operator)
	71310	Agricultural machinery and equipment rental and leasing (without operator)
	71310	Agricultural machinery hire (without operator)
	71310	Forestry machinery and equipment rental and leasing (without operator)
	71310	Horticultural machinery hire (without operator)
	71310	Tractor hire for agriculture (without driver)
77320		**Renting and leasing of construction and civil engineering machinery and equipment**
	71320	Civil engineering machinery and equipment rental (without operator)
	71320	Construction machinery and equipment rental (without operator)
	71320	Crane hire (without operator)
	71320	Crane lorries rental (without operator)
	71320	Earthmoving equipment hire (without operator)
	71320	Hazard warning lamp hire
	71320	Ladder hire
	71320	Plant hire for construction rental (without operator)
	71320	Portable road sign hire for construction
	71320	Scaffolding hire (without staff)
	71320	Tools for construction hire (without operator)
	71320	Work platform rental without erection and dismantling
77330		**Renting and leasing of office machinery and equipment (including computers)**
	71330	Accounting machinery and equipment rental and operating leasing
	71330	Automatic data processing equipment hire
	71330	Cash register hire
	71330	Computing machinery and equipment rental and operating leasing
	71330	Duplicating machines rental and operating leasing
	71330	Office equipment hire
	71330	Office furniture hire
	71330	Office machinery and equipment leasing
	71330	Office machinery and equipment rental and operating leasing
	71330	Ticket machine hire
	71330	Typewriter rental and operating leasing
	71330	Word processing machines rental and operating leasing
77341		**Renting and leasing of passenger water transport equipment**
	71221	Boat hire for passengers (without crew) (not linked with recreational service)
	71221	Passenger water transport equipment leasing (without operator)
	71221	Ship hire for passengers (without crew)
	71221	Ship rental for passengers (without operator)
	71221	Water passenger transport equipment rental (without operator)
77342		**Renting and leasing of freight water transport equipment**
	71229	Boat hire for freight (without crew)
	71229	Freight water transport equipment leasing (without operator)
	71229	Ship hire for freight (without crew)
	71229	Water freight transport equipment rental (without operator)
77351		**Renting and leasing of passenger air transport equipment**
	71231	Air passenger transport equipment rental and leasing without operator
	71231	Aircraft hire for passengers without crew
77352		**Renting and leasing of freight air transport equipment**
	71239	Air transport equipment for freight rental (without operator)
	71239	Aircraft hire for freight (without crew)
	71239	Freight air transport equipment operational leasing (without operator)
77390		**Renting and leasing of other machinery, equipment and tangible goods n.e.c.**
	71320	Accommodation container renting
	71340	Amusement machine hire
	71340	Animal rental (herds, racehorses)
	71340	Audio/visual equipment for professional use hire
	71219	Barrow hiring
	71340	Burglar alarm hire
	71211	Campers (transport) rental (self drive)
	71211	Caravans (touring) rental
	71340	Catering equipment hire
	71340	Cereal milling and working machinery renting (non agricultural)
	71340	Circus tent rental
	71340	Commercial machinery rental and operating leasing
	71340	Communication equipment rental and operating leasing
	71219	Container rental
	71340	Dairy machinery rental (non agricultural)
	71340	Engine rental and operating leasing
	71340	Fire alarm hire
	71340	Floor cleaning equipment for industrial use leasing
	71219	Freight land transport equipment rental (without driver)
	71340	Fuel bunkers leasing
	71340	Gaming machine hire
	71219	Hand cart hire
	71340	Herd leasing
	71340	Machine tools rental and operating leasing
	71340	Machinery for industrial use rental and operating leasing
	71340	Measuring and controlling equipment rental and operating leasing
	71340	Mining equipment rental and operating leasing
	71340	Motion picture production equipment rental and leasing
	71211	Motorcycle hire
	71211	Motorcycle rental
	71320	Office container renting
	71340	Oil field equipment rental and operating leasing
	71340	Packaging machinery leasing
	71219	Pallet rental

UK SIC 2007	UK SIC 2003	Activity
	71211	Passenger land transport equipment self drive rental than motor vehicles)
	71340	Plant and equipment for industrial use hire
	71340	Radio equipment for professional use, rental and operating leasing
	71211	Railroad passenger vehicles rental
	71219	Railway freight vehicle hire
	71211	Railway passenger vehicle hire
	71340	Scientific machinery rental and operating leasing
	71340	Slot machine rental
	71340	Telephone hire (other than by public telephone undertakings)
	71340	Television equipment (not domestic) rental and operating leasing
	71340	Tools for mechanics or engineers hire
	71340	Turbine rental and operating leasing
	71219	Wheelbarrow hire
77400		**Leasing of intellectual property and similar products, except copyrighted works**
	74879	Leasing of intellectual property and the like (not copyrighted works e.g. Books and software)
	74879	Leasing of non-financial intangible assets
	74879	Receiving royalties or licensing fees for the use of brand names
	74879	Receiving royalties or licensing fees for the use of franchise agreements
	74879	Receiving royalties or licensing fees for the use of mineral exploration and evaluation
	74879	Receiving royalties or licensing fees for the use of patented entities
	74879	Receiving royalties or licensing fees for the use of trademarks or service marks
78101		**Motion picture, television and other theatrical casting**
	92721	Casting activities for motion pictures, television and theatre
	74500	Casting agencies and bureaux
78109		**Activities of employment placement agencies (other than motion picture, television and other theatrical casting) n.e.c.**
	74500	Employment consultants
	74500	Employment placement agencies
	74500	Executive employment placement and search activities
	74500	Executive recruitment consultant
	74500	Labour recruitment
	74500	On-line employment placement agencies
	74500	Sales management recruitment consultant
78200		**Temporary employment agency activities**
	74500	Commercial or industrial workers (supply) (temporary employment agency)
	74500	Domestic agency (temporary employment agency)
	74500	Employment agency (temporary)
	74500	Executive personnel (supply) (temporary employment agency)
	74500	Medical personnel (supply) (temporary employment agency)
	74500	Nursing agency (supplying nurses) (temporary employment agency)
	74500	Office support personnel (supply) (temporary employment agency)

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	74500	Personnel provision (temporary employment agency)(other
	74500	Supply and provision of personnel (temporary employment agency)
	74500	Teaching personnel (supply) (temporary employment agency)
	74500	Temporary employment agency activities
78300		**Other human resources provision**
	74500	Human resources provision on a long term or permanent basis
79110		**Travel agency activities**
	63301	Automobile association touring department
	63301	Chartered rail travel
	63301	Excursion agency
	63301	Motorists' organisation touring department
	63301	Packaged tour sales
	63301	Passage agent
	63301	Passenger agent (not transport authority)
	63301	Royal Automobile Club touring department
	63301	Ticket agencies for travel
	63301	Travel agency activities
79120		**Tour operator activities**
	63302	Tour operator activities
79901		**Activities of tourist guides**
	63303	Courier (travel)
	63303	Tourist guide activities
79909		**Other reservation service and related activities (not including activities of tourist guides)**
	63309	British Tourist Authority
	63309	Holiday information centre
	63309	Information bureau for tourists
	92320	Theatre ticket agency
	92349	Ticket agencies for other entertainment activities
	92320	Ticket agencies for theatre
	92629	Ticket sales activities for sports events
	92729	Ticket sales for other recreational activities
	63309	Time-share exchange services
	63309	Tourism promotion activities
	63309	Tourist assistance activities n.e.c.
	63309	Tourist board or information service
	63309	Visitor assistance services
80100		**Private security activities**
	74602	Armoured car services
	74602	Bodyguard activities
	74602	Dog training for security purposes
	74602	Fingerprinting services
	74602	Guard activities
	74602	Polygraph services
	74602	Private security activities
	74602	Security activities (not government)
	74602	Security delivery of prisoners
	74602	Security guard services
	74602	Security shredding of information on any media
	74602	Security transport of valuables and money
	74602	Store detective activities
	74602	Street patrol

UK SIC 2007	UK SIC 2003	Activity
	74602	Surveillance activities
	74602	Watchman activities
80200		**Security systems service activities**
	74602	Alarm monitoring activities
	74602	Burglar and fire alarm monitoring including installation and maintenance
	74602	Installation and repair of electronic locking devices with monitoring
	74602	Installation and repair of electronic safes security vaults with monitoring
	74602	Installation and repair of mechanical locking devices with monitoring
	74602	Installation and repair of mechanical safes and security vaults with monitoring
	45310	Installation of fire and burglar alarm systems if together with monitoring of the same systems
	74602	Monitoring activities by mechanical or electrical protective devices
	74602	Monitoring of electronic security alarm systems
	74602	Security systems service activities
80300		**Investigation activities**
	74879	Enquiry agency
	74879	Inquiry agency
	74601	Internet abuse monitoring
	74601	Investigation activities
	74601	Private detective
	74601	Private investigator activities
81100		**Combined facilities support activities**
	75140	Centralised supply and purchasing services (public sector)
	70320	Combined facilities support activities
	70320	Facilities management
	75140	Operational services of government owned or occupied buildings (public sector)
	70320	Residents' property management
81210		**General cleaning of buildings**
	74701	Building cleaning activities
	74701	Cleaning service for factory, office or shop
	74701	Commercial cleaner
	74701	Contract cleaning service
	74701	Factory cleaning contractor
	74701	General cleaning of houses or apartments
	74701	Industrial cleaning
	74701	Janitorial services
	74701	Office cleaning contractor
81221		**Window cleaning services**
	74702	Window cleaning
81222		**Specialised cleaning services**
	74704	Cleaning of heat and air ducts
	74704	Cleaning services for computer rooms
	74704	Cleaning services for hospitals
	74704	Decontamination services
	74704	Reservoir and tank cleaning
	74704	Specialised cleaning of tanks and reservoirs
	74704	Sterilisation of objects or premises (e.g. operating theatres)

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	74704	Telephone cleaning and sterilising service
	74704	Telephone sterilising
	74704	Ventilation ducts cleaning
81223		**Furnace and chimney cleaning services**
	74705	Boiler cleaning and scaling
	74705	Chimney cleaning
	74705	Fire-places cleaning
	74705	Furnace cleaning
	74705	Incinerator cleaning
	74705	Stove cleaning
81229		**Building and industrial cleaning activities (other than window cleaning, specialised cleaning and furnace and chimney cleaning services) n.e.c.**
	74709	Cleaning of industrial machinery
	74709	External cleaning of buildings
81291		**Disinfecting and extermination services**
	74703	Disinfecting of dwellings and other buildings
	74703	Exterminating of insects, rodents and other pests (except agricultural)
	74703	Fumigation services
	74703	Local authority pest control department
	74703	Pest control services (except agricultural)
	74703	Pest destruction service (not especially for agriculture)
	74703	Rat catcher (not especially for agriculture)
	74703	Rodent destroying (not agricultural)
	74703	Ship disinfecting and exterminating activities
	74703	Ship fumigating and scrubbing
	74703	Train disinfecting and exterminating activities
	74703	Vermin destroying (not agricultural)
	74703	Wood rot preventative treatment service
	74703	Wood worm preventative treatment service
81299		**Cleaning services (other than disinfecting and extermination services) n.e.c**
	74709	Aeroplane cleaning (non-specialised)
	90030	Airport runways clearing of snow and ice
	74709	Bottle cleaning
	74709	Bus cleaning (non- specialised)
	74709	Cleaning of the inside of road and sea tankers
	74709	Cleaning services n.e.c.
	90030	Highway cleaning of snow and ice
	90030	Hygiene contracting
	74709	Industrial equipment cleaning (non-specialised)
	90030	Outdoor sweeping and watering of parking lots,streets, paths, public spaces etc.
	90030	Rental of lavatory cubicles
	90030	Sanding or salting of highways, etc.
	90030	Snow and ice clearing of highways, etc.
	90030	Street cleaning and watering
	74709	Swimming pool cleaning and maintenance activities
	74709	Train cleaning (non-specialised)
	74709	Transport equipment cleaning (non-specialised)
	74709	Underground train cleaning (non-specialised)
81300		**Landscape service activities**
	01410	Gardens and sport installations, planting and maintenance on a fee or contract basis

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UK SIC 2007	UK SIC 2003	Activity
	01410	Hedge trimming on a fee or contract basis (except as an agricultural service activity)
	01410	Landscape contracting
	01410	Landscape gardening
	01410	Landscape measures for protecting the environment
	01410	Park laying out, planting and maintenance on a fee or contract basis
	01410	Planting, laying out and maintenance of gardens, parks and green areas for sports installations
	01410	Tree pruning, replanting, on a fee or contract basis (except as an agricultural service activity)
82110		**Combined office administrative service activities**
	74850	Combined office admin. Services (e.g. Reception, billing, record keeping, personnel, mail services)
	74850	Combined secretarial activities
82190		**Photocopying, document preparation and other specialised office support activities**
	74850	Blueprinting
	74850	Circular addressing
	74850	Direct mailing
	74850	Document copying service
	74850	Document preparation
	74850	Duplicating service
	74850	Envelope addressing service
	74850	Envelope stuffing, sealing and mailing service including for advertising
	74850	Letter or resume writing
	64110	Mailbox rental
	74850	Mailing pre-sorting
	74850	Multigraphing
	74850	Photocopying
	74850	Proof reading
	74850	Reprographic activities (other than printing)
	74850	Shorthand writing
	74850	Transcription of documents, and other secretarial services
	74850	Typing, word processing and desk top publication service
82200		**Activities of call centres**
	74860	Call centres undertaking market research or public opinion polling
	74860	Call centres working on a fee or contract basis
	74860	Inbound call centres
	74860	Outbound call centres
82301		**Activities of exhibition and fair organizers**
	74873	Exhibition contracting and organising
	74873	Exhibition stand design
	74873	Exhibition stand hire
	74873	Fair organiser
	74873	Trade centre
	74873	Trades exhibition organiser
82302		**Activities of conference organizers**
	74874	Conference organisers
82911		**Activities of collection agencies**
	74871	Bill collecting
	74871	Debt collector

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82912		**Activities of credit bureaus**
	74871	Credit bureau
	74871	Credit rating
	74871	Financial and credit reporting
82920		**Packaging activities**
	74820	Aerosol filling on a fee or contract basis
	74820	Beverage bottling on a fee or contract basis
	74820	Blister packaging foil-covered packaging
	74820	Bottling on a fee or contract basis
	74820	Food bottling and packaging on a fee or contract basis
	74820	Labelling, stamping and imprinting on a fee or contract basis
	74820	Liquids bottling on a fee or contract basis
	74820	Packaging activities on a fee or contract basis
	74820	Packaging of solids
	74820	Packing of medicaments into edible capsules
	74820	Parcel packing and gift wrapping on a fee or contract basis
	74820	Security packaging of pharmaceutical preparations
82990		**Other business support service activities n.e.c.**
	74879	Agricultural showground
	74879	Bar code imprinting services
	74879	Broadcasting transmission rights agent
	74879	Business activities n.e.c.
	74850	Court reporting services
	74879	Fashion agent
	74879	Fashion artist
	74879	Fundraising organisation services on a contract or fee basis
	74879	Gas, water and electricity meter reading
	74879	Independent auctioneers
	74879	Information bureau (not tourist)
	74879	Loyalty programme administration
	74879	Luncheon voucher company
	74879	Meter reading on a fee or contract basis
	74879	Parking meter coin collection services
	74879	Public record searching
	74850	Public stenography services
	74879	Real-time closed captioning
	74879	Repossession services
	74879	Stock control activities
	74879	Trading stamp activities
	75130	Vehicle licence issuing on a fee or contract basis
84110		**General public administration activities**
	75110	Central government administration
	75110	Customs administration
	75110	Duty and tax collection
	75110	Economic and social planning administration (public sector)
	75110	Executive and legislative administration (public sector)
	75110	Financial services (public sector)
	75110	Fiscal services (public sector)
	75110	Fundamental research administration (public sector)
	75140	General personnel administration and operational services (public sector)

UK SIC 2007	UK SIC 2003	Activity
	75110	General public administration activities
	75110	Local government administration
	75110	Public debt services administration
	75110	Public fund services administration
	75110	Statistical services (public sector)
	75110	Tax violation investigation services
	75110	Taxation schemes
	75110	Trust territory programme administration (public sector)
84120		**Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security**
	75120	Community amenity services administration (public sector)
	75120	Cultural services administration (public sector)
	75120	Dental service administration (public sector)
	75120	Educational services administration (public sector)
	75120	Environmental services administration (public sector)
	75120	Health care services administration (public sector)
	75120	Housing services administration (public sector)
	75120	Pollution standards, dissemination and information services (public sector)
	75120	Public administration of education programmes
	75120	Public administration of environment programmes
	75120	Public administration of health programmes
	75120	Public administration of housing programmes
	75120	Public administration of recreation programmes
	75120	Public administration of research and development policies
	75120	Public administration of social services programmes
	75120	Public administration of sport programmes
	75120	Recreational services administration (public sector)
	75120	Religious services administration (public sector)
84130		**Regulation of and contribution to more efficient operation of businesses**
	75130	Agricultural services administration and regulation (public sector)
	75130	Catering trade services administration and regulation (public sector)
	75130	Commercial services administration and regulation sector)
	75130	Communication services administration and regulation (public sector)
	75130	Construction services administration and regulation (public sector)
	75130	Distribution services administration and regulation (public sector)
	75130	Economic services administration and regulation (public sector)
	75130	Energy services administration and regulation (public sector)
	75130	Fishing services administration and regulation (public sector)
	75130	Forestry services administration and regulation (public sector)
	75130	Fuel services administration and regulation (public sector)
	75130	Hunting services administration and regulation (public sector)
	75130	Labour affairs services administration and regulation (public sector)
	75130	Land registry

SIC 2007	SIC 2003	Activity
	75130	Manufacturing services administration and regulation (public sector)
	75130	Mineral resource services administration and regulation (public sector)
	75130	Mining services administration and regulation (public sector)
	75130	Multipurpose development project services administration (public sector)
	75130	Tourism services administration and regulation (public sector)
	75130	Transport services administration and regulation (public sector)
84210		**Foreign affairs**
	75210	Consular services abroad administration and operation (public sector)
	75210	Economic aid missions accredited to foreign governments (public sector)
	75210	Foreign economic aid services administration (public sector)
	75210	Information and cultural services abroad
	75210	International peace keeping forces contribution including assignment of manpower
	75210	Military aid missions accredited to foreign governments (public sector)
	75210	Non-military aid programmes to developing countries (public sector)
	75210	Technical assistance and training programmes abroad (public sector)
84220		**Defence activities**
	75220	Administration of defence-related research and development policies and related funds
	75220	Administration supervision and operation of engineering, and other non-combat forces and commands
	75220	Administration supervision and operation of intelligence and other non-combat forces and commands
	75220	Administration supervision and operation of land, sea, air and space defence forces
	75220	Administration supervision and operation of military defence affairs
	75220	Administration supervision and operation of reserve/(public auxiliary forces of the defence establishment
	75220	Administrative, operational and supervisory services related to civil defence
	75220	Administrative, operational and supervisory services related to military defence
	75220	Army establishment (civilian personnel)
	75220	Army establishment (service personnel)
	75220	Civil defence administration
	75220	Defence activities
	75220	Health activities for military personnel in the field
	75220	Maritime search and rescue (military)
	75220	Military defence administration
	75220	Military logistics
	75220	Military ports
	75220	Ministry of Defence (civilian personnel)
	75220	Ministry of Defence (forces personnel)
	75220	Ministry of Defence Headquarters
	75220	Pay and personnel agency (armed forces)
	75220	Princess Mary's RAFNS

UK SIC 2007	UK SIC 2003	Activity
	75220	Queen Alexandra's RANC
	75220	Queen Alexandra's RNNS
	75220	Royal Air Force Establishments (civilian personnel)
	75220	Royal Air Force Establishments (service personnel)
	75220	Royal Marines
	75220	Royal Navy establishments (civilian personnel)
	75220	Royal Navy establishments (service personnel)
	75220	Support for defence plans and exercises for civilians
	75220	Territorial Army
	75220	Women's Royal Air Force
	75220	Women's Royal Army Corps
	75220	Women's Royal Naval Service
84230		**Justice and judicial activities**
	75230	Administration and operation of administrative civil and criminal law courts
	75230	Appeal Committee of the House of Lords
	75230	Arbitration of civil actions
	75230	Companies court
	75230	Coroners court
	75230	Correctional services
	75230	County court
	75230	Court of appeal
	75230	Court of protection
	75230	Court of session (Scotland)
	75230	Court of the Lord Lyon
	75230	Crown court
	75230	Crown prosecution service
	75230	Detention centres
	75230	High Court of Justice
	75230	High court of Justice in Bankruptcy
	75230	High Court of Justiciary (Scotland)
	75230	Judge
	75230	Judge advocates
	75230	Justice of the Peace
	75230	Local authority observation and assessment centres
	75230	Lord Chancellor's Department
	75230	Magistrates' court
	75230	Military tribunals administration and operation
	75230	Official receiver
	75230	Official solicitor
	75230	Pensions appeal tribunal
	75230	Prison administration and operation
	75230	Prisons (excluding naval and military)
	75230	Probate registry
	75230	Registrars Office (Courts of Justice)
	75230	Rehabilitation services for prisoners
	75230	Remand centres
	75230	Restrictive Practices Court
	75230	Sheriff's Court (Scotland)
	75230	Stipendiary magistrates
	75230	Supreme court of judicature
	75230	Tribunals
	75230	Young offender centres
84240		**Public order and safety activities**
	75240	Administration and operation of regular and auxiliary police forces supported by public authorities
	75240	Administration and operation of special police forces
	75240	Alien registration administration and operation
	75240	Border guard administration and operation
	75240	Coast guards administration and operation
	75240	Criminal investigation department
	75240	Law and order administration and operation
	75240	Local authority school crossing patrols
	75240	Local authority traffic wardens
	75240	Metropolitan Police Commissioners Office
	75240	Police authorities
	75240	Police records maintenance
	75240	Port guards administration and operation
	75240	Provision of supplies for domestic emergency use incase of peacetime disasters
	75240	Public order and safety administration, regulation and operation
	75240	Regional crime squad
	75240	School crossing patrols
	75240	Traffic regulation administration and operation
	75240	Traffic wardens
84250		**Fire service activities**
	75250	Auxiliary fire brigade services
	75250	Fire authorities
	75250	Fire brigades
	75250	Fire fighting and fire prevention
	75250	Fire service activities
	75250	Local authority fire brigade services
	75250	Marine fireboat services
84300		**Compulsory social security activities**
	75300	Compulsory social security administration concerning family and child benefits
	75300	Compulsory social security administration concerning government employee pension schemes
	75300	Compulsory social security administration concerning permanent loss of income due to disablement
	75300	Compulsory social security administration concerning retirement pensions
	75300	Compulsory social security administration concerning unemployment benefits
	75300	Compulsory social security administration of sickness, maternity or temporary disablement benefits
	75300	Funding and administration of government provided retirement pensions,
	75300	Funding and administration of government provided sickness, work-accident and unemployment insurance
85100		**Pre-primary education**
	80100	Church schools at nursery and primary level
	80100	Hospital schools at nursery and primary level
	80100	Kindergartens
	80100	Nursery schools
	80100	Pre-primary education
85200		**Primary education**
	80100	Infant schools
	80100	Junior schools
	80100	Middle schools deemed primary
	80100	Preparatory schools

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UK SIC 2007	UK SIC 2003	Activity
	80100	Primary and pre-primary education
	80100	Primary education
	80100	Primary schools
	80100	Special schools at primary and pre-primary level
85310		**General secondary education**
	80210	Church schools at secondary level
	80210	Comprehensive schools
	80210	Convent schools at secondary level
	80210	Grammar schools
	80210	Hospital schools at secondary level
	80210	Public schools
	80210	School examination board
	80210	Secondary level education
	80210	Secondary modern schools
	80210	Secondary schools
	80210	Sixth form colleges
	80210	Special schools at secondary level
85320		**Technical and vocational secondary education**
	80220	Agricultural college
	80220	Apprentice school
	80220	Arts and crafts school
	80220	Ballet school
	80220	City and Guilds of London Institute
	80220	Civil service college
	80220	College of agriculture
	80220	College of art
	80220	College of music
	80220	College of technology
	80220	Commercial school
	80220	Computer repair training
	80220	Cosmetology and barber schools
	80220	Driving schools for occupational drivers e.g. Of trucks, buses, coaches
	63230	Flying school (for airline pilots)
	63230	Flying schools for commercial airline pilots
	80220	Flying training for professional pilots
	80220	Government training centre
	80220	Instruction for chefs, hoteliers and restauranteurs
	80220	Management training establishment
	80220	Military school
	80220	Music teacher (own account)
	80220	Nautical school
	80220	Royal Academy of Dramatic Art
	80220	School of arts and crafts
	80220	School of speech and drama
	80220	Secretarial college
	80220	Seminary
	80429	Technical and vocational adult education (excl. cultural, sports, recreation education and the like)
	80220	Technical and vocational education
	80220	Technical and vocational secondary education
	80220	Technical college
	80220	Tertiary college
	80220	Tourist guide instruction
	63220	Tuition for ships' licences for commercial certificates and permits
	80220	Works school (if separately identifiable)

SIC 2007	SIC 2003	Activity
85410		**Post-secondary non-tertiary education**
	80301	College of nursing
	80301	Higher education (sub degree level)
	80301	Post-secondary non-tertiary vocational education
	80301	School of languages
	80301	Vocational education at post-secondary non-tertial level
85421		**First-degree level higher education**
	80302	College of higher education (degree level)
	80302	Correspondence college specialising in higher education courses (degree level)
	80302	Council for National Academic Awards
	80302	Dental college or school
	80302	First-degree level higher education
	80302	Graduate school for business studies
	80302	Higher education at the first degree level
	80302	Law college
	80302	Medical school
	80302	Military college
	80302	Open University
	80302	Performing arts schools providing tertiary education
	80302	Polytechnics
	80302	Study leading to a one year post graduate certificate of education (PGCE)
	80302	Theological college specialising in higher education course
	80302	Universities' Central Council on Admissions
	80302	University
	80302	University college
	80302	University medical or dental school
85422		**Post-graduate level higher education**
	80303	Higher education at post-graduate level
	80303	Post-graduate college
85510		**Sports and recreation education**
	92629	Bridge instructor
	92629	Card game instruction
	92629	Chess instructor
	92629	Coaches of sport
	92629	Gymnastics instruction
	92629	Instructors of sport
	92629	Martial arts instruction
	92629	Riding school
	92629	Ski instructor (own account)
	92629	Sport and game schools
	92629	Sports and recreation education
	92629	Swimming instruction
	92629	Teachers of sport
	93059	Yoga instruction
85520		**Cultural education**
	80429	Art instruction
	80429	Cultural education
	92341	Dancing academy (ballroom)
	92341	Dancing master
	92341	Dancing school
	92341	Dancing schools and dance instructor activities
	80429	Fine arts schools (except academic)

UK SIC 2007 | UK SIC 2003 Activity | SIC 2007 | SIC 2003 Activity

80429 Performing arts schools (except academic) 80429 Photography schools (except commercial) 80429 Piano teachers and other music instruction

85530 Driving school activities

80410 Driving instruction 80410 Driving school activities
80410 Flying school activities (not type rating)
80410 Flying schools not issuing commercial certificates and permits
80410 Sailing schools not issuing commercial certificates and permits
80410 School of motoring
80410 Ship licence tuition (not commercial certificates) 80410 Shipping schools not issuing commercial certificates and permits

85590 Other education n.e.c.

80429 Academic tutoring
80429 Adult education centre
80429 Adult education residential college 80429 Computer training
80429 Continuation school
80429 Correspondence college (not leading to degree level qualifications)
80429 Council for Accreditation of Correspondence Colleges
80429 Day continuation school
80429 Language instruction and conversational skills instruction
80429 Learning centres offering remedial courses 80429 Lifeguard training
80429 Mentally disabled adult training
80429 National institute for adult continuing education 80429 Other adult and other education n.e.c.
80421 Private training providers
80429 Professional examination review courses 80429 Public speaking training
80429 Religious instruction
80429 Speed reading instruction 80429 Survival training
80429 Teacher n.e.c.
80429 Workers' Educational Association

85600 Educational support activities

74149 Educational consulting
74149 Educational guidance counselling activities 74149 Educational support activities
74149 Educational testing activities
74149 Educational testing evaluation activities
74149 Organisation of student exchange programmes 93059 Scholastic agent
93059 School agent

86101 Hospital activities

85112 Accident and emergency service (private sector) 85111 Accident and emergency service (public sector) 85111 Anaesthetist (public sector)
85112 Asylums (private sector)
85111 Asylums (public sector)
85111 Broadmoor Hospital

85112 Central sterile supply department (private sector)85111 Central sterile supply department (public sector) 85112 Children's hospital (private sector) 85111 Children's hospital (public sector) 85112 Chronic sick hospital (private sector) 85111 Chronic sick hospital (public sector) 85112 Convalescent home (private sector providing medical care) 85111 Convalescent home (public sector providing medical care) 85112 Dental hospital (private sector)85111 Dental hospital (public sector) 85112 Ear, nose and throat hospital (private sector) 85111 Ear, nose and throat hospital (public sector) 85111 Ear, nose and throat specialist (public sector)85112 Eye hospital (private sector) 85111 Eye hospital (public sector) 85111 Eye specialist (public sector) 85111 General hospital (public sector) 85111 General hospital psychiatric unit (public sector)85111 General medical consultant (public sector) 85112 General medicine consultant (private sector) 85111 Genito-urinary specialist (public sector) 85112 Geriatric hospital (private sector)85111 Geriatric hospital (public sector) 85111 Geriatrician (public sector) 85111 Gynaecologist (public sector) 85111 Haematologist (public sector) 85112 Hospice (private sector) 85111 Hospice (public sector) 85112 Hospital activities (private sector)85111 Hospital activities (public sector) 85111 Infectious disease hospital (public sector) 85111 Infectious disease specialist (public sector)85112 Infirmary (private sector) 85111 Infirmary (public sector) 85111 Isolation hospital (public sector)85111 Leprosaria (public sector) 85112 Maternity hospital (private sector)85111 Maternity hospital (public sector)85111 Medical consultant (public sector) 85111 Mental disability hospital (public sector)85111 Mental health specialist (public sector) 85112 Mental hospital (private sector) 85111 Mental hospital (public sector)85111 Military base hospitals 85111 Military hospital (public sector) 85111 Morbid anatomy specialist (public sector)85112 Nuffield Hospital Trust 85112 Ophthalmic hospital (private sector) 85111 Ophthalmic hospital (public sector) 85112 Orthopaedic hospital (private sector) 85111 Orthopaedic hospital (public sector) 85112 Pre-convalescent hospital (private sector)85111 Pre-convalescent hospital (public sector) 85111 Preventoria providing hospital type care (public sector) 85111 Prison hospitals 85112 Private hospital

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UK SIC 2007	UK SIC 2003	Activity
	85112	Psychiatric unit (private sector)
	85111	Radiologist (public sector)
	85111	Radiotherapist (public sector)
	85111	Rampton Hospital
	85112	Rehabilitation hospital (private sector)
	85111	Rehabilitation hospital (public sector)
	85112	Sanatoria providing hospital type care (private sector)
	85111	Sanatoria providing hospital type care (public sector)
	85111	Smallpox hospital (public sector)
	85111	Social medicine specialist (public sector)
	85112	Special hospital (private sector)
	85111	Special hospital (public sector)
	85111	Surgeon (public sector)
	85111	Tuberculosis hospital (public sector)
	85111	Urologist (public sector)
86102		**Medical nursing home activities**
	85113	Nursing home with medical care (under the direct supervision of medical doctors)
86210		**General medical practice activities**
	85120	District community physician
	85120	Doctor (unspecified)
	85120	Doctors receptionist
	85120	Family doctor service
	85120	General medical consultant (private practice)
	85120	General medical practitioner
	85120	Medical group practice
	85120	School medical officer
	85120	Surgery (doctor's)
86220		**Specialist medical practice activities**
	85120	Ear, nose and throat specialist (private practice)
	85120	Eye specialist (private practice)
	85120	Family planning centre providing medical treatment without accommodation
	85120	Genito-urinary specialist (private practice)
	85120	Gynaecologist (private practice)
	85120	Homeopath (registered medical practitioner)
	85120	Infectious disease specialist (private practice)
	85120	Mental health specialist (private practice)
	85120	Morbid anatomy specialist (private practice)
	85120	Osteopath (registered medical practitioner)
	85120	Physiologist
	85120	Private consultants clinics
	85120	Psychiatrist (private practice)
	85120	Radiotherapy treatment centre
	85120	Social medicine specialist (private practice)
	85120	Specialist (not employed full time by a hospital)
	85120	Specialist medical consultant (private practice)
	85120	Specialist medical consultation and treatment
	85120	Specialist physician and surgeon (private practice)
	85120	Surgeon (private practice)
	85120	Urologist (private practice)
86230		**Dental practice activities**
	85130	Community dental service clinics
	85130	Dental activities in operating rooms
	85130	Dental clinic
	85130	Dental clinic (health service)
	85130	Dental practice activities
	85130	Dental receptionist
	85130	Dental surgeon (not employed full time by a hospital)
	85130	Dentist
	85130	Endodontic dentistry
	85130	Oral pathology
	85130	Orthodontic activities
	85130	Paediatric dentistry
86900		**Other human health activities**
	85140	Ambulance service
	85140	Artificial kidney unit
	85140	Artificial limb and appliance centre
	85140	Blood banks
	85140	Blood transfusion service
	85140	Chiropodist (NHS)
	85140	Chiropodist (private)
	85140	Chiropractor clinic (own account)
	85140	Clinic (health service)
	85140	Collection of female human urine for hormone extraction
	85140	Community health service
	85140	Community medical service clinics
	85140	Community psychiatric nurse (NHS)
	85140	Dental hygienist
	85140	Dental therapist
	85140	Disablement services centres
	85140	District nurse
	85140	Family Planning Association clinics (not providing medical treatment)
	85140	Foot clinic (NHS)
	85140	Foot clinic (private)
	85140	Health centre
	85140	Health visitor
	85140	Home nurse (NHS)
	85140	Homeopath (not registered medical practitioner)
	85140	Limb fitting centre
	85140	Mass radiography service
	85140	Maternity and child welfare services
	85140	Maternity clinic
	85140	Medical laboratories
	85140	Midwife (NHS)
	85140	Midwife (private)
	85140	Neuropath
	85140	Nurse (private)
	85140	Nursing co-operative
	85140	Occupational therapist (private)
	85140	Ophthalmic clinic
	85140	Osteopath (not registered medical practitioner)
	85140	Para-medical practitioner activities
	85140	Pathological laboratory
	85140	Physiotherapist (private)
	85140	Physiotherapy clinic
	85140	Psychiatric clinic
	85140	Psychiatric day hospital
	85140	Psychologist
	85140	Public health laboratory

UK SIC 2007	UK SIC 2003	Activity
	85140	Radiographer (private)
	85140	School dental nurse
	85140	School health service
	85140	School medical clinic
	85140	Scottish Ambulance Service
	85140	Speech therapist (NHS)
	85140	Speech therapist (own account)
	85140	Sperm banks
	85140	St Andrew's ambulance brigade
	85140	St John's ambulance brigade
	85140	Transplant organ banks
87100		**Residential nursing care activities**
	85140	Convalescent homes
	85140	Homes for the elderly with nursing care
	85140	Nursing care facilities
	85140	Nursing homes
	85140	Residential nursing care facilities
	85113	Residential nursing care facilities (not directly supervised by medical doctors)
	85140	Rest homes with nursing care
87200		**Residential care activities for learning disabilities, mental health and substance abuse**
	85140	Residential care (paramedical) in group homes for the emotionally disturbed (charitable)
	85140	Residential care (paramedical) in mental health halfway houses
	85140	Residential care (paramedical) in mental disability facilities
	85140	Residential care (paramedical) in psychiatric convalescent homes
	85311	Residential care (social) in group homes for the emotionally disturbed (charitable)
	85312	Residential care (social) in group homes for the emotionally disturbed (non charitable)
	85311	Residential care (social) in mental health halfway houses (charitable)
	85312	Residential care (social) in mental health halfway houses (non-charitable)
	85311	Residential care (social) in mental disability facilities (charitable)
	85312	Residential care (social) in mental disability facilities (non-charitable)
	85311	Residential care (social) in psychiatric convalescent homes (charitable)
	85312	Residential care (social) in psychiatric convalescent homes (non-charitable)
	85140	Residential care activities (paramedical) for mental health
	85140	Residential care activities (paramedical) for mental
	85140	Residential care activities (paramedical) for substance abuse
	85311	Residential care activities (social) for learning difficulties (charitable)
	85312	Residential care activities (social) for learning difficulties (non-charitable)
	85311	Residential care activities (social) for mental health (charitable)
	85312	Residential care activities (social) for mental health (non-charitable)
	85311	Residential care activities (social) for substance abuse (charitable)

SIC 2007	SIC 2003	Activity
	85312	Residential care activities (social) for substance abuse (non-charitable)
	85311	Residential care home for the mentally disabled (charitable)
	85312	Residential care home for the mentally disabled (non-charitable)
	85311	Residential care home for the mentally ill (charitable)
	85312	Residential care home for the mentally ill (non-charitable)
	85112	Residential care in alcoholism or drug addiction treatment facilities (private sector)
	85111	Residential care in alcoholism or drug addiction treatment facilities (public sector)
	85112	Residential care in rehabilitation centres (private sector)
	85111	Residential care in rehabilitation health centres (public sector)
87300		**Residential care activities for the elderly and disabled**
	85311	Assisted-living facilities for the elderly or disabled (charitable)
	85312	Assisted-living facilities for the elderly or disabled (non-charitable)
	85311	Continuing care retirement communities (charitable)
	85312	Continuing care retirement communities (non-charitable)
	85311	Home for the blind (charitable)
	85312	Home for the blind (non-charitable)
	85311	Home for the disabled (charitable)
	85312	Home for the disabled (non-charitable)
	85311	Home for the elderly (charitable)
	85312	Home for the elderly (non-charitable)
	85311	Homes for the elderly with minimal nursing care (charitable)
	85312	Homes for the elderly with minimal nursing care (non-charitable)
	85312	Local authority homes for the disabled and the elderly
	85311	Old people's sheltered housing (charitable)
	85312	Old people's sheltered housing (non-charitable)
	85312	Old persons' home (local authority)
	85311	Old persons' warden assisted dwellings (charitable)
	85312	Old persons' warden assisted dwellings (non-charitable)
	85140	Provision of residential care and treatment for the elderly and disabled by paramedical staff
	85311	Residential care activities for the elderly and disabled (charitable)
	85312	Residential care activities for the elderly and disabled (non-charitable)
	85311	Residential care home for epileptics (charitable)
	85312	Residential care home for epileptics (non-charitable)
	85311	Residential care home for disabled children (charitable)
	85312	Residential care home for disabled children (non-charitable)
	85311	Rest homes without nursing care (charitable)
	85312	Rest homes without nursing care (non-charitable)
87900		**Other residential care activities**
	85311	Children's boarding homes and hostels (charitable)
	85312	Children's boarding homes and hostels (non-charitable)

UK SIC 2007	UK SIC 2003	Activity
	85311	Children's home (charitable)
	85312	Children's home (non-charitable)
	85311	Community homes for children (charitable)
	85312	Community homes for children (non-charitable)
	85311	Convalescent home without medical care (charitable)
	85312	Convalescent homes without medical care (non-charitable)
	85311	Discharged prisoners' hostel (charitable)
	85312	Discharged prisoners' hostel (non-charitable)
	85311	Halfway group homes for persons with social or personal problems (charitable)
	85312	Halfway group homes for persons with social or personal problems (non-charitable)
	85311	Halfway homes for delinquents and offenders (charitable)
	85312	Halfway homes for delinquents and offenders (non-charitable)
	85311	Hostel for the homeless (charitable)
	85312	Hostel for the homeless (non-charitable)
	85311	Juvenile correction homes (charitable)
	85312	Juvenile correction homes (non-charitable)
	85312	Local authority community homes (children)
	85312	Local authority lodging houses
	85312	Lodging house (local authority)
	85311	Orphanages (charitable)
	85312	Orphanages (non-charitable)
	85311	Residential nurseries (charitable)
	85312	Residential nurseries (non-charitable)
	85311	Salvation army shelter (charitable)
	85311	Shelter (the charity)
	85311	Social work activities with accommodation (charitable)
	85312	Social work activities with accommodation (non-charitable)
	85311	Temporary accommodation for the homeless (charitable)
	85312	Temporary accommodation for the homeless (non-charitable)
	85311	Temporary homeless shelters (charitable)
	85312	Temporary homeless shelters (non-charitable)
88100		**Social work activities without accommodation for the elderly and disabled**
	85321	Day centres for the elderly, the physically or the mentally ill (charitable)
	85322	Day centres for the elderly, the physically or the mentally ill (non-charitable)
	85321	Home help service (charitable)
	85322	Home help service (non-charitable)
	85322	Local authority home help service
	85322	Occupation and training centre for the mentally disordered (non-charitable)
	85321	Occupation and training centres for the mentally disordered (charitable)
	85321	Old age and sick visiting (charitable)
	85322	Old age and sick visiting (non-charitable)
	85321	Vocational rehabilitation (charitable)
	85322	Vocational rehabilitation (non-charitable)
88910		**Child day-care activities**
	85321	Child day-care activities (charitable)
	85322	Child day-care activities (non-charitable)
	85321	Crèche (charitable)
	85322	Crèche (non-charitable)
	85321	Day care for disabled children (charitable)
	85322	Day care for disabled children (non-charitable)
	85321	Day nursery (charitable)
	85322	Day nursery (non-charitable)
	85321	Playgroup (charitable)
	85322	Playgroup (non-charitable)
88990		**Other social work activities without accommodation n.e.c.**
	85321	Adoption activities (charitable)
	85322	Adoption activities (non-charitable)
	85321	Benevolent society (charitable services)
	85321	Charity administration
	85321	Child guidance centre (charitable)
	85322	Child guidance centre (non-charitable)
	85321	Citizens Advice Bureau
	85321	Community and neighbourhood activities (charitable)
	[illegible]	[illegible] (non-charitable)
	85321	Credit and debt counselling services (charitable)
	85322	Credit and debt counselling services (non-charitable)
	85321	Disaster relief organisations (charitable)
	85322	Disaster relief organisations (non-charitable)
	85321	Employment rehabilitation centre (charitable)
	85322	Employment rehabilitation centre (non-charitable)
	85321	Family Planning Associations (not clinics)
	85321	Family Welfare Association
	85321	Jewish board of family and children's services
	85322	Local authority citizen's advice bureau
	85322	Local authority probation service
	85322	Local authority social services department
	85321	Marriage and family guidance (charitable)
	85322	Marriage and family guidance (non-charitable)
	85321	National society for the prevention of cruelty to children
	85321	Oxfam (not shops)
	85322	Police court mission
	85322	Probation and after care service
	85321	Red Cross Society
	75210	Refugee and hunger relief programmes abroad
	85321	Refugee camp (charitable)
	85322	Refugee camp (non-charitable)
	85321	Refugee services (charitable)
	85322	Refugee services (non-charitable)
	85321	Royal Masonic Benevolent Institute
	85322	Social Services Department
	85321	Social welfare society (charitable)
	85321	Social work activities for immigrants (charitable)
	85322	Social work activities for immigrants (non-charitable)
	85321	Social work activities without accommodation (charitable)
	85322	Social work activities without accommodation (non-charitable)
	85321	Social worker (charitable)
	85322	Social worker (non-charitable)
	85321	Temperance association
	85321	Welfare and guidance activities for children and adolescents (charitable)

UK SIC 2007	UK SIC 2003	Activity
	85322	Welfare and guidance activities for children and adolescents (non-charitable)
	85321	Welfare service (charitable)
	85322	Welfare service (non-charitable)
	85321	Women's Royal Voluntary Service
90010		**Performing arts**
	92311	Actors
	92349	Aerobatic display
	92349	Animal training for circuses, etc.
	92311	Ballet company
	92311	Band (musical)
	92349	Circus
	92311	Concerts production
	92311	Conjuror
	92311	Dance band
	92311	Dance productions
	92311	Impresario
	92319	Lecturers
	92311	Musicians
	92311	Opera production
	92311	Orchestras
	92311	Organist (own account)
	92311	Pop group
	92319	Public speaker
	92311	Repertory company
	92311	Revue company
	92311	Singer (own account)
	92319	Speakers (after dinner etc.)
	92311	Stage productions
	92311	Street musician or singer
	92311	Theatrical presentations (live production)
	92311	Theatrical touring company
	92349	Travelling show
	92311	Variety artiste (own account)
	92311	Ventriloquist
90020		**Support activities to performing arts**
	92349	Direction, production and support activities to circus performances
	92311	Directors (theatre)
	92311	Performing arts support activities
	92311	Scene shifters and lighting engineers
	92311	Stage set designers and builders
	92320	Support activities to performing arts e.g. stage set-up, costume and lighting design etc.
90030		**Artistic creation**
	92319	Art expert
	92319	Artist
	92319	Author
	92319	Cartoonists
	92319	Copper plate engraver (artistic)
	92319	Designing (artistic)
	92319	Engravers
	92319	Etchers
	92319	Fine art expert
	92400	Freelance journalist
	92319	Heraldic painting
	92319	Illuminating (illustrating)

SIC 2007	SIC 2003	Activity
	92400	Journalists
	92319	Librettist
	92319	Lithographic artist (own account)
	92319	Lyric author
	92319	Music composer
	92319	Music copyist and transcriber (own account)
	92319	Painters (artistic)
	92319	Picture restoring
	92319	Playwright
	92319	Poet
	92319	Repair and restoration of works of art
	92319	Scenario writer
	92319	Scenic artist
	92319	Sculptors
	92319	Song writer
	92319	Technical and training manual authors
	92319	Wood engraver (artistic)
90040		**Operation of arts facilities**
	92320	Arts facilities operation
	92320	Concert halls operation
	92320	Local authority concert halls and theatres
	92320	Music hall
	92320	Opera house
	92320	Theatre halls operation
91011		**Library activities**
	92510	Art work lending and storage
	92510	Book lending and storage
	92510	British Library
	92510	Cataloguing and preservation of collections
	92510	Film lending and storage
	92510	Lending and storage of books, periodicals
	92510	Lending and storage of CDs, DVDs
	92510	Lending and storage of maps music
	92510	Libraries
	92510	Library access to IT facilities including internet
	92510	Library training courses (IT, information literacy, basic skills)
	92510	Map lending and storage
	92510	National library for the blind
	92510	National library of Scotland
	92510	National library of Wales
	92510	Periodicals lending and storage
	92510	Reading room (library)
	92510	Record lending and storage
	92510	Tapes (music and video) lending and storage
91012		**Archive activities**
	92510	Archive activities
	75140	Government records and archives maintenance and storage (public sector)
91020		**Museum activities**
	92521	Art gallery (not dealer)
	92521	Art museums
	92521	Bethnal Green Museum
	92521	British Museum
	92521	Historical museums
	92521	Imperial War Museum

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UK SIC 2007	UK SIC 2003	Activity
	92521	Local authority art galleries and museums
	92521	London Museum
	92521	Military museums
	92521	Museums of all kinds
	92521	Museums of furniture, costumes, ceramics, silverware
	92521	Museums of jewellery
	92521	National galleries (Scotland)
	92521	National gallery
	92521	National maritime museum
	92521	National portrait gallery
	92521	National trust garden (property)
	92521	Natural history museum
	92521	Open air museums
	92521	Royal Scottish Museum (Edinburgh)
	92521	Science museums
	92521	Tate Gallery
	92521	Technological museums
	92521	Victoria and Albert Museum
	92521	Wallace collection
91030		**Operation of historical sites and buildings and similar visitor attractions**
	92522	Historical sites and buildings preservation
	92522	Preservation society for historic houses
91040		**Botanical and zoological gardens and nature reserve activities**
	92530	Botanical gardens
	92530	Children's zoos
	92530	Kew gardens
	92530	Menagerie
	92530	Nature reserves including wildlife preservation
	92530	Royal Botanical Gardens
	92530	Wildlife preservation services
	92530	Zoological gardens
92000		**Gambling and betting activities**
	92710	Amusement arcade
	92710	Betting activities
	92710	Betting shop
	92710	Bingo hall
	92710	Bookmaker
	92710	Casino
	92710	Coin-operated gambling machine establishments
	92710	Floating casinos
	92710	Football pools
	92710	Gambling activities
	92710	Gaming board for Great Britain
	92710	Gaming club
	92710	Horse race betting levy board
	92710	Horserace totalisator board
	92710	Lottery ticket sales
	92710	Off-track betting
	92710	Racing pool
	92710	Racing tipster
	92710	Tic tac person
	92710	Totalisator
	92710	Turf accountant
	92710	Turf commission agency
	92710	Virtual gambling web site operation
93110		**Operation of sports facilities**
	92619	Activity centre (sports)
	92619	Bathing pool proprietor
	92629	Billiard room or saloon
	92629	Bowling alley
	92619	Bowling lanes operation
	92619	Boxing arena
	92619	Car, dog and horse racetrack operation
	92619	Field and track stadium
	92619	Football ground
	92619	Football stadium
	92619	Golf courses
	92619	Golf links
	92619	Greyhound racing stadium
	92619	Greyhound track
	92619	Groundsman
	92629	Gymnasium
	92619	Hockey, cricket, rugby stadiums operation
	92611	Ice skating rink
	92619	Ice-hockey arenas operation
	92619	Leisure centres
	92619	Local authority football and other sports grounds
	92619	Local authority leisure centres
	92619	Local authority recreational facilities
	92619	Local authority sports facilities (incl. Football and other sports grounds, swimming baths, etc.)
	92619	Local authority swimming pool
	92619	Managing and providing the staff for sports facilities
	92619	Newmarket Heath
	92619	Racecourse operation
	92629	Rifle butts
	92611	Roller skating rink
	92629	Skittle alley
	92629	Sports arenas
	92619	Sports facilities operation
	92629	Stadium operation
	92629	Staging of sports events by organizations with their own facilities
	92619	Swimming baths
	92619	Swimming pools
	92619	Tennis court
	92619	Winter sport arenas and stadiums
93120		**Activities of sport clubs**
	92629	Athletic club
	92629	Badminton club
	92629	Billiards and snooker club
	92629	Bowling clubs
	92629	Bowls club
	92629	Boxing clubs
	92629	Card clubs
	92629	Chess clubs
	92629	Cricket club
	92629	Croquet club
	92629	Cycle club
	92629	Domino clubs
	92629	Draughts clubs

UK SIC 2007	UK SIC 2003	Activity
	92629	Field and track clubs
	92629	Flying club
	92629	Football clubs
	92629	Glider club
	92629	Golf club
	92629	Hockey club
	92629	Ice hockey club
	92629	Jockey club
	92629	MCC
	92629	National greyhound racing club
	92629	Pony Club
	92629	Racquet club
	92629	Rowing club
	92629	Shooting clubs
	92629	Snooker club
	92629	Sports club
	92629	Squash club
	92629	Swimming clubs
	92629	Tennis club
	92629	Trotting Club
	92629	Winter sport clubs
	92629	Wrestling clubs
	92629	Yacht club
93130		**Fitness facilities**
	92629	Body-building clubs and facilities
	92629	Fitness centre operation
	93040	Health clubs
93191		**Activities of racehorse owners**
	92621	Racehorse owner
	92621	The seeking of sponsorship, appearance money and prize money for horse racing
93199		**Other sports activities (not including activities of racehorse owners) n.e.c.**
	92629	Athletes
	92629	Boxing
	92629	Boxing promoter
	92629	Coursing
	92629	Dirt track racing
	92629	Dog breeding (for greyhound racing)
	92629	Dog racing
	92629	Drag hounds
	92629	Fishing (recreational)
	92629	Football Association
	92629	Greyhound training
	92629	Horse training (racehorse)
	92629	Hunt kennels
	92629	Hunt stables
	92629	Hunting for sport or recreation
	92629	Jockey
	92629	Judges of sport
	92629	Kennel master
	92629	Kennels and garages (racing)
	92629	Mountain guides
	92629	Physical culture expert
	92629	Promotion of sporting events
	92629	Racehorse trainer
	92629	Racing stables
	92629	Riding stables
	92629	Rugby League
	92629	Rugby Union
	92629	Speedway racing
	92629	Sports leagues and regulating bodies
	92629	Sports referees
	92629	Sportsmen and sportswomen
	92629	Timekeepers of sport
	92629	Trainer (racehorse or greyhound)
	92629	Training stables
93210		**Activities of amusement parks and theme parks**
	92330	Amusement park activities
	92330	Amusement park mechanical rides, water rides, games
	92330	Amusement park shows, theme exhibits and picnic grounds
	92330	Coconut shy
	92330	Fairground activities
	92330	Fortune telling (fairground)
	92330	Fun fair
	92330	Preserved railway operation
	92330	Switchback (fairground)
	92330	Theme park operation
93290		**Other amusement and recreation activities**
	92729	Adventure playground
	92729	Beach facilities rental (bathhouses, lockers, chairs, etc.)
	92729	Beach hut proprietor
	92729	Coin-operated games arcade (other than gaming machines)
	92729	Common (local authority or municipally owned)
	92341	Dance hall
	92349	Entertainment activities n.e.c.
	92330	Fairs and shows of a recreational nature
	92349	Firework displays
	92729	Hampton Court Gardens and Park
	92729	Hobby instructor (own account)
	92729	Hyde Park
	92729	Kensington Gardens
	92729	Local authority parks and gardens
	92629	Marinas
	92349	Marionette show
	92349	Model railway installations
	92729	Narrow gauge railway (recreational)
	92341	Operation of dance floors
	92629	Operation of recreational transport facilities e.g. marinas
	92729	Operation of ski hills
	92729	Park (local authority or municipally owned)
	92629	Pleasure boat hiring as an integral part of recreational facilities
	92729	Pleasure ground
	92729	Pleasure pier
	92729	Psychometry
	92729	Public park
	92349	Punch and Judy show
	92349	Puppet shows

UK SIC 2007	UK SIC 2003	Activity
	92729	Recreational activities n.e.c.
	92729	Regent's Park and Primrose Hill
	92729	Renting of leisure and pleasure equipment as an integral part of recreational facilities
	92729	Richmond Park
	92349	Rodeos
	92729	Royal Park
	92349	Shooting galleries
	92729	St James's park
	92349	Waxworks
	92729	Windsor Great Park
94110		**Activities of business and employers membership organisations**
	91110	Business and employers membership organisations
	91110	Business organisations
	91110	Chamber of agriculture
	91110	Chambers of commerce organisations
	91110	City guild (goldsmiths' company, stationers' company, etc.)
	91110	Confederation of British industry
	91110	Employers organisations
	91110	Federations of business and employers' membership organisations
	91110	Guilds and similar organisations
	91110	Joint organisation of employers and trade unions
	91110	Negotiations of business and employer organisations
	91110	Property owners' association
	91110	Trade association
94120		**Activities of professional membership organisations**
	91120	Academic organisations
	91120	Accounting associations
	91120	Architects associations
	91120	Association of corporate and certified accountants
	91120	British Association for the Advancement of Science
	91120	British Computer Society
	91120	British Dental Association
	91120	British Medical Association
	91120	Central midwives board
	91120	Chartered institute of secretaries
	91120	Copyright protection society
	91120	Cultural associations
	91120	Cultural organisation (professional)
	91120	Educational association
	91120	Engineering associations
	91120	Faculty of actuaries
	91120	General Council of the Bar
	91120	General Medical Council
	91120	General Nursing Council
	91120	Inns of Court
	91120	Institute of Actuaries
	91120	Institute of British Water Colour Painters
	91120	Institute of Chartered Accountants in England and Wales
	91120	Institute of Chartered Accountants of Scotland
	91120	Institute of Civil Engineers
	91120	Institute of Cost and Management Accountants

SIC 2007	SIC 2003	Activity
	91120	Institute of Hygiene
	91120	Institute of Incorporated Photographers
	91120	Institute of Mechanical Engineers
	91120	Journalists associations
	91120	Law Society
	91120	Learned societies
	91120	Legal associations
	91120	Medical associations
	91120	National maritime board
	91120	Nursing society
	91120	Painters and other artists associations
	91120	Performers associations
	91120	Performing Rights Society
	91120	Pharmaceutical society
	91120	Professional organisations
	91120	Royal Academy of Arts
	91120	Royal Aeronautical Society
	91120	Royal Agricultural Society of England
	91120	Royal College of Midwives
	91120	Royal College of Nursing
	91120	Royal College of Physicians
	91120	Royal College of Surgeons
	91120	Royal Geographical Society
	91120	Royal Institute of Chartered Surveyors
	91120	Royal Institute of Public Health
	91120	Royal Society
	91120	Royal Society for Health
	91120	Royal Society of Medicine
	91120	Royal Statistical Society
	91120	Royal United Services Institution
	91120	Scientific organisation
	91120	Society of Apothecaries
	91120	Society of Arts
	91120	Teachers' Registration Council
	91120	Technical organisations
	91120	Writers associations
94200		**Activities of trade unions**
	91200	Labour organisations
	91200	Trade unions
	91200	Trades union congress
94910		**Activities of religious organisations**
	91310	Army scripture readers association
	91310	Baptist church
	91310	Bible society
	91310	British Humanist Association
	91310	British Jews Society
	91310	Calvinistic Methodist Church
	91310	Catholic Apostolic Church
	91310	Church Army
	91310	Church Commission
	91310	Church in Wales
	91310	Church Missionary Society
	91310	Church of Christ Scientist
	91310	Church of England
	91310	Church of Ireland
	91310	Church of Scotland
	91310	City mission

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

91310 Convent (not school or orphanage)91310 Crusaders' union
91310 Episcopal Church in Scotland91310 Evangelists Society
91310 Inter Varsity Fellowship of Evangelical Unions91310 Jewish synagogue
91310 Lord's Day Observance Society91310 Methodist Church
91310 Missionary Society
91310 Monastery
91310 Mosque
91310 Presbyterian Church
91310 Presbyterian Church of Wales 91310 Religious funeral service activities91310 Religious organisations
91310 Religious retreat activities91310 Roman Catholic Church 91310 Salvation army
91310 Society of Friends91310 Spiritualist church
91310 Student Christian Movement91310 Synagogue
91310 Temple (for worship) 91310 Theosophical Society
91310 Unitarian Church
91310 United Reform Church
91310 United Society for Christian Literature91310 Wesleyan reform union

94920 Activities of political organisations

91320 Conservative and Unionist Party
91320 Conservative Association
91320 Fabian Society
91320 Labour party
91320 Liberal democrat party
91320 Plaid Cymru
91320 Political organisations
91320 Scottish Nationalist Party
91320 Social Democratic and Labour Party91320 Unionist parties
91320 Young people's auxiliaries associated with a political party

94990 Activities of other membership organisations n.e.c.

91330 Animal protection organisations
91330 Art clubs
91330 Associations for the pursuit of a cultural or recreational activity or hobby
91330 Automobile association
91330 Bishopsgate Institute
91330 Boy scouts
91330 Boys brigade
91330 Breed society
91330 British Board of Film Classifications
91330 British Legion (other than social clubs)91330 British Safety Council
91330 Carnival clubs
91330 Church Lads' Brigade
91330 Citizens initiative or protest movements

91330 Civic trust
91330 Community centre
91330 Community organisations
91330 Conservation and Preservation Society91330 Consumer associations
91330 Consumers' association 91330 Craft and collectors' clubs 91330 Cultural organisations (hobby)91330 Ecological movements
91330 Environmental movements
91330 Ethnic and minority group organisations91330 Film and photo clubs
91330 Fraternities
91330 Freemasons
91330 Gardening clubs
91330 Girl Guides Association91330 Girls' Brigade
91330 Girls' Friendly Society
91330 Grant giving activities by membership organisations or others
91330 Grant making foundations91330 Historical club
91330 Horse breeding society
01500 Hunting and trapping (commercial) promotionactivities
91330 Legal Aid Society
91330 Literature and book club91330 Lodge activities
91330 Membership organisations n.e.c.
91330 Motorists' organisation (not road patrol or touringservice)
91330 Music club
91330 National council for civil liberties91330 National trust (the)
91330 National union of students (not trading activities)91330 Poetry club
91330 Protest movement activities91330 Recreational organisations
91330 Rotary clubs
91330 Round Table
91330 Royal Automobile Club headquarters91330 Royal Horticultural Society
91330 Royal Scottish Automobile Club
91330 Royal Society for the Prevention of Accidents 91330 Royal Society for the Prevention of Cruelty to Animals (not animal hospitals or homes)91330 Scout Association
91330 Sea scout association
91330 Shire Horse Association
91330 Social club (not licensed to sell alcohol)91330 Student associations
91330 Student Union
91330 Touring clubs
91330 United Nations associations91330 War veterans' associations
91330 Working men's club (not licensed to sell alcohol)91330 YMCA (not hostel)
91330 Young persons associations91330 Youth centre

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UK SIC 2007	UK SIC 2003	Activity
	91330	Youth club
	91330	Zionist organisation
95110		**Repair of computers and peripheral equipment**
	30020	Repair and maintenance of automatic teller machines (ATMs)
	30020	Repair and maintenance of bar code scanners
	30020	Repair and maintenance of computer monitors
	30020	Repair and maintenance of computer projectors
	30020	Repair and maintenance of computer servers
	72500	Repair and maintenance of computing machinery
	30020	Repair and maintenance of dedicated computer terminals
	30020	Repair and maintenance of desktop computers
	30020	Repair and maintenance of hand-held computers (PDA's)
	30020	Repair and maintenance of internal and external computer modems
	30020	Repair and maintenance of keyboards
	30020	Repair and maintenance of laptop computers
	30020	Repair and maintenance of magnetic disk drives
	30020	Repair and maintenance of magnetic flash drives and other storage devices
	30020	Repair and maintenance of mice, joysticks, and trackball accessories
	30020	Repair and maintenance of optical disk drives (CD-RW, CD-ROM, DVD-ROM, DVD-RW)
	30020	Repair and maintenance of point-of-sale (pos) terminals
	30020	Repair and maintenance of printers
	30020	Repair and maintenance of scanners
	30020	Repair and maintenance of smart card readers
	30020	Repair and maintenance of virtual reality helmets
	30020	Repair of computers and peripheral equipment
95120		**Repair of communication equipment**
	32201	Repair and maintenance of carrier equipment modems
	52740	Repair and maintenance of cellular telephones
	32202	Repair and maintenance of commercial TV cameras
	32202	Repair and maintenance of commercial video cameras
	32201	Repair and maintenance of communications transmission bridges
	32201	Repair and maintenance of communications transmission modems
	32201	Repair and maintenance of communications transmission routers
	32201	Repair and maintenance of fax machines
	32300	Repair and maintenance of professional radio, television, sound and video equipment
	32202	Repair and maintenance of radio and television transmitters
	32201	Repair and maintenance of radio telephony apparatus
	32300	Repair and maintenance of telephone answering machines
	32201	Repair and maintenance of telephone sets
	32201	Repair and maintenance of telex machines and other line telephony or telegraphy equipment
	32202	Repair and maintenance of two-way radios
	32201	Repair of cordless telephones
	52740	Repair of mobile telephones

SIC 2007	SIC 2003	Activity
95210		**Repair of consumer electronics**
	52720	Repair of CD players
	52720	Repair of consumer electronics:
	52720	Repair of domestic audio and video equipment
	52720	Repair of dvd players
	52720	Repair of household-type video cameras
	52720	Repair of radios
	52720	Repair of televisions
	52720	Repair of video cassette recorders (VCR)
95220		**Repair of household appliances and home and garden equipment**
	52740	Repair and maintenance of domestic cookers
	52740	Repair and maintenance of domestic ovens
	52740	Repair and maintenance of domestic ranges
	52720	Repair of clothes dryers
	52720	Repair of domestic electrical appliances
	52720	Repair of garden edger
	52720	Repair of garden trimmers
	29320	Repair of lawnmowers
	52720	Repair of refrigerators
	52720	Repair of room air conditioners
	52720	Repair of snow and leaf blowers
	52720	Repair of stoves
	52720	Repair of washing machines
	52720	Servicing of clothes dryers
	52720	Servicing of domestic electrical appliances
	52720	Servicing of garden edger
	52720	Servicing of garden trimmers
	29320	Servicing of lawnmowers
	52720	Servicing of refrigerators
	52720	Servicing of room air conditioners
	52720	Servicing of snow and leaf blowers
	52720	Servicing of stoves
	52720	Servicing of washing machines
95230		**Repair of footwear and leather goods**
	52740	Heel replacement services (while you wait)
	52710	Repair of boots
	52710	Repair of footwear and leather goods
	52710	Repair of handbags
	52710	Repair of luggage
	52710	Repair of shoes
95240		**Repair of furniture and home furnishings**
	36110	Repair and restoration of chairs and seats
	36140	Repair and restoration of furniture n.e.c.
	36150	Repair and restoration of mattresses
	36130	Repair and restoration of other kitchen furniture
	36120	Repair and restoration of other office and shop furniture
	36110	Upholsterer (repair and restoration)
95250		**Repair of watches, clocks and jewellery**
	52730	Repair of clock cases and housings of all materials
	52730	Repair of clock movements and chronometers
	52730	Repair of clocks
	52730	Repair of jewellery
	52730	Repair of watch cases and housings of all materials
	52730	Repair of watches and clocks

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

95290 Repair of other personal and household goods

52740 Invisible mending
52740 Piano tuning
52740 Renovating of hats
52740 Repair and alteration of clothing
36300 Repair and reconditioning of musical instruments(except organs and historical musical instruments)
52740 Repair of bicycles52740 Repair of books 52740 Repair of cycles
52740 Repair of domestic lighting articles52740 Repair of household textile articles
52740 Repair of non-professional photographic equipment
52740 Repair of sporting and camping equipment (excepttents)
17402 Repair of tents
52740 Repair of toys
52740 Repair of umbrellas
52740 Tuning of musical instruments

96010 Washing and (dry-)cleaning of textile and furproducts

93010 Carpet cleaning
93010 Clean towel company93010 Curtain cleaning
93010 Curtain cleaning (not lace dressing)93010 Diaper supply services
93010 Drapery cleaning
93010 Dry cleaner
93010 Dyer and cleaner93010 Glove cleaning
93010 Hospital laundry
93010 Industrial clothing hire from laundries93010 Job dyeing
93010 Lace cleaning and mending (not net mending)93010 Launderette
93010 Laundry
93010 Laundry receiving office
93010 Linen hire (associated with laundry service)
93010 Pressing and valeting
93010 Pressing of wearing apparel on a fee or contractbasis
93010 Rug shampooing
93010 Shirt and collar pressing
93010 Towel hire
93010 Towel supply company
93010 Valet service
93010 Washing and cleaning of fur products93010 Washing and dry cleaning of clothing
93010 Washing and dry cleaning of textile products
93010 Work uniforms rental from laundries

96020 Hairdressing and other beauty treatment

93020 Barber
93020 Beard trimming
93020 Beauty parlour
93020 Beauty specialist
93020 Beauty treatment activities
93020 Coiffeur
93020 Electrolysis specialist

93020 Facial massage
93020 Hairdressing activities
93020 Make-up and beauty treatment93020 Manicurist
93020 Pedicure
93020 Trichologist

96030 Funeral and related activities

93030 Burial services
93030 Cemetery
93030 Cremation board
93030 Cremation services
93030 Crematorium
93030 Funeral and related activities93030 Funeral direction
93030 Funeral furnishing
93030 Human or animal corpse burial or incineration93030 Laying out the dead
93030 Local authority cemeteries 93030 Local authority crematoriums
93030 Local authority funeral services93030 Maintenance of graves
93030 Maintenance of mausoleums93030 Mortuary
93030 Preparing the dead for burial or cremation93030 Sale of graves
93030 Undertaking

96040 Physical well-being activities

93040 Health farm
93040 Local authority baths (hot water and sauna)93040 Massage salons
93040 Physical well-being activities93040 Public baths
93040 Reducing and slimming salon activities93040 Russian baths
93040 Saunas
93040 Solariums
93040 Spas
93040 Steam baths
93040 Turkish baths

96090 Other personal service activities n.e.c.

93059 Artists' model
93059 Astrologer
93059 Blood pressure machine operation (coin operated)93059 Boarding of pet animals
93059 Body piercing studios
93059 Bootblack
93059 Cats' home
93059 Clairvoyant
93059 Cloakroom (not railway, etc.)93059 Computer dating agency 93059 Dating services
93059 Dogs' home
93059 Educational agency
93059 Emigration agency (not of foreign government, etc.)93059 Escort agency
93059 Fortune telling (not fairground)

UK SIC 2007	UK SIC 2003 Activity	SIC 2007	SIC 2003 Activity

93059 Genealogical organisation services 93059 Genealogist
93059 Graphologist
93059 Grooming of pet animals 93059 Guide (other than tourist) 93059 Historical research
93059 Horse clipping
93059 Jobbing waiter
93059 Kennels (not racing)
52740 Key cutting services (while you wait)93059 Knifegrinder (travelling)
93059 Licensed porter
93059 Marriage bureau
93059 Master of Ceremonies93059 Naturalisation agent
93059 Outside porter
93059 Palmist
93059 Pavement artist
93059 Pet sitting services
93051 Photographic machines (coin-operated)
52740 Plastic coating services of identity cards, etc.(while you wait)
93059 Poodle clipping
93059 Porters
93059 Salvation army emigration department93059 Shoe shiners
93059 Spiritualists' activities
93059 Tattooist
93059 Toastmaster
93059 Town crier
93059 Training of pet animals93059 Valet car parkers
93059 Weighing machine operation (coin operated)

97000 Activities of households as employers of domestic personnel C1.2 8/0

95000 Activities of households as employers of domestic babysitters
95000 Activities of households as employers of domestic butlers
95000 Activities of households as employers of domestic caretakers
95000 Activities of households as employers of domestic chauffeurs
95000 Activities of households as employers of domestic cooks
95000 Activities of households as employers of domestic gardeners
95000 Activities of households as employers of domestic gatekeepers
95000 Activities of households as employers of domestic governesses
95000 Activities of households as employers of domestic laundresses
95000 Activities of households as employers of domestic maids

95000 Activities of households as employers of domesticsecretaries

95000 Activities of households as employers of domesticstable-lads

95000 Activities of households as employers of domesticstaff

95000 Activities of households as employers of domestictutors

95000 Activities of households as employers of domesticvalets

95000 Activities of households as employers of domesticwaiters

98100 Undifferentiated goods-producing activities ofprivate households for own use

96000 Undifferentiated goods producing activities ofprivate households for own use

98200 Undifferentiated service-producing activities ofprivate households for own use

97000 Undifferentiated services producing activities ofprivate households for own use

99000 Activities of extraterritorial organisations andbodies

99000 Charge d'affaires

99000 Commonwealth

Armed Forces 99000

Commonwealth Government Service99000 Commonwealth Institute

99000 Commonwealth Secretariat

99000 Commonwealth War Graves Commission99000 Consular office

99000 Crown agents for overseas governments andadministrations

99000 Customs co-operation council99000 Diplomatic missions

99000 Embassy

99000 European Communities Representatives and Information Office

99000 European Community

99000 European Free Trade Association99000 Foreign armed forces

99000 Foreign embassy

99000 Foreign government service 99000 International Labour Office 99000 International Monetary Fund

99000 International organisation (e.g. United Nations,International Labour Office)

99000 Legation

99000 Office of High Commissioner

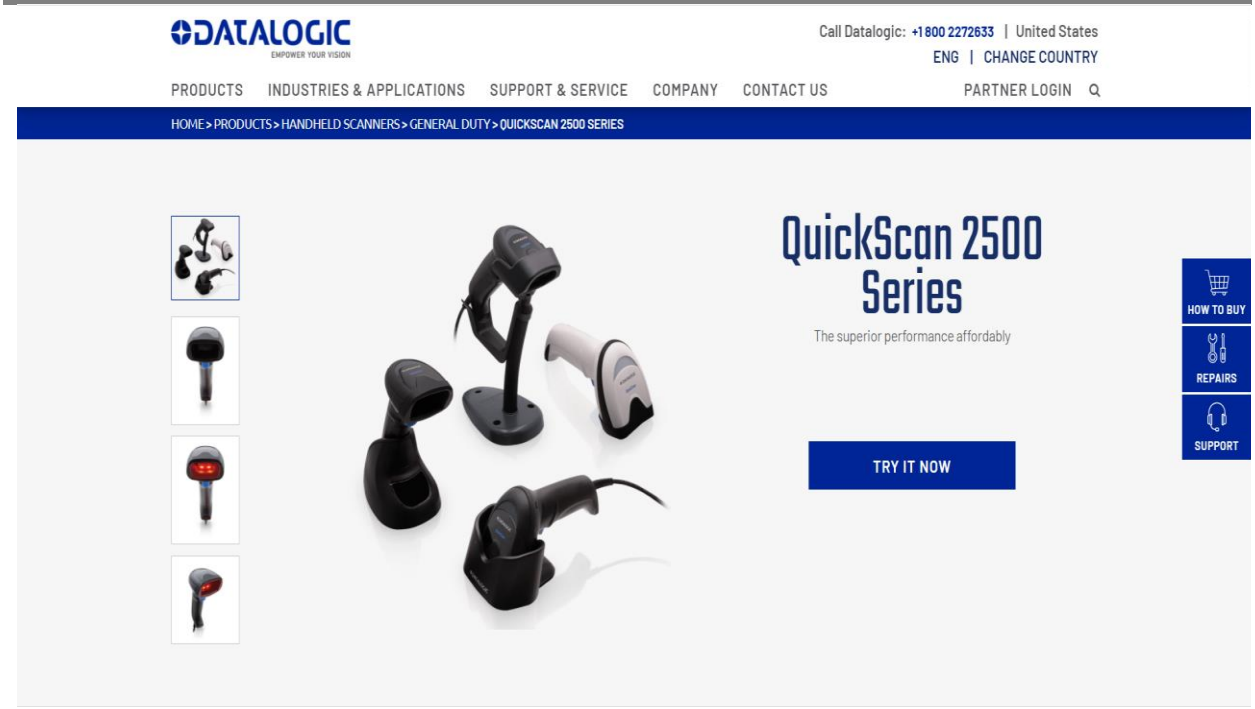
99000 Organisation for economic co-operation anddevelopment

99000 Organisation of oil producing and exportingcountries

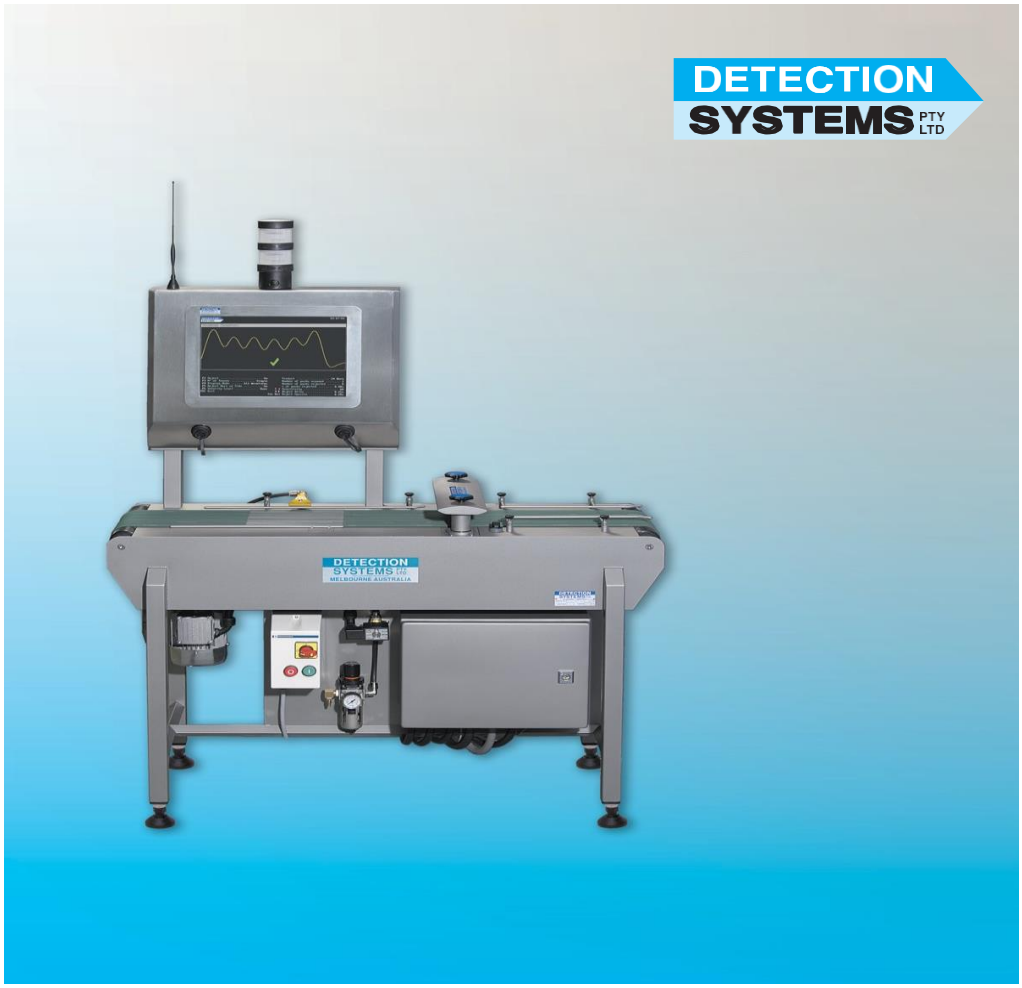
99000 United Nations and affiliated organisations (notUnited Nations Association)

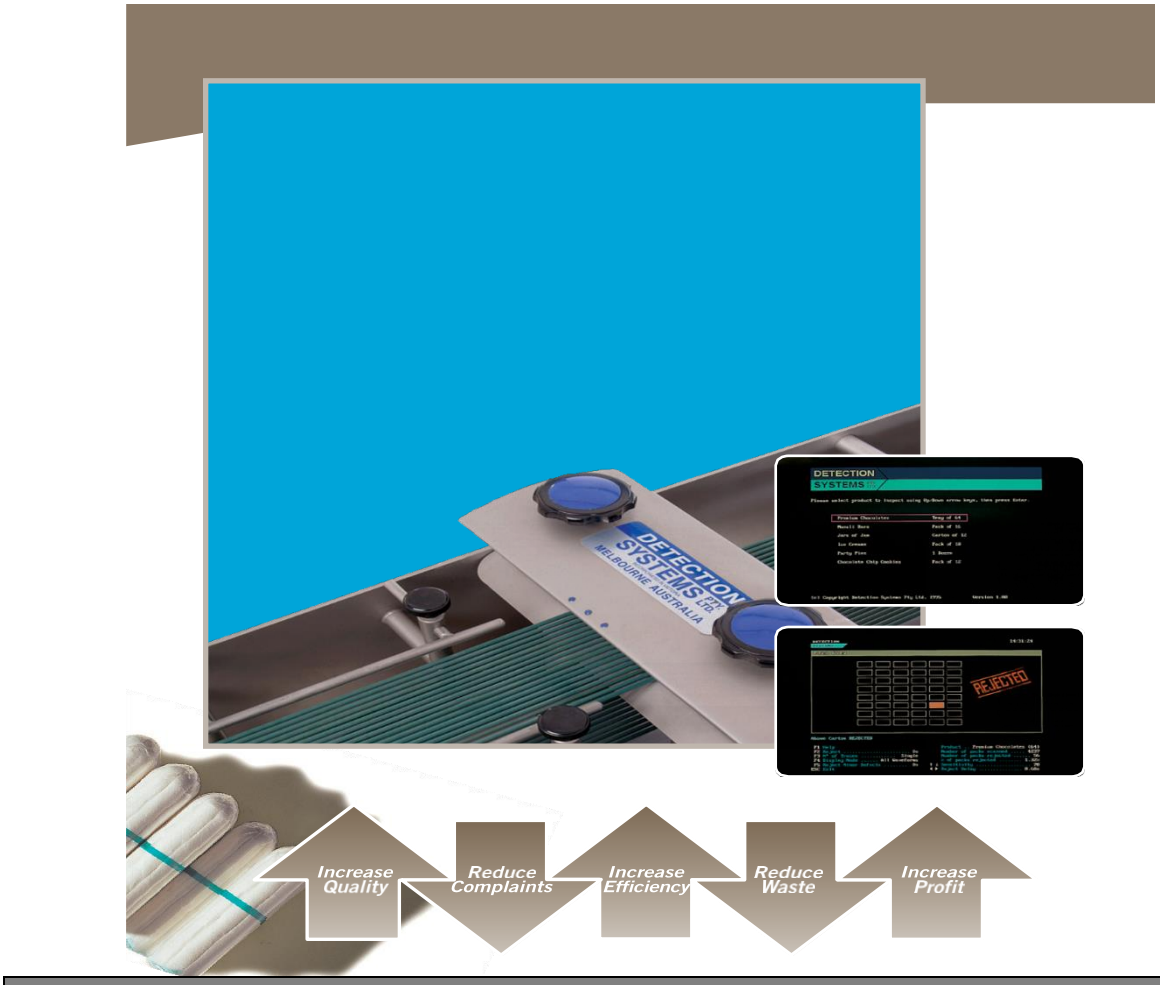
99000 World bank

The Manufacturing Unit

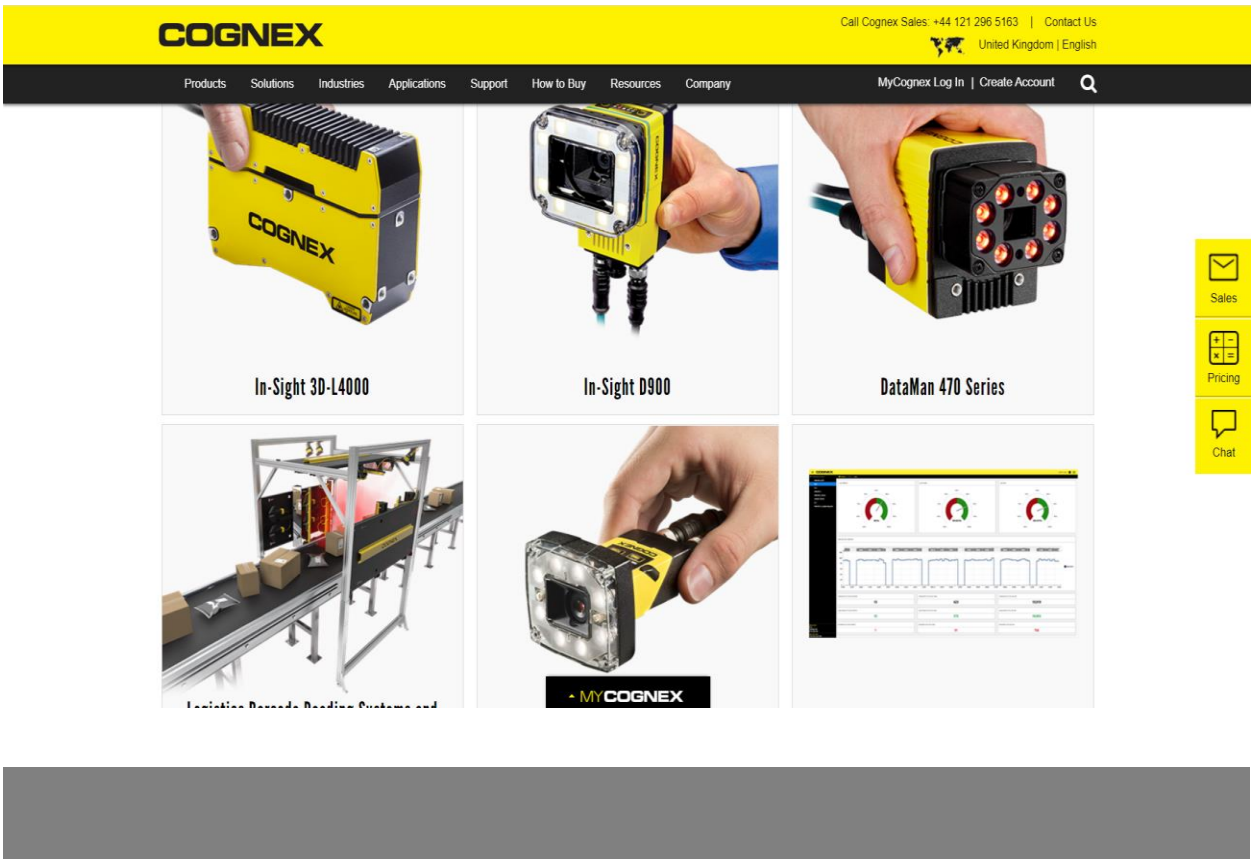

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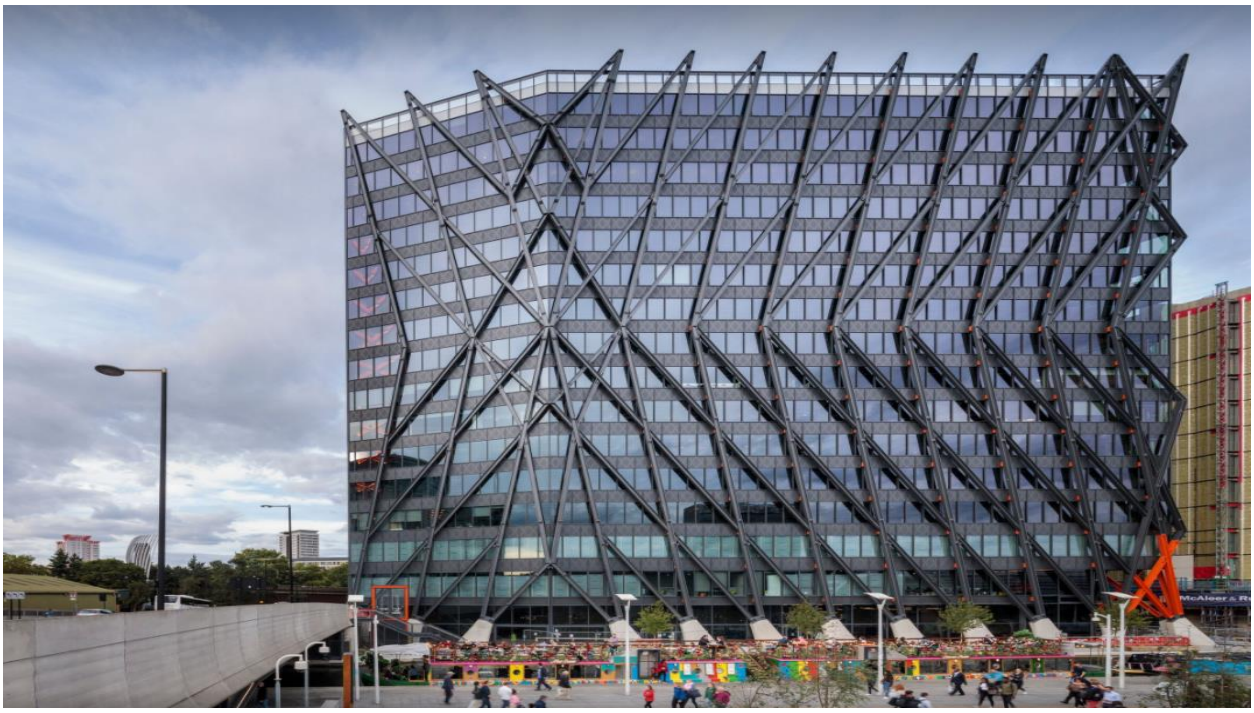

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