

# **SCHEDULE OF RATES**

## **FOR TERM CONTRACTS FOR BUILDING WORKS**

2006 EDITION

Volume 2

(B.S. Work)



ARCHITECTURAL SERVICES DEPARTMENT  
HONG KONG

**ARCHITECTURAL SERVICES DEPARTMENT**

**HONG KONG**

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**Section 00**

**GENERAL REGULATIONS**

## GENERAL REGULATIONS

## Associated documents

- I. This Schedule of Rates (hereinafter referred to as “this Schedule”) shall be read and used in conjunction with : -
- (a) The General Conditions of Contract and Special Conditions of Contract adopted for the Term Contract.
  - (b) The Conditions of Tender, Form of Tender, Articles of Agreement and Specification of the Term Contract.
  - (c) The General Specification for Building issued by Architectural Services Department including all current amendments issued thereto and referred to in the Term Contract.
  - (d) The General Specifications, Codes of Practice and other documents for building services installations as listed below issued by Architectural Services Department or Electrical and Mechanical Services Department including all current amendments issued thereto and referred to in the Term Contract : -
    - (i) General Specification for Electrical Installation in Government Buildings of Hong Kong Special Administrative Region issued by Building Services Branch, Architectural Services Department.
    - (ii) General Specification for Air Conditioning, Refrigeration, Ventilation and Central Monitoring and Control System Installation in Government Buildings of Hong Kong Special Administrative Region issued by Building Services Branch, Architectural Services Department.
    - (iii) General Specification for Fire Service Installation in Government Buildings of Hong Kong Special Administrative Region issued by Building Services Branch, Architectural Services Department.
    - (iv) General Specification for Liquefied Petroleum Gas Installation in Government Buildings of Hong Kong Special Administrative Region issued by Building Services Branch, Architectural Services Department.
    - (v) General Specification for Catering Equipment Installation in Government Buildings of Hong Kong Special Administrative Region issued by Building Services Branch, Architectural Services Department.
    - (vi) General Specification for Public Address Systems issued by Project Division, Electrical and Mechanical Services Department
    - (vii) Design Manual Barrier Free Access 1997 issued by Building Authority, Hong Kong.
    - (viii) Code of Practice for Fire Resisting Construction issued by Building Authority, Hong Kong.
    - (ix) Code of Practice for Minimum Fire Services Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment issued by Fire Services Department.
    - (x) Code of Practice for the Electricity (Wiring) Regulations issued by Electrical and Mechanical Services Department.
    - (xi) Code of Practice for Energy Efficiency of Lighting Installations issued by Electrical and Mechanical Services Department.
    - (xii) Code of Practice for Energy Efficiency of Air Conditioning Installations issued by Electrical and Mechanical Services Department.
    - (xiii) Code of Practice for Energy Efficiency of Electrical Installations issued by Electrical and Mechanical Services Department.

## GENERAL REGULATIONS (CONT'D)

- |    |     |         |   |                                      |
|----|-----|---------|---|--------------------------------------|
| I. | (d) | (xiv)   | Building Services Branch Testing and Commissioning Procedure No. 1 for Air-conditioning, Refrigeration, Ventilation and Central Monitoring and Control System Installation in Government Buildings, Hong Kong, issued by Building Services Branch, Architectural Services Department. | <b>Associated documents (Cont'd)</b> |
|    |     | (xv)    | Building Services Branch Testing and Commissioning Procedure No. 2 for Electrical Installation in Government Buildings, Hong Kong, issued by Building Services Branch, Architectural Services Department.   |                                      |
|    |     | (xvi)   | Building Services Branch Testing and Commissioning Procedure No. 3 for Fire Service Installation in Government Buildings, Hong Kong, issued by Building Services Branch, Architectural Services Department.   |                                      |
|    |     | (xvii)  | Building Services Branch Testing and Commissioning Procedure No. 5 for Burglar Alarm and Security Installation in Government Buildings, Hong Kong, issued by Building Services Branch, Architectural Services Department.   |                                      |
|    |     | (xviii) | Building Services Branch Testing and Commissioning Procedure No. 7 for Broadcast Reception Installation in Government Buildings, Hong Kong, issued by Building Services Branch, Architectural Services Department.  |                                      |
|    |     | (xix)   | Building Services Branch Testing and Commissioning Procedure No. 8 for Liquefied Petroleum Gas Installation in Government Buildings, Hong Kong, issued by Building Services Branch, Architectural Services Department.  |                                      |
|    |     | (xx)    | Building Services Branch Testing and Commissioning Procedure No. 9 for Catering Equipment Installation in Government Buildings, Hong Kong, issued by Building Services Branch, Architectural Services Department.   |                                      |
|    |     | (xxi)   | Building Services Branch Testing and Commissioning Procedure No. 11 for Emergency Generator Installation in Government Buildings, Hong Kong, issued by Building Services Branch, Architectural Services Department.   |                                      |
|    |     | (xxii)  | Building Services Branch Testing and Commissioning Procedure No. 12 for Steam Boiler and Calorifier Installation in Government Buildings, Hong Kong, issued by Building Services Branch, Architectural Services Department.   |                                      |

and where referred, the appropriate sections of the current edition of General Specification for Civil Engineering Works (Hong Kong Government) including all current amendments issued thereto.

- (e) Any other Particular Specification(s) issued therein and referred to in the Term Contract.

All works shall be executed in accordance with the various conditions and instructions contained hereinafter and referred to in the above mentioned documents, and in compliance with clauses and descriptions relating to workmanship, materials, plant, measurements and other matters contained in any of the above documents as repeated in this Schedule.

## GENERAL REGULATIONS (CONT'D)

**Definitions generally**

II. Where any of the definitions given in these General Regulations are at variance with those given in the Special Conditions preceding the Work Sections throughout this Schedule, the definitions given in the Work Sections shall take priority.

- “specified” shall mean specified in the Specification and the amendments (if any)
- “described” shall mean described in the Specification and the amendments (if any)
- “proprietary” shall mean patent owned or controlled by a supplier or contractor who will be responsible for the supply or supply and installation of the patented material, product or works.
- “Schedule” shall mean this Schedule of Rates.
- “origin” shall mean the place or country where the trade name, trademark or the patent of the material is registered.
- “ditto” shall mean the whole of the work described in detail in the preceding item, except as qualified in the description in which it occurs.

**Abbreviations**

- “exc.” shall mean exceeding.
- “n.e.” shall mean not exceeding.
- “c/w” shall mean complete with.
- “1.50 - 3.00” shall mean exceeding 1.50 and not exceeding 3.00.
- “bore” shall mean nominal internal diameter.
- “diameter” shall mean nominal diameter.
- “mm” shall mean millimetre.
- “m” shall mean linear metre.
- “m<sup>2</sup>” shall mean square metre.
- “m<sup>3</sup>” shall mean cubic metre.
- “kg” shall mean kilogram.
- “G.S.” shall mean the General Specification referred to in Clause I(c).
- “RPE” Registered Professional Engineer.
- “TCP” Technical Competent Person.

**Methods of measurement**

III. All works including “Supply only of materials” measured and paid for under this Schedule shall be measured in accordance with the instructions and methods detailed herein without making reference to any local or trade customs.

All works shall be measured net as completed or fixed in its place. Allowance for large or small quantities, narrow widths, short lengths, work being in patches, repairs, any height or locations above or below ground, easy or difficult positions or confined spaces or any other exceptional circumstance has been made in this Schedule and no additional payment shall be made except where specifically provided for in this Schedule.



## GENERAL REGULATIONS (CONT'D)

- |   |  |
|---|--|
| <p>III. All works of "Supply only of materials" shall be the net quantities specified in a Works Order. No allowance or payment will be made to the Contractor for large or small quantities, short lengths, breakage or damage, delivery to store or any designated location as directed by the Maintenance Surveyor or any other circumstance except where specifically provided for in this Schedule.</p> <p>Any disadvantage which may be entailed by items being performed under exceptional circumstances must be regarded as being offset by other items which may be proven exceptionally advantageous.</p>   | <p><b>Methods of measurement (cont'd)</b></p>              |
| <p>IV. All works shall be deemed to be executed during any working hour in a 24 hour-day (from 00:00 hour to 24:00 hour) including Sundays and General Holidays. No additional payment will be made for any overtime, i.e. works outside normal working hours of 08:00 hour to 18:00 hour and on Sundays and Public Holidays even ordered by the Maintenance Surveyor including :-</p> <p>(a) Overtime which is ordered by the Maintenance Surveyor in accordance with the Conditions of Contract to expedite slow progress of the work caused by default, negligence or omission by the Contractor.</p> <p>(b) Watchmen or security guard at any time.</p>   | <p><b>Overtime</b></p>                                     |
| <p>V. Where a minimum area is defined for the deduction of voids, such minimum shall refer only to openings or voids detached from the boundaries of the space measured. Reductions of area caused by projections or recesses from the boundary of the area measured shall always be deducted irrespective of size.</p>   | <p><b>Deductions for voids</b></p>                         |
| <p>VI. Except where specified items are included in this Schedule for curved or circular work, all work shall be measured and priced as if straight. Where specific items for curved work or circular work are included, the maximum radius stated in such description shall be the limit for which curved or circular work will be paid for and any work curved to a radius greater than this limit shall be measured and priced as if straight.</p>   | <p><b>Curved or circular works</b></p>                     |
| <p>VII. Where appropriate throughout this Schedule and where specified in the Term Contract, the following categories of works shall be executed by specialist sub-contractors :-</p> <p>(a) Included in the list of Approved Suppliers of Material and Specialist Contractors for Public Works maintained by Environment, Transport and Works Bureau namely :-</p> <p>(i) Air-conditioning Installation</p> <p>(ii) Audio Electronics Installation</p> <p>(iii) Broadcast Reception Installation</p> <p>(iv) Burglar Alarm and Security Installation</p> <p>(v) Catering Equipment Installation</p> <p>(vi) Diesel Generator Installation</p> <p>(vii) Electrical Installation</p> <p>(viii) Electronic Timing and Display Installation</p> <p>(ix) Fire Service Installation</p> <p>(x) Liquefied Petroleum Gas Installation</p> <p>(xi) Low Voltage Cubicle Switchboard Installation</p> | <p><b>Works executed by Specialist Sub-contractors</b></p> |

## GENERAL REGULATIONS (CONT'D)

**Works executed  
by Specialist  
Sub-contractor  
(Cont'd)**

- VII. (a) (xii) Radio Electronics Installation
- (xiii) Steam and Compressed Air Installation
- (xiv) Uninterruptible Power Supply Installation
- (xv) Video Electronics Installation
- (xvi) Landscaping including hydroseeding
- (xvii) Landslip Preventive/Remedial Works to Slopes/Retaining Walls
- (xviii) Road Marking
- (xix) Structural Steelwork
- (xx) Supply of Bituminous Pavement Materials and Construction of Special Bituminous Surfacing
- (b) Approved in writing by the Maintenance Surveyor namely : -
- (i) Medical Gas
- (ii) Town Gas
- (iii) Curtain Walling

Due allowance is deemed to have been made in the Contract Percentages for complying these requirements.

**Imperial equivalents  
where required or  
necessary**

- VIII. Whenever practicable, the Contractor shall supply materials in metric sizes and execute the works strictly in accordance with the metric dimensions specified. Imperial equivalents may be accepted only when circumstances prohibit compliance with this sub-clause (For example, statutory obligations) or where the Maintenance Surveyor considers it impracticable, undesirable or impossible to use metric sizes or dimensions or when suitable materials are not available in metric sizes.

The provision of this sub-clause shall not apply to materials which are specified in this Schedule by their actual manufactured sizes or their metric equivalents (For example, roof tiles, plywood, building boards, p.v.c. pipes, mosaic tiles) or classified in accordance with the relevant British Standards (For example, copper pipes).

**Schedule rates**

- IX. The rates throughout this Schedule shall include for : -
- (a) All materials supplied and works executed complying strictly with the Specification as detailed in Clause I and the provision or execution of all samples of all materials or finished works in patterns if required.
- (b) Provision of all materials and cutting and wastage on the same, except where otherwise stated, including collection, loading, conveyance, delivery, unloading, stacking, storage of the same, multi-handling between positions as directed on site and provision of storage accommodation, handling, hoisting, lowering, distributing, etc. to specified location.
- (c) Provision of all labour including travelling expenses, lodging allowance or living accommodation, toilet facility, etc. for the same.
- (d) Provision of all tools, plant, water, power, lighting, watching and worksheds.

## GENERAL REGULATIONS (CONT'D)

- |     |  |   |
|-----|--|---|
| IX. | <p>(e) All expenses for delivery, distribution or transportation of articles, materials, labour, personnel, tools, plant, worksheds etc. by all means including land, sea or air except otherwise specifically provided for in the Special Conditions of each Section in this Schedule.</p> <p>(f) Executing work in any position, location and height unless otherwise stated.</p> <p>(g) Providing record of photograph, location plan and schedule of existing trees, if any, within and in close vicinity (within 2.00 m) of the site boundary and works areas including protective and preservative works/measures such as tree surgery works, temporary fencing, etc. and the like, allowance for method of operation and vehicular access for tree preservation throughout the period of Works and removing all temporary protective and preservative works/measures on completion and making good all works disturbed.</p> <p>(h) Setting up monitor points for controlling noise, vibration, settlement and lateral movement imposed on adjoining properties including provision of equipment, technical and supervisory personnel carrying out daily monitoring and submission of records as directed by the Maintenance Surveyor.</p> <p>(i) Provision and maintaining temporary access and road as G.S. Item 1.25 and making good to match existing.</p> <p>(j) Provision and maintaining temporary drainage system as G.S. Item 1.26 and making good to match existing.</p> <p>(k) Provision of drawings, operation manuals and tests on samples or finished works.</p> <p>(l) Allowance for the works to be executed by an approved applicator where required in the Specification.</p> <p>(m) Testing and certification including the employment of independent certification bodies wherever required or necessary.</p> <p>(n) Provision, erection, maintenance, alterations, dismantling and clearing away of : -</p> <p style="padding-left: 20px;">(i) All bamboo, metal or any proprietary scaffolding, staging, ladders, trestles, cradles, platforms and similar items necessary for the execution of the works complete with all netting, coverings, screens, dust sheets, barricades, catch-fans, protective canopies;</p> <p style="padding-left: 20px;">(ii) All types of non fire-rated covered walkways and hoardings complete with gateways, adequate lighting, associated power supply and electrical work as required by the Maintenance Surveyor amongst that shall include the standard covered walkways and hoardings Type 1 to Type 6 inclusive; and</p> <p style="padding-left: 20px;">(iii) Similar measures necessary to protect new works and existing surfaces or to protect the public from harm, dust or nuisance unless specifically covered by the Special Conditions of each Work Section in this Schedule.</p> | <p><b>Schedule rates<br/>(Cont'd)</b></p> |
|-----|--|---|
- Except for standard covered walkways and hoardings Type 1 to Type 6, the Contractor shall submit detailed drawings together with supporting calculations certified by TCP or RPE for approval and provide operation manuals of any proprietary systems proposed. Standard drawings of covered walkways, hoardings and gateways can be found in the Steel and Metal Work Section of this Schedule and are listed as follows : -
- (i) Covered walkway Type 1 as detailed on drawings 9711\_01, 9711\_02, 9711\_10, 9711\_11 and 9711\_12.
- (ii) Covered walkway Type 2 as detailed on drawings 9711\_03, 9711\_04, 9711\_10, 9711\_11 and 9711\_12.
- (iii) Hoarding Type 3 as detailed on drawings 9711\_05, 9711\_06, 9711\_07, 9711\_10, 9711\_11 and 9711\_12.
- (iv) Hoarding Type 4 as detailed on drawings 9711\_08, 9711\_09, 9711\_11 and 9711\_12.

## GENERAL REGULATIONS (CONT'D)

<b>Schedule rates (Cont'd)</b>	IX.	(n)	<ul style="list-style-type: none"> <li>(v) Covered walkway Type 5 as detailed on drawings 9711_21, 9711_22, 9711_23 and HOARDING/5/SK1 to HOARDING/5/SK10.</li> <li>(vi) Covered walkway Type 6 as detailed on drawings 9711_24, 9711_25, 9711_26 and HOARDING/6/SK1 to HOARDING/6/SK10.</li> <li>(vii) Gateway for covered walkway Type 1 as detailed on drawings 9711_01, 9711_02 and 9711_10.</li> <li>(viii) Gateway for covered walkway Type 2 as detailed on drawings 9711_03, 9711_04 and 9711_10.</li> <li>(ix) Gateway for hoarding Type 3 as detailed on drawing 9711_05.</li> <li>(x) Gateway for hoarding Type 4 as detailed on drawing 9711_08.</li> <li>(xi) Gateway for covered walkway Type 5 as detailed on drawings 9711_21 and 9711_22.</li> <li>(xii) Gateway for covered walkway Type 6 as detailed on drawings 9711-24 and 9711_25.</li> </ul> <ul style="list-style-type: none"> <li>(o) Clearing away debris, surplus materials or other materials arising from the works and leaving the works and areas affected by the works clean and tidy on completion to the satisfaction of the Maintenance Surveyor.</li> <li>(p) All superintendence, establishment charges, overhead expenses and profit.</li> <li>(q) Any cost and/or expenses incurred for carrying out Works at all times including working outside normal working hours.</li> <li>(r) Any other expenses incurred in conforming with the Term Contract.</li> <li>(s) Reinstatement and making good surfaces disturbed.</li> <li>(t) Imperial equivalents wherever required or necessary.</li> </ul>
<b>Rates for items not specifically mentioned in this Schedule</b>	X.		<p>Rates for items not specifically mentioned in this Schedule shall be valued as follows :-</p> <ul style="list-style-type: none"> <li>(a) <b>Proportional rate</b> Whenever there is an analogous item in this Schedule for an article, a material, workmanship or service of similar character or executed under similar conditions and circumstances, then at a rate equal to or in proportion to a Schedule rate. Such proportional rate shall be subject to relevant Contract Percentage adjustment.</li> <li>(b) <b>Agreed rate</b> When an article, a material, workmanship or service is not of similar character or is not to be executed under similar conditions and circumstances that allows it be valued by a proportional rate as sub-clause (a) above, then at a rate agreed between the Maintenance Surveyor and the Contractor. Such agreed rate shall not be subject to relevant Contract Percentage adjustment.  An agreed rate can be applied to one Works Order only and cannot be applied to any other Works Order issued under the Term Contract.</li> <li>(c) <b>Star rate</b> A star rate is valued in the same way as an agreed rate but can be applied to any other Works Order issued under the Term Contract.</li> </ul>

## GENERAL REGULATIONS (CONT'D)

- XI. In all cases, Schedule rates used for pricing works whether in additions or omissions shall be applied before adjustment of any relevant Contract Percentages contained in the Form of Tender.
- Application of Contract Percentages**
- Any cost/expenses incurred in connection with the following are deemed to have been allowed and included in the relevant Contract Percentages contained in the Form of Tender : -
- (a) Overtime works as detailed in Clause IV.
  - (b) The Waste Disposal (Charges for Disposal of Construction Waste) Regulation made under the Waste Disposal Ordinance Cap 354.
  - (c) Items of preliminaries, profit and attendance and other expenses where they are not separately itemised in this Schedule.
- XII. When materials are supplied to the Contractor by Government or other designated suppliers, no allowance will be made to the Contractor other than the payment for "Fix only" ("Lay only" or "Set only", etc.) as detailed under the appropriate items of this Schedule.
- Materials supplied by Government or other designated suppliers**
- XIII. The term "Supply only" used throughout this Schedule shall mean the provision complete by the Contractor of an article, a fitting or a material. The rates for such items shall include, where applicable, obtaining and taking delivery of the article, fitting or material, transporting by land, sea, or air to sites or Government stores or other designated locations as directed by the Maintenance Surveyor, and all necessary off-loading and moving into sites, Government stores or other designated locations.
- "Supply only"**
- The rates listed in the "SUPPLY ONLY OF MATERIALS" in each Work Section of this Schedule shall include all the foregoing charges and allowance for replacement of materials damaged during delivery to, off-loading and moving into sites, Government stores or other designated locations as directed by the Maintenance Surveyor.
- XIV. The term "Take down ("Take up" or "Take out", etc.) and clear away" used throughout this Schedule shall mean execution complete by the Contractor of the work of taking down, taking up or taking out of an existing article, fitting or material either in whole or in part and removing from site and disposing of the same. The rates for such items shall include for all or any of the following : -
- "Take down ("Take up" or "Take out", etc.) and clear away"**
- (a) Works executed by specialist and payment of all fees and charges when required.
  - (b) Taking down, taking up or taking out of the article, fitting or material either in whole or in part together with any associated plugs, holdfasts, lugs, brackets and other fixings and all necessary cutting out and disposal.
  - (c) Making good any works disturbed and any damage to surrounding surfaces and filling up all mortices, holes, etc. or alternatively leaving the same open and clean to receive readily new articles, fittings or materials.
  - (d) Reinstatement and making good surfaces disturbed by specialists and payment of all charges, if required.
  - (e) Preparing edges, ends or surfaces of remaining material to receive junction with new.
  - (f) Taking up or removing covers, access doors, etc. and the like for the execution of the works and re-fixing the same on completion.

The articles, fittings, or materials taken down shall become property of the Contractor. Unless otherwise specified, due allowance for credit has been made in the rates.

## GENERAL REGULATIONS (CONT'D)

**“Take down (“Take up” or “Take out”, etc.) and set aside for re-use”**

- XV. The term “Take down (“Take up” or “Take out”, etc.) and set aside for re-use” used throughout this Schedule shall mean execution complete by the Contractor of the work of taking down, taking up or taking out of an existing article, fitting or material either in whole or in part and setting the same aside on site or transporting to Government stores or other Government sites for subsequent re-use. The rates for such items shall include for all or any of the following : -
- (a) Works executed by specialists and payment of all fees and charges when required.
  - (b) Carefully taking down, taking up or taking out of the article, fitting or material together with associated plugs, holdfasts, lugs, brackets and other fixings and all necessary cutting out and disposal.
  - (c) Thoroughly cleaning, oiling and adjusting the article, fitting or material ready for re-use, dismantling, re-assembling again as necessary, moving and stacking or putting into stores on sites or alternatively loading, transporting, unloading and moving to Government stores or other Government sites.
  - (d) Making good any works disturbed and any damage to surrounding surfaces and filling up all mortices, holes, etc. or alternatively leaving the same open and clean to receive readily re-used or new articles, fittings or materials.
  - (e) Reinstatement and making good surfaces disturbed by specialists and payment of all charges, if required.
  - (f) Preparing edges, ends or surfaces of remaining material to receive junction with re-used or new.
  - (g) Repairing or replacing at Contractor's own cost any damage caused to the articles, fittings or materials during taking down, taking up, taking out, etc. and transit.
  - (h) Taking up or removing covers, access doors, etc. and the like for the execution of the works and re-fixing the same on completion.

**“Fix only” (“Lay only” or “Set only”, etc.)**

- XVI. The term “Fix only” (“Lay only” or “Set only”, etc.) used throughout this Schedule shall mean execution complete by the Contractor of the work of fixing, laying, setting, jointing, re-fixing, re-laying, re-setting and re-jointing an article, a fitting or a material made available free of charge to the Contractor by Government or it has been previously taken down. The prior taking down of the existing articles, fittings or materials shall be measured separately and paid for at the appropriate rates under applicable Work Sections of this Schedule. The rates for such items shall include for any or all of the following : -
- (a) Works executed by specialist and payment of all fees and charges when required.
  - (b) Taking delivery of the articles, fittings or materials at Government stores or other designated suppliers, loading, transporting to sites, unloading, checking and examining the same and storing on sites and returning any crates and other packings to Government stores, if required.
  - (c) Taking the articles, fittings or materials from stores on sites, sorting, cutting and fitting, fabricating, assembling, moving, hoisting, distributing at locations, fixing, laying, setting, jointing, re-fixing, re-laying, re-setting and re-jointing in new or existing work, opening or position.
  - (d) Providing all fixing and jointing materials such as nails, bolts, nuts, washers, screws, gaskets, mastic, adhesive, mortar and the like or other fixing and jointing materials made available from taking down.
  - (e) Executing all plugging and screwing, jointing, cutting all mortices and grouting the same, and executing all cutting, fitting, easing or adapting necessary to the articles, fittings or materials to the positions in which the same are to be fixed, and oiling and leaving in good working order.

## GENERAL REGULATIONS (CONT'D)

- XVI. (f) Making good any damage caused to the articles, fittings or materials and surrounding surfaces and making good new or existing finishes up to the same. **“Fix only” (“Lay only” or “Set only”, etc.)**
- (g) Reinstatement and making good surfaces disturbed by specialists and payment of all charges, if required.
- When the articles, fittings or materials despite having been taken down from another positions and set aside for re-use or having been delivered by Government or other designated suppliers or their agents are made available on site, no deduction will be made from the rates of “Fix only” (“Lay only” or “Set only”, etc.) for transporting the said articles, fittings or materials to site.
- XVII. The rates for “Take down and clear away”, “Take down and set aside for re-use” and “Fix only” are not intended to cover built up fittings or composite units, i.e. fittings or units that are fabricated and can be moved in their entirety or broken down into fabricated components. These items are to be measured as the appropriate items in the respective Sections or dealt with as agreed rates unless otherwise provided in this Schedule. **Built up fittings or composite units**
- XVIII. When works are carried out by Nominated Sub-contractors and facilities for the execution of such works are afforded to the Nominated Sub-contractors by the Contractor and accounts for such works are paid by the Contractor in accordance with the Conditions of Contract, the percentage addition allowed to the Contractor on the net cost of such works shall be as that contained in the Form of Tender for “Profit and Attendance on Nominated Sub-contractors' Works”. **Nominated Sub-contractors' accounts**
- XIX. The term “Making good” shall be understood as including all labour and materials necessary to bring the disturbed area to the same face, colour, texture, etc., in the same materials as the surrounding work and shall include for painting, colouring and/or varnishing any new work to match the surrounding existing work to the entire satisfaction of the Maintenance Surveyor. **“Making good”**
- XX. When daywork is ordered by the Maintenance Surveyor, measurement of daywork shall be made according to the rules set out in Section 17 - Labour and Section 18 - Plant Hire and Services of this Schedule. **Daywork**
- XXI. The term “Utility Connection And Pavement Works” shall mean the works of drainage connection, water supply connection, construction of run-in and reinstatement of footways which shall be executed complete by contractors selected and employed by the Contractor from the “List of Approved Contractor for Public Works in Group A, B or C for Road & Drainage Works” for the drainage connection and construction of run-in and reinstatement of footways and from the “List of Approved Contractors for Public Works in Group A, B or C for Waterworks” for the water supply connection work. **“Utility Connection And Pavement Works”**
- When Utility Connection And Pavement Works are required to be executed under the Term Contract, the Contractor will be reimbursed for such works at rates included in this Schedule together with the relevant Contract Percentage adjustment. The rates throughout this Schedule for such items shall include for all or any of the following :
- (a) Complying with the requirements and procedures in connection with the Utility Connection And Pavement Works specified in the Particular Specification referred to in the Term Contract and submitting assessments and reports as required.
- (b) Liaising with the relevant authorities and utility companies, preparing and submitting relevant drawings, programmes and documents and completing all the forms in connection with the Utility Connection And Pavement Works.
- (c) Submitting all the detailed particulars in connection with the granting of an Excavation Permit [Note : Excavation Permit means any excavation permit issued by the Government in respect of the Utility Connection And Pavement Works under Section 8 of the Land (Miscellaneous Provision) Ordinance] as required by the Maintenance Surveyor.
- (d) Obtaining approvals and permits from relevant utility companies or Government departments.

## GENERAL REGULATIONS (CONT'D)

**“Utility Connection  
And Pavement  
Works” (Cont'd)**

- XXI. (e) Complying with the conditions of any Excavation Permit applicable to the Utility Connection And Pavement Works.
- (f) Providing and maintaining temporary road or access where required for pedestrian and vehicular traffic diversions and subsequent clearing away after completion of Works.
- (g) Providing and maintaining traffic control as G.S. Item 1.18.
- (h) Locating and protecting existing services as G.S. Item 1.22.
- (i) Carrying out all necessary site inspections (including handing over inspections) jointly with the relevant authorities and utility companies.
- (j) Provision of identification tapes along the water connection mains.
- (k) Cleaning and sterilization of fresh water mains for making connections.
- (l) Provision of as built drawings and test reports as specified.
- (m) Protection of curbs, masking and unmasking of drainage channels, manhole covers, gully gratings, expansion joints, road studs and road marking.
- (n) Provision, maintenance and removal of all measures to maintain traffic flow including labour and temporary traffic diversion lighting and signs and paying all charges incurred.
- (o) Provision, maintenance and removal of temporary road, walkway, covers to trenches and the like.
- (p) Making good all surfaces, features, etc. and the like disturbed by all temporary road, access, traffic control, pedestrian footway, etc. and the like to match existing.

For payment purpose, additional payment for work items throughout this Schedule classified as “Utility Connection And Pavement Works” shall not be payable, unless they are demonstrated and substantiated by :

- (a) A copy of successfully granted Excavation Permit for the work.
- (b) Relevant approval forms and drawings from utility companies or Government departments.
- (c) Contractor's prior written notice to the Maintenance Surveyor of the name of the specialist contractors employed for the Utility Connection And Pavement Works when the Contractor is not included in the relevant List of Approved Contractors for Public Works to carry out the Utility Connection And Pavement Works.

**Submission of  
measurement  
and accounts**

- XXII. Measurements shall be recorded to two decimals of an unit and quantities shall be rounded and billed to the nearest two decimals of an unit.

**Materials/Products**

- XXIII. Throughout this Schedule, the payment of materials/products will generally be assessed according to the corresponding properties or performance standards as set out in this Schedule (with reference to the Specification) regardless of any brand names of materials/products used or the materials/products referred as “proprietary” or not.

The onus of proof rests with the Contractor to identify the properties, standards or origins of materials/products used in the Works corresponding to those set out in this Schedule (with reference to the Specification), and to provide the necessary certificates, guarantees, warranties and the like of the materials/products specified or approved for use by the Maintenance Surveyor for payment of the corresponding brand names of materials/products as set out in this Schedule.



## GENERAL REGULATIONS (CONT'D)

XXIII. Certain proprietary materials, products or works in this Schedule are specified as “proprietary” without specifying their brand names. Samples or mock-ups of these proprietary materials, products or works should be submitted or provided for the Maintenance Surveyor's written approval before bulk purchase or execution. Due allowance is deemed to have been made in the Contract Percentages for complying this requirement. Any of these proprietary materials, products or works delivered or executed without the Maintenance surveyor's prior written approval should be removed or reinstated by the Contractor at their own expenses.

**Materials/Products  
(Cont'd)**

For all materials, products and works within the definition of “proprietary” in Clause II regardless of whether specified by their proprietary brand names or not, the Contractor shall be further required to :

- (a) Provide test certificates, manufacturer's guarantee or warranties, if any.
- (b) Have the works executed by an approved sub-contractor/applicator and submit technical literatures, method statement etc. as required by the Maintenance Surveyor or as stated in the Term Contract.

XXIV. Whenever the unit rate for an item exceeds \$99,999.99, it has been divided by a factor (“adjustment factor”) to reduce the figure to fall within \$99,999.99 (“adjusted rate”) for inclusion in this Schedule. Such unit rate before adjustment is described in the item description as the actual rate. When the adjusted rate is to be used for all purposes under the Term Contract, such adjusted rate shall be multiplied by the adjustment factor to revert it back to the actual rate before making any adjustment of the relevant Contract Percentages.

**Adjustment  
to unit rates  
exceeding  
\$99,999.99**

**Section 27**

**ELECTRICAL INSTALLATION**

## ELECTRICAL INSTALLATION

## SPECIAL CONDITIONS

(Note : The following special conditions shall apply equally where appropriate to rates under Sections 27 to 30)

<b>Measurement of conduits</b>	I.	Conduits shall be measured the net length as fixed in linear metres over all conduit fittings, boxes and short running lengths.
<b>Measurement of trunkings, trays and ladders</b>	II.	Trunkings, trays and ladders shall be measured the net length as fixed in linear metres over all fittings, short running lengths and branches.  Fittings (e.g. bends, tees, crosses, reducers and the like) for trunkings shall be measured separately and paid for at the appropriate rates under these Sections 27 to 30.
<b>Measurement of cables</b>	III.	Cables (except final circuits) shall be measured the net length as fixed in linear metres between equipment, control gear, fittings, accessories and the like.
<b>Measurement of excavations, cable ducts, chases, holes and other subsidiary work</b>	IV.	All trench excavation shall be measured separately and paid for at the appropriate rates under Section 01 - Excavation of this Schedule. All cable ducts shall be measured separately and paid for at the appropriate rates under Section 16 - Drainage and Cable Duct of this Schedule. All chases in, and holes through existing walls, ceilings and similar for cables, conduits etc. shall be measured and paid for at the appropriate rates under Section 02 - Concrete Work, Section 03 - Brickwork and Blockwork or other applicable Work Sections of this Schedule. Special concrete marker blocks specifically ordered in writing by the Maintenance Surveyor shall be measured separately and paid for at the appropriate rates under the applicable Works Sections of this Schedule.
<b>Measurement of power supply for bedhead trunking system and staff/emergency/nurse call system</b>	V.	All works of electrical power supply up to power supply points (e.g. switchgear or isolator or spur unit and the like) for the bedhead trunking system and staff/emergency/nurse call systems shall be measured separately and paid for at the appropriate rates under these Sections 27 to 30 or other applicable Work Sections of this Schedule.
<b>Measurement of control panel for bedhead trunking system and staff/emergency/nurse call system</b>	VI.	The control panel shall be assumed to be located on the same floor as the system installation. When this panel is located on other floor, the interconnecting cables and the conduit facilities shall be measured separately from the control panel to the junction box at that floor for which the systems of that floor are grouped for connection to the control panel. In such case, the junction box shall be assumed to be located as near as possible to the control panel.
<b>Rates generally</b>	VII.	The rates for all items shall generally include for : -  (a) Colour band and colour identification work.  (b) Lettering and engraving for identification, signs, labels in both English and Chinese.  (c) Identification plates, signs, notice plates, discs and labels in both English and Chinese.  (d) Priming or painting off site and proprietary finishes or surface treatment applied as part of the production process whether applied before or after fabrication and assembly.

**SPECIAL CONDITIONS (CONT'D)**

- VII. (e) All protective coating or finishing painting work, apart from additional painting work specifically ordered by the Maintenance Surveyor in writing which shall be measured separately and paid for at the appropriate rates under Section 15 - Painting of this Schedule. **Rates generally (cont'd)**
- (f) Any kind of fixing method including drilling of the background and provision of fixings, hangers, brackets, supports, saddles, nails, screws, nuts, bolts, shims, washers, plugs, shotfired pins, spring compensated and seismic restraints and isolated components and the like.
- (g) Provision of fire stopping as required.
- (h) Submission of catalogues, technical literature, data, calculations, test certificates and approval documentation covering the equipment and materials being supplied.
- (i) Preparing and submitting detail working drawings as required and all shop drawings for the fabrication and installation.
- (j) Attendance, as required, of the manufacturers' representative to assist in the installation and subsequent testing and commissioning.
- (k) Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Tests.
- (l) Providing all necessary power, fuel, labour and testing instrument of approved type for testing and commissioning.
- (m) Preparing and submitting operation and maintenance manuals and as-fitted drawings for items of works as required.
- (n) Provision of schematic diagrams in plastic envelop including fixing to wall.
- (o) Provision of manufacturer's guarantee.
- (p) Submission of sample board for all materials and accessories, and supply of samples of materials for testing (including testing to destruction).

Where an equipment or item requires identification by lettering, engraving, sign, label, etc., 25 percent of the value of the appropriate item will be deducted for non-provision of the required lettering, engraving, sign, label, etc.

- VIII. The rates for "Take down and clear away" or "Take down and set aside for re-use" shall further include for :- **Rates for "Take down and clear away" or "Take down and set aside for re-use"**
- (a) All fittings including brackets, supports, hangers and the like.
- (b) Cutting into existing conduits, trunkings, trays, ladders, cables and the like in position.
- (c) Plugging off remaining ends with plugs or caps as required.
- (d) Preparing remaining ends of building services works to receive connections with new work if required.
- (e) In the case of equipment, lighting fittings, appliances and the like, taking down all associated connecting cables and the like.
- (f) In the case of bedhead trunking and staff/emergency/nurse call system, taking down all associated building services works.

In the case of fluorescent light fitting, the rates for fitting complete with high efficiency electronic control gear/electronic ballast shall also apply to the similar item complete with condenser, choke and starter unit.

**SPECIAL CONDITIONS (CONT'D)**PART I - ELECTRICAL INSTALLATION**Rates for electrical installation generally**

- IX. The rates for electrical installation shall further include for : -
- (a) Making all necessary arrangements with public Electricity Supply Companies and other public utility companies as may be required.
  - (b) Connecting supply to and energizing all new or "re-used" fittings including provision of associated materials.
  - (c) Disconnecting existing supply when existing fittings are taken down and properly seal off the supply.
  - (d) Submission of Completion Certificate (Form WR1).

**Rates for conduits**

- X. The rates for conduits (except final circuits) shall further include for : -
- (a) Draw wires, draw cable and the like.
  - (b) Bends, bushes, couplers, adaptors, expansion joints and the like.
  - (c) All bending, setting, cutting, screwing, threading, jointing and providing all conduit fixings.
  - (d) Provision of all sleeves for casting in or building in where conduits pass through slabs, walls or beams and caulking between conduit and sleeve where required.
  - (e) Components and the forming of holes for making connections into trunking.
  - (f) Bonding as specified between adjacent component parts.
  - (g) Cleaning out and testing of the conduit system for continuity.
  - (h) Provision of expansion joints in services runs wherever they coincide with structural expansion joints.

**Rates for trunkings**

- XI. The rates for trunkings shall further include for : -
- (a) All joints in the running lengths and components for bonding.
  - (b) All cutting and jointing to fittings.
  - (c) All cutting, drilling, bushing and jointing to equipment or control gear including all necessary connection accessories.
  - (d) Pin-racks for supporting cables.
  - (e) Internal fire barriers as required.
  - (f) Bonding as specified between adjacent component parts.

**SPECIAL CONDITIONS (CONT'D)**

- XII. The rates for trays and ladders shall further include for : - **Rates for trays and ladders**
- (a) Cutting openings as required.
  - (b) All joints in the running lengths.
  - (c) All cutting and jointing to fittings.
  - (d) Pin-racks for supporting cables.
  - (e) Bonding as specified between adjacent component parts.
  - (f) Cable ties for securing cables.
- XIII. The rates for cables shall further include for : - **Rates for cables**
- (a) Laying or fixing in different locations, such as laying in trenches or open ducts, laying on arms or hangers, fixing to cable trays, ladders or other surfaces, drawing into under- ground pipe ducts, laying or drawing into trunkings, drawing into conduits, suspending from insulators or catenaries, wrapping around equipment, unless specifically provided in this Schedule.
  - (b) In case of cables drawn into existing conduits, existing ducts or existing trunkings, removing and putting back existing covers, existing inspection lids and the like.
  - (c) Making cable-joints.
  - (d) Determining circuits, lacing into circuit groups and provision of draw-wires, draw cables and the like.
  - (e) Components for supporting cables including combination system cable supports, two piece cleats, trefoil cleats, multiway cleats, hangers, channels and the like.
  - (f) Provision of all sleeves for casting in or building in where cables pass through slabs, walls or beams and caulking between cable and sleeve where required.
  - (g) Bonding as specified between adjacent component parts.
  - (h) Provision of lettered or numbered ferrules for 1 core PVC cable at terminations where required for identification.
- XIV. The rates for cable-termination glands shall further include for : - **Rates for cable-termination**
- (a) Assembling and mounting.
  - (b) Insulating material, jointing material, lock-nuts, bushes, couplers and the like.
- XV. The rates for fittings and accessories shall further include for : - **Rates for fittings and accessories**
- (a) All boxes, cover plates, connector blocks, cable terminations, bonding and connecting of cable tails.
  - (b) All necessary bushes, nipples, locknuts, couplers and the like.
  - (c) Assembling and fixing in position.
  - (d) Bonding as specified between adjacent component parts.

## SPECIAL CONDITIONS (CONT'D)

- Rates for equipment and control gear**
- XVI. The rates for equipment (e.g. motors, fans, starter panels, circuit-breakers, batteries, rectifiers and the like) and control gear (e.g. fuse-and-link disconnecting boxes, isolating switches, changeover-switches, switch-fuses, fused-switches, distribution boards, connectors, starters, busbar chambers and the like) shall further include for : -
- (a) Connecting cable ends or cable tails to which they are connected.
  - (b) Coupling to and forming holes for conduit entry.
  - (c) Links, fuses, gland plates, terminal boxes and the like which form part of the item.
  - (d) Bonding as specified between adjacent component parts.
- Rates for lighting fittings**
- XVII. The rates for lighting fittings shall further include for : -
- (a) Reflectors, shades, lamps, control gears, ballasts, transformers, light troughs, diffusers and the like.
  - (b) All connection / terminal boxes, connector blocks, plugs and connecting of cable-tails including all necessary grommets, bushes, nipples, lockouts and the like.
  - (c) Assembling and fixing in position including all forms of suspensions, supports, safety chains with attachments and the like.
  - (d) Adjustment, alignment and the like.
  - (e) Bonding as specified between adjacent component parts.
- Rates for ventilation fans, air curtains and appliances**
- XVIII. The rates for ventilation fans, air curtains and appliances shall further include for : -
- (a) All connection / terminal boxes, connector blocks, plugs and connecting of cable-tails including all necessary grommets, bushes, nipples, lockouts and the like.
  - (b) Assembling and fixing in position including all supporting devices, hangers and the like.
  - (c) Bonding as specified between adjacent component parts.
  - (d) Taking down existing power connection units for cable connection and subsequent refixing as required.
- Rates for earthing, lightning protection and bonding items**
- XIX. The rates for earthing, lightning protection and bonding items shall further include for : -
- (a) Bends, twists and through joints.
  - (b) Cables and tape connections and junctions including tinning, sweating and provision of any jointing materials, heat, holes, rivets, bolts, nuts, washers and clamps.
  - (c) Saddles, cleats, clips, holdfasts and the like which form part of the tape and rod conductor items.
  - (d) Driving electrodes into the ground and connecting electrodes to connectors.

Unless otherwise stated as being included in the items, bonding shall be measured and paid for at the appropriate rates under these Sections 27 to 30.

**SPECIAL CONDITIONS (CONT'D)**

- XX. (1) Simplified items included in Section 30 shall apply to : - **Rates for simplified items**
- (a) Lighting points commencing from the loadside of over-current protection device (e.g. MCB) or existing lighting switch/lighting fitting.
  - (b) Power points commencing from the loadside of over-current protection device (e.g. RCBO) or adjacent power outlet.
  - (c) Telephone points commencing from the telephone distribution room on the same floor.
  - (d) LAN nodes commencing from the server, hub, cabinet, equipment rack or router on the same floor.
  - (e) Service outlet points (e.g. broadcast and satellite reception, audio-visual, public address) commencing from the cabinet, equipment rack or distribution splitter on the same floor.
- (2) Rates for lighting points and power points shall include for cabling and wiring facilities starting from the over-current protection device or adjacent points as the case may be, complete with conduit/trunking, draw wire, flexible conduits, adaptors, boxes and all necessary accessories. However, MCBs/RCDs/RCBOs in the MCB board, light fittings, lighting switches, socket outlets, power connection units and the like shall be measured separately and paid for at the appropriate rates under these Sections 27 to 30.
- (3) Rates for telephone points, LAN points and service outlet points shall include for cabling and wiring facilities starting from telephone distribution room/server room/control point on the same floor complete with conduit/trunking, draw wire, box, blanking plate and all necessary accessories.
- (4) Payment for Simplified Items will not be made for replacement of lighting fitting, lighting switch, socket outlet, connection unit and the like which do not involve cabling and wiring facilities; except in special circumstances where specifically ordered in writing by the Maintenance Surveyor for addition or replacement of lighting points, power points, telephone points, LAN nodes and service outlet points.
- XXI. Where a temporary supply is ordered by the Maintenance Surveyor, the provision of all articles, labour and accessory materials (nails, screws, rawplugs and similar) necessary for fixing shall be of temporary nature. For "use and waste" of all materials, such as cables, fittings, switchgear and accessories, etc., for a period of not exceeding four weeks from the date of certified completion, 50 percent of the value of the appropriate "supply and fix" items after the adjustment of contract percentages will be paid. For a period exceeding four weeks and not exceeding eight weeks, 55 percent will be paid and for each subsequent month a further addition of 5 percent will be made. **Rates for temporary supply**
- For a period of more than six months, the full rates, as for permanent works will be paid, and the materials will become the property of the Employer.
- No extra payment will be made for the removal of materials in connection with the temporary supply.
- The date of certified completion of a temporary supply shall be the date when the installation is first brought into services. The date when it ceases to be used shall be the date from which the Maintenance Surveyor instructs the dismantlement of the installation, or the date when the installation is no longer is used, whichever is earlier.



**SPECIAL CONDITIONS (CONT'D)****Rates for Periodic Testing Electrical Installation**

- XXII. The rates for Periodic Testing Electrical Installation shall generally include for : -
- (a) Testing of electrical installation comprising rising mains, protective conductors, earthing facilities, power supply to all sub-mains for communal services (e.g. lifts, water pumps, central air-conditioning and ventilation, broadcast and satellite reception), functional testing of residual current device, earth loop and IR testing of final distribution circuits.
  - (b) Provision of electrical schematic, test report, test certificate (WR2), checklist, all certified by Registered Electrical Worker of the appropriate grade.

**PART II - BEDHEAD TRUNKING SYSTEM AND STAFF/EMERGENCY/NURSE CALL SYSTEM****Rates for bedhead trunking system and staff/emergency/nurse call system generally**

- XXIII. The rates for bedhead trunking system and staff/emergency/nurse call system shall further include for : -
- (a) All components and parts building up the system.
  - (b) Interconnecting wirings and signal cables including conduits and/or flexible conduits, trunkings, trays, junction boxes and the like necessary to complete the system.
  - (c) All electricity supply and control circuits from the supply points including cables, wirings, conduits and/or flexible conduits, trunkings, cable trays, fuses, control boxes and necessary accessories required to energize the system.
  - (d) Provision of expansion joints in service runs wherever they coincide with structural expansion joints.

**Rates for call units**

- XXIV. The rates for call units shall further include for push button package, flashlight, flexible cables, flexible conduits and all associated components.

**Rates for power supply units**

- XXV. The rates for power supply units for call system shall further include for : -
- (a) Uninterruptible power supply system and associated accessories.
  - (b) Well-ventilated and earthed metal enclosure.
  - (c) Transformer, fused spur unit, termination block and the like.
  - (d) Rectifying, filtering and control circuits and associated accessories.
  - (e) Circuit protection device.
  - (f) All cable and wiring facilities including necessary conduits, trunking and the like.

**Rates for control panels**

- XXVI. The rates for control panels shall further include for visual indications, audible alarm, indication lamp, switches and the interconnecting wiring of the control panel including connecting to existing control panel as required.

**SPECIAL CONDITIONS (CONT'D)****PARTICULAR SPECIFICATION**

- |         |  |  |
|---------|--|--|
| XXVII.  | The Particular Specification for electrical installation can be found in the Contract.                                       | <b>Particular<br/>Specification for<br/>electrical installation</b>  |
| XXVIII. | The Particular Specification for bedhead trunking system and staff/emergency/nurse call system can be found in the Contract. | <b>Particular<br/>Specification for<br/>bedhead trunking system<br/>and staff/emergency/<br/>nurse call system</b> |

Item	BELLS AND BELL ACCESSORIES	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
27001	Door bell with bakelite case, battery operated type, of any rating.....	120.10	32.00	10.40	12.30	27001
27002	Door bell, 2 notes, 8V, without transformer.....	128.40	32.00	10.40	12.30	27002
27003	Door bell, 2 notes, 8V, with 220V/8V transformer.....	160.80	32.00	10.40	12.30	27003
27004	Bell, underdome type, circular 75 mm diameter, 4.5, 6 or 12V.....	203.90	32.00	10.40	12.30	27004
27005	Ditto but circular and insulated pattern, 100 mm diameter, 12 or 24V.....	236.70	32.00	10.40	12.30	27005
27006	Alarm bell, waterproof, 150 mm diameter gong, cast iron pattern continuous ringing, 220V A.C. or 24V D.C.....	297.40	32.00	10.40	12.30	27006
27007	Alarm bell, waterproof, 225 mm diameter gong, cast iron pattern continuous ringing, 220V A.C. or 24V D.C.....	585.60	32.00	10.40	12.30	27007
27008	Mini buzzer, 51 mm diameter, 8/12V A.C. ....	65.30	32.00	10.40	12.30	27008
27009	Mini buzzer, 71 mm diameter, 8/12V A.C. ....	75.60	32.00	10.40	12.30	27009
27010	Buzzer 24V A.C. with case.....	103.70	32.00	10.40	12.30	27010
27011	Buzzer 8V A.C. with case.....	114.60	32.00	10.40	12.30	27011
27012	Bell indicator, unit pendulum type, 6 - 9 ways.....	49.10	32.00	10.40	12.30	27012
27013	Bell push, flush type with bakelite plate on BS 4662 Box/IEC 60670 Box .....	39.80	25.90	8.40	10.40	27013
27014	Weatherproof bell push, rated IP65.....	253.90	55.60	14.80	18.30	27014
27015	Bell push, foot operated floor type.....	169.00	25.90	8.40	10.40	27015
27016	Bell push, surface mounted.....	40.20	25.90	8.40	10.40	27016
27017	Bell transformer, 220/4V.....	146.40	32.00	10.40	12.30	27017
27018	Bell transformer, 220/8V.....	146.40	32.00	10.40	12.30	27018
27019	Bell transformer, 220/12V.....	235.30	32.00	10.40	12.30	27019
27020	Bell transformer, 220/24V.....	244.20	32.00	10.40	12.30	27020
27021	Control relay, with bakelite case plug-in type coil voltage 12/24/48V.....	137.80	32.00	10.40	12.30	27021
27022	Ditto but coil voltage 110/220V.....	155.50	32.00	10.40	12.30	27022

Item	LAMP HOLDERS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	The rates include for the provision of fixing screws and rawplugs of approved sizes and types.					
27023	Lampholder, bakelite, batten type, with shade carrier skirt or home office type, shield for E.S. Cap or B.C. G.L.S. lamp .....	23.50	16.00	5.40	6.90	27023
27024	Lampholder, bakelite, cordgrip type, with shade carrier etc. for E.S. Cap or B.C. G.L.S. lamps .....	18.80	11.40	3.50	4.40	27024
27025	Lampholder, backplate type porcelain, for B.C. or E.S. cap G.L.S. lamps .....	25.10	16.00	4.90	6.00	27025
27026	Lampholder, backplate type porcelain, skirted for B.C. or E.S. cap G.L.S. lamps .....	24.80	16.00	4.90	6.00	27026
27027	Lampholder, bakelite, angle batten type with home office type shield for E.S. cap or B.C. G.L.S. lamps .....	23.30	16.00	4.90	6.00	27027
27028	Lampholder, brass, threaded for E.S. cap or B.C. G.L.S. lamps .....	23.30	16.00	4.90	6.00	27028
27029	Lock ring for lampholder.....	7.00	4.60	1.50	1.80	27029
27030	Wedge lampholder for B.C. G.L.S. lamps.....	6.80	5.30	1.70	2.10	27030
27031	Lampholder for high pressure mercury MBF type lamps.....	46.20	29.00	8.40	10.40	27031
27032	Ditto but for high pressure sodium type lamps (all types).....	124.90	41.90	12.30	15.30	27032
27033	Ditto but for low pressure sodium type lamps (all types).....	59.00	29.00	8.40	10.40	27033
27034	Ditto but for tungsten halogen type lamps (all types).....	59.00	29.00	8.40	10.40	27034
27035	Ditto but for metal halide MBIL type lamps (all types).....	124.90	41.90	12.30	15.30	27035
27036	Ditto but for energy saving bulbs (all types).....	23.50	16.00	5.40	6.90	27036
27037	Spring type lampholder for bi-pin fluorescent tube.....	26.20	11.40	3.50	4.40	27037
27038	Spring type lampholder for twin fluorescent tubes.....	30.40	11.40	3.50	4.40	27038
27039	Spring type lampholder for circular fluorescent tube.....	26.20	11.40	3.50	4.40	27039
27040	T8 to T5 Bi-pin lampholder adaptor.....	24.80	4.60	1.50	1.80	27040

Item	LAMPS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>T8 tubular fluorescent tube, 2700 to 3000k : -</b>					
27041	150 mm long, 4W.....	14.90	7.60	2.50	3.00	27041
27042	300 mm long, 8W.....	14.90	7.60	2.50	3.00	27042
27043	600 mm long, 18/20W.....	14.90	7.60	2.50	3.00	27043
27044	900 mm long, 30W.....	14.90	7.60	2.50	3.00	27044
27045	1200 mm long, 36/40W.....	14.90	7.60	2.50	3.00	27045
27046	1500 mm long, 65/80W.....	23.20	8.40	3.00	3.50	27046
	<b>T8 tubular fluorescent tube, 3500 to 3800k : -</b>					
27047	600 mm long, 18W.....	14.90	7.60	2.50	3.00	27047
27048	1200 mm long, 36W.....	14.90	7.60	2.50	3.00	27048
27049	1500 mm long, 58W.....	23.20	8.40	3.00	3.50	27049
	<b>T8 tubular fluorescent tube, 4000 to 6500k : -</b>					
27050	600 mm long, 18/20W.....	14.90	7.60	2.50	3.00	27050
27051	900 mm long, 30W.....	14.90	7.60	2.50	3.00	27051
27052	1200 mm long, 36/40W.....	14.90	7.60	2.50	3.00	27052
27053	1500 mm long, 58/65W.....	23.20	8.40	3.00	3.50	27053

Item	LAMPS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>T5 tubular fluorescent tube, 2700/3000/3500/4000/5000/6000/6500k : -</b>					
27054	549 mm long, 14W.....	35.40	7.60	2.50	3.00	27054
27055	549 mm long, 24W.....	42.30	7.60	2.50	3.00	27055
27056	849 mm long, 21W.....	38.30	7.60	2.50	3.00	27056
27057	849 mm long, 39W.....	42.30	7.60	2.50	3.00	27057
27058	1149 mm long, 28W.....	38.30	7.60	2.50	3.00	27058
27059	1449 mm long, 35W.....	42.00	8.40	3.00	3.50	27059
27060	1449 mm long, 49W.....	54.00	8.40	3.00	3.50	27060
27061	1149 mm long, 54W.....	46.00	8.40	3.00	3.50	27061
27062	1449 mm long, 80W.....	54.00	8.40	3.00	3.50	27062
	<b>Circular fluorescent lamp : -</b>					
27063	22W.....	24.90	11.40	3.50	4.40	27063
27064	32W.....	26.20	11.40	3.50	4.40	27064
27065	40W.....	39.80	11.40	3.50	4.40	27065
27066	60W.....	41.50	11.40	3.50	4.40	27066
	<b>Compact fluorescent lamp : -</b>					
27067	2 pin single turn PLS, 5/7W.....	17.40	5.30	1.70	2.10	27067
27068	Ditto but 9/11W.....	19.30	5.30	1.70	2.10	27068
27069	2 pin double turn PLC, 10/13W.....	27.60	5.30	1.70	2.10	27069
27070	Ditto but 18/26W.....	36.30	5.30	1.70	2.10	27070
27071	4 pin biaxial long turn PLL, 18/24/34W .....	52.50	5.30	1.70	2.10	27071
27072	Ditto but 36/40/55W.....	52.50	5.30	1.70	2.10	27072
27073	4 pin double turn PLC, 10/13W.....	37.60	5.30	1.70	2.10	27073
27074	Ditto but 18/26W.....	42.60	5.30	1.70	2.10	27074
27075	2 or 4 pin triple turn PLT, 13/18/26W .....	75.20	5.30	1.70	2.10	27075
27076	4 pin triple turn PLT, 32/42W .....	83.00	5.30	1.70	2.10	27076
27077	2 pin 2D compact fluorescent lamp.....	40.10	5.30	1.70	2.10	27077
27078	Ditto but 4 pin 28/38/55 W.....	66.20	5.30	1.70	2.10	27078

Item	LAMPS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Incandescent lamp : -</b>					
27079	15/25/40/60W, B15/B22/E14/E27 cap, 35 mm diameter candle type or 45 mm diameter golf ball type lamps.....	10.00	3.80	1.00	2.00	27079
27080	25/40/60/100W, G.L.S. lamp B15/B22/E14/E27 cap, with clear, pearl or colour finish.....	10.00	3.80	1.00	2.00	27080
27081	150W, G.L.S. lamp G.E.S. cap, clear or pearl finishes.....	40.10	5.30	1.70	2.10	27081
27082	200W, ditto.....	40.10	5.30	1.70	2.10	27082
	<b>Halogen lamp : -</b>					
27083	20/35W dichroic lamp 12V, 35 mm diameter MR11, closed fronted with mirror reflector.....	25.10	5.30	1.70	2.10	27083
27084	Ditto but open fronted.....	17.70	5.30	1.70	2.10	27084
27085	20/35/50W dichroic lamp 12V, 50 mm diameter MR16, closed fronted with mirror reflector.....	16.40	5.30	1.70	2.10	27085
27086	Ditto but open fronted.....	15.20	5.30	1.70	2.10	27086
27087	35/50/75/100W aluminium reflector lamp 12V, 111 mm diameter.....	100.60	5.30	1.70	2.10	27087
27088	20/50W aluminium reflector lamp 12V, 70 mm diameter.....	77.80	5.30	1.70	2.10	27088
27089	35/50W PAR 16 reflector lamp ( spot / flood ), 50 mm diameter.....	36.30	5.30	1.70	2.10	27089
27090	50W PAR 20 reflector lamp ( spot / flood ), 63 mm diameter .....	55.00	5.30	1.70	2.10	27090
27091	75/100W PAR 30 reflector lamp ( spot / flood ), 95 mm diameter .....	55.00	5.30	1.70	2.10	27091
27092	60/80/120W PAR 38 reflector lamp ( spot/flood).....	31.20	5.30	1.70	2.10	27092
27093	150W ditto.....	36.30	5.30	1.70	2.10	27093
27094	300W PAR 56 reflector lamp ( spot / flood / wide flood).....	254.00	5.30	1.70	2.10	27094

Item	LAMPS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Halogen lamp : - (Cont'd)</b>					
27095	150W double-end.....	17.70	5.30	1.70	2.10	27095
27096	200W ditto .....	17.70	5.30	1.70	2.10	27096
27097	300W ditto.....	23.90	5.30	1.70	2.10	27097
27098	500W ditto.....	23.90	5.30	1.70	2.10	27098
27099	750W ditto.....	40.10	5.30	1.70	2.10	27099
27100	1000W ditto.....	40.10	5.30	1.70	2.10	27100
27101	1500W ditto.....	55.00	5.30	1.70	2.10	27101
27102	100/150W single-end.....	32.60	5.30	1.70	2.10	27102
27103	250W ditto.....	104.70	5.30	1.70	2.10	27103
27104	300W ditto.....	191.80	5.30	1.70	2.10	27104
27105	500W ditto.....	254.00	5.30	1.70	2.10	27105
27106	55W induction.....	266.80	5.30	1.70	2.10	27106
27107	88W ditto.....	319.10	5.30	1.70	2.10	27107
	<b>Low pressure sodium lamp : -</b>					
27108	35/55W.....	190.10	20.10	6.70	8.20	27108
27109	90/135W.....	273.30	20.10	6.70	8.20	27109
27110	26/35W.....	198.70	20.10	6.70	8.20	27110
27111	66/90W.....	286.10	20.10	6.70	8.20	27111
	<b>Metal halide lamp : -</b>					
27112	35W reflector - ceramic.....	390.90	20.10	6.70	8.20	27112
27113	70/150W double-end compact.....	118.20	20.10	6.70	8.20	27113
27114	250W double-end compact.....	613.20	20.10	6.70	8.20	27114
27115	400W double-end compact.....	638.10	20.10	6.70	8.20	27115
27116	70/150W double-end compact - ceramic.....	290.50	20.10	6.70	8.20	27116
27117	70/150W single-end compact.....	157.00	20.10	6.70	8.20	27117
27118	200W single-end compact.....	301.00	20.10	6.70	8.20	27118
27119	35/70W single-end compact - ceramic.....	329.60	20.10	6.70	8.20	27119



Item	LAMPS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Metal halide lamp : - (Cont'd)</b>					
27120	150W single-end compact - ceramic.....	329.60	20.10	6.70	8.20	27120
27121	70W MBIF, elliptical coated.....	248.90	20.10	6.70	8.20	27121
27122	100/250W MBIF, elliptical coated.....	157.00	20.10	6.70	8.20	27122
27123	400W MBIF, elliptical coated.....	203.00	20.10	6.70	8.20	27123
27124	250W tubular clear.....	239.10	20.10	6.70	8.20	27124
27125	400W tubular clear.....	248.90	20.10	6.70	8.20	27125
27126	1000W tubular clear.....	715.20	27.70	8.10	10.10	27126
27127	750W MBIL double-end.....	394.90	27.70	8.10	10.10	27127
27128	1500W MBIL double-end.....	818.80	27.70	8.10	10.10	27128
27129	2000W MBIL double-end.....	1,630.20	27.70	8.10	10.10	27129
27130	70/150W compact metal halide.....	332.80	20.10	6.70	8.20	27130
27131	1000W compact metal halide.....	1,365.70	27.70	8.10	10.10	27131
	<b>High pressure sodium lamp (Standard) : -</b>					
27132	50/70W SON-E.....	118.90	20.10	6.70	8.20	27132
27133	70W SON-I / SON-T.....	128.90	20.10	6.70	8.20	27133
27134	100W SON-E / SON-T.....	146.80	20.10	6.70	8.20	27134
27135	110/150W SON-E / SON-T.....	153.90	20.10	6.70	8.20	27135
27136	250W SON / SON-T.....	161.80	20.10	6.70	8.20	27136
27137	400W SON / SON-T.....	169.20	20.10	6.70	8.20	27137
27138	1000W SON-T.....	629.50	20.10	6.70	8.20	27138
	<b>High pressure sodium lamp (Special) : -</b>					
27139	50/70W high lumen output.....	146.80	20.10	6.70	8.20	27139
27140	100/150W high lumen output.....	168.80	20.10	6.70	8.20	27140
27141	250/400W high lumen output.....	178.80	20.10	6.70	8.20	27141

Item	LAMPS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>High pressure sodium lamp (Special) :- (Cont'd)</b>					
27142	150W colour temperature not less than 2150K.....	209.70	20.10	6.70	8.20	27142
27143	250W colour temperature not less than 2150K.....	253.70	20.10	6.70	8.20	27143
27144	400W colour temperature not less than 2150K.....	310.10	20.10	6.70	8.20	27144
27145	35/50W WHITE SON.....	295.80	20.10	6.70	8.20	27145
27146	100W WHITE SON.....	315.50	20.10	6.70	8.20	27146
27147	150W WHITE SON.....	337.20	20.10	6.70	8.20	27147
27148	250W WHITE SON.....	370.70	20.10	6.70	8.20	27148
27149	70/150W double-end.....	293.70	20.10	6.70	8.20	27149
27150	250W double-end.....	372.30	20.10	6.70	8.20	27150
27151	400W double-end.....	411.50	20.10	6.70	8.20	27151
27152	70W reflector.....	251.60	20.10	6.70	8.20	27152
	<b>High pressure mercury discharge lamp :-</b>					
27153	50/80/125W MBF .....	45.70	20.10	6.70	8.20	27153
27154	250W ditto.....	64.00	20.10	6.70	8.20	27154
27155	400W ditto.....	76.10	20.10	6.70	8.20	27155
27156	450W ditto.....	140.50	20.10	6.70	8.20	27156
27157	700W ditto.....	279.50	20.10	6.70	8.20	27157
	<b>Other lamps :-</b>					
27158	Energy saving lamp 9/11/13/15/18W, E14/E27 lamp base.....	35.50	3.80	1.00	1.20	27158
27159	Energy saving lamp 20/25W, E14/E27 lamp base.....	55.10	3.80	1.00	1.20	27159
27160	Energy saving lamp, globe type 9/11/13/15/18W.....	41.10	3.80	1.00	1.20	27160
27161	Energy saving lamp, globe type 20/25W.....	47.30	3.80	1.00	1.20	27161
27162	24V, 75/55W, sealed beam lamp bulb for underwater floodlight.....	61.10	20.10	6.70	8.80	27162

Item	FLUORESCENT LIGHTING FITTINGS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Surface mounted fluorescent light fitting c/w energy efficient fluorescent tube, high efficiency electronic control gear/electronic ballast (one electronic ballast for each set of fluorescent tube) :-</b>					
27163	600 mm single tube batten type as SFA 50 .....	185.60	60.10	17.90	22.40	27163
27164	600 mm twin tubes batten type as SFA 50 .....	271.10	69.80	18.80	24.00	27164
27165	600 mm single tube prismatic controller as SFA 51 .....	230.40	63.30	18.80	23.20	27165
27166	600 mm twin tubes prismatic controller as SFA 51 .....	348.70	71.30	20.40	25.30	27166
27167	Twin compact fluorescent 9W c/w prismatic controller.....	429.00	63.30	18.80	23.20	27167
27168	Twin compact fluorescent 11W c/w prismatic controller.....	460.40	63.30	18.80	23.20	27168
27169	Circular type, 16W, 270 mm diameter c/w opal diffuser.....	431.70	63.30	18.80	23.20	27169
27170	Circular type, 28W, 360 mm diameter c/w opal diffuser.....	508.60	63.30	18.80	23.20	27170
27171	1200 mm single tube, batten type, high corrosive resistance and smooth reflective white paint finish as SFA 55 .....	201.40	67.40	19.90	24.30	27171
27172	Ditto but 1200 mm twin tubes as SFA 69.....	318.40	77.60	21.30	26.10	27172
27173	1200 mm single tube, open metal trough reflector high corrosive resistance and smooth reflective white paint finish as SFA 58.....	246.50	70.60	20.80	25.60	27173
27174	Ditto but 1200 mm twin tubes as SFA 72 .....	377.40	80.70	22.40	27.70	27174
27175	1200 mm single tube, angle reflector, finish as above and as SFA 56.....	249.60	70.60	20.80	25.60	27175
27176	1200 mm single tube with prismatic diffuser as SFA 54.....	266.30	70.60	20.80	25.60	27176
27177	Ditto but 1200 mm twin tubes as SFA 74 .....	419.20	80.70	22.40	27.70	27177
27178	1500 mm single tube, batten type, corrosive resistance and smooth reflective white paint finish as SFA 84 .....	220.40	71.30	20.40	25.30	27178
27179	Ditto but 1500 mm twin tubes as SFA 98 .....	344.30	82.30	23.70	29.00	27179
27180	1500 mm single tube, open metal trough reflector corrosive resistance and smooth reflective white paint finish as SFA 87 .....	272.70	75.30	23.40	28.50	27180
27181	Ditto but 1500 mm twin tubes as SFA 101 .....	413.80	86.20	24.30	30.50	27181
27182	1500 mm single tube, angle reflector, corrosive resistance and smooth reflective white paint finish as SFA 85 .....	267.70	75.30	23.40	28.50	27182
27183	1500 mm single tube with prismatic diffuser as SFA 83.....	267.70	75.30	23.40	28.50	27183
27184	Ditto but 1500 mm twin tubes as SFA 103 .....	429.20	86.20	24.30	30.50	27184

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Surface mounted modular fluorescent lighting fitting (one electronic ballast for each set of fluorescent tube) :-</b>					
27185	600 x 600 mm twin tubes with opal diffuser/ prismatic controller as SFA 52.....	443.70	85.50	28.00	33.30	27185
27186	600 x 600 mm triple tubes with opal diffuser/ prismatic controller as SFA 52.....	549.70	91.60	31.60	37.10	27186
27187	600 x 1200 mm twin tubes with opal diffuser/ prismatic controller as SFA 52.....	555.00	99.40	33.90	40.10	27187
27188	600 x 1200 mm triple tubes with opal diffuser/ prismatic controller as SFA 52.....	673.10	106.40	37.10	44.20	27188
27189	300 x 1200 mm single tube with opal diffuser/ prismatic controller as SFA 75.....	360.10	81.50	25.60	30.50	27189
27190	300 x 1200 mm twin tubes with opal diffuser/ prismatic controller as SFA 75.....	460.10	87.80	29.00	34.40	27190
27191	300 x 1500 mm single tube with opal diffuser/ prismatic controller as SFA 75.....	446.30	85.50	28.00	33.30	27191
27192	300 x 1500 mm twin tubes with opal diffuser/ prismatic controller as SFA 75.....	570.50	91.60	31.60	37.10	27192
27193	300 x 1200 mm single tube c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	472.90	81.50	25.60	30.50	27193
27194	300 x 1500 mm single tube c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	511.80	85.50	28.00	33.30	27194
27195	300 x 1200 mm twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	561.90	87.80	29.00	34.40	27195
27196	300 x 1500 mm twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	617.70	91.60	31.60	37.10	27196
27197	600 x 600 mm twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	538.30	85.50	28.00	33.30	27197
27198	600 x 1200 mm twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	602.20	99.40	33.90	40.10	27198
27199	600 x 600 mm triple tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	646.10	91.60	31.60	37.10	27199
27200	600 x 1200 mm triple tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	749.50	106.40	37.40	44.20	27200

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Surface mounted fluorescent light fitting c/w T5 fluorescent tube, T5 electronic control gear/electronic ballast (one electronic ballast for each set of fluorescent tube) :-</b>					
27201	600 mm, 1x 14W, batten type as SFA 50 .....	186.70	60.10	17.90	22.40	27201
27202	600 mm, 2 x 14W, batten type as SFA 50 .....	273.40	69.80	18.80	24.00	27202
27203	600 mm, 1 x 14W, prismatic controller as SFA 51 .....	231.50	63.30	18.80	23.20	27203
27204	600 mm, 2 x 14W, prismatic controller as SFA 51 .....	351.00	71.30	20.40	25.30	27204
27205	1200 mm, 1 x 28W, batten type, high corrosive resistance and smooth reflective white paint finish as SFA 55 .....	203.50	67.40	19.90	24.30	27205
27206	Ditto but 2 x 28W, as SFA 69.....	322.60	77.60	21.30	26.10	27206
27207	1200 mm, 1 x 28W, open metal trough reflector high corrosive resistance and smooth reflective white paint finish as SFA 58.....	248.60	70.60	20.80	25.60	27207
27208	Ditto but 2 x 28W, as SFA 72 .....	381.60	80.70	22.40	27.70	27208
27209	1200 mm, 1 x 28W, angle reflector, finish as above and as SFA 56.....	251.70	70.60	20.80	25.60	27209
27210	1200 mm single tube with prismatic diffuser as SFA 54.....	268.30	70.60	20.80	25.60	27210
27211	Ditto but 2 x 28W, as SFA 74 .....	423.40	80.70	22.40	27.70	27211
27212	1500 mm, 1 x 35W, batten type, corrosive resistance and smooth reflective white paint finish as SFA 84 .....	218.00	71.30	20.40	25.30	27212
27213	Ditto but 2 x 35W, as SFA 98 .....	339.60	82.30	23.70	29.00	27213
27214	1500 mm, 1 x 49W, batten type, corrosive resistance and smooth reflective white paint finish as SFA 84 .....	221.70	71.30	20.40	25.30	27214
27215	Ditto but 2 x 49W, as SFA 98 .....	347.10	82.30	23.70	29.00	27215
27216	1500 mm, 1 x 35W, open metal trough reflector corrosive resistance and smooth reflective white paint finish as SFA 87 .....	270.30	75.30	23.40	28.50	27216
27217	Ditto but 2 x 35W, as SFA 101 .....	409.20	86.20	24.30	30.50	27217
27218	1500 mm, 1 x 49W, open metal trough reflector corrosive resistance and smooth reflective white paint finish as SFA 87 .....	274.10	75.30	23.40	28.50	27218
27219	Ditto but 2 x 49W, as SFA 101 .....	416.60	86.20	24.30	30.50	27219

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Surface mounted fluorescent light fitting c/w T5 fluorescent tube, T5 electronic control gear/electronic ballast (one electronic ballast for each set of fluorescent tube) : - (Cont'd)</b>					
27220	1500 mm, 1 x 35W, angle reflector, corrosive resistance and smooth reflective white paint finish as SFA 85 .....	265.40	75.30	23.40	28.50	27220
27221	1500 mm, 1 x 49W, angle reflector, corrosive resistance and smooth reflective white paint finish as SFA 85 .....	269.10	75.30	23.40	28.50	27221
27222	1500 mm, 1 x 35W, with prismatic diffuser as SFA 83.....	265.40	75.30	23.40	28.50	27222
27223	Ditto but 2 x 35W, as SFA 103 .....	424.50	86.20	24.30	30.50	27223
27224	1500 mm, 1 x 49W, with prismatic diffuser as SFA 83.....	269.10	75.30	23.40	28.50	27224
27225	Ditto but 2 x 49W, as SFA 103 .....	432.00	86.20	24.30	30.50	27225
	<b>Surface mounted modular fluorescent lighting fitting c/w T5 fluorescent tube, T5 electronic control gear/electronic ballast (one T5 electronic ballast for each set of T5 fluorescent tube) : -</b>					
27226	300 x 1200 mm, 1 x 28W, c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	475.00	81.50	25.60	30.50	27226
27227	300 x 1500 mm, 1 x 35W, c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	509.40	85.50	28.00	33.30	27227
27228	300 x 1500 mm, 1 x 49W, c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	513.10	85.50	28.00	33.30	27228
27229	300 x 1200 mm, 2 x 28W, c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	566.10	87.80	29.00	34.40	27229

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Surface mounted modular fluorescent lighting fitting c/w T5 fluorescent tube, T5 electronic control gear/electronic ballast (one T5 electronic ballast for each set of T5 fluorescent tube) : - (Cont'd)</b>					
27230	300 x 1500 mm, 2 x 35W, c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	613.00	91.60	31.60	37.10	27230
27231	300 x 1500 mm, 2 x 49W, c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	620.50	91.60	31.60	37.10	27231
27232	600 x 600 mm, 2 x 14W, c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	540.60	85.50	28.00	33.30	27232
27233	600 x 1200 mm, 2 x 28W, c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	606.40	99.40	33.90	40.10	27233
27234	600 x 600 mm, 3 x 14W, c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	649.50	91.60	31.60	37.10	27234
27235	600 x 1200 mm, 3 x 28W, c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	755.80	106.40	37.40	44.20	27235
27236	300 x 1500 mm, 1 x 35W, c/w single parabolic side reflector of low iridescent specular/semi-specular aluminium and hinged wire guard.....	615.50	85.50	28.00	33.30	27236
27237	600 x 1500 mm, 3 x 35W, c/w single parabolic side reflector of low iridescent specular/semi-specular aluminium and hinged wire guard.....	930.30	112.20	39.30	45.70	27237
27238	600 x 1200 mm, 3 x 54W, c/w single parabolic side reflector of low iridescent specular/semi-specular aluminium and hinged wire guard.....	841.50	106.40	37.40	44.20	27238
27239	600 x 1500 mm, 4 x 49W, c/w single parabolic side reflector of low iridescent specular/semi-specular aluminium and hinged wire guard.....	1,223.30	119.10	42.80	50.00	27239

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Recessed modular fluorescent lighting fitting c/w energy efficient fluorescent tube, high frequency electronic control gear/electronic ballast (one electronic ballast for each set of fluorescent tube) : -</b>					
27240	300 x 600 mm single tube c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	438.50	77.60	21.30	26.10	27240
27241	300 x 1200 mm single tube c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	472.90	81.50	25.60	30.50	27241
27242	300 x 1500 mm single tube c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	511.80	85.50	28.00	33.30	27242
27243	300 x 600 mm twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	513.00	81.50	25.60	30.50	27243
27244	300 x 1200 mm twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	561.90	87.80	29.00	34.40	27244
27245	300 x 1500 mm twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	617.70	91.60	31.60	37.10	27245
27246	600 x 600 mm twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	538.30	85.50	28.00	33.30	27246
27247	600 x 1200 mm twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	602.20	99.40	33.90	40.10	27247
27248	600 x 600 mm triple tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	633.30	91.60	31.60	37.10	27248
27249	600 x 1200 mm triple tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	749.50	106.40	37.40	44.20	27249
	<b>Energy saving recessed modular fluorescent lighting fitting c/w energy efficient fluorescent tube, high frequency electronic control gear/ electronic ballast (one electronic ballast for each set of fluorescent tube) and parabolic side reflector of low iridescent specular/semi-specular aluminium with faceted stain finish cross blades : -</b>					
27250	300 x 600 mm single tube.....	394.90	77.60	21.30	26.10	27250
27251	300 x 1200 mm single tube.....	425.60	81.50	25.60	30.50	27251
27252	300 x 600 mm twin tubes.....	473.20	81.50	25.60	30.50	27252
27253	300 x 1200 mm twin tubes.....	510.70	87.80	29.00	34.40	27253
27254	600 x 1200 mm twin tubes.....	587.10	99.40	33.90	40.10	27254
27255	600 x 1200 mm triple tubes.....	688.20	106.40	37.40	44.20	27255
27256	600 x 600 mm twin tubes.....	512.80	85.50	28.00	33.30	27256
27257	600 x 600 mm triple tubes.....	597.90	91.60	31.60	37.10	27257



Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Recessed modular fluorescent lighting fitting c/w T5 fluorescent tube, T5 electronic control gear/electronic ballast (one T5 electronic ballast for each set of T5 fluorescent tube) :-</b>					
27258	300 x 600 mm, 1 x 14W, single tube c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	440.50	77.60	21.30	26.10	27258
27259	300 x 1200 mm, 1 x 28W, single tube c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	475.00	81.50	25.60	30.50	27259
27260	300 x 1500 mm, 1 x 35W, single tube c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	509.40	85.50	28.00	33.30	27260
27261	300 x 1500 mm, 1 x 49W, single tube c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	513.10	85.50	28.00	33.30	27261
27262	300 x 600 mm, 2 x 14W, twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	554.50	81.50	25.60	30.50	27262
27263	300 x 1200 mm, 2 x 28W, twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	566.10	87.80	29.00	34.40	27263
27264	300 x 1500 mm, 2 x 35W, twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	613.00	91.60	31.60	37.10	27264
27265	300 x 1500 mm, 2 x 49W, twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	620.50	91.60	31.60	37.10	27265
27266	600 x 600 mm, 2 x 14W, twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	540.60	85.50	28.00	33.30	27266
27267	600 x 1200 mm, 2 x 28W, twin tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	606.40	99.40	33.90	40.10	27267
27268	600 x 600 mm, 3 x 14W, triple tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	636.80	91.60	31.60	37.10	27268
27269	600 x 1200 mm, 3 x 28W, triple tubes c/w double parabolic side reflector of low iridescent specular/semi-specular aluminium .....	755.80	106.40	37.40	44.20	27269

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Energy saving recessed modular fluorescent lighting fitting c/w T5 electronic ballast, fluorescent tube, (one electronic ballast for each set of fluorescent tube) and parabolic side reflector of low iridescent specular/ semi-specular aluminium with faceted stain finish cross blades : -</b>					
27270	300 x 600 mm, 1 x 14W, single tube.....	414.80	77.60	21.30	26.10	27270
27271	300 x 1200 mm, 1 x 28W, single tube.....	447.20	81.50	25.60	30.50	27271
27272	300 x 600 mm, 2 x 14W, twin tubes.....	540.80	81.50	25.60	30.50	27272
27273	300 x 1200 mm, 2 x 28W, twin tubes.....	553.90	87.80	29.00	34.40	27273
27274	600 x 1200 mm, 2 x 28W, twin tubes.....	631.00	99.40	33.90	40.10	27274
27275	600 x 1200 mm, 3 x 28W, triple tubes.....	752.40	106.40	37.40	44.20	27275
27276	600 x 600 mm, 2 x 14W, twin tubes.....	554.20	85.50	28.00	33.30	27276
27277	600 x 600 mm, 3 x 14W, triple tubes.....	659.40	91.60	31.60	37.10	27277
	<b>Double parabolic recessed modular fluorescent lighting fitting c/w energy efficient fluorescent tube, electronic control gear/electronic ballast (one electronic ballast for each set of fluorescent tube) and 2 nos. air slot : -</b>					
27278	600 x 1200 mm twin tubes.....	602.20	99.40	33.90	40.10	27278
27279	600 x 600 mm twin tubes.....	538.30	85.50	28.00	33.30	27279
	<b>Double parabolic recessed modular fluorescent lighting fitting c/w T5 fluorescent tube, T5 electronic control gear/electronic ballast (one electronic ballast for each set of fluorescent tube) and 2 nos. air slot : -</b>					
27280	600 x 1200 mm, 2 x 28W.....	606.40	99.40	33.90	40.10	27280
27281	600 x 600 mm, 2 x 14W.....	540.60	85.50	28.00	33.30	27281

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Fluorescent lighting fitting; circular type, recessed mounted to ceiling by simple screw fixing, suitable for ceiling tiles up to 25 mm thick, integral switchstart gear with starter and fuse, white stove enamelled steel body and anodized aluminium reflector with/without metal trim : -</b>					
27282	Down light with 7/9/11W PL-S lamp.....	178.90	52.20	15.00	18.40	27282
27283	Down light with 7/9/11W PL-S lamp c/w glass diffuser.....	239.30	52.20	15.00	18.40	27283
27284	Down light with 13/18/26W PL-C lamp.....	193.30	52.20	15.00	18.40	27284
27285	Down light with 13/18/26W PL-C lamp c/w glass diffuser.....	251.30	52.20	15.00	18.40	27285
27286	Down light with 2 x 13/2 x 18W/2 x 26W PL-C lamp.....	256.00	52.20	15.00	18.40	27286
27287	Down light with 2 x 13/2 x 18W/2 x 26W PL-C lamp c/w glass diffuser .....	320.30	52.20	15.00	18.40	27287
27288	Down light with electronic ballast, 1 x 18W, 150 mm diameter.....	345.80	52.20	15.00	18.40	27288
27289	Down light with electronic ballast, 2 x 18W, 150 mm diameter.....	395.50	52.20	15.00	18.40	27289
27290	Down light with electronic ballast, 1 x 18W, 200 mm diameter.....	345.80	52.20	15.00	18.40	27290
27291	Down light with electronic ballast, 1 x 18W c/w safety glass, IP65.....	1,750.80	52.20	15.00	18.40	27291
27292	Down light with dimmable electronic ballast, 1 x 13W.....	1,044.60	52.20	15.00	18.40	27292
27293	Down light with dimmable electronic ballast, 1 x 18W.....	1,044.60	52.20	15.00	18.40	27293
27294	Down light with dimmable electronic ballast, 1 x 26W.....	1,129.10	52.20	15.00	18.40	27294
27295	Down light with dimmable electronic ballast, 2 x 26W.....	1,168.90	52.20	15.00	18.40	27295
	<b>Fluorescent lighting fitting; circular type, with diffuser, fixing to ceiling, bracket, pendant or hook, of the nominal size and rated wattage : -</b>					
27296	Diameter 300 mm 32W circular tube.....	664.10	76.10	19.90	25.30	27296
27297	Diameter 400 mm 60W circular tube.....	847.80	76.10	19.90	25.30	27297
27298	2 x 8W T5 fluorescent fitting, die cast aluminium base and gear tray, c/w opal polycarbonate hinged diffuser (vandal proof).....	460.00	67.40	19.90	24.30	27298

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Circular/diamond shape compact fluorescent lighting fitting : -</b>					
27299	Circular/diamond shape compact fluorescent lighting fitting opal/clear prismatic polycarbonate diffuser, die cast aluminium/polycarbonate body c/w 16/21W 2D lamp .....	346.90	63.30	18.80	23.20	27299
27300	Circular/diamond shape compact fluorescent lighting fitting opal/clear prismatic polycarbonate diffuser, die cast aluminium/polycarbonate body c/w 28/38W 2D lamp .....	419.40	63.30	18.80	23.20	27300
27301	Circular/diamond shape compact fluorescent lighting fitting vandal proof prismatic diffuser, die-cast aluminium base with IP65 protection body c/w 16/21W 2D electronic ballast and lamp tube .....	787.70	63.30	18.80	23.20	27301
27302	Circular/diamond shape compact fluorescent lighting fitting vandal proof prismatic diffuser, die-cast aluminium base with IP65 protection body c/w 28/38W 2D electronic ballast and lamp tube .....	860.30	63.30	18.80	23.20	27302
27303	Circular/diamond shape compact fluorescent lighting fitting vandal proof prismatic diffuser, die-cast aluminium base with IP65 protection body c/w 28/38W 2D electronic ballast, lamp tube and 2 hours emergency power pack (NiMH) and charger.....	1,476.00	63.30	18.80	23.20	27303
	<b>Self-contained and maintained type for 2-hours duration emergency fluorescent lighting fitting c/w battery charger, inverter and : -</b>					
27304	600/900 mm single fluorescent tube.....	302.20	63.50	18.40	22.70	27304
27305	Ditto but twin fluorescent tubes.....	356.50	69.80	18.80	24.00	27305
27306	600/900 mm single fluorescent tube (electronic ballast).....	350.50	63.50	18.40	22.70	27306
27307	Ditto but twin fluorescent tubes (electronic ballasts).....	429.00	69.80	18.80	24.00	27307
27308	1200 - 1500 mm single fluorescent tube.....	453.90	69.90	21.30	25.60	27308
27309	Ditto but twin fluorescent tubes.....	511.20	79.20	22.00	26.10	27309
27310	1200 - 1500 mm single fluorescent tube (electronic ballast).....	501.80	74.60	21.30	25.60	27310
27311	Ditto but twin fluorescent tubes (electronic ballasts).....	583.70	79.20	22.00	26.10	27311
27312	Bulk head fitting, 1 x 13/18/26W PL-C compact fluorescent tube.....	450.90	67.40	19.90	24.30	27312
27313	Ditto but 2 x 13/18/26W PL-C compact fluorescent tubes.....	518.00	67.40	19.90	24.30	27313
27314	Bulk head fitting, 1 x 7/9/11W PL-S compact fluorescent tube.....	402.60	67.40	19.90	24.30	27314
27315	Ditto but 2 x 7/9/11W PL-S compact fluorescent tubes.....	452.20	67.40	19.90	24.30	27315

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Weather proof, IP65 self-contained and maintained type for 2-hours duration emergency fluorescent lighting fitting with polycarbonate / slab cover, battery charger, inverter and : -</b>					
27316	600/900 mm single fluorescent tube.....	398.90	63.50	18.40	22.70	27316
27317	Ditto but twin fluorescent lamp tubes.....	453.20	69.80	18.80	24.00	27317
27318	600/900 mm single fluorescent tube (electronic ballast).....	447.20	63.50	18.40	22.70	27318
27319	Ditto but twin fluorescent lamp tubes (electronic ballasts).....	549.80	69.80	18.80	24.00	27319
27320	1200-1500 mm single fluorescent tube.....	490.20	69.90	21.30	25.60	27320
27321	Ditto but twin fluorescent lamp tubes.....	583.70	79.20	22.00	26.10	27321
27322	1200-1500 mm single fluorescent tube (electronic ballast).....	545.20	69.90	21.30	25.60	27322
27323	Ditto but twin fluorescent lamp tubes (electronic ballasts).....	656.20	79.20	22.00	26.10	27323
27324	Bulk head fitting, 1 x 13/18/26W PL-C compact fluorescent tube.....	536.10	67.40	19.90	24.30	27324
27325	Ditto but 2 x 13/18/26W PL-C compact fluorescent tubes.....	630.90	67.40	19.90	24.30	27325
27326	Bulk head fitting, 1 x 7/9/11W PL-S compact fluorescent tube.....	506.90	67.40	19.90	24.30	27326
27327	Ditto but 2 x 7/9/11W PL-S compact fluorescent tubes.....	553.10	67.40	19.90	24.30	27327
	<b>Weather proof, IP65 fluorescent light fitting with polycarbonate / slab cover : -</b>					
27328	600 mm single T8 tube and electronic ballast.....	231.20	63.30	18.80	23.20	27328
27329	600 mm twin T8 tubes and electronic ballasts.....	292.40	71.30	20.40	25.30	27329
27330	1200 mm single T8 tube and electronic ballast.....	285.00	70.60	20.80	25.60	27330
27331	1200 mm twin T8 tubes and electronic ballasts.....	405.50	80.70	22.40	26.40	27331
27332	1500 mm single T8 tube and electronic ballast.....	341.30	75.30	23.40	28.70	27332
27333	1500 mm twin T8 tubes and electronic ballasts.....	492.70	86.20	24.30	30.50	27333
27334	549 mm single T5 tube and electronic ballast.....	253.50	63.30	18.80	23.20	27334
27335	549 mm twin T5 tubes and electronic ballasts.....	337.20	71.30	20.40	25.30	27335
27336	1149 mm single T5 tube and electronic ballast.....	306.70	70.60	20.80	25.60	27336
27337	1149 mm twin T5 tubes and electronic ballasts.....	449.10	80.70	22.40	26.40	27337
27338	1449 mm single T5 tube and electronic ballast.....	366.40	75.30	23.40	28.70	27338
27339	1449 mm twin T5 tubes and electronic ballasts.....	543.40	86.20	24.30	30.50	27339
27340	2D bulkhead 210 mm diameter 16W .....	360.70	63.30	18.80	23.20	27340
27341	2D bulkhead 295 mm diameter 28W.....	442.60	63.30	18.80	23.20	27341

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Corrosion resistant IP65 fluorescent lighting fitting c/w self- contained battery for 2 hours discharge (emergency of the normal length) : -</b>					
27342	600 mm single tube.....	398.10	63.30	18.80	23.20	27342
27343	600 mm twin tubes.....	454.70	71.30	20.40	25.30	27343
27344	1200 mm single tube.....	483.00	67.40	19.90	24.30	27344
27345	1200 mm twin tubes.....	576.50	77.60	21.50	26.40	27345
27346	1500 mm single tube.....	594.40	71.30	20.40	25.30	27346
27347	1500 mm twin tubes.....	646.40	82.30	23.70	29.00	27347
	<b>Corrosion resistant IP65 fluorescent lighting fitting c/w self-contained battery (NiMH) for 2 hours discharge (emergency of the normal length) : -</b>					
27348	600 mm, 1 x 20W, single tube.....	446.40	63.30	18.80	23.20	27348
27349	600 mm, 2 x 20W, twin tubes.....	503.00	71.30	20.40	25.30	27349
27350	1200 mm, 1 x 40W, single tube.....	542.80	67.40	19.90	24.30	27350
27351	1200 mm, 2 x 40W, twin tubes.....	624.30	77.60	21.50	26.40	27351
27352	1500 mm, 1 x 65W, single tube.....	666.20	71.30	20.40	25.30	27352
27353	1500 mm, 2 x 65W, twin tubes.....	717.50	82.30	23.70	29.00	27353
	<b>Corrosion resistant IP65 fluorescent lighting fitting c/w T8 electronic ballast and self-contained battery (NiCd) for 2 hours discharge (emergency of the normal length) : -</b>					
27354	600 mm, 1 x 18W, single tube.....	446.40	62.70	18.60	23.00	27354
27355	600 mm, 2 x 18W, twin tubes.....	503.00	71.30	20.40	25.30	27355
27356	1200 mm, 1 x 36W, single tube.....	542.80	67.40	19.90	24.30	27356
27357	1200 mm, 2 x 36W, twin tubes.....	624.30	77.60	21.50	26.40	27357
27358	1500 mm, 1 x 58W, single tube.....	666.20	71.30	20.40	25.30	27358
27359	1500 mm, 2 x 58W, twin tubes.....	717.50	82.30	23.70	29.00	27359

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Corrosion resistant IP65 fluorescent lighting fitting c/w T8 electronic ballast and self-contained battery (NiMH) for 2 hours discharge (emergency of the normal length) :-</b>					
27360	600 mm, 1 x 18W, single tube.....	513.80	62.70	18.60	23.00	27360
27361	600 mm, 2 x 18W, twin tubes.....	611.60	71.30	20.40	25.30	27361
27362	1200 mm, 1 x 36W, single tube.....	575.70	67.40	19.90	24.30	27362
27363	1200 mm, 2 x 36W, twin tubes.....	752.00	77.60	21.50	26.40	27363
27364	1500 mm, 1 x 58W, single tube.....	756.30	71.30	20.40	25.30	27364
27365	1500 mm, 2 x 58W, twin tubes.....	904.30	82.30	23.70	29.00	27365
	<b>Corrosion resistant IP65 fluorescent lighting fitting c/w T5 electronic ballast and self-contained battery (NiCd) for 2 hours discharge (emergency of the normal length) :-</b>					
27366	600 mm, 1 x 14W, single tube.....	532.60	62.70	18.60	23.00	27366
27367	600 mm, 2 x 14W, twin tubes.....	651.10	71.30	20.40	25.30	27367
27368	1200 mm, 1 x 28W, single tube.....	581.70	67.40	19.90	24.30	27368
27369	1200 mm, 2 x 28W, twin tubes.....	714.80	77.60	21.50	26.40	27369
27370	1500 mm, 1 x 35W, single tube.....	933.40	71.30	20.40	25.30	27370
27371	1500 mm, 2 x 35W, twin tubes.....	1,108.70	82.30	23.70	29.00	27371
27372	1500 mm, 1 x 49W, single tube.....	937.00	71.30	20.40	25.30	27372
27373	1500 mm, 2 x 49W, twin tubes.....	1,116.00	82.30	23.70	29.00	27373
	<b>Corrosion resistant IP65 fluorescent lighting fitting c/w T5 electronic ballast and self-contained battery (NiMH) for 2 hours discharge (emergency of the normal length) :-</b>					
27374	600 mm, 1 x 14W, single tube.....	582.30	62.70	18.60	23.00	27374
27375	600 mm, 2 x 14W, twin tubes.....	700.80	71.30	20.40	25.30	27375
27376	1200 mm, 1 x 28W, single tube.....	631.00	67.40	19.90	24.30	27376
27377	1200 mm, 2 x 28W, twin tubes.....	764.00	77.60	21.50	26.40	27377
27378	1500 mm, 1 x 35W, single tube.....	1,056.50	71.30	20.40	25.30	27378
27379	1500 mm, 2 x 35W, twin tubes.....	1,252.60	82.30	23.70	29.00	27379
27380	1500 mm, 1 x 49W, single tube.....	1,060.20	71.30	20.40	25.30	27380
27381	1500 mm, 2 x 49W, twin tubes.....	1,262.30	82.30	23.70	29.00	27381

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Corrosion resistant IP65 fluorescent lighting fitting c/w T5 electronic dimmable ballast and self-contained battery (NiMH) for 2 hours discharge (emergency of the normal length) :-</b>					
27382	1200 mm, 1 x 28W, single tube.....	722.50	67.40	19.90	24.30	27382
27383	1200 mm, 2 x 28W, twin tubes.....	947.00	77.60	21.50	26.40	27383
27384	1500 mm, 1 x 35W, single tube.....	1,150.40	71.30	20.40	25.30	27384
27385	1500 mm, 2 x 35W, twin tubes.....	1,440.90	82.30	23.70	29.00	27385
27386	1200 mm, 1 x 28W, single tube c/w light sensor.....	739.10	67.40	19.90	24.30	27386
27387	1500 mm, 1 x 35W, single tube c/w light sensor.....	1,164.10	71.30	20.40	25.30	27387
	<b>Fluorescent light, surface mounted c/w T8 electronic ballast and tubes</b>					
27388	300 x 600 mm c/w symmetrical/asymmetrical reflector, 1 x 18W, single tube.....	327.70	77.60	21.30	26.10	27388
27389	300 x 600 mm c/w symmetrical/asymmetrical reflector, 2 x 18W, twin tubes.....	449.50	81.50	25.60	30.50	27389
27390	300 x 1200 mm c/w symmetrical/asymmetrical reflector, 1 x 36W, single tube.....	385.80	81.50	25.60	30.50	27390
27391	300 x 1200 mm c/w symmetrical/asymmetrical reflector, 2 x 36W, twin tubes.....	494.20	87.80	29.00	34.40	27391
27392	300 x 1500 mm c/w symmetrical/asymmetrical reflector, 1 x 58W, single tube.....	479.50	85.50	28.00	33.30	27392
27393	300 x 1500 mm c/w symmetrical/asymmetrical reflector, 2 x 58W, twin tubes.....	614.30	91.60	31.60	37.10	27393
	<b>Fluorescent light, surface mounted c/w T5 electronic ballast and tubes</b>					
27394	300 x 600 mm c/w symmetrical/asymmetrical reflector, 1 x 14W, single tube.....	347.70	77.60	21.30	26.10	27394
27395	300 x 600 mm c/w symmetrical/asymmetrical reflector, 2 x 14W, twin tubes.....	480.20	81.50	25.60	30.50	27395
27396	300 x 1200 mm c/w symmetrical/asymmetrical reflector, 1 x 28W, single tube.....	410.10	81.50	25.60	30.50	27396
27397	300 x 1200 mm c/w symmetrical/asymmetrical reflector, 2 x 28W, twin tubes.....	528.10	87.80	29.00	34.40	27397
27398	300 x 1500 mm c/w symmetrical/asymmetrical reflector, 1 x 35W, single tube.....	504.90	85.50	28.00	33.30	27398
27399	300 x 1500 mm c/w symmetrical/asymmetrical reflector, 2 x 35W, twin tubes.....	646.10	91.60	31.60	37.10	27399
27400	300 x 1500 mm c/w symmetrical/asymmetrical reflector, 1 x 49W, single tube.....	509.30	85.50	28.00	33.30	27400
27401	300 x 1500 mm c/w symmetrical/asymmetrical reflector, 2 x 49W, twin tubes.....	654.80	91.60	31.60	37.10	27401



Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Flameproof IP66 fluorescent fitting c/w T8 electronic ballast for use in Zone 1 hazardous area and for gas groups IIA &amp; IIB conform to FSD requirements : -</b>					
27402	600 mm, 1 x 18W, single tube batten.....	3,575.00	177.60	47.30	59.40	27402
27403	600 mm, 2 x 18W, twin tubes batten.....	3,793.60	189.50	50.80	63.30	27403
27404	1200 mm, 1 x 36W, single tube batten.....	3,831.00	177.60	47.30	59.40	27404
27405	1200 mm, 2 x 36W, twin tubes batten.....	4,023.00	189.50	50.80	63.30	27405
27406	1500 mm, 1 x 58W, single tube batten.....	4,577.20	177.60	47.30	59.40	27406
27407	1500 mm, 2 x 58W, twin tubes batten.....	4,807.80	189.50	50.80	63.30	27407
	<b>Flameproof IP66 fluorescent fitting c/w T5 electronic ballast for use in Zone 1 hazardous area and for gas groups IIA &amp; IIB conform to FSD requirements : -</b>					
27408	600 mm, 1 x 14W, single tube batten.....	3,931.20	177.60	47.30	59.40	27408
27409	600 mm, 2 x 14W, twin tubes batten.....	4,171.50	189.50	50.80	63.30	27409
27410	1200 mm, 1 x 28W, single tube batten.....	4,212.30	177.60	47.30	59.40	27410
27411	1200 mm, 2 x 28W, twin tubes batten.....	4,422.80	189.50	50.80	63.30	27411
27412	1500 mm, 1 x 35W, single tube batten.....	5,033.20	177.60	47.30	59.40	27412
27413	1500 mm, 2 x 35W, twin tubes batten.....	5,286.70	189.50	50.80	63.30	27413
27414	1500 mm, 1 x 49W, single tube batten.....	5,753.60	177.60	47.30	59.40	27414
27415	1500 mm, 2 x 49W, twin tubes batten.....	6,007.30	189.50	50.80	63.30	27415

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<b>Each</b>					
	<b>Fluorescent fitting to IP54 : -</b>					
27416	1 x 36W ceiling mounted fluorescent fitting to IP54, c/w control gear as 'Bamberger' QM-1/122PR .....	1,056.50	70.60	21.00	25.60	27416
27417	Ditto but 1 x 58W , cat no. QM-1/122PR.....	1,123.10	71.30	21.50	26.40	27417
27418	1 x 36W ceiling mounted fluorescent fitting to IP54, c/w control gear as 'Bamberger' QM-1/152PR .....	1,274.60	67.40	19.90	24.30	27418
27419	1 x 18W fluorescent fitting IP67 c/w control gear as "Norka".....	1,267.10	60.10	17.90	22.40	27419
	<b>X-ray view boxes : -</b>					
27420	X-ray view box, twin type, 1 mm thick aluminium x-ray viewing boxes; fluorescent tubes with color temperature 6500k to suit viewing box; 3 mm thick transparent perspex; including all necessary electrical connection to adjacent power source .....	2,341.30	67.40	19.90	24.30	27420
27421	Ditto but stainless steel x-ray viewing box.....	2,682.90	67.40	19.90	24.30	27421
	<b>Exit sign plate : -</b>					
27422	Clear acrylic sheet exit sign plate c/w illuminated clear perspex with engraved character, self-contained and maintained emergency power pack, 2-hours duration, single or double sided lamps, suitable for ceiling suspension / wall mounting, 650 mm in length.....	644.20	67.40	19.90	24.30	27422
27423	Ditto but with electronic ballast.....	692.60	67.40	19.90	24.30	27423

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Emergency power pack for fluorescent light (maintained type with Ni-Cd rechargeable battery for 2 hours discharge) : -</b>					
27424	1 x 8W power pack.....	185.30	20.80	6.70	8.10	27424
27425	1 x 14W power pack.....	209.00	20.80	6.70	8.10	27425
27426	1 x 18W power pack.....	209.00	20.80	6.70	8.10	27426
27427	1 x 28W power pack.....	280.00	20.80	6.70	8.10	27427
27428	1 x 35W power pack.....	283.80	20.80	6.70	8.10	27428
27429	1 x 36W power pack.....	209.00	20.80	6.70	8.10	27429
27430	1 x 49W power pack.....	280.00	20.80	6.70	8.10	27430
27431	1 x 54W power pack.....	280.00	20.80	6.70	8.10	27431
27432	1 x 58W power pack.....	280.00	20.80	6.70	8.10	27432
27433	1 x 9W PL power pack.....	357.70	20.80	6.70	8.10	27433
27434	1 x 18W PLC power pack.....	406.10	20.80	6.70	8.10	27434
27435	1 x 25W SL power pack.....	443.90	20.80	6.70	8.10	27435
	<b>Emergency power pack for fluorescent light (maintained type with nickel-metal hydride rechargeable battery for 2 hours discharge) : -</b>					
27436	1 x 8W power pack.....	261.10	20.80	6.70	8.10	27436
27437	1 x 14W power pack.....	261.10	20.80	6.70	8.10	27437
27438	1 x 18W power pack.....	261.10	20.80	6.70	8.10	27438
27439	1 x 28W power pack.....	333.60	20.80	6.70	8.10	27439
27440	1 x 35W power pack.....	392.50	20.80	6.70	8.10	27440
27441	1 x 36W power pack.....	261.10	20.80	6.70	8.10	27441
27442	1 x 49W power pack.....	333.60	20.80	6.70	8.10	27442
27443	1 x 54W power pack.....	333.60	20.80	6.70	8.10	27443
27444	1 x 58W power pack.....	333.60	20.80	6.70	8.10	27444
27445	1 x 9W PL power pack.....	454.40	20.80	6.70	8.10	27445
27446	1 x 18W PLC power pack.....	502.70	20.80	6.70	8.10	27446
27447	1 x 25W SL power pack.....	543.40	20.80	6.70	8.10	27447
	<b>Reflector for fluorescent lighting fittings (metal trough reflector) : -</b>					
27448	Metal angle reflector, 1200 mm for SFA 56 .....	60.20	22.40	7.70	8.70	27448
27449	Metal angle reflector, 1500 mm for SFA 85.....	66.40	22.40	7.70	8.70	27449

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Reflector for fluorescent lighting fittings (metal trough reflector) : - (Cont'd)</b>					
27450	1200 mm with corrosive resistance and smooth reflective white paint finish, slotted and open ends for single tube batten as SFA 58 .....	68.80	22.40	7.70	8.70	27450
27451	Ditto for twin tubes batten as SFA 72.....	84.00	22.40	7.70	8.70	27451
27452	Ditto for 1500mm single tube batten as SFA 87.....	75.60	22.40	7.70	8.70	27452
27453	Ditto for 1500mm twin tubes batten as SFA 101.....	94.10	22.40	7.70	8.70	27453
27454	Ditto for T5 single tube batten, 14W.....	64.50	22.40	7.70	8.70	27454
27455	Ditto for T5 single tube batten, 28W.....	81.80	22.40	7.70	8.70	27455
27456	Ditto for T5 single tube batten, 35W.....	89.90	22.40	7.70	8.70	27456
27457	Ditto for T5 single tube batten, 49W.....	89.90	22.40	7.70	8.70	27457
27458	Ditto for T5 single tube batten, 54W.....	81.80	22.40	7.70	8.70	27458
	<b>Prismatic controller : -</b>					
27459	600 mm for single tube batten as SFA 51.....	51.10	13.20	4.90	5.30	27459
27460	1200 mm for single tube batten as SFA 54.....	57.90	13.20	4.90	5.30	27460
27461	1200 mm for twin tubes batten as SFA 74.....	94.10	13.20	4.90	5.30	27461
27462	1500 mm for single tube batten as SFA 83.....	65.10	13.20	4.90	5.30	27462
27463	1500 mm for twin tubes batten as SFA 103.....	106.20	13.20	4.90	5.30	27463
	<b>Prismatic panel diffusers size : -</b>					
27464	600 x 600 mm (or less).....	68.80	13.20	4.90	5.30	27464
27465	300 x 400 mm (or less).....	37.90	13.20	4.90	5.30	27465
27466	300 x 1200 mm.....	68.80	13.20	4.90	5.30	27466
27467	600 x 1200 mm.....	94.70	13.20	4.90	5.30	27467
27468	300 x 1500 mm.....	90.20	13.20	4.90	5.30	27468
	<b>Starter for fluorescent lighting fittings : -</b>					
27469	18/30/36W.....	7.10	5.30	1.80	2.00	27469
27470	58/85W.....	7.10	5.30	1.80	2.00	27470
	<b>Condenser for fluorescent lighting fittings : -</b>					
27471	18/30/36W.....	41.70	29.80	8.20	10.10	27471
27472	58/85W.....	41.70	29.80	8.20	10.10	27472

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Quick start unit for fluorescent lighting fittings : -</b>					
27473	30/36W.....	53.10	29.80	8.20	10.10	27473
27474	58/85W.....	53.10	29.80	8.20	10.10	27474
	<b>Ballast for fluorescent lighting fittings : -</b>					
27475	18/30/36W single.....	39.90	20.00	6.70	8.10	27475
27476	58/85W single .....	53.30	20.00	6.70	8.10	27476
	<b>Socket for starter unit of fluorescent lighting fittings : -</b>					
27477	Starter unit 2 pin.....	17.90	13.20	4.90	5.30	27477
27478	Starter unit 4 pin.....	18.60	13.20	4.90	5.30	27478
	<b>Electronic ballast for T5 fluorescent lighting fittings : -</b>					
27479	14W.....	113.20	20.00	6.70	8.10	27479
27480	21W.....	114.50	20.00	6.70	8.10	27480
27481	28W.....	115.90	20.00	6.70	8.10	27481
27482	35W.....	117.30	20.00	6.70	8.10	27482
27483	49W.....	121.40	20.00	6.70	8.10	27483
27484	54W.....	122.70	20.00	6.70	8.10	27484
27485	80W.....	124.10	20.00	6.70	8.10	27485
	<b>Electronic ballast for T8 fluorescent lighting fittings : -</b>					
27486	18W single.....	111.10	20.00	6.70	8.10	27486
27487	36W single.....	112.50	20.00	6.70	8.10	27487
27488	58W single.....	113.80	20.00	6.70	8.10	27488
27489	28W 2D single.....	122.00	20.00	6.70	8.10	27489
	<b>Dimmable electronic ballast for T8 fluorescent lighting fittings : -</b>					
27490	18W single.....	182.60	20.00	6.70	8.10	27490
27491	36W single.....	200.40	20.00	6.70	8.10	27491
27492	58W single.....	200.40	20.00	6.70	8.10	27492
27493	28W 2D single.....	208.60	20.00	6.70	8.10	27493

Item	FLUORESCENT LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<b>Each</b>					
	<b>Dimmable electronic ballast for T5 fluorescent lighting fittings : -</b>					
27494	14W.....	209.60	20.00	6.70	8.10	27494
27495	21W.....	213.60	20.00	6.70	8.10	27495
27496	28W.....	217.50	20.00	6.70	8.10	27496
27497	35W.....	221.50	20.00	6.70	8.10	27497
27498	49W.....	233.40	20.00	6.70	8.10	27498
27499	54W.....	237.40	20.00	6.70	8.10	27499
27500	80W.....	241.40	20.00	6.70	8.10	27500
	<b>Sundry fittings : -</b>					
27501	Brackets, tubular, comprise flange plate and nipple and 20 mm diameter tube bent to required shape, all galvanized, n.e. 450 mm projection.....	27.40	19.10	6.00	7.50	27501
27502	Ditto but 450 mm - 600 mm projection.....	29.00	19.10	6.00	7.50	27502
27503	Brackets, corner fitting, comprise 20 mm diameter tube bent to required shape n.e. 450mm projection .....	28.90	20.60	6.70	8.30	27503
27504	Pendant, tubular, comprise male pendant plates, conduit, socket, adaptors and male bush as required and 20 mm diameter tube n.e. 300 mm length, all galvanized .....	26.10	19.10	6.00	7.50	27504
27505	Extra over modular fluorescent fitting for provision of ball-proof wire mesh, 300 x 600mm.....	84.30	17.40	6.30	7.90	27505
27506	Ditto but 600 x 600mm.....	97.60	17.40	6.30	7.90	27506
27507	Ditto but 300 x 1200mm.....	98.40	18.30	6.60	8.40	27507
27508	Ditto but 600 x 1200mm.....	126.20	18.30	6.60	8.40	27508
27509	Ditto but 300 x 1500mm.....	110.10	19.20	6.90	8.70	27509
27510	Ditto but 600 x 1500mm.....	141.50	19.20	6.90	8.70	27510
	<b>Per linear metre</b>					
27511	Extra over items 27501 - 27504 for each additional length of 20 mm diameter tube all galvanized for tubular pendant mounting .....	19.60	9.10	3.00	3.50	27511
27512	Brass chain for lighting fitting, chromium plated, 20 mm oval link with brazed ends .....	13.80	5.30	1.80	2.10	27512
27513	Chain, hot dip galvanized steel, bright, for lighting fitting, c/w screw eyes, screw hocks and 20 mm oval link with welded ends.....	15.20	5.30	1.80	2.10	27513
27514	Safety chain, hot dipped galvanized steel (or wrought iron) chain 25 mm oval link c/w shackles .....	34.90	5.30	1.80	2.10	27514

Item	LIGHTING FITTINGS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Circular down light, recessed mounted by simple screw fixing, suitable for ceiling tiles up to 25 mm thick, integral switchstart gear with starter and fuse, white stove enamelled steel body and anodized aluminium reflector with/without metal trim : -</b>					
27515	Down light with 40 - 100W GLS lamp.....	169.40	52.20	15.00	18.40	27515
27516	Down light with 40 - 100W GLS lamp c/w glass diffuser.....	177.90	52.20	15.00	18.40	27516
27517	Low voltage tungsten halogen down light c/w 12V 35/50W dichronic lamp white/silver/brass effect finish, and transformer .....	211.00	52.20	15.00	18.40	27517
27518	Low voltage tungsten halogen eyeball down light c/w 12V 35/50W dichronic lamp white/silver/brass effect finish, and transformer .....	250.40	52.20	15.00	18.40	27518
27519	Down light with 60 - 150W PAR 38 lamp spot/flood.....	202.00	52.20	15.00	18.40	27519
27520	Down light with 50 - 100W PAR 20/PAR 30 lamp spot/flood.....	264.80	52.20	15.00	18.40	27520
27521	Down light with infra-red lamp, 175 mm diameter.....	296.30	52.20	15.00	18.40	27521
27522	Down light fitting c/w 2 x 13W/2 x 18W/2 x 26W PL-C compact fluorescent lamps.....	256.00	52.20	15.00	18.40	27522
	<b>Self-contained and maintained type for 2-hours duration down light fittings c/w battery charger, inverter, transformer and : -</b>					
27523	12V 50W halogen light.....	684.70	67.40	19.90	24.30	27523
27524	150/250W halogen light.....	1,583.80	67.40	19.90	24.30	27524
27525	40 - 100W GLS lamp.....	757.20	67.40	19.90	24.30	27525
	<b>Track lighting system : -</b>					
27526	Low voltage tungsten halogen spot light, white colour finish, c/w 12V 35/50/75W dichronic lamp and integrated transformer for light track .....	220.90	8.40	2.00	2.50	27526
27527	Down light with 60 - 150W PAR 38 lamp spot/flood for light track mounting .....	313.80	8.40	2.00	2.50	27527
27528	Down light with 50 - 100W PAR 20/PAR 30 lamp spot/flood for light track mounting .....	204.00	8.40	2.00	2.50	27528
27529	Single-circuit extruded monorail aluminium lighting track, surface/suspended mounted, 1000 mm in length, 16A max. rating, mains voltage.....	186.00	60.10	17.90	22.40	27529
27530	Single-circuit extruded monorail aluminium lighting track, surface/suspended mounted, 2000 mm in length, 16A max. rating, mains-voltage .....	271.60	71.30	16.10	25.30	27530
27531	End cap for monorail lighting track .....	17.40	5.50	1.90	2.10	27531
27532	Single phase lighting track and accessories, 1000 mm in length, as "Concord" Lytespan 1 .....	533.50	71.30	16.10	25.30	27532
27533	Three phases lighting track and accessories, 1000 mm in length, as "Concord" Lytespan 4.....	800.60	80.70	22.40	27.70	27533
27534	Single phase lighting track and accessories, 1000 mm in length, as "RAAK" Lite-track.....	852.10	80.70	22.40	27.70	27534

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Track lighting system : - (Cont'd)</b>					
27535	Indoor surface mounted or track mounted floodlight c/w 150/200W linear tungsten halogen lamp, die cast aluminium with front safety glass.....	206.10	63.30	18.80	23.20	27535
27536	Module white finished track light for 36W fluorescent tube c/w lamp, prismatic diffuser, cover profile, wall mounting bracket, end cap, coupler and all coupler and all necessary accessories as "HOFF" cat. No. 0.99136-921.....	2,571.00	72.20	19.00	23.70	27536
27537	Ditto, for 58W fluorescent tube.....	2,844.90	72.20	19.00	23.70	27537
27538	120W PAR 38 spot light as "ERCO" Cat. 77461 for light track mounting.....	799.30	43.50	11.10	14.60	27538
	<b>Bulkhead fittings including lamps, side/back entry, cutting and rubber grommet or stop : -</b>					
27539	Bulkhead fittings, IP65, c/w vandal resistant prismatic diffuser and 16W 2D compact fluorescent tube.....	441.90	72.20	19.00	23.70	27539
27540	2 x 8W vandal resistant fluorescent bulkhead with injection moulded polycarbonate diffuser, IP65.....	460.70	72.20	19.00	23.70	27540
27541	Ditto but 3 x 8W fluorescent light, IP65 .....	622.00	72.20	19.00	23.70	27541
27542	Ditto but for 1 x 11W PL fluorescent light, IP65.....	414.60	72.20	19.00	23.70	27542
27543	Ditto but for 2 x 11W PL fluorescent light, IP65.....	460.70	72.20	19.00	23.70	27543
27544	Bulkhead lighting fitting IP65 with die-cast aluminium body, moulded glass lens c/w built-in control gear and 1 x 80W MPF lamp.....	1,031.70	72.20	19.00	23.70	27544
27545	Bulkhead fitting of IP65 protection c/w 180W MBF/U lamp, polycarbonate cover .....	1,201.70	72.20	19.00	23.70	27545
27546	Bulkhead luminaire c/w 2 x 8W fluorescent lamps, 2 hour battery & control gear.....	376.20	72.20	19.00	23.70	27546
27547	Bulkhead fitting, prismatic type, c/w glassware 100W as "Coughtrie" SY 10.....	290.10	72.20	19.00	23.70	27547
27548	Bulkhead fitting c/w hinged polycarbonate diffuser 100W as "Coughtrie" EB 10.....	226.50	72.20	19.00	23.70	27548
27549	Glassware only for bulkhead fitting as "Coughtrie" SY 10.....	97.80	35.80	9.70	11.60	27549
27550	Gasket for retaining flange for bulkhead fitting as "Coughtrie" SY 10.....	21.10	13.10	3.30	4.70	27550
27551	Bulkhead fitting, prismatic type, 50W MBF/U.....	1,076.70	72.20	19.00	23.70	27551
27552	Ditto but for 70W SON.....	1,441.90	72.20	19.00	23.70	27552
27553	Ditto but for 80W MBF/U.....	1,389.70	72.20	19.00	23.70	27553
27554	Gasket for retaining flange for bulkhead fitting, as SFA 33, 40/60 W.....	20.20	13.10	3.30	4.70	27554
27555	Bulkhead fittings, prismatic type, c/w choke and capacitor and prismatic glass diffuser, 50W MBF/U lamp as SFA 35 .....	1,224.40	96.30	25.10	31.60	27555
27556	Ditto but with 80W MBF/U lamp.....	1,224.40	96.30	25.10	31.60	27556
27557	Glassware only for 50W or 80W MBF/U bulkhead fitting.....	267.60	35.80	9.70	11.60	27557
27558	Key for bulkhead (supply only) lighting fitting.....	15.20	-	-	-	27558



Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Well-glass fittings including lamps, side/back entry, cutting and rubber grommet or stop :-</b>					
27559	Well-glass fitting, watertight, for pendant, complete, including glass reflector and lampholder, 40/60 W, as "Coughtrie" Cat. No. SW6/IR.....	201.20	72.20	19.00	23.70	27559
27560	Well-glass fitting, watertight, for pendant, complete, including glass reflector and lampholder, 100 W, as "Coughtrie" Cat. No. SW10/IR.....	224.40	72.20	19.00	23.70	27560
27561	Well-glass only for well-glass fitting watertight, for pendant, as "Coughtrie" Cat. No. SW6/IR, 40/60 W .....	82.10	34.10	9.10	11.60	27561
27562	Well-glass only for well-glass fitting watertight, for pendant, as "Coughtrie" Cat. No. SW10/IR,B1693, 100W .....	90.90	34.10	9.10	11.60	27562
27563	Well-glass only for well-glass fitting, watertight, as "Coughtrie" S.G. 6.....	86.20	35.80	9.70	11.60	27563
27564	Well-glass only for well-glass fitting, watertight, as "Coughtrie" S.G. 10.....	102.00	35.80	9.70	11.60	27564
27565	Well-glass fitting, watertight, complete as "Coughtrie" S.G. 6.....	210.40	72.20	19.00	23.70	27565
27566	Ditto, as "Coughtrie" S.G. 10 .....	249.80	72.20	19.00	23.70	27566
27567	Wire guard only with fixing screws for well-glass fitting, watertight, for pendant as "Coughtrie" Cat. No. SW6/IR, 40/60W or "Coughtrie" Cat. No. SW10/IR, 100W .....	45.70	22.90	5.70	6.60	27567
27568	Reflector c/w retaining ring for well-glass fitting, watertight, for pendant, as "Coughtrie" Cat. No. SW6/IR, 40/60W.....	46.70	17.70	5.40	6.30	27568
27569	Reflector c/w retaining ring for well-glass fitting, watertight, for pendant, as "Coughtrie" Cat. No. SW10/IR, 100W.....	56.80	18.50	5.40	6.30	27569
27570	Rubber sealing ring for Well-glass fitting, watertight, for pendant, as "Coughtrie" Cat. No. SW10/IR, 100W .....	18.70	11.90	3.90	4.60	27570
27571	Rubber sealing ring for well-glass fitting, watertight, "Coughtrie" S.G. 6.....	17.10	10.20	3.10	3.90	27571
27572	Rubber sealing ring for well-glass fitting, watertight, "Coughtrie" S.G. 10.....	17.10	10.20	3.10	3.90	27572
27573	Retaining ring with fixing screws for well-glass fitting, watertight, for pendant, "Coughtrie" Cat. No. SW6/IR, 40/60W.....	24.40	13.10	3.30	4.70	27573
27574	Retaining ring with fixing screws for well-glass fitting, watertight, for pendant, "Coughtrie" Cat. No. SW10/IR, 100W.....	26.50	13.10	3.30	4.70	27574
27575	Porcelain B.C. lampholder, with two fixing screws for water tight well-glass fitting .....	28.10	20.80	5.80	7.70	27575

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Floodlighting fittings including control gear, side/ back entry, cutting, and rubber grommet or stop :-</b>					
27576	MBIL floodlighting fitting IP54 c/w 750/1000/1500W control gear.....	7,750.40	183.30	47.80	59.60	27576
27577	Ditto but 2000W.....	13,068.10	183.30	47.80	59.60	27577
27578	H.P. sodium (SON) floodlighting fitting IP65 c/w 250W control gear dimpled anodized aluminium reflector.....	1,958.90	170.90	45.10	57.00	27578
27579	Ditto but for 400W lamp.....	2,641.30	170.90	45.10	57.00	27579
27580	Ditto but for 250W MBIF lamp.....	2,204.70	170.90	45.10	57.00	27580
27581	Ditto but for 400W MBIF lamp.....	2,808.70	170.90	45.10	57.00	27581
27582	Tungsten halogen floodlight fitting, IP54, c/w lamp, 500W.....	320.00	72.20	19.00	23.70	27582
27583	Ditto but with 1000W lamp.....	718.40	72.20	19.00	23.70	27583
27584	Ditto but with 1500W lamp.....	776.00	72.20	19.00	23.70	27584
27585	High bay floodlight fittings designed and manufactured to comply with IEC 60598-2, IP54 body; extruded aluminium body with high temperature polypropylene side casing and high temperature nylon body; vertical lamp, prismatic glass reflector c/w 250W MBIF control gear, lamp piece and safety chain .....	3,257.50	170.90	45.10	57.00	27585
27586	Ditto but with 400W MBIF control gear.....	3,577.10	170.90	45.10	57.00	27586
27587	Ditto but with 250W SON control gear.....	2,687.00	170.90	45.10	57.00	27587
27588	Ditto but with 400W SON control gear.....	2,922.80	170.90	45.10	57.00	27588
27589	High bay floodlight fittings designed and manufactured to comply with IEC 60598-2, IP54 body; extruded aluminium body with high temperature polypropylene side casing and high temperature nylon body; vertical lamp, self-cleaning high purity spun aluminium reflector c/w 250W MBIF control gear, lamp piece and safety chain .....	2,770.70	170.90	45.10	57.00	27589
27590	Ditto but with 400W MBIF control gear.....	3,021.70	170.90	45.10	57.00	27590
27591	Ditto but with 250W SON control gear.....	2,200.10	170.90	45.10	57.00	27591
27592	Ditto but with 400W SON control gear.....	2,367.50	170.90	45.10	57.00	27592

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Floodlighting fittings including control gear, side/ back entry, cutting, and rubber grommet or stop : - (Cont'd)</b>					
27593	High bay floodlight fittings designed and manufactured to comply with IEC 60598-2 IP65 body; technopolymer reinforced with fibre glass body; turned aluminium sheet upper housing with grey powder paint; toughened glass cover with gasket clips; elliptical lamp, polished and anodized aluminium reflector c/w 250W MBIF control gear, lamp piece and safety chain .....	2,032.30	170.90	45.10	57.00	27593
27594	Ditto but with 400W MBIF control gear.....	2,216.30	170.90	45.10	57.00	27594
27595	Ditto but with 250W SON control gear.....	1,461.80	170.90	45.10	57.00	27595
27596	Ditto but with 400W SON control gear.....	1,562.10	170.90	45.10	57.00	27596
27597	High bay floodlight fittings designed and manufactured to comply with IEC 60598-2 IP54 body; prismatic borosilicate glass retained by a spun aluminium cover sealed reflector; tempered glass cover with stainless steel clips c/w 250W MBIF control gear, lamp piece and safety chain.....	3,164.10	170.90	45.10	57.00	27597
27598	Ditto but with 400W MBIF control gear.....	3,360.80	170.90	45.10	57.00	27598
27599	Ditto but with 250W SON control gear.....	2,593.50	170.90	45.10	57.00	27599
27600	Ditto but with 400W SON control gear.....	2,706.50	170.90	45.10	57.00	27600
27601	High bay floodlight fittings designed and manufactured to comply with IEC 60598-2 IP54 body; prismatic borosilicate glass retained by a spun aluminium cover sealed reflector c/w 250W MBIF control gear, lamp piece and safety chain .....	2,662.00	170.90	45.10	57.00	27601
27602	Ditto but with 400W MBIF control gear.....	2,858.70	170.90	45.10	57.00	27602
27603	Ditto but with 250W SON control gear.....	2,091.40	170.90	45.10	57.00	27603
27604	Ditto but with 400W SON control gear.....	2,204.50	170.90	45.10	57.00	27604
27605	Twin lamp tennis-court floodlight with heavy gauge aluminium housing, reflector with forward throw cut-off pattern, clear tempered lens c/w 1 x 250W HP sodium lamp and 1 x 400W metal halide lamp and integral control gears.....	5,235.40	257.10	68.70	85.70	27605
27606	400W MBI/T floodlight fitting IP65 c/w GRP body, anodized aluminium reflector, toughened glass front cover, steel galvanized cradle, integral control gear and lamp.....	2,923.70	219.00	58.60	71.10	27606
27607	1000W SON/T floodlight fitting IP65 c/w aluminium reflector, galvanized steel body, integral control gear and lamp.....	6,170.80	219.00	58.60	71.10	27607

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Floodlighting fittings including control gear, side/ back entry, cutting, and rubber grommet or stop : - (Cont'd)</b>					
27608	2000W NQI floodlight fitting IP65 c/w die-cast polyester coated aluminium, symmetrical reflector, tempered glass, integral control gear and lamp as "EURO" GIGA - VA1M, 200-230, GIGA N. E4D NQI 2000W.....	9,010.90	219.00	58.60	71.10	27608
27609	Floodlight fitting with mounting box c/w 1 x 50W MBF discharge lamp and integral control gear as "Bega" 7410 .....	1,537.00	170.90	45.10	57.00	27609
27610	Tungsten halogen (T/HAL) stainless steel floodlight fitting c/w 200W lamp and control gear as "Chalmit" 803 .....	1,664.30	170.90	45.10	57.00	27610
27611	HP Sodium (SON/T) asymmetrical stainless steel floodlight fitting IP67 c/w 250W lamp and control gear as "Chalmit" 854/250.....	4,004.20	170.90	45.10	57.00	27611
27612	Narrow beam floodlight fitting c/w integral control gear and lamp as "Kim" AFL 22/400 MH.....	6,249.40	170.90	45.10	57.00	27612
27613	Floodlight fitting c/w integral control gear and lamp as "Kim" AFL 21/40 MH.....	5,031.80	170.90	45.10	57.00	27613
27614	Floodlight fitting c/w integral control gear and lamp as "Kim" AFL 11/70 HPS 220-50/DBP/WM 1/DBP.....	4,282.50	170.90	45.10	57.00	27614
27615	Floodlight fitting c/w integral control gear and lamp as "Kim" AFL 12/70 HPS 220-50/BLP/HDS/SM 18/BLP.....	4,157.50	170.90	45.10	57.00	27615
27616	150W PAR 38 floodlight as "Thorn" Cat. No. ORB1150.....	315.60	55.40	14.50	17.90	27616
27617	Self contained, non-maintained type emergency luminaire with 2 x 20W high intensity tungsten halogen floodlight heads .....	1,861.50	67.40	19.90	24.30	27617

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Floodlight fitting accessories : -</b>					
27618	Heat shield for floodlight.....	892.30	35.80	9.70	11.60	27618
27619	Wire guard for floodlight .....	393.00	35.80	9.70	11.60	27619
27620	Front glass assembly c/w silicone rubber gasket for floodlight.....	536.90	35.80	9.70	11.60	27620
27621	Floodlight louvre for 1500W fitting.....	1,123.60	53.00	14.50	17.90	27621
27622	Ditto but for 1000W fitting.....	1,123.60	53.00	14.50	17.90	27622
27623	Ditto but for 750W fitting.....	1,079.30	53.00	14.50	17.90	27623
27624	Multi-use or cross arm mounting bracket c/w 2"U" clamps (hot dip galvanized steel) .....	246.90	55.40	14.50	17.90	27624
27625	Wall bracket (hot dip galvanized steel).....	202.30	47.50	12.80	16.30	27625
27626	Stainless steel (304) mounting bracket for floodlight.....	542.00	47.50	12.80	16.30	27626
27627	Ditto but of stainless steel (316).....	591.70	47.50	12.80	16.30	27627
27628	Hot dip galvanized steel universal pole clamp for floodlight fitting .....	75.20	20.00	5.20	7.20	27628
27629	Stainless steel (304) universal pole clamp for floodlight fitting.....	193.00	20.00	5.20	7.20	27629
27630	Ditto but of stainless steel (316).....	210.40	20.00	5.20	7.20	27630
27631	Stirrup assembly (hot dip galvanized steel).....	304.70	55.40	14.50	17.90	27631
27632	Stirrup assembly, c/w blanking plate and gland (hot dip galvanized).....	336.30	55.40	14.50	17.90	27632
27633	Stirrup assembly, c/w blanking plate and gland (304 stainless steel).....	930.40	55.40	14.50	17.90	27633
27634	Stirrup assembly, c/w blanking plate and gland (316 stainless steel).....	1,008.90	55.40	14.50	17.90	27634
27635	Special wall bracket, hot dip galvanized.....	326.10	55.40	14.50	17.90	27635
27636	Step up transformer c/w weatherproof metal box rated IP65.....	1,263.40	69.10	18.40	23.20	27636
27637	Step down transformer c/w enclosure, 220/12V, 50VA.....	666.90	28.50	7.90	9.90	27637

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Floodlight fitting accessories : - (Cont'd)</b>					
27638	Ballast for 70/150/250W H.P. Sodium lamp.....	170.20	35.80	9.70	11.60	27638
27639	Ballast for 400W H.P. Sodium lamp.....	206.10	35.80	9.70	11.60	27639
27640	Ballast for 150/250/400W white SON lamp.....	322.20	35.80	9.70	11.60	27640
27641	Ballast for 250/400W MBIF lamp.....	206.10	35.80	9.70	11.60	27641
27642	Ballast for 750W MBIL lamp.....	860.70	35.80	9.70	11.60	27642
27643	Ballast for 1000W MBIL lamp.....	860.70	35.80	9.70	11.60	27643
27644	Ballast for 1500W MBIL lamp .....	860.70	35.80	9.70	11.60	27644
27645	Transformer for 1500W MBIL lamp.....	1,416.10	35.80	9.70	11.60	27645
27646	Ballast for 50/80/125W MBF lamp.....	173.90	35.80	9.70	11.60	27646
27647	Ballast for 250/400W MBF lamp.....	280.90	35.80	9.70	11.60	27647
27648	Capacitor for 250W H.P. Sodium white SON lamp 30mF + 10%.....	89.60	31.70	8.50	11.00	27648
27649	Capacitor for 400W H.P. Sodium white SON lamp 40mF + 10%.....	122.80	31.70	8.50	11.00	27649
27650	Capacitor for 250W / 400W MBIF lamp .....	94.00	31.70	8.50	11.00	27650
27651	Capacitor for 750W MBIL lamp.....	229.10	31.70	8.50	11.00	27651
27652	Capacitor for 1000W MBIL lamp.....	231.50	31.70	8.50	11.00	27652
27653	Capacitor for 1500W MBIL lamp.....	238.40	31.70	8.50	11.00	27653
27654	Ignitor for 70W H.P. Sodium lamp.....	116.50	31.70	8.50	11.00	27654
27655	Ignitor for 150/250/400W H.P. Sodium lamp.....	132.30	31.70	8.50	11.00	27655
27656	Ignitor for 150/250/400W white SON lamp.....	132.30	31.70	8.50	11.00	27656
27657	Ignitor for 250W / 400W MBIF lamp.....	253.90	31.70	8.50	11.00	27657
27658	Ignitor for 1000W MBIL lamp.....	316.40	31.70	8.50	11.00	27658
27659	Ignitor for 1500W MBIL lamp.....	443.50	31.70	8.50	11.00	27659

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Pole top light fitting : -</b>					
27660	Pole top lantern c/w 80/125W MBF lamp and control gear as SFA 46 with large canopy.....	1,045.50	99.40	26.10	32.10	27660
27661	Ditto but with small canopy.....	1,011.30	99.40	26.10	32.10	27661
27662	Ditto but with large canopy 80W SON lamp.....	1,120.90	99.40	26.10	32.10	27662
27663	Ditto but with small canopy.....	1,079.80	99.40	26.10	32.10	27663
27664	Lighting fitting, IP23 c/w 70W SON lamp .....	1,070.30	99.40	26.10	32.10	27664
27665	Ditto but for 80W MBF lamp.....	956.50	99.40	26.10	32.10	27665
27666	Pole top adaptor for above.....	323.90	43.50	11.10	14.60	27666
27667	"RAAK" S2250.1200/S2250.8000 500 mm opal globe fitting c/w 125/80W MBF lamp .....	1,624.90	213.60	57.50	72.10	27667
27668	"RAAK" S2250.0003 500 mm opal globe fitting c/w PLC or deluxe lamp.....	1,202.40	213.60	57.50	72.10	27668
27669	"RAAK" S2250.0003 500 mm unbreakable globe only .....	660.90	72.20	19.00	23.70	27669
27670	"RAAK" S2255.1200/S2255.8000 500 mm clear moulded vandal resistant globe fitting c/w 125/80W MBF lamp.....	1,624.90	213.60	57.50	72.10	27670
27671	Pole top luminaire c/w 2 x 70W HP sodium lamps, in black control gear, polycarbonate lens, cast aluminium arm (2 nos.) and 1 no. 16 feet height cast aluminium lamp pole as "AAL" 2ALN 440CD/70 HPS 220-50/BLK + 2 TRA 2 M/BLK + DB2-5F16-188/BLK/L x N.....	31,125.60	835.10	218.00	272.50	27671
27672	Pole top luminaire c/w 1 x 70W metal halide lamp, cast aluminium arm for wall mount arrangement as "AAL" ALN 440CD/70 MH 220-50/BLK + WMA2M/BLK.....	11,635.70	143.70	38.70	47.60	27672
27673	Pole-top luminaire but modified for 1 x NAV-E 70W lamp as "Bega" 8185.....	3,204.70	99.40	26.10	32.10	27673
27674	Pole luminaire c/w 1 x 125W MBF lamp and control gear as "Bega" 9954 .....	4,145.70	99.40	26.10	32.10	27674
27675	Poletop or pole clamp type, with heavy gauge steel reflector, crysteel vitreous enamelled as "Benjamin" Cat. No. 3588/3589 and 3590/3591 500 - 1500W .....	757.80	119.60	31.90	39.90	27675

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Pole top light fitting : - (Cont'd)</b>					
27676	Pole top light c/w 1 x 250W metal halide lamp and control gear as "Daiko" NS08632 DOD-70151 + DP-17642 .....	6,442.40	99.40	26.10	32.10	27676
27677	Pole top cut-off luminaire with type III distribution aluminium reflector c/w 150W SON lamp and integral control gear as "Devine" RPCH18-S1-150HPS-III-DBZ .....	5,923.40	119.60	31.90	39.90	27677
27678	Pole top cut-off luminaire with type V distribution aluminium reflector c/w 70W SON lamp and integral control gear as "Devine" RPCH18-SI-70-HPS-V-DBZ .....	5,665.20	119.60	31.90	39.90	27678
27679	Pole top globe fitting c/w anti-aluminium louvre, 1 x 70W SON lamp and 220V 50Hz control gear as "Elkamet" 45721 500 mm diameter.....	1,014.90	119.60	31.90	39.90	27679
27680	Pole top luminaire c/w 1 x 100W metal halide lamp and control gear as "Gardco" U.S.A. origin CP-17-1-FM-100MH-220-BLP.....	6,272.10	99.40	26.10	32.10	27680
27681	Pole top luminaire c/w 1 x 100W metal halide lamp and control gear as "Gardco" U.S.A. origin cat. no. CP-17-1-FM-100MH-220-RED.....	6,646.80	99.40	26.10	32.10	27681
27682	Outdoor arm mounted lantern with one piece spun alum, housing, contoured polycarbonate lens, forward throw lighting distribution c/w 3.5 m round steel pole, 1 x 70W metal halide lamp and integral control gear as "Hatteras" LSI-HAS-FP-70-MH-CP-220V/50-BLK-45 + 3.5 m pole .....	4,685.40	817.40	216.30	269.80	27682
27683	Ditto but c/w 2 nos. luminaire 180 degree apart as "Hatteras" 2 x LSI-HAS-FP-70-MH-CP-220V/50-BLK-45 + 3.5 m pole.....	6,815.80	818.40	217.70	272.50	27683
27684	Pole type globe fitting c/w 1 x 50W SON lamp and control gear as "Hellux" NMB231-4/1 x 50w/e .....	5,474.00	99.40	26.10	32.10	27684
27685	Single pole fitting c/w 70 HPS lamp as "Kim" WTC 501/70HPS 220-50/DB-A ; single pole top fitting.....	8,866.80	99.40	26.10	32.10	27685
27686	Pole top fitting c/w 150 HPS lamp as "Kim" WTC 501/150HPS 220-50/DB-A ; pole top fitting .....	9,175.20	99.40	26.10	32.10	27686
27687	Pole top arc light c/w 1x150W SON lamp and control gear as "Lithonia" KKR-150S-R4-240 .....	4,474.60	99.40	26.10	32.10	27687
27688	Pole top area light c/w 1 x 150W SON metal halide lamp and 220V, 50Hz control gear as "Lithonia" KKR-150S-R3 .....	4,474.60	99.40	26.10	32.10	27688
27689	Ditto but "Lithonia" KKR-150S-R4 .....	4,474.60	99.40	26.10	32.10	27689
27690	Ditto but "Lithonia" KKR-150S-R5 .....	4,474.60	99.40	26.10	32.10	27690
27691	Ditto but with 1 x 70W SON lamp as "Lithonia" KKR-70S-R4.....	4,239.60	99.40	26.10	32.10	27691
27692	Ditto but with type 5 reflector as "Lithonia" KKR-70S-R5.....	4,258.60	119.60	31.90	39.90	27692



Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Pole top light fitting : - (Cont'd)</b>					
27693	Pole-top mount area light, circular one piece spun aluminium housing, clear contoured tempered glass lens with bronze enamel with light gold colour decal c/w 1 x 100W HP sodium lamp and integral control gear as "LSI" Hilton LSI-HIS-FP-100-HPS-CT-220-BRZ-45.....	2,523.20	119.60	31.90	39.90	27693
27694	Pole top mounted lantern with one piece spun aluminium housing in black contoured polycarbonate lens, perimeter forward throw pattern, c/w 1 x 70W metal halide lamp and control gear plus 3.5 m round steel pole as "LSI" Hilton HIPS-FP-70-MH-CP-220/50-BLK-45 + 3.5m pole.....	4,918.60	817.40	216.30	269.80	27694
27695	Ditto but twin lantern arms mounted lantern as "LSI" Hilton HIS-FP-70-MH-CP-220/50-BLK-45 + 3.5 m pole.....	7,288.50	818.40	217.70	272.50	27695
27696	Lamp pole twin heads, 125 mm square straight steel pole flange mounting, 4.2 m nominal height, special Dura-Grip prime coating (2 years warranty), bronze enamel final finish c/w hand hole, base cover, drill hole for fitting as "LSI" LSI-5SQB-S11G-14'-D180-BRZ-5BC .....	4,221.70	818.40	217.70	272.50	27696
27697	Pole top luminaire, c/w 1x100W MH lamp, anodized aluminium reflector and control gear as "LSI" HIPS-FP-100-MH-CP-220.....	2,547.30	119.60	31.90	39.90	27697
27698	Lighting fixture c/w 3.4 m high pole, 70W HPS lamp and accessories as "Lumec" L51-PC-FC-RR5-240V-CRA-SFI-2-VR504-3.4 m.....	28,139.30	817.40	216.30	269.80	27698
27699	Lighting fixture ,70W HPS lamp and accessories as "Lumec" THOPS-CANDB2-RR5-240V-H15 .....	7,630.20	144.20	44.60	51.10	27699
27700	Indirect light, c/w 450 mm arm, 1 x 50W MBI metal halide lamp and control gear as "Luxel" J611/07 .....	2,758.20	72.20	19.00	23.70	27700
27701	Ditto but with 750 mm arm as "Luxel" J611/12 .....	2,867.70	72.20	19.00	23.70	27701
27702	Outdoor pole mounted fitting c/w 1x 400W high pressure sodium lamp and control gear as "Sylvania" ST024-F-400HPS-220V-DBZ-K.....	4,570.10	99.40	26.10	32.10	27702
27703	Outdoor HID fitting c/w standard arm, 1 x 250W HM lamp and control gear as "Sylvania" 123-25-F-250MH-220V-DBZ .....	6,714.10	99.40	26.10	32.10	27703
27704	Asymmetrical up-light as "Sylvania" Design OLV-12-F-175-MH-220-BLK c/w standard arm, control gear and lamp.....	6,026.40	72.20	19.00	23.70	27704
27705	Outdoor twin-lamp for 2 x 1000W 3K metalarc lamp (3600K) c/w reflector & control gear as "Sylvania" LI-36-K-FP-1000MH-1000-MH-220V.....	13,427.90	129.70	34.40	43.90	27705
27706	Weatherproof square-shape low bay fitting, extruded aluminium housing with dark bronze enamel finished, die-formed aluminium reflector computer-matched with prismatic polycarbonate refractor (type V distribution), c/w integral control gear and 1 x 70W 3K metal halide lamp (3200K) as "Sylvania" SD-II-14-V-70-MH-220V-CB-DBZ .....	3,366.80	119.60	31.90	39.90	27706
27707	Ditto, but with 1 x 150W 3K metal halide lamp (3200K) as "Sylvania" SD-II-14-V-150-MH-220V-CB-DBZ .....	3,368.30	121.20	31.90	40.40	27707
27708	Pole top luminaire IP55, c/w HPE gear, 125W mercury lamp and 3M GMS pole as "WEEF" SKL500-E-80/125.....	3,662.90	99.40	26.10	32.10	27708

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<b>Each</b>					
	<b>Pole top light fitting : - (Cont'd)</b>					
27709	Pole top luminaire IP44 500 mm diameter, c/w HPE gear, 1 x 70W SON lamp as "HELLUX" NMB232-4/76/1x70W SON.....	4,682.50	99.40	26.10	32.10	27709
27710	Pole top luminaire IP54, c/w HPF gear & 1 x 70W HPS lamp as "WEEF" ZA600-E-50/70K .....	3,343.40	99.40	26.10	32.10	27710
27711	Ditto but double heads & brackets as "WEEF" ZA600-E-50/70K+AZ20-500.76.....	10,314.70	108.00	28.70	36.30	27711
27712	SON/T road lantern c/w control gear & lamp as "GEC" Z88327.....	1,752.30	99.40	26.10	32.10	27712
27713	80W high pressure mercury side road lantern fitting c/w UV sterilized poly-carbonate bowl integral control gear and lamp as "GEC" Z 8831 - 80X.....	1,752.30	99.40	26.10	32.10	27713
27714	Road lighting IP54 c/w 250W MBF lamp as "Thorn" CA5000.....	3,315.40	99.40	26.10	32.10	27714
	<b>Ceiling mounted fittings : -</b>					
27715	100 mm diameter white opal glass cylindrical glassware and gallery as SFA 6.....	121.30	55.40	14.50	17.90	27715
27716	115 mm diameter white opal glass cylindrical glassware and gallery as SFA 7.....	185.00	55.40	14.50	17.90	27716
27717	Ceiling mounted light c/w 2 x 60W GLS lamps as "Ikea" DYN white model No. PBD09105-01 (white).....	1,334.60	76.10	19.90	25.30	27717
27718	Ceiling mounted light c/w 2 x 100W GLS lamps as "Zodiac" model no. FB D09E05-01.....	1,875.70	76.10	19.90	25.30	27718
27719	Surface-mounted ceiling luminaries IP65 c/w 1x HQI-T 35W lamp as "Bega" 6196.....	1,908.80	72.20	19.00	23.70	27719
27720	Five heads ceiling light fitting c/w lamps, lamp shades and accessories as "Italuce" 281/5 .....	1,546.30	83.90	21.80	27.20	27720
27721	Three heads ceiling light fitting c/w lamps, lamp shades and accessories as "Faladesa" (Spain) 311.330 .....	502.90	72.20	19.00	23.70	27721
27722	Twin heads ceiling light fitting c/w lamps, lamp shades and accessories as "Italuce" 281/2 .....	1,318.00	72.20	19.00	23.70	27722
27723	Single head pendant type light fitting c/w 60W/100W tungsten GLS lamp. The fitting shall have a porcelain mounting gallery fitted with a skirted integral lamp holder .....	251.60	72.20	19.00	23.70	27723
27724	Ditto but with Tri-head.....	455.90	83.90	21.80	27.20	27724
27725	Circular surface mounted fluorescent light fitting c/w opal diffuser, 60W lamp and electronic ballast.....	387.60	76.10	19.90	25.30	27725
27726	Surface mounted lighting fitting c/w 1 x 18W compact fluorescent lamp and control gear as "Bega" 6012.....	1,161.00	72.20	19.00	23.70	27726
27727	Surface mounted light fitting c/w 1 x 18W compact fluorescent lamp and electronic ballast.....	770.70	62.10	16.80	21.10	27727
27728	Ditto with 2 hours battery pack.....	1,254.90	62.10	16.80	21.10	27728

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Recessed downlight : -</b>					
27729	Recessed ceiling fitting for 100/150W tungsten lamp as "Troughton & Young" monolite range F920 .....	339.90	55.40	14.50	17.90	27729
27730	Recessed downlight c/w 1 x PLC 13W energy saving lamp and control gear .....	501.90	55.40	15.00	18.40	27730
27731	10/18W recessed down light c/w aluminium silver finished mirror reflector and trim for GLS lamp as "RAAK" R14.R13.0000.....	436.00	55.40	14.50	17.90	27731
27732	Ditto but for compact fluorescent lamp 18W.....	451.30	55.40	14.50	17.90	27732
27733	Recessed downlight c/w 1 x 18W compact fluorescent lamp and control gear as "Bega" 6220.....	750.50	53.00	14.50	17.90	27733
27734	Emergency recessed downlight c/w 1 x 18W compact fluorescent lamp, 2 hr. battery and control gear as "Bega" 6220.....	1,015.90	53.00	14.50	17.90	27734
27735	Enclosed recessed downlight for 1 x 13W CF lamp as "Bega" 6210.....	827.20	72.20	19.00	23.70	27735
27736	Low recessed downlight 15V c/w 1 x 50W lamp as "Bega" 6329.....	1,039.40	53.00	14.50	17.90	27736
	<b>Bed head light fitting : -</b>					
27737	Bed head lighting fitting with B.S. lamp holder.....	612.90	45.10	12.30	13.00	27737
27738	Ditto but with shaver supply unit.....	466.70	45.10	12.30	13.00	27738
27739	Angle poise bedhead fitting c/w lamp.....	796.90	55.40	14.50	17.90	27739
	<b>Wall bracket fittings : -</b>					
27740	Roanoid c/w 150 mm diameter screw-neck white, opal glassware as "GEC" F40163.....	144.10	55.40	14.50	17.90	27740
27741	Ditto angle bracket fitting c/w 150 mm diameter screw-neck glassware as "Falks" L3826/6.....	149.90	55.40	14.50	17.90	27741
27742	Ditto enclosed bracket fitting c/w white flashed opal glassware as "GEC" F40165.....	149.90	55.40	14.50	17.90	27742
27743	Glassware only, for above enclosed bracket fitting as "GEC" F40165.....	73.00	20.80	5.80	7.70	27743
27744	Glassware only 150 mm diameter hexagon shape satin finished, for wall bracket or ceiling mounted fitting.....	73.00	20.80	5.80	7.70	27744
27745	Wall bracket light c/w E11 220-240V 1 x 150W tungsten halogen lamp and control gear as "Yamada" Shomei AE-4317.....	4,813.50	72.20	19.00	23.70	27745

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Wall mounting luminaire : -</b>					
27746	70W SON wall mounting luminaire, IP65, vandal resistance as "Thorn" Piazza OS.....	1,037.20	55.40	14.50	17.90	27746
27747	Ditto but with 80W MBF lamp.....	893.50	55.40	14.50	17.90	27747
27748	Cylindrical wall luminaire, 190 mm diameter c/w safety glass, IP54, in black for 50W MBF lamp as "Bega" 6538 c/w lamp and control gear.....	2,010.10	55.40	14.50	17.90	27748
27749	Shade candle type "GEC" Cat. No. F2832 twin type fitting as "GEC" Cat. No. 32029.....	141.40	55.40	14.50	17.90	27749
27750	Wall mounted light c/w 60W GLS lamp as "Hop Shing" 100Wh model ML W/L 60W WHT (0554000) .....	485.50	76.10	19.90	25.30	27750
27751	"Bega" B1343 wall light c/w 1 x E27 150W lamp.....	5,226.60	55.40	14.50	17.90	27751
27752	IP-55 wall mounted weatherproof light fitting c/w 18W fluorescent tube as "WEEF" DLG259-dd-18 .....	584.30	72.20	19.00	23.70	27752
27753	Wall mounted step light luminaries c/w 1 x 26W lamp and control gear, die cast aluminium and stainless steel, IP54, safety glass as "Bega" 6537.....	1,918.80	55.40	14.50	17.90	27753
27754	Enclosed polycarbonate wall mounting luminaries c/w 80W MBF lamp with IP65 protection and vandal-resistant fixings.....	860.90	55.40	14.50	17.90	27754
27755	Wall lighting fitting c/w 1 x 50W MBF lamp and control gear as "Bega" 2881.....	1,022.00	72.20	19.00	23.70	27755
27756	Wall light fitting (recessed) IP55, dustproof and jetproof corrosion resistance die-cast aluminium alloy body c/w 1 x 70W SON as "WEEF" QR1304-E50/70/NI(K).....	3,087.00	72.20	19.00	23.70	27756
27757	Wall luminaire IP44 c/w fully shielded light source, 1 x E27 100W GLS lamp as "Bega" 2882.....	1,218.40	72.20	19.00	23.70	27757
27758	Wall luminaire c/w 1 x 50W/80W E27 HQL lamp as "Bega" 6538 .....	2,059.20	72.20	19.00	23.70	27758
27759	Wall luminaire IP54 c/w 1 x Dulux D 13W lamp as "Bega" 6687.....	1,935.70	72.20	19.00	23.70	27759
27760	Wall mounted downlight c/w 1 x 26W PLC lamp and control gear as "Bega" 2457.....	1,877.50	72.20	19.00	23.70	27760
27761	Wall mounted up & down light c/w 1 x 100W halogen lamp and control gear as "Bega" 6610 .....	1,089.80	72.20	19.00	23.70	27761
27762	Recessed light fitting c/w 1 x 18W compact fluorescent lamp and control gear as "Bega" 2107.....	864.60	72.20	19.00	23.70	27762

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Wall mounting luminaire : - (Cont'd)</b>					
27763	13W 600 mm horizontal fluorescent lighting unit c/w dual voltage safety shaver and lamp tube.....	739.20	72.20	19.00	23.70	27763
27764	Wall mounted fluorescent luminaire c/w 13W fluorescent lamp and control gear with shaver supply unit to BS EN 60742.....	879.60	78.30	28.80	32.40	27764
27765	Wall mounted vandal proof light fitting c/w 2 x 9W PL lamp and control gear as "Goccia" 4598 .....	379.20	72.20	19.00	23.70	27765
27766	Wall mounted vandal proof light fitting c/w 2 x 9W PL lamp and control gear as "Goccia" 4798 .....	397.80	72.20	19.00	23.70	27766
27767	Recessed wall light c/w 1 x 18W PLC and control gear as "Simes" 4506.....	516.90	90.90	24.60	30.50	27767
27768	Ditto but as "Simes" 4509 .....	516.90	90.90	24.60	30.50	27768
27769	Recessed wall light c/w 1 x 26W PLC lamp and control gear as "Luxel" E8078 .....	468.40	72.20	19.00	23.70	27769
27770	Surface wall mounted luminaire with die cast aluminium body and louvre, polycarbonate lens c/w 1 x 26W compact fluorescent lamp & control gear as "Maxlite" 1163 .....	754.20	62.10	16.80	21.10	27770
27771	Wall lamp c/w 2 x 9W PL compact fluorescent lamp as "TROLL" TR6092/00/03.....	949.50	72.20	19.00	23.70	27771
27772	Wall lamp c/w E27 60W frost lamp as "TROLL" TR6140/00/03.....	312.90	72.20	19.00	23.70	27772
27773	Outdoor wall lamp c/w 60W frost GLS lamp and control gear as "Yamada" Shomei AI-4111 .....	1,650.50	72.20	19.00	23.70	27773
27774	Wall light c/w 1 x 60W E27 GLS frosted lamp and control gear as "Yamada" Shomei BI-4175 .....	1,241.90	72.20	19.00	23.70	27774
27775	Recessed wall light c/w 1 x 60W E17 lamp and control gear as "Yamada" Cat. #A1-4091 .....	720.40	72.20	19.00	23.70	27775
27776	Wall light c/w 1x 40W E27 and control gear as "Yamada" Cat. #L1-4196 .....	671.20	72.20	19.00	23.70	27776
27777	Aluminium exterior wall light c/w 1 x 18W PLC lamp and accessories as "WEEF" AVA359-DT-18.....	1,137.60	72.20	19.00	23.70	27777
27778	Die-cast aluminium surface mounted light fitting c/w 1 x 18W/41 PLC lamp and accessories as "WEEF" 2590418 (GERMANY) DLB259-DD-18(1) .....	663.30	72.20	19.00	23.70	27778
27779	Flat mounted luminaire c/w SON-E 50W lamp, glass bowl, louvre and control gear as "Thorn" CFPC1050 + CG-GLASS BOWL + C-LOUVRE.....	1,600.70	72.20	19.00	23.70	27779
27780	URBIS Z x IN luminaire with integral control gear c/w 1 x 70W SON lamp and polycarbonate bowl to tightness IP54.....	1,069.70	99.40	26.10	32.10	27780
27781	URBIS Z vertical fixing adaptor for "URBIS" Z x IN luminaire.....	275.40	43.10	11.50	14.50	27781

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<b>Each</b>					
	<b>Wall mounting luminaire : - (Cont'd)</b>					
27782	Side entry lantern with integral gear c/w 125W MBF/U lamp as "GEC" Cat. No. Z8831.....	1,752.30	99.40	26.10	32.10	27782
27783	Side entry lantern c/w vandal-proof cover, control gear and 125W mercury discharge lamp as "GEC" Cat. No. Z8896.....	1,752.30	99.40	26.10	32.10	27783
27784	Special made wall mount bracket arm for side entry lantern comprising 1 no. 300 x 300 x 9 mm thick mild steel base plate and 1 no. 25 mm diameter x 900 mm long galvanized steel pipe bent to shape and welded to base plate fixed to wall with 4 nos. anchor bolt (9 mm diameter x 75mm long).....	237.90	69.10	18.40	23.20	27784
	<b>Spot lights : -</b>					
27785	Spot lamp 500W, weatherproof, rated IP65, c/w wire guard and stand base as "EYE".....	150.80	43.50	11.10	14.60	27785
27786	Halogen spot light in black/white/bronze finish c/w 12V 50W halogen lamp with safety transformer spot/flood reflector as "ERCO" 73461, suitable for light track mounting.....	1,352.30	43.50	11.10	14.60	27786
27787	Halogen spot light, in black/white/bronze finish with extruded aluminium profile, spot/flood reflector for 220V 150W halogen lamp suitable for light track mounting.....	674.70	43.50	11.10	14.60	27787
27788	Recessed spot light, 220V, 1 x 50W c/w hanger, anodized aluminium reflector, lamp tube and accessories.....	438.80	43.50	11.10	14.60	27788
27789	Recessed spot light, 220V, 2 x 50W c/w hanger, anodized aluminium reflector, lamp tubes and accessories.....	674.30	43.50	11.10	14.60	27789
27790	Recessed spot light, 220V, 3 x 50W c/w hanger, anodized aluminium reflector, lamp tubes and accessories.....	909.80	43.50	11.10	14.60	27790
27791	Recessed spot light, 220V, 4 x 50W c/w hanger, anodized aluminium reflector, lamp tubes and accessories.....	1,169.40	43.50	11.10	14.60	27791
27792	Surface spot light, star wire suspended, 220V, 3 x 50W c/w hanger, anodized aluminium reflector, lamp tubes and accessories.....	1,066.70	43.50	11.10	14.60	27792
27793	Surface spot light, row/matrix wire suspended, 220V, 4 x 50W c/w hanger, anodized aluminium reflector, lamp tubes and accessories.....	1,326.40	43.50	11.10	14.60	27793
27794	Surface spot light, circle wire suspended, 220V, 6 x 50W c/w hanger, anodized aluminium reflector, lamp tubes and accessories.....	2,370.90	43.50	11.10	14.60	27794
27795	Surface spot light, matrix wire suspended, 220V, 6 x 50W c/w hanger, anodized aluminium reflector, lamp tubes and accessories.....	1,839.60	43.50	11.10	14.60	27795
27796	Surface spot light, matrix wire suspended, 220V, 8 x 50W c/w hanger, anodized aluminium reflector, lamp tubes and accessories.....	2,322.60	43.50	11.10	14.60	27796
27797	Beaconlight fitting, 400 mm in height and diameter 150 mm as "RAAK" s.2208.00.....	981.10	72.20	19.00	23.70	27797
27798	PAR 38, 120W or 100W GLS eyeball spotlight for light track mounting.....	685.90	55.40	14.50	17.90	27798

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Recessed steplight : -</b>					
27799	Recessed step light c/w 1 x 18W PLC lamp and control gear as "Bega" 2038.....	830.70	72.20	19.00	23.70	27799
27800	Recessed step light c/w 1 x 26W PLC lamp and control gear as "Bega" 2147.....	830.70	72.20	19.00	23.70	27800
27801	Recessed mounted step-light luminaire c/w 1 x 18W PLC lamp and control gear as "Brique" Italy origin S4509.09 .....	807.20	72.20	19.00	23.70	27801
27802	Recess location luminaries for stair risers for PL 7W/9W lamp, die cast aluminium and stainless steel in black colour, IP54, safety glass, and course as "Bega" 2191.....	544.80	72.20	19.00	23.70	27802
27803	Location luminaire IP54 c/w 1 x Dulux S 11W lamp as "Bega 2197".....	620.30	72.20	19.00	23.70	27803
	<b>Buried uplight : -</b>					
27804	Columnlight IP44 c/w 2 x 9W PL lamp as "Columbus" .....	674.30	99.40	26.10	32.10	27804
27805	Buried uplight to IP67 c/w 1 x 75W PAR30 lamp as "Simes" 4436.....	1,219.80	99.40	26.10	32.10	27805
27806	Buried uplight to IP67 c/w 1 x 70W (F5) MBI lamp and control gear as "Simes" 4440.....	2,455.20	99.40	26.10	32.10	27806
27807	Buried drive-over luminaire c/w 1 x 70 W metal halide lamp and control gear as "Flat" Italy origin S4470.09 .....	3,967.50	99.40	26.10	32.10	27807
27808	Drive over floodlight c/w with asymmetrical light distribution 1 x 50W 12V halogen GY 6.35 lamp and built in transformer .....	1,346.80	99.40	26.10	32.10	27808
27809	Burial uplight c/w 1 x 70W MBI lamp and control gear as "Greenlee" Cat. No. MDB-70-MH-220-DMH/A/BLK-T .....	3,709.30	99.40	26.10	32.10	27809
27810	Semi-burial ground light with composite polymer housing, prismatic reflector, bronze finish c/w 1 x 50W metal halide lamp as "Greenlee" PWC-50-MH-200-O-O-BRZ .....	2,267.40	99.40	26.10	32.10	27810
27811	Uplight c/w 1 x 70W MBI lamp and control gear as "Hydrel" 9100A-70MH/220/SP/34.....	4,286.20	72.20	19.00	23.70	27811
27812	Light luminaire for 1 x 300W PAR 56 lamp c/w aluminium louvre and lamp as "Kim" WELL 5166 .....	5,413.90	72.20	19.00	23.70	27812
27813	Light luminaire c/w 1 x 70W PAR56 lamp and accessories as "Kim" WELL 5166.....	5,040.70	72.20	19.00	23.70	27813
27814	Buried drive-over low voltage luminaire c/w integral transformer, 1 x 12V 50W lamp and control gear as "Mini-flat" Italy origin S4448.....	2,006.60	99.40	26.10	32.10	27814
27815	Inground uplight IP67, c/w LPF gear, 26W compact fluorescent tube & louvred glare shield as "WEEF" ETC 250 DT26 .....	1,803.40	99.40	26.10	32.10	27815

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Obstruction light : -</b>					
27816	Single obstruction light as "GEC" ZA743 .....	2,730.80	72.20	19.00	23.70	27816
27817	Double obstruction light as "GEC" ZA753 .....	5,899.00	99.40	26.10	32.10	27817
	<b>Indicating lamp : -</b>					
27818	Indicating lamp with polycarbonate bowl and gallery c/w lamp bulb of up to 5W .....	220.10	52.20	15.00	18.40	27818
27819	Indicating lamp, with 100 mm diameter glass bowl and gallery as "SAX" Cat. No. 3494.....	234.90	52.20	15.00	18.40	27819
27820	100 mm diameter glass bowl only for above indicating lamp "SAX" Cat. No. 3494.....	59.00	20.80	5.80	7.70	27820
	<b>Bollard fittings : -</b>					
27821	1.1 meter high bollard for 80W mercury lamps c/w integral control gears and lamp as "Disano" art. 1230 FARO.....	1,463.20	99.40	26.10	32.10	27821
27822	Bollard fitting c/w lamp and accessories as "Boluce" 30511 CTY150E 70.....	2,495.60	99.40	26.10	32.10	27822
27823	Concrete bollard fitting c/w 1 x 100W metal halide lamp, grill, external mounting plate and integral control gear as "AAL" CB12/S36/HORZ/PYRM/100MH 220-50/MSB/BLK/EXT.....	11,133.90	99.40	26.10	32.10	27823
27824	1m high bollard with die cast aluminium body and louvre glass diffuser, c/w 1 x 70W metal halide lamp & control gear as "Maxlite" 2023-70MH.....	2,267.40	99.40	26.10	32.10	27824
27825	1m high bollard with die cast aluminium body and polycarbonate diffuser, c/w 1 x 26W TC-D lamp and control gear as "NORAL" Horizon III.....	4,647.30	62.10	16.80	21.10	27825
27826	Delux bollard fitting c/w 1 x 50W MBF lamp and accessories as "Hydrel" 4534A-MV50 .....	2,223.90	99.40	26.10	32.10	27826
27827	150 mm diameter x 1000 mm high bollard fitting IP44 c/w accessories as "Thorn" Johanna Bollard Head-50W HSE.....	2,799.40	99.40	26.10	32.10	27827
27828	160 mm diameter x 1000 mm high bollard luminaire c/w 1 x 70W SON lamp and control gear as "Vinic" cat no. 20008.....	2,397.80	99.40	26.10	32.10	27828
27829	Bollard light IP55 c/w HPF gear & 70W metal halide lamp as "WEEF" B30518K .....	2,228.30	99.40	26.10	32.10	27829
27830	Bollard for 50W MBF lamp c/w mercury control gear and lamp as "Crompton" 56187 MBF/U.....	1,503.30	55.40	14.50	17.90	27830



Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Philinea lamp :-</b>					
27831	Philinea lamp 300 mm, 35W c/w lamp holder.....	113.10	60.10	17.90	22.40	27831
27832	Philinea lamp 500 mm, 60W c/w lamp holder.....	115.80	60.10	17.90	22.40	27832
27833	Philinea lamp 1000 mm, 120W c/w lamp holder.....	158.20	71.30	20.40	25.30	27833
	<b>Variform lighting fittings "GEC" "N" type with satin finished white opal glassware, carrier &amp; B.C. lampholder, c/w arm or arms :-</b>					
27834	Single light as SFA 19 .....	642.00	55.40	14.50	17.90	27834
27835	Single light as SFA 18 .....	684.10	55.40	14.50	17.90	27835
27836	Single light as SFA 17 .....	616.70	55.40	14.50	17.90	27836
27837	Twin light as SFA 15 .....	1,113.70	55.40	14.50	17.90	27837
27838	Twin light as SFA 16 .....	1,189.50	55.40	14.50	17.90	27838
	<b>Accessories for variform lighting fitting as "GEC" :-</b>					
27839	Type "N" glassware only, satin finished white opal .....	133.70	14.80	3.80	4.80	27839
27840	Body unit single arm "GEC" Cat. No. B1 .....	77.50	19.20	3.30	5.40	27840
27841	Body unit two arms "GEC" Cat. No. B2 .....	125.10	19.20	3.30	5.40	27841
27842	Arm bracket, including P.V.C. flexible wiring as "GEC" Cat. No. 1.....	48.20	19.20	3.30	5.40	27842
27843	Ditto as "GEC" Cat. No. 12 .....	49.80	19.20	3.30	5.40	27843
27844	Ditto as "GEC" Cat. No. 13.....	50.30	19.20	3.30	5.40	27844
27845	Ditto as "GEC" Cat. No. 14 .....	50.30	19.20	3.30	5.40	27845
27846	Ditto as "GEC" Cat. No. 17.....	71.50	19.20	3.30	5.40	27846
27847	Type "N" attachment with B.C. lampholder .....	107.30	19.20	3.30	5.40	27847

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Fibre optic lighting system : -</b>					
27848	Light generator with closed halogen dichroic lamp (12V/50W 24deg., Ra=100 and colour temperature 3000K). The generator shall concentrate the luminous flux of lamps into a fibre optic harness. Housing to be cast aluminium c/w built in transformer (230V/12V 50VA) and protective dichroic filter.....	1,183.30	31.30	8.00	10.00	27848
27849	Harness, 2 meter each, made of 16 nos. of fibre optic cables (bundle of 19 optical fibres in a cable diameter of 5 mm) meeting in parallel at the connecting end. Optical fibre to be made of glass (70 µm diameter) or P.M.M.A. of 1 mm diameter (polymethylmethacrylate) suitable to connect to the light generator and the optical termination.....	5,757.00	51.80	13.50	17.00	27849
27850	Termination and accessories to put at the end of fibre optic cable equipped with an adjustable glass lens-holder to focus from 19° to 30°.....	306.50	50.30	13.50	16.50	27850
27851	Ditto with 12V/75W 24° lamp.....	1,778.30	50.30	13.50	16.50	27851
27852	Ditto with 150W metal halide lamp.....	6,808.90	50.30	13.50	16.50	27852
27853	Ditto with 200W metal halide lamp.....	7,423.40	50.30	13.50	16.50	27853
	<i>Per linear metre</i>					
27854	Diffusing optical cable suitable to connect to the light generator of 17 mm P.M.M.A. cable with a reflective centre core, a ultra-violet stabilized clear PVC outer protective sheath and a clear mylar wrapping around fibre optics.....	65.70	41.90	11.00	14.00	27854
	<i>Per set</i>					
	<b>External lighting for construction site : - (Items 27855 to 27858 will only be paid for, if ordered by the Maintenance Surveyor in writing.)</b>					
	Isolating step down transformer 220/110V, single phase, having centre tap with secondary winding earthed so that the normal voltage of circuit to earth does not exceed 55V : -					
27855	500VA.....	515.40	29.70	8.00	10.00	27855
27856	1000VA.....	902.00	29.70	8.00	10.00	27856
27857	Weatherproof bulkhead fittings rated IP65 c/w glassware, 100W, 110V lamp, side/back cable entry, cutting, and rubber grommet or stop where applicable.....	366.20	72.20	19.00	23.70	27857
27858	Weatherproof bulkhead fittings rated IP65 c/w polycarbonate diffuser, 100W lamp, 110V, side/back cable entry, cutting, and rubber grommet or stop where applicable .....	400.80	72.20	19.00	23.70	27858

**Section 28**

**ELECTRICAL INSTALLATION**

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Miscellaneous lighting fittings : -</b>					
28001	Fluorescent fitting c/w 1 x 28W 2D fluo. lamp & control gear as "Ilesa" 2D CL 28W SUPERCLUB .....	396.20	62.10	16.80	21.10	28001
28002	Fluorescent insert for empty vairpoll completely wired with ballast for 1 x 18W lamp c/w lamp. Empty profile, external linear prismatic ribs, end plate, coupler, mounting bush and all necessary accessories.....	659.40	69.10	18.40	23.20	28002
28003	Ditto, for 1 x 28W tube.....	779.30	77.70	21.30	26.10	28003
28004	Ditto, for 1 x 54W tube.....	918.50	82.30	22.40	27.70	28004
28005	"Coughtrie" CPS70 high pressure sodium (SON) lighting fitting c/w 70W SON lamp, polycarbonate diffuser and control gear.....	1,424.50	72.20	19.00	23.70	28005
28006	Dispersive reflector, steel, vitreous enamelled, 300 mm diameter c/w lampholder as "Benjamin" Cat. No. 4952 .....	193.10	55.40	14.50	17.90	28006
28007	Ditto but 350 mm diameter as "Benjamin" Cat. No. 4962.....	215.90	55.40	14.50	17.90	28007
28008	Ditto but 400 mm diameter as "Benjamin" Cat. No. 4973 .....	259.00	55.40	14.50	17.90	28008
28009	Elliptical angle reflector, steel, vitreous enamelled, 400 mm x 300 mm as "Benjamin" Cat. No. 4787 c/w wireguard.....	238.70	55.40	14.50	17.90	28009
28010	"Benjamin" parabolic angle reflector fitting (150W).....	233.00	55.40	14.50	17.90	28010
28011	Non-maintained type 6V, 10W tungsten halogen recessed emergency luminaries with a red LED to indicate lamp filament failure, c/w nickel-metal hydride emergency power pack and silver aluminum reflector of 112 mm diameter.....	2,008.80	67.40	19.90	24.30	28011
28012	60W GLS double swing arm light fitting c/w shade and lamps as "Silic" SW20/07 .....	991.90	72.20	19.00	23.70	28012
28013	Garage pit luminaire c/w lamp and control gear suitable for use in Zone 2 hazardous area to IEC 60079-10.....	3,117.60	72.20	19.00	23.70	28013
28014	Cut off luminaire c/w integral gear and lamp as "Elsco" EVR-3-1000-MH-L.....	7,600.40	72.20	19.00	23.70	28014
28015	Lighting fitting c/w 80W MBF lamp & accessories as "Avenue Deco" 305115.....	5,830.30	72.20	19.00	23.70	28015
28016	Lighting fitting c/w 75W tungsten halogen lamp & accessories as "Avenue Deco" 6535.....	1,027.70	72.20	19.00	23.70	28016
28017	HPS lamp c/w 1 x 250W lamp and integral gear as "Vinic" 'MB60-E-250/H' .....	3,570.10	170.90	45.10	57.00	28017
28018	Spherical opal glass screw neck 150 mm diameter, ceiling mounted with gallery as "GEC" Cat. No. FGR327WPG.....	208.30	55.40	14.50	17.90	28018
28019	Spherical opal glass screw neck 200 mm diameter, ceiling mounted with gallery as "GEC" Cat. No. FGR339.....	221.60	55.40	14.50	17.90	28019

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Shades : -</b>					
28020	Shades n.e. 150 mm.....	18.90	6.80	2.30	2.60	28020
28021	Shades (locally made) n.e. 150 mm diameter.....	10.90	6.80	2.30	2.60	28021
28022	Coolicon shades 230 mm diameter.....	22.50	6.80	2.30	2.60	28022
28023	Coolicon shades (locally made) 230 mm diameter.....	15.40	6.80	2.30	2.60	28023
28024	Coolicon shades (locally made) 280 mm diameter.....	16.70	6.80	2.30	2.60	28024
28025	Coolicon shades 280 mm diameter.....	23.70	6.80	2.30	2.60	28025
	<b>Dome cover, wall mounting as "Coughtrie" : -</b>					
28026	65 mm diameter.....	17.70	11.00	3.10	3.90	28026
28027	87 mm diameter.....	20.20	11.00	3.10	3.90	28027
28028	125 mm diameter.....	24.80	11.00	3.10	3.90	28028
28029	Dome back plate, side entry, as "Coughtrie" .....	24.80	11.00	3.10	3.90	28029
	<b>Dome cover : -</b>					
28030	Dome cover 65 mm diameter.....	17.20	11.00	3.10	3.90	28030
28031	Dome cover 87 mm diameter.....	19.20	11.00	3.10	3.90	28031
28032	Dome cover 125 mm diameter.....	23.20	11.00	3.10	3.90	28032
28033	Dome back plate, side entry.....	23.20	11.00	3.10	3.90	28033

Item	LIGHTING FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A	B	C	D	
	<i>Each</i>	\$	\$	\$	\$	
	<b>Sundries : -</b>					
28034	Weatherproof metal box for 1500/1600W MBIL control gear.....	596.80	108.00	28.70	36.30	28034
28035	Weatherproof metal box for 750W/1000W MBIL control gear.....	596.80	108.00	28.70	36.30	28035
28036	Weatherproof metal box for 250/400W SON control gear.....	473.60	82.30	22.40	27.70	28036
28037	Weatherproof metal box for 250/400W MBIL control gear.....	498.00	108.00	28.70	36.30	28037
28038	External control gear box c/w gear for 250W SON.....	958.00	82.30	22.40	27.70	28038
28039	External control gear box c/w gear for 400W SON.....	1,164.50	82.30	22.40	27.70	28039
28040	Pendant, plain, comprising ceiling rose, flex and B.C. lampholder (labour rates including fixing of shade) .....	39.60	24.40	6.70	8.10	28040
28041	Gallery with screwed neck 150 mm diameter, suitable for 250/200 mm diameter spherical "GEC" Cat. No. FGR339, 180 mm diameter acorn shape ("Troughton and young" U309) fitting .....	115.90	31.70	8.50	11.00	28041
28042	Gallery with screwed neck 200 mm diameter, suitable for spherical "GEC" Cat. No. FGR339, 200 mm diameter acorn shape ("Troughton and young" U310) .....	119.50	31.70	8.50	11.00	28042
28043	Glassware only for spherical 150 mm diameter ceiling mounted fitting as "GEC" Cat. No. FGR327WPG .....	109.10	20.80	5.80	7.70	28043
28044	Ditto but for 200/250 mm diameter as "GEC" Cat. No. FGR339.....	112.10	20.80	5.80	7.70	28044

Item	LAMP POLES AND ACCESSORIES	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Lamp poles, mild steel, rate for erecting and taking down includes conveyance to site or removal to a designated Government Store (excavation and concrete work measured separately) :-</b>					
28045	3.5 m.....	1,651.40	607.20	158.40	207.30	28045
28046	4.5 m.....	1,981.10	752.60	197.10	247.30	28046
28047	7 m.....	4,480.40	1,124.90	294.20	369.30	28047
28048	7.5 m.....	5,175.90	1,323.70	347.20	433.20	28048
28049	8 m.....	6,256.80	1,701.10	445.30	555.50	28049
28050	10 m.....	9,420.90	2,255.30	591.30	741.00	28050
28051	12 m.....	11,301.10	2,827.00	740.80	926.40	28051
	<b>Lamp poles, tubular steel, hot dipped galvanized to BS729, rate for erecting and taking down includes conveyance to site or removal to a designated Government Store (excavation and concrete work measured separately) :-</b>					
28052	4 m.....	2,328.00	686.70	181.70	229.50	28052
28053	4.5 m.....	2,529.20	752.60	197.10	247.30	28053
28054	7 m.....	5,252.10	1,124.90	294.20	369.30	28054
28055	7.5 m.....	6,239.20	1,323.70	347.20	433.20	28055
28056	8 m.....	7,371.90	1,701.10	445.30	555.50	28056
28057	12 m.....	13,299.90	2,827.00	740.80	926.40	28057
	<b>Lamp poles, tubular steel, hot dipped galvanized to BS729, wall mounted :-</b>					
28058	3.5 m.....	2,121.50	607.20	158.40	207.30	28058
28059	4 m.....	2,419.20	686.70	181.70	229.50	28059
28060	4.5 m.....	2,628.40	752.60	197.10	247.30	28060
28061	7 m.....	5,479.10	1,124.90	294.20	369.30	28061
28062	7.5 m.....	6,505.60	1,323.70	347.20	433.20	28062

Item	LAMP POLES AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
28063	Hot-dip galvanized flange mounted type tapered polygonal high mast of 30 m nominal mounting height c/w raising and lowering system and head frame for mounting maximum 24 nos. of luminaires with the supply of foundation bolts/ nuts/washers, as "Lycorpole"..... (The actual rate should be : \$276,811.80 for Item 28063A)	27,681.18	21,170.50	4,935.80	8,226.30	28063
	<b>Accessories</b>					
28064	Compression gland .....	124.30	32.10	8.40	10.90	28064
28065	Working platform (hot dip galvanized steel).....	1,031.00	483.70	159.40	192.00	28065
28066	Metal hot dip galvanized cover for weatherproof service box on lamp pole c/w gaskets, screws and washers .....	296.70	20.20	6.70	8.00	28066
28067	Double head lamp pole bracket at 4.5 m lamp pole, including modification of the 4.5 m lamp pole and removal of the original bracket.....	246.90	55.40	14.50	17.90	28067
28068	Pole cap.....	166.10	50.80	13.30	16.80	28068
28069	Connector box.....	181.90	42.60	10.90	13.80	28069
28070	Service box.....	190.10	50.80	13.30	16.80	28070
28071	Control box.....	190.10	50.80	13.30	16.80	28071
28072	Grade 316 stainless steel angle adjustable mounting frame for 400W floodlight.....	210.40	20.00	5.20	7.20	28072



Item	MOUNTING BLOCKS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
28073	Mounting blocks, solid hardwood, 20 mm thick, 75 mm diameter or 75 x 75 mm or 120 x 70 mm .....	19.20	15.10	4.90	5.90	28073
28074	Ditto but 100 mm diameter or 75 x 150 mm.....	20.90	15.10	4.90	5.90	28074
28075	Ditto but 150 mm diameter or 150 x 150 mm.....	25.10	15.10	4.90	5.90	28075
28076	Ditto but 250 mm diameter.....	39.10	18.90	5.90	7.40	28076
28077	Ditto but 150 x 250 mm.....	34.00	18.90	5.90	7.40	28077
28078	Ditto but 180 x 250 mm.....	36.30	18.90	5.90	7.40	28078
28079	Ditto but 200 x 300 mm.....	39.50	18.90	5.90	7.40	28079
28080	Ditto but 250 x 300 mm.....	40.00	18.90	5.90	7.40	28080
28081	Ditto but 150 x 380 mm.....	39.40	18.90	5.90	7.40	28081
28082	Ditto but 200 x 380 mm.....	40.00	18.90	5.90	7.40	28082
28083	Ditto but 250 x 380 mm.....	51.50	20.40	6.70	8.00	28083
28084	Ditto but 300 x 300 mm.....	51.40	20.40	6.70	8.00	28084
28085	Ditto but 300 x 450 mm.....	62.30	20.40	6.70	8.00	28085
28086	Ditto but 350 x 400 mm.....	62.40	20.40	6.70	8.00	28086
28087	Mounting blocks, solid hardwood, 32 mm thick, 150mm diameter, centre pack sunk for BESA box and conduit entry. ....	77.60	20.40	6.70	8.00	28087
28088	Mounting blocks, solid hardwood, 250 mm x 400 mm x 20mm thick (approved type) for bell and indicators, etc. c/w hinged cover over transformer and bell units .....	144.50	36.20	9.50	11.90	28088
28089	Wooden board (approved type) for desk fan fixed to wall.....	137.00	55.90	14.60	18.30	28089

Item	PLUGS AND SOCKET OUTLETS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	The rates include for mounting boxes frames and cutting into wall where applicable.	A	B	C	D	
	<i>Each</i>	\$	\$	\$	\$	
	<b>Plugs only, bakelite : -</b>					
28090	15A, 3 pin.....	16.00	11.30	3.00	3.50	28090
28091	15A, 3 pin, fused.....	16.00	11.30	3.00	3.50	28091
28092	13A, 3 pin.....	16.00	11.30	3.00	3.50	28092
28093	13A, 3 pin, fused.....	16.00	11.30	3.00	3.50	28093
28094	5A, 3 pin.....	14.80	11.30	3.00	3.50	28094
28095	5A, 3 pin, fused.....	21.50	11.30	3.00	3.50	28095
28096	2A, 3 pin.....	20.60	11.30	3.00	3.50	28096
28097	2A, 3 pin, fused.....	22.50	11.30	3.00	3.50	28097
28098	Cartridge fuse link to B.S. 1362 (2A to 15A).....	6.00	3.00	0.80	1.00	28098
	<b>Plugs only, moulded rubber : -</b>					
28099	15A, 3 pin.....	37.50	11.30	3.00	3.50	28099
28100	13A, 3 pin, fused.....	34.60	11.30	3.00	3.50	28100
28101	5A, 3 pin.....	34.60	11.30	3.00	3.50	28101
	<b>Socket outlets only, shuttered type, bakelite, flush mounted, graphic surround, fixed to IEC 60670 or BS 4662 boxes : -</b>					
28102	15A, 3 pin.....	37.40	25.70	6.80	8.40	28102
28103	13A, 3 pin.....	33.80	25.70	6.80	8.40	28103
28104	13A, 3 pin, twin.....	48.20	25.70	6.80	8.40	28104
28105	5A, 3 pin.....	33.80	25.70	6.80	8.40	28105
28106	2A, 3 pin (unshuttered).....	53.10	25.70	6.80	8.40	28106
28107	13A, 3 pin, socket integrated with 30mA RCD.....	370.80	28.70	7.40	8.90	28107
28108	13A, 3 pin, twin socket integrated with 30mA RCD.....	386.70	28.70	7.40	8.90	28108

Item	PLUGS AND SOCKET OUTLETS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	The rates include for mounting boxes frames and cutting into wall where applicable.					
	<i>Each</i>					
	<b>Socket outlet shuttered type, metal plate, flush mounted, colour surround, fixed to IEC 60670 or BS 4662 boxes : -</b>					
28109	15A, 3 pin.....	121.10	25.70	6.80	8.40	28109
28110	13A, 3 pin.....	104.40	25.70	6.80	8.40	28110
28111	13A, 3 pin, twin.....	145.10	25.70	6.80	8.40	28111
28112	5A, 3 pin.....	102.00	25.70	6.80	8.40	28112
28113	13A, 3 pin socket with cover plate.....	136.40	25.70	6.80	8.40	28113
28114	13A, 3 pin twin socket with cover plate.....	171.50	25.70	6.80	8.40	28114
28115	13A, 3 pin, socket integrated with 30mA RCD.....	475.60	28.70	7.40	8.90	28115
28116	13A, 3 pin, twin socket integrated with 30mA RCD.....	511.40	28.70	7.40	8.90	28116
	<b>Socket outlets only, round type, 50 mm fixing centre with over lapping or non-over lapping plate fixed to B.S. 4568 conduit box : -</b>					
28117	2A, 3 pin.....	116.50	25.70	6.80	8.40	28117
28118	5A, 3 pin.....	107.40	25.70	6.80	8.40	28118
	<b>Switched-socket outlets only, shuttered type, bakelite surface pattern, fixed on wooden block ( wooden block measured separately) : -</b>					
28119	15A, 3 pin.....	43.40	25.70	6.80	8.40	28119
28120	13A, 3 pin.....	39.40	25.70	6.80	8.40	28120
28121	5A, 3 pin.....	39.80	25.70	6.80	8.40	28121

Item	PLUGS AND SOCKET OUTLETS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	The rates include for mounting boxes frames and cutting into wall where applicable.	A	B	C	D	
	<i>Each</i>	\$	\$	\$	\$	
	<b>Switched-socket with pilot light, shuttered type, bakelite flush pattern, fixed to IEC 60670 or BS 4662 boxes : -</b>					
28122	15A, 3 pin.....	47.00	25.70	6.80	8.40	28122
28123	13A, 3 pin.....	44.60	25.70	6.80	8.40	28123
28124	13A, 3 pin, twin.....	72.10	25.70	6.80	8.40	28124
28125	5A, 3 pin.....	41.00	25.70	6.80	8.40	28125
28126	13A, 3 pin socket with cover plate.....	65.70	25.70	6.80	8.40	28126
28127	13A, 3 pin twin socket with cover plate.....	101.70	25.70	6.80	8.40	28127
28128	13A, 3 pin, socket integrated with 30mA RCD.....	391.00	28.70	7.40	8.90	28128
28129	13A, 3 pin, socket double pole integrated with 30mA RCD.....	391.00	28.70	7.40	8.90	28129
28130	13A, 3 pin, twin socket integrated with 30mA RCD.....	413.30	28.70	7.40	8.90	28130
	<b>Switched-socket with pilot light, shuttered type, metal plate, flush pattern fixed to IEC 60670 or BS 4662 boxes : -</b>					
28131	5A, 3 pin.....	116.80	25.40	6.80	8.40	28131
28132	15A, 3 pin.....	155.80	25.40	6.80	8.40	28132
28133	13A, 3 pin.....	137.90	25.40	6.80	8.40	28133
28134	13A, 3 pin, twin.....	198.90	25.40	6.80	8.40	28134
28135	13A, with 30mA RCD.....	507.70	28.40	7.40	8.90	28135
	<b>Switched-socket outlets, shuttered type, bakelite flush mounted fixed to IEC 60670 or BS 4662 boxes : -</b>					
28136	15A, 3 pin.....	43.40	25.40	6.80	8.40	28136
28137	13A, 3 pin.....	41.40	25.40	6.80	8.40	28137
28138	13A, 3 pin, with 30mA RCD.....	382.50	28.40	7.40	8.90	28138
28139	13A, 3 pin, DP with 30mA RCD.....	382.50	28.40	7.40	8.90	28139

Item	PLUGS AND SOCKET OUTLETS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	The rates include for mounting boxes frames and cutting into wall where applicable.					
	<i>Each</i>					
	<b>Switched socket outlets, shuttered type, bakelite flush mounted fixed to IEC 60670 or BS 4662 boxes : - (Cont'd)</b>					
28140	13A, 3 pin, twin.....	62.70	25.40	6.80	8.40	28140
28141	Ditto but with 30mA RCD.....	398.20	28.40	7.40	8.90	28141
28142	13A, 3 pin, triple.....	159.20	25.40	6.80	8.40	28142
28143	5A, 3 pin.....	39.80	25.40	6.80	8.40	28143
	<b>Switched socket outlets, shuttered type, metal plate, flush mounted fixed to IEC 60670 or BS 4662 boxes : -</b>					
28144	15A, 3 pin.....	134.30	25.40	6.80	8.40	28144
28145	13A, 3 pin.....	109.20	25.40	6.80	8.40	28145
28146	Ditto but with 30mA RCD.....	468.90	28.40	7.40	8.90	28146
28147	13A, 3 pin, twin.....	170.20	25.40	6.80	8.40	28147
28148	Ditto but with 30mA RCD.....	541.60	28.40	7.40	8.90	28148
28149	5A, 3 pin.....	93.50	25.40	6.80	8.40	28149
28150	13A, 3 pin with cover plate.....	166.70	25.40	6.80	8.40	28150
28151	13A socket outlet, shuttered type, floor mounted, flush pattern, metalclad .....	204.90	25.40	6.80	8.40	28151
	<b>Metalclad, surface mounted socket outlets : -</b>					
28152	5A.....	99.80	25.40	6.80	8.40	28152
28153	5A, switch.....	118.10	25.40	6.80	8.40	28153
28154	15A.....	140.70	25.40	6.80	8.40	28154
28155	15A, switch.....	186.70	25.40	6.80	8.40	28155
28156	13A.....	117.20	25.40	6.80	8.40	28156
28157	13A, switch.....	139.80	25.40	6.80	8.40	28157
28158	13A, switch socket with pilot light.....	163.20	25.40	6.80	8.40	28158

Item	PLUGS AND SOCKET OUTLETS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	The rates include for mounting boxes frames and cutting into wall where applicable.	A	B	C	D	
	<i>Each</i>	\$	\$	\$	\$	
	<b>Metalclad, surface mounted socket outlets : - (Cont'd)</b>					
28159	13A, twin.....	179.50	25.40	6.80	8.40	28159
28160	13A, twin, switch.....	185.20	25.40	6.80	8.40	28160
28161	13A, twin, switch socket with pilot light.....	192.40	25.40	6.80	8.40	28161
28162	13A, switch socket with 30mA RCD.....	475.30	28.40	7.40	8.90	28162
28163	Ditto but with twin switch socket.....	515.00	28.40	7.40	8.90	28163
	<b>Splashproof, flush mounted Socket outlet, IP56 : -</b>					
28164	13A.....	182.30	54.60	14.40	18.00	28164
28165	13A, twin.....	341.90	54.60	14.40	18.00	28165
28166	13A, DP, switch and with 30mA RCD.....	1,693.40	57.60	15.30	18.80	28166
	<b>Enclosure for flush mounted splashproof socket : -</b>					
28167	1 gang.....	133.30	25.40	6.80	8.40	28167
28168	2 gang.....	191.40	25.40	6.80	8.40	28168
	<b>Splashproof, surface mounted socket outlet, IP44 : -</b>					
28169	13A, socket with cover plate.....	100.00	54.60	14.40	18.00	28169
	<b>Splashproof, socket outlets with plugs, IP44 : -</b>					
28170	16A, 3 pin.....	119.20	54.60	14.40	18.00	28170
28171	16A, 5 pin.....	141.50	67.30	17.80	21.70	28171
28172	32A, 3 pin.....	166.60	67.30	17.80	21.70	28172
28173	32A, 5 pin.....	192.50	80.00	21.20	26.70	28173
28174	63A, 3 pin.....	404.20	80.00	21.20	26.70	28174
28175	63A, 5 pin.....	483.90	92.70	24.20	30.60	28175

Item	PLUGS AND SOCKET OUTLETS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	The rates include for mounting boxes frames and cutting into wall where applicable.					
	<i>Each</i>					
	<b>Socket outlet with plug, weatherproof type rated IP65 : -</b>					
28176	13A, 3 pin.....	263.90	54.60	14.40	18.00	28176
28177	15A, 3 pin.....	307.00	54.60	14.40	18.00	28177
28178	30A, 3 pin.....	509.40	54.60	14.40	18.00	28178
28179	60A, 3 pin.....	811.80	80.00	21.20	26.70	28179
28180	15A, 5 pin.....	505.20	67.30	17.80	21.70	28180
28181	30A, 5 pin.....	588.40	80.00	21.20	26.70	28181
28182	60A, 5 pin.....	959.10	92.70	24.20	30.60	28182
	<b>Switched socket outlet with plug, weatherproof type rated IP65 : -</b>					
28183	13A, 3 pin.....	362.00	54.60	14.40	18.00	28183
28184	15A, 3 pin.....	546.30	54.60	14.40	18.00	28184
28185	30A, 3 pin.....	828.60	54.60	14.40	18.00	28185
28186	60A, 3 pin.....	1,309.60	80.00	21.20	26.70	28186
28187	15A, 5 pin.....	697.70	67.30	17.80	21.70	28187
28188	30A, 5 pin.....	909.90	80.00	21.20	26.70	28188
28189	60A, 5 pin.....	1,351.50	92.70	24.20	30.60	28189
	<b>Switched socket outlet assemblies, sparkless, c/w plug, chromium plated brass cover, flush or surface pattern : -</b>					
28190	13A, 3 pin.....	864.10	54.60	14.40	18.00	28190
28191	13A, 3 pin, twin.....	1,573.40	54.60	14.40	18.00	28191
28192	15A, 3 pin.....	948.90	54.60	14.40	18.00	28192
28193	30A, 3 pin.....	1,504.10	54.60	14.40	18.00	28193

Item	PLUGS AND SOCKET OUTLETS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	The rates include for mounting boxes frames and cutting into wall where applicable.	A	B	C	D	
	<i>Each</i>	\$	\$	\$	\$	
	<b>Switched socket outlet assemblies, flameproof, c/w plug : -</b>					
28194	5A, 3 pin.....	1,773.20	54.60	14.40	18.00	28194
28195	13A, 3 pin.....	2,099.40	54.60	14.40	18.00	28195
28196	15A, 3 pin.....	2,140.30	54.60	14.40	18.00	28196
28197	30A, 3 pin c/w 30mA RCD.....	3,171.40	57.60	15.30	18.80	28197
	<b>Shaver supply unit to EN 60742 with isolating transformer to IEC 60742 : -</b>					
28198	Dual socket of voltage 110 and 220V.....	291.60	28.40	7.40	8.90	28198
	<b>Connection unit, bakelite, flush mounted : -</b>					
28199	Cooker connection unit with cable clamp.....	66.30	25.40	6.80	8.40	28199
28200	Fused spur (2-13A), DP, with cable outlet.....	45.80	25.40	6.80	8.40	28200
28201	Fused spur (2-13A), DP, switch.....	55.30	25.40	6.80	8.40	28201
28202	Fused spur (2-13A), DP, switch, with pilot light.....	70.90	25.40	6.80	8.40	28202
28203	Fused spur (2-13A), DP, switch, with cable outlet.....	55.30	25.40	6.80	8.40	28203
28204	Fused spur (2-13A), DP, switch, with cable outlet and pilot light.....	70.90	25.40	6.80	8.40	28204
28205	32A, TPN connection unit.....	165.20	80.00	21.20	26.70	28205
28206	30A, 3 terminal junction box.....	135.00	25.40	6.80	8.40	28206
	<b>Connection unit, metal plate, flush mounted : -</b>					
28207	Fused spur (2-13A fuse), DP.....	135.50	25.40	6.80	8.40	28207
28208	Fused spur (2-13A fuse), DP, with cable outlet.....	170.00	25.40	6.80	8.40	28208
28209	Fused spur (2-13A fuse), DP, with cable outlet and pilot light.....	207.60	25.40	6.80	8.40	28209
28210	Fused spur (2-13A fuse), DP, switch.....	173.20	25.40	6.80	8.40	28210
28211	Fused spur (2-13A fuse), DP, switch, with pilot light.....	215.60	25.40	6.80	8.40	28211



Item	PLUGS AND SOCKET OUTLETS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	The rates include for mounting boxes frames and cutting into wall where applicable.	A	B	C	D	
	<i>Each</i>	\$	\$	\$	\$	
	<b>Connection unit, metal plate, flush mounted : - (Cont'd)</b>					
28212	Fused spur (2-13A fuse), DP, switch, with cable outlet.....	211.70	25.40	6.80	8.40	28212
28213	Fused spur (2-13A fuse), DP, switch, with cable outlet and pilot light.....	249.90	25.40	6.80	8.40	28213
	<b>Metalclad connection unit, surface mounted : -</b>					
28214	Fused spur (2-13A fuse), DP, with cable outlet.....	216.80	25.40	6.80	8.40	28214
28215	Fused spur (2-13A fuse), DP, switch, with pilot light.....	254.80	25.40	6.80	8.40	28215
28216	Fused spur (2-13A fuse), DP, switch, with cable outlet and pilot light.....	254.80	25.40	6.80	8.40	28216
	<b>Connector box flush with earthing facilities : -</b>					
28217	20A, Connector box, flush.....	42.20	25.40	6.80	8.40	28217
28218	32A, Connector box, flush.....	50.50	25.40	6.80	8.40	28218
28219	45A, Connector box, flush.....	50.50	25.40	6.80	8.40	28219
28220	Stainless steel blanking plate (89 x 120 x 1 mm thick) .....	44.50	11.20	3.00	3.50	28220
	<b>Metal casing and socket c/w 30mA RCD : -</b>					
28221	Galvanized iron casing, single socket .....	506.20	54.60	14.40	18.00	28221
28222	Ditto but twin.....	519.90	54.60	14.40	18.00	28222
28223	Ditto but with four sockets.....	604.20	54.60	14.40	18.00	28223
28224	Stainless steel casing, single socket.....	538.60	54.60	14.40	18.00	28224
28225	Ditto but twin.....	559.50	54.60	14.40	18.00	28225
28226	Ditto but with four sockets.....	673.50	54.60	14.40	18.00	28226
28227	Metal casing, single socket as "Power breaker" .....	407.50	54.60	14.40	18.00	28227
	<b>Telephone outlets : -</b>					
28228	1 gang 6 pin telephone socket outlet.....	39.80	25.40	6.80	8.40	28228

Item	SUB-SWITCHES	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	The rates for sub-switches include the mounting boxes frames and cutting into wall where applicable.	A	B	C	D	
		\$	\$	\$	\$	
	<i>Each</i>					
	<b>Switch, tumbler, bakelite, surface pattern, mounted on wooden block (wooden blocks measured separately) : -</b>					
28229	10A, SP, 1 way.....	30.50	25.70	6.80	8.40	28229
28230	10A, 2 way with or without "centre off", SP .....	35.10	25.70	6.80	8.40	28230
28231	10A, intermediate, SP.....	61.70	25.70	6.80	8.40	28231
28232	15A, SP, 1 way.....	49.70	25.70	6.80	8.40	28232
28233	Switch, weatherproof rated IP56, 10A, galvanized terminal or through entry (1 gang) .....	98.90	55.10	14.40	18.00	28233
28234	Ditto but 2 gangs.....	101.50	55.10	14.40	18.00	28234
	<b>Plates only, bakelite to suit switches to IEC 60669-1 and socket to BS546 : -</b>					
28235	1 switch, 10A, flush.....	14.80	11.30	3.00	3.50	28235
28236	2 switches, 10A, flush.....	15.40	11.30	3.00	3.50	28236
28237	3 switches, 10A, flush.....	16.00	11.30	3.00	3.50	28237
28238	4 switches, 10A, flush.....	22.70	11.30	3.00	3.50	28238
28239	1 socket, 5/13/15A, 3 pin, flush.....	28.40	11.30	3.00	3.50	28239
	<b>Moulded switch plates, c/w fixing screws suitable for 1 gang or 2 gang boxes : -</b>					
28240	1 gang plate for 1 gang box.....	16.90	11.30	3.00	3.50	28240
28241	2 gang plate for 1 gang box.....	17.60	11.30	3.00	3.50	28241
28242	2 gang plate for 2 gang box.....	37.00	11.30	3.00	3.50	28242
28243	3 gang plate for 2 gang box.....	37.70	11.30	3.00	3.50	28243
28244	4 gang plate for 2 gang box.....	38.40	11.30	3.00	3.50	28244

Item	SUB-SWITCHES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	The rates for sub-switches include the mounting boxes frames and cutting into wall where applicable.					
	<i>Each</i>					
	<b>Stainless steel or brass switch plates, c/w fixing screws suitable for 1 gang or 2 gang boxes : -</b>					
28245	1 gang plate for 1 gang box.....	73.00	11.30	3.00	3.50	28245
28246	2 gang plate for 1 gang box.....	78.40	11.30	3.00	3.50	28246
28247	2 gang plate for 2 gang box.....	85.40	11.30	3.00	3.50	28247
28248	3 gang plate for 2 gang box.....	93.40	11.30	3.00	3.50	28248
28249	4 gang plate for 2 gang box.....	97.90	11.30	3.00	3.50	28249
28250	Push button switch, 5A, bakelite miniature panel mounting.....	184.20	11.30	3.00	3.50	28250
28251	On-off pull switch, 2A, for fluorescent fitting, fitted with ball chain and metal tassel.....	44.80	11.30	3.00	3.50	28251
28252	Toggle switch, 10/15A, 2 way.....	36.80	17.40	4.90	5.90	28252
28253	Photo electric daylight sensitive switch 220V 50Hz (Switch on at 54 lux and switch off at 108 lux).....	312.90	73.20	19.30	24.20	28253
28254	Dusk/Dawn Photo electric switch, light threshold from 20-500 lux, adjustable .....	1,106.60	55.10	14.40	18.00	28254
28255	Photo-electric control 1000W/1500VA 220-240V with standard 3-prong EEI-NEMA twist lock mounting.....	400.30	73.20	19.30	24.20	28255
28256	Socket (or mount) with standard EEI-NEMA twist lock receptacle for photo-electric control.....	75.60	36.20	9.50	11.90	28256
	<b>White bakelite light switch to IEC 60669-1 : -</b>					
28257	10A, 1 gang SP 1 way.....	30.50	25.70	6.80	8.40	28257
28258	10A, 1 gang SP 2 way.....	35.10	25.70	6.80	8.40	28258
28259	10A, 2 gang SP 1 way or 2 way.....	39.90	25.70	6.80	8.40	28259
28260	10A, 3 gang SP 1 way or 2 way.....	45.40	25.70	6.80	8.40	28260
28261	10A, 4 gang SP 1 way or 2 way.....	54.40	25.70	6.80	8.40	28261

Item	SUB-SWITCHES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	The rates for sub-switches include the mounting boxes frames and cutting into wall where applicable.	A	B	C	D	
		\$	\$	\$	\$	
	<b>Each</b>					
	<b>White bakelite light switch to IEC 60669-1 : - (Cont'd)</b>					
28262	10A, 2 way with or without "centre off" SP .....	39.90	25.70	6.80	8.40	28262
28263	10A, intermediate, SP.....	61.70	25.70	6.80	8.40	28263
28264	10A, 1 way DP.....	52.90	25.70	6.80	8.40	28264
28265	15A, 1 way SP.....	54.30	25.70	6.80	8.40	28265
	<b>Chromium plated grid switch assemblies : -</b>					
28266	10A, 1 gang SP 1 way.....	168.50	25.70	6.80	8.40	28266
28267	10A, 1 gang SP 2 way.....	170.80	25.70	6.80	8.40	28267
28268	10A, 2 gang SP 1 way or 2 way.....	193.00	25.70	6.80	8.40	28268
28269	10A, 3 gang SP 1 way or 2 way.....	292.80	25.70	6.80	8.40	28269
28270	10A, 4 gang SP 1 way or 2 way.....	320.20	25.70	6.80	8.40	28270
28271	10A, DP 1 way.....	212.10	25.70	6.80	8.40	28271
28272	20A, DP 1 way.....	221.90	25.70	6.80	8.40	28272
28273	20A, 1 gang DP with pilot light .....	232.50	25.70	6.80	8.40	28273
28274	Ditto but 45A.....	264.50	25.70	6.80	8.40	28274
	<b>Dimmer switch, white, bakelite : -</b>					
28275	250W, 1 gang, 1 way or 2 way.....	118.50	25.70	6.80	8.40	28275
28276	500W, 1 gang, 1 way or 2 way.....	118.50	25.70	6.80	8.40	28276
28277	250W, 2 gang, 1 way or 2 way.....	211.50	25.70	6.80	8.40	28277
	<b>Dimmer switch, chromium plated : -</b>					
28278	500W, 2 gang, 1 way or 2 way.....	311.60	25.70	6.80	8.40	28278
28279	400W, 1 gang, 1 way or 2 way.....	256.20	25.70	6.80	8.40	28279

Item	SUB-SWITCHES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	The rates for sub-switches include the mounting boxes frames and cutting into wall where applicable.					
	<i>Each</i>					
	<b>White bakelite DP switch : -</b>					
28280	20A.....	50.20	25.70	6.80	8.40	28280
28281	32A.....	75.60	25.70	6.80	8.40	28281
28282	45A.....	91.90	25.70	6.80	8.40	28282
	<b>White bakelite DP switch with pilot light : -</b>					
28283	20A.....	56.80	25.70	6.80	8.40	28283
28284	32A.....	82.20	25.70	6.80	8.40	28284
28285	45A.....	98.50	25.70	6.80	8.40	28285
	<b>Metalclad, surface mounted switch : -</b>					
28286	10A, 1 gang 1 way or 2 way.....	84.60	25.70	6.80	8.40	28286
28287	10A, 2 gang 1 way or 2 way.....	93.60	25.70	6.80	8.40	28287
28288	10A, 3 gang 1 way or 2 way.....	133.00	25.70	6.80	8.40	28288
28289	20A, DP with pilot light.....	136.60	25.70	6.80	8.40	28289
28290	45A, DP with pilot light.....	376.10	25.70	6.80	8.40	28290
28291	32A, TPN with pilot light.....	451.30	80.80	21.20	26.70	28291
28292	10A, lighting switch, 1 gang chromium plated brass cover.....	168.50	25.70	6.80	8.40	28292
28293	Ditto but 2 gang.....	193.00	25.70	6.80	8.40	28293
	<b>Splashproof, flush mounted switch, protection class IP 56 : -</b>					
28294	10A, 1 gang 1 way SP.....	137.30	55.10	14.40	18.00	28294
28295	10A, 1 gang 2 way SP.....	137.30	55.10	14.40	18.00	28295
28296	10A, 1 gang 1 way DP.....	215.80	55.10	14.40	18.00	28296
28297	Ditto but 20A.....	301.10	55.10	14.40	18.00	28297
28298	10A, 2 gang 1 way SP.....	375.80	55.10	14.40	18.00	28298

Item	SUB-SWITCHES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	The rates for sub-switches include the mounting boxes frames and cutting into wall where applicable.	A	B	C	D	
		\$	\$	\$	\$	
	<i>Each</i>					
	<b>Splashproof, surface mounted switch, protection class IP44 : -</b>					
28299	10A, 1 gang 1 way SP.....	120.80	55.10	14.40	18.00	28299
28300	10A, 1 gang 2 way SP.....	120.80	55.10	14.40	18.00	28300
28301	10A, 2 gang 1 way SP.....	311.60	55.10	14.40	18.00	28301
28302	10A, 1 gang 1 way DP.....	129.00	55.10	14.40	18.00	28302
28303	Ditto but 20A, c/w pilot light .....	187.10	55.10	14.40	18.00	28303
28304	Switch, flameproof 10A.....	1,225.00	55.10	14.40	18.00	28304
28305	Ditto but 16A.....	1,561.90	55.10	14.40	18.00	28305
	<b>Stainless steel (304) plated grid switch c/w metal casing : -</b>					
28306	2 gang grid switch.....	164.30	25.70	6.80	8.40	28306
28307	3 gang grid switch.....	204.40	25.70	6.80	8.40	28307
28308	4 gang grid switch.....	231.30	25.70	6.80	8.40	28308
28309	5 gang grid switch.....	303.40	25.70	6.80	8.40	28309
28310	6 gang grid switch.....	378.50	28.70	6.90	8.90	28310
28311	8 gang grid switch.....	438.60	28.70	7.40	8.90	28311
28312	10 gang grid switch.....	499.10	28.70	7.40	8.90	28312
28313	12 gang grid switch.....	568.70	37.70	9.90	12.30	28313
28314	14 gang grid switch.....	799.90	37.70	9.90	12.30	28314
28315	16 gang grid switch.....	1,031.10	37.70	9.90	12.30	28315
28316	18 gang grid switch.....	1,268.30	43.80	11.40	14.80	28316
	<b>Keyswitch : -</b>					
28317	Keytag.....	47.40	-	-	-	28317
28318	10A, wall unit keyswitch.....	253.40	55.10	14.40	18.00	28318
28319	20A, DP wall unit keyswitch.....	286.60	55.10	14.40	18.00	28319

Item	SUB-SWITCHES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	The rates for sub-switches include the mounting boxes frames and cutting into wall where applicable.					
	<i>Each</i>					
	<b>Float switch : -</b>					
28320	Mercury float switch .....	308.10	73.20	19.30	24.20	28320
28321	Galvanized steel bracket for mercury float switch.....	103.20	36.20	9.50	11.90	28321
28322	Ditto but of stainless steel 316.....	248.10	36.20	9.50	11.90	28322
	<b>Ceiling switch, cord or chain operated : -</b>					
28323	6A, 1 way or 2 way SP.....	50.10	25.70	6.80	8.40	28323
28324	10A, 1 way SP.....	52.30	25.70	6.80	8.40	28324
28325	10A, 2 way SP.....	55.00	25.70	6.80	8.40	28325
28326	15A, 1 way SP.....	57.30	25.70	6.80	8.40	28326
28327	16A, 1 way DP.....	60.50	25.70	6.80	8.40	28327
28328	Motion control switch.....	459.00	36.20	9.50	11.90	28328
28329	Emergency stop switch, metalclad, heavy duty type as "MEM".....	289.00	36.20	9.50	11.90	28329
	<b>BOXES</b>					
	<i>Each</i>					
28330	Galvanized metal boxes only, 35 mm, 1 gang, to BS 4662, flush pattern (fixing to and including cutting into wall) .....	27.90	25.40	6.90	8.40	28330
28331	Ditto but 47 mm (ditto) .....	29.20	25.40	6.90	8.40	28331
28332	Galvanized metal boxes only, 35 mm, 2 gang, to IEC 60670 or BS 4662, flush pattern (fixing to include cutting into wall) .....	30.40	25.40	6.90	8.40	28332
28333	Ditto but 47 mm (ditto).....	33.00	25.40	6.90	8.40	28333
28334	Floor mounting pedestal metal box for socket outlet, 1 gang.....	33.00	25.40	6.90	8.40	28334
28335	Blank plate, white bakelite, 1 gang.....	9.10	3.00	1.00	1.20	28335
28336	Blank plate, white bakelite, 2 gang.....	15.00	3.00	1.00	1.20	28336
	<b>Cast iron box for surface mounting : -</b>					
28337	35 mm deep, 1 gang.....	7.40	5.30	1.80	2.10	28337
28338	47 mm deep, 1 gang.....	8.10	5.30	1.80	2.10	28338
28339	35 mm deep, 2 gang.....	10.10	5.30	1.80	2.10	28339
28340	47 mm deep, 2 gang.....	11.90	5.30	1.80	2.10	28340

Item	BOXES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Steel box for flush mounting, to IEC 60670 or BS 4662 : -</b>					
28341	25 mm deep, 1 gang.....	17.30	15.70	5.20	6.30	28341
28342	25 mm deep, 2 gang.....	19.10	17.20	5.70	6.80	28342
28343	25 mm deep, 3 gang.....	21.50	19.40	6.40	7.70	28343
28344	35 mm deep, 1 gang.....	17.70	15.70	5.20	6.30	28344
28345	35 mm deep, 2 gang.....	19.50	17.20	5.70	6.80	28345
28346	47 mm deep, 1 gang.....	18.80	16.50	5.40	6.50	28346
28347	47 mm deep, 2 gang.....	21.20	17.20	5.70	6.80	28347
28348	44 mm deep for shaver unit.....	26.70	15.70	5.20	6.30	28348
	<b>Steel box for surface mounting, to IEC 60670 or BS 4662 : -</b>					
28349	41 mm deep, 1 gang with knockout.....	15.90	13.70	4.50	5.50	28349
28350	41 mm deep, 2 gang with knockout.....	18.80	15.00	4.90	6.10	28350
28351	17 mm deep, 1 gang.....	14.20	12.70	4.20	5.00	28351
28352	25 mm deep, 1 gang.....	14.30	12.70	4.20	5.00	28352
28353	30 mm or 32 mm deep, 1 gang.....	14.50	12.70	4.20	5.00	28353
28354	30 mm or 32 mm deep, 2 gang.....	15.60	13.50	4.40	5.40	28354
28355	30 mm or 32 mm deep, 3 gang.....	16.70	13.50	4.40	5.40	28355
28356	38 mm or 40 mm deep, 1 gang.....	15.80	13.70	4.50	5.50	28356
28357	38 mm or 40 mm deep, 2 gang.....	18.60	15.00	4.90	6.10	28357
28358	38 mm or 40 mm deep for 2 x 1 gang with partition.....	19.20	15.00	4.90	6.10	28358
28359	44 mm deep, 1 gang.....	17.50	13.70	4.50	5.50	28359
28360	44 mm deep for shaver unit.....	24.50	13.70	4.50	5.50	28360
	<b>PVC switch box : -</b>					
28361	35 mm deep, 1 gang.....	7.60	5.30	1.80	2.10	28361
28362	47 mm deep, 1 gang.....	7.60	5.30	1.80	2.10	28362
28363	47 mm deep, 2 gang.....	12.40	5.30	1.80	2.10	28363
28364	surface switch box 35 mm deep, 1 gang.....	7.60	5.30	1.80	2.10	28364
28365	surface switch box 47 mm deep, 1 gang.....	7.60	5.30	1.80	2.10	28365
28366	surface switch box 47 mm deep, 2 gang.....	12.40	5.30	1.80	2.10	28366



Item	BOXES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Steel base box for grid switch : -</b>					
28367	73 x 73 x 40 mm.....	52.40	19.40	6.40	7.70	28367
28368	73 x 133 x 40 mm.....	60.00	20.90	6.90	8.30	28368
28369	133 x 133 x 40 mm.....	158.80	28.40	7.40	8.90	28369
28370	194 x 133 x 40 mm.....	172.80	32.10	8.40	10.90	28370
	<b>PVC adaptable junction box of the following nominal size c/w cover, square type, including drilling hole as required : -</b>					
28371	75 x 75 x 44 mm.....	18.00	15.00	4.90	5.90	28371
28372	100 x 100 x 50 mm.....	20.80	17.20	5.70	6.80	28372
28373	150 x 150 x 75 mm.....	29.30	20.20	6.70	8.00	28373
28374	225 x 225 x 75 mm.....	50.70	34.40	8.90	11.40	28374
	<b>Moulded base box for grid switch : -</b>					
28375	1 gang or 2 gang.....	23.20	15.70	5.20	6.30	28375
28376	3 gang or 4 gang.....	33.40	15.70	5.20	6.30	28376
	<b>Accessories for weatherproof switch/socket : -</b>					
28377	Entry blank.....	16.70	6.70	2.20	2.60	28377
28378	PVC cable entry.....	16.70	6.70	2.20	2.60	28378
28379	20 mm conduit entry.....	18.80	6.70	2.20	2.60	28379
28380	Box coupler.....	9.90	1.50	0.50	0.60	28380
28381	Gel seal for socket.....	19.80	5.20	1.70	2.10	28381
28382	Surface mounting 1 gang box.....	58.60	15.70	5.20	6.30	28382
28383	Surface mounting 2 gang box.....	81.80	15.70	5.20	6.30	28383
28384	1 gang flush mounting frame.....	134.20	25.40	6.90	8.40	28384
28385	2 gang flush mounting frame.....	194.30	26.90	7.40	8.90	28385

Item	EARTHING AND LIGHTNING CONDUCTOR FITTINGS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
28386	Copper tape, tinned at connections 20 x 3 mm installed on wall with and including clips .....	74.20	26.20	7.00	8.50	28386
28387	Ditto but tinned entire length.....	75.90	26.20	7.00	8.50	28387
28388	Ditto but 25 x 3 mm (for earthing).....	75.40	26.20	7.00	8.50	28388
28389	Ditto but tinned entire length 25 x 3 mm (for earthing).....	77.10	26.20	7.00	8.50	28389
28390	Ditto but 25 x 3 mm with saddles (for lightning conductors).....	80.40	30.00	8.00	10.00	28390
28391	Ditto but tinned entire length 25 x 3 mm with saddles (for lightning conductors).....	82.10	30.00	8.00	10.00	28391
28392	Copper tape, tinned at connections 20 x 3 mm laid in trench or duct (ducting, excavation and back-filling measured separately) .....	66.00	20.00	5.80	7.10	28392
28393	Ditto but tinned entire length (ditto).....	67.60	20.00	5.80	7.10	28393
28394	Ditto but 25 x 3 mm (ditto).....	67.60	20.00	5.80	7.10	28394
28395	Ditto but tinned entire length 25 x 3 mm (ditto).....	69.20	20.00	5.80	7.10	28395
28396	Aluminum type 25 x 3 mm with saddles ( for lightning conductors ).....	50.10	30.00	8.00	10.00	28396
28397	Braided copper tape with PVC sheath 25 x 3 mm.....	96.30	26.20	7.00	8.50	28397
	<i>Each</i>					
28398	Copper bond earth rod 16 mm diameter 2.4 m long consists of pure electrolytic copper uniformly molecularly bonded onto a high tensile steel core to a minimum thickness of 0.25 mm c/w driving head and coupling .....	178.70	90.80	-	-	28398
28399	Ditto 1.2 m.....	111.60	72.40	-	-	28399
28400	Copper earth plate, lattice type 600 x 600 mm (excavation measured separately) .....	1,592.50	148.70	39.40	48.80	28400
28401	Ditto but 900 x 900 mm (ditto).....	2,319.50	151.00	39.90	50.30	28401
28402	Earth clips with plugs, tinned copper, for pipes n.e. 25 mm diameter.....	14.60	11.40	3.70	4.50	28402
28403	Ditto for pipes exc. 25 mm diameter but n.e. 38 mm diameter .....	15.90	11.40	3.70	4.50	28403
28404	Ditto for pipes exc. 38 mm diameter but n.e. 75 mm diameter .....	18.60	11.40	3.70	4.50	28404
28405	Tape clip only, for tape 25 x 3 mm wide.....	20.60	11.40	3.70	4.50	28405
28406	Saddle only, for securing tapes by and including single set screw.....	25.70	15.20	5.00	6.00	28406

Item	EARTHING AND LIGHTNING CONDUCTOR FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
28407	Light duty air terminal, with 16 mm diameter rod up to 300 mm long (copper rod taper pointed) .....	113.00	56.40	15.00	18.50	28407
28408	Ditto 300 mm - 500 mm long (ditto).....	128.90	56.40	15.00	18.50	28408
28409	Ditto 500 mm - 1000 mm long (ditto).....	176.50	56.40	15.00	18.50	28409
28410	Ditto but with 20 mm diameter rod, 1000 mm long (ditto).....	210.80	56.40	15.00	18.50	28410
28411	Ditto but with 25 mm diameter rod.....	230.10	56.40	15.00	18.50	28411
28412	Multi-pointed air terminal c/w 300 mm - 600 mm long copper rod and base .....	241.80	56.40	15.00	18.50	28412
28413	Tape connection for 25 mm tape.....	25.70	16.80	5.50	6.60	28413
28414	Tape to plate connector.....	41.70	23.60	7.00	8.50	28414
28415	Circular plate type test clamp for 25 mm tape.....	63.60	23.60	7.00	8.50	28415
28416	Connector clamp for 16 mm, 20 mm and 25 mm diameter rod, pressure type.....	42.00	23.60	7.00	8.50	28416
	<i>Per linear metre</i>					
28417	E.F. Carrier system of lightning protection, "E.F." lightning carrier down-conductor.....	632.80	41.50	12.30	16.50	28417
	<i>Each</i>					
28418	E.F. Carrier system of lightning protection, "E.F." lightning terminal include supporting insulation mast.....	36,413.70	1,412.20	385.00	477.10	28418
28419	"Helita" Pulsar-30 lightning conductor in stainless steel of 2 m pole, ref. IMH3012 c/w wall mounted bracket, ref. Code 304 WMB20, 2 m elevation rod, ref. Code 304 MH2038, include functional testing on Helita Pulsar.....	32,332.60	1,412.20	385.00	477.10	28419
28420	Ditto but Pulsar-45, ref IMH4512.....	38,700.60	1,412.20	385.00	477.10	28420
28421	Ditto but Pulsar-60, ref IMH6012.....	47,100.20	1,412.20	385.00	477.10	28421
	<b>Lightning protection system using non-radioactive lightning control terminals with the method of creating free electrons and photo-ionisation between a spherical surface and an earthed central finial.</b>					
	<i>Each</i>					
28422	Air termination with spherical shape c/w finial tip .....	19,888.90	99.70	28.80	32.90	28422
28423	Air termination support c/w upper termination kit and all necessary accessories.....	9,388.30	498.40	164.50	205.70	28423
28424	Aluminum/stainless steel mast assembly.....	2,800.90	1,163.00	287.90	370.20	28424
28425	Lightning event counter.....	2,774.20	124.60	32.90	41.10	28425
28426	Lower termination kit c/w earth rod connector.....	556.30	24.90	8.20	12.30	28426
	<i>Per linear metre</i>					
28427	Screened/insulated down conductor c/w saddles.....	454.30	41.50	12.30	16.50	28427

Item	EARTHING AND LIGHTNING CONDUCTOR FITTINGS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Power surge protection devices in compliance with IEC 61643-1 /IEC 61024-1, UL1449 and Arch S D's proforma Specification for Surge Protection Device.</b>					
	<b>Shunt type Surge Protection Devices for primary incoming power protection : -</b>					
28428	20 kA (8/20 ms), single phase .....	607.40	31.30	8.00	10.50	28428
28429	Ditto but three phases.....	1,761.60	31.30	8.00	10.50	28429
28430	40 kA (8/20 ms), single phase .....	607.40	31.30	8.00	10.50	28430
28431	Ditto but three phases.....	1,761.60	31.30	8.00	10.50	28431
28432	65 kA (8/20 ms), single phase .....	1,252.00	39.60	10.50	13.00	28432
28433	Ditto but three phases.....	3,677.50	39.60	10.50	13.00	28433
28434	80 kA (8/20 ms), single phase .....	1,781.80	39.60	10.50	13.00	28434
28435	Ditto but three phases.....	5,268.20	39.60	10.50	13.00	28435
28436	100 kA (8/20 ms), single phase .....	1,411.40	47.30	12.50	15.50	28436
28437	Ditto but three phases.....	4,141.90	47.30	12.50	15.50	28437
28438	150 kA (8/20 ms), single phase .....	2,472.30	47.30	12.50	15.50	28438
28439	Ditto but three phases c/w counter.....	8,519.30	47.30	12.50	15.50	28439

Item	<b>EARTHING AND LIGHTNING CONDUCTOR FITTINGS (CONT'D)</b>	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Surge Reduction Filters for electronic equipment with surge rating : -</b>					
28440	6A, 4-16 kA (8/20 ms), single phase.....	2,025.30	31.30	8.00	10.50	28440
28441	10A, 55 kA (8/20 ms), single phase.....	3,026.90	31.30	8.00	10.50	28441
28442	20A, 40-55 kA (8/20 ms), single phase.....	3,026.90	31.30	8.00	10.50	28442
28443	20A, 40-55 kA (8/20 ms), three phases.....	4,551.50	31.30	8.00	10.50	28443
28444	32A, 135 kA (8/20 ms), single phases.....	3,549.90	31.30	8.00	10.50	28444
28445	63A, 135 kA (8/20 ms), single phase.....	3,549.90	31.30	8.00	10.50	28445
28446	125A, 135 kA (8/20 ms), single phase.....	3,549.90	31.30	8.00	10.50	28446
28447	32A, 135 kA (8/20 ms), three phases.....	4,905.50	39.30	10.70	13.00	28447
28448	64A, 135 kA (8/20 ms), three phases.....	4,905.50	39.30	10.70	13.00	28448
28449	125A, 135 kA (8/20 ms), three phases.....	4,905.50	39.30	10.70	13.00	28449
28450	200A, 135 kA (8/20 ms), three phases.....	4,905.50	39.30	10.70	13.00	28450
28451	315A, 135 kA (8/20 ms), three phases.....	4,905.50	39.30	10.70	13.00	28451
28452	630A, 135 kA (8/20 ms), three phases.....	4,905.50	39.30	10.70	13.00	28452
	<b>Surge protectors for radio, telecommunications &amp; signal protection : -</b>					
28453	500A (8/20 ms).....	1,167.20	31.30	8.00	10.50	28453
28454	2.5 kA (8/20 ms).....	1,167.20	31.30	8.00	10.50	28454
28455	10 kA (8/20 ms).....	1,167.20	31.30	8.00	10.50	28455
28456	20 kA (8/20 ms).....	1,167.20	31.30	8.00	10.50	28456
	<i>Per kg</i>					
	<b>Chemicals for soil treatment : -</b>					
28457	Ammonium chloride.....	31.90	15.90	-	-	28457
28458	Copper sulphate.....	33.60	15.90	-	-	28458
28459	Bentonite.....	31.00	15.90	-	-	28459
28460	Douden crete, type DCS-010.....	114.20	15.90	-	-	28460
28461	Lime powder for mixing of earthing chemical.....	18.30	15.90	-	-	28461
28462	Industrial salt for mixing of earthing chemical.....	28.50	15.90	-	-	28462
28463	Carbolic powder for mixing of earthing chemical.....	31.10	15.90	-	-	28463

Item	CABLES (COPPER)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>300/500V TRS or PVC sheathed flexible cords, twisted core to IEC 60245 or BS6500 or acceptable recognized international standard, such as BS7919 : -</b>					
28464	0.5 mm <sup>2</sup> 2 cores.....	13.40	3.80	1.20	1.50	28464
28465	0.75 mm <sup>2</sup> 2 cores.....	13.70	3.80	1.20	1.50	28465
28466	1.5 mm <sup>2</sup> 2 cores.....	15.40	3.80	1.20	1.50	28466
28467	0.75 mm <sup>2</sup> 3 cores.....	14.20	3.80	1.20	1.50	28467
28468	1.5 mm <sup>2</sup> 3 cores.....	18.30	3.80	1.20	1.50	28468
28469	2.5 mm <sup>2</sup> 3 cores.....	20.10	3.80	1.20	1.50	28469
28470	0.5 mm <sup>2</sup> 2 cores, PVC flexible cords, unsheathed.....	13.40	3.80	1.20	1.50	28470
28471	0.75 mm <sup>2</sup> 2 cores, PVC flexible cords, unsheathed.....	13.70	3.80	1.20	1.50	28471
28472	0.75 mm <sup>2</sup> 3 cores, PVC flexible cords, unsheathed.....	14.20	3.80	1.20	1.50	28472

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>450/750V PVC insulated cable, all colours, to IEC 60227-3 or acceptable recognized international standard, such as BS 6004, drawn into conduits/trunkings (conduits and trunkings measured separately) :-</b>					
28473	1.5 mm <sup>2</sup> 1 core.....	2.80	1.50	0.50	0.60	28473
28474	2.5 mm <sup>2</sup> ditto.....	3.70	1.50	0.50	0.60	28474
28475	4 mm <sup>2</sup> ditto.....	5.00	1.50	0.50	0.60	28475
28476	6 mm <sup>2</sup> ditto.....	7.40	2.00	0.70	0.80	28476
28477	10 mm <sup>2</sup> ditto.....	13.50	2.00	0.70	0.80	28477
28478	16 mm <sup>2</sup> ditto.....	17.20	2.00	0.70	0.80	28478
28479	25 mm <sup>2</sup> ditto.....	25.80	2.50	0.80	0.90	28479
28480	35 mm <sup>2</sup> ditto.....	37.60	2.50	0.80	0.90	28480
28481	50 mm <sup>2</sup> ditto.....	49.70	2.90	0.90	1.20	28481
28482	70 mm <sup>2</sup> ditto.....	69.00	4.70	1.60	1.80	28482
28483	95 mm <sup>2</sup> ditto.....	94.60	5.70	1.80	2.20	28483
28484	120 mm <sup>2</sup> ditto.....	129.20	7.50	2.20	2.70	28484
28485	150 mm <sup>2</sup> ditto.....	222.60	9.40	2.70	3.30	28485
28486	185 mm <sup>2</sup> ditto.....	266.90	11.30	3.30	4.10	28486
28487	240 mm <sup>2</sup> ditto.....	336.30	13.10	3.80	4.70	28487
28488	300 mm <sup>2</sup> ditto.....	409.80	13.10	3.80	4.70	28488
28489	400 mm <sup>2</sup> ditto.....	509.10	13.10	3.80	4.70	28489
28490	500 mm <sup>2</sup> ditto.....	668.10	15.90	4.20	5.20	28490
28491	630 mm <sup>2</sup> ditto.....	823.60	16.90	4.40	5.50	28491

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Per linear metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>PVC insulated and PVC sheathed all colours, to IEC 60502-1 (for cables of 600/1000V with CSA 50mm<sup>2</sup> &amp; above) or BS 6004 (for cables of 300/500V with CSA up to 50 mm<sup>2</sup>) or acceptable recognized international standard, c/w and including brass buckle clips or brass fasteners, a deduction of fifty (50) and sixty (60) percent will be made to the rates involving labour for cables installed / re-installed in or taken down from conduits/ trunkings and cable trays respectively (conduits, trunkings and cable trays measured separately) : -</b>					
28492	1.5 mm <sup>2</sup> 1 core.....	9.10	4.70	1.80	2.20	28492
28493	2.5 mm <sup>2</sup> ditto.....	12.00	4.70	1.80	2.20	28493
28494	4 mm <sup>2</sup> ditto.....	17.40	5.70	2.20	2.60	28494
28495	6 mm <sup>2</sup> ditto.....	23.80	5.70	2.20	2.60	28495
28496	10 mm <sup>2</sup> ditto.....	29.30	5.70	2.20	2.60	28496
28497	16 mm <sup>2</sup> ditto.....	32.30	5.70	2.20	2.60	28497
28498	25 mm <sup>2</sup> ditto.....	57.00	8.50	3.10	3.60	28498
28499	35 mm <sup>2</sup> ditto.....	63.10	8.50	3.10	3.60	28499
28500	50 mm <sup>2</sup> ditto.....	93.60	8.50	3.10	3.60	28500
28501	70 mm <sup>2</sup> ditto.....	115.80	11.30	4.10	4.80	28501
28502	95 mm <sup>2</sup> ditto.....	127.10	14.20	5.10	6.10	28502
28503	120 mm <sup>2</sup> ditto.....	143.10	16.90	6.10	7.10	28503
28504	150 mm <sup>2</sup> ditto.....	204.30	19.60	7.10	8.40	28504
28505	185 mm <sup>2</sup> ditto.....	215.70	22.50	8.10	9.60	28505
28506	240 mm <sup>2</sup> ditto.....	273.50	28.10	10.10	12.00	28506
28507	300 mm <sup>2</sup> ditto.....	329.90	34.70	12.50	14.80	28507
28508	400 mm <sup>2</sup> ditto.....	398.70	40.30	14.50	17.10	28508
28509	500 mm <sup>2</sup> ditto.....	521.00	46.90	16.90	19.90	28509
28510	630 mm <sup>2</sup> ditto.....	646.80	53.40	19.30	22.80	28510
28511	800 mm <sup>2</sup> ditto.....	954.70	66.60	23.90	28.20	28511
28512	1000 mm <sup>2</sup> ditto.....	1,146.20	88.10	31.70	37.50	28512



Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>PVC insulated and PVC sheathed all colours, to IEC 60502-1 (for cables of 600/1000V with CSA 50mm<sup>2</sup> &amp; above) or BS 6004 (for cables of 300/500V with CSA up to 50 mm<sup>2</sup>) or acceptable recognized international standard, c/w and including brass buckle clips or brass fasteners, a deduction of fifty (50) and sixty (60) percent will be made to the rates involving labour for cables installed / re-installed in or taken down from conduits/ trunkings and cable trays respectively (conduits, trunkings and cable trays measured separately) : - (Cont'd)</b>					
28513	1.5 mm <sup>2</sup> 2 cores.....	10.90	5.70	2.20	2.60	28513
28514	2.5 mm <sup>2</sup> ditto.....	15.40	7.50	2.90	3.40	28514
28515	4 mm <sup>2</sup> ditto.....	21.20	8.50	3.10	3.60	28515
28516	6 mm <sup>2</sup> ditto.....	27.40	8.50	3.10	3.60	28516
28517	10 mm <sup>2</sup> ditto.....	48.10	9.40	3.40	4.00	28517
28518	16 mm <sup>2</sup> ditto.....	65.20	11.30	4.10	4.80	28518
28519	25 mm <sup>2</sup> ditto.....	104.50	12.20	4.40	5.20	28519

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>450/750V low emission and corrosive gases, thermosetting insulated, non-sheathed, single core cable to BS 7211 or acceptable recognized international standard, such as BS6004 drawn into conduits /trunkings (conduits and trunkings measured separately) : -</b>					
28520	1.5 mm <sup>2</sup> 1 core.....	4.20	1.50	0.50	0.60	28520
28521	2.5 mm <sup>2</sup> ditto.....	4.80	1.50	0.50	0.60	28521
28522	4 mm <sup>2</sup> ditto.....	6.30	1.50	0.50	0.60	28522
28523	6 mm <sup>2</sup> ditto.....	9.10	2.00	0.70	0.80	28523
28524	10 mm <sup>2</sup> ditto.....	17.30	2.00	0.70	0.80	28524
28525	16 mm <sup>2</sup> ditto.....	23.30	2.00	0.70	0.80	28525
28526	25 mm <sup>2</sup> ditto.....	34.40	2.50	0.80	0.90	28526
28527	35 mm <sup>2</sup> ditto.....	49.30	2.50	0.80	0.90	28527
28528	50 mm <sup>2</sup> ditto.....	60.00	2.90	0.90	1.20	28528
28529	70 mm <sup>2</sup> ditto.....	86.60	4.70	1.60	1.80	28529
28530	95 mm <sup>2</sup> ditto.....	120.80	5.70	1.80	2.20	28530
28531	120 mm <sup>2</sup> ditto.....	156.90	7.50	2.20	2.70	28531
28532	150 mm <sup>2</sup> ditto.....	233.20	9.40	2.70	3.30	28532
28533	185 mm <sup>2</sup> ditto.....	323.40	11.30	3.30	4.10	28533
28534	240 mm <sup>2</sup> ditto.....	406.80	13.10	3.80	4.70	28534
28535	300 mm <sup>2</sup> ditto.....	485.50	13.10	3.80	4.70	28535
28536	400 mm <sup>2</sup> ditto.....	603.70	13.10	3.80	4.70	28536
28537	500 mm <sup>2</sup> ditto.....	792.50	15.90	4.20	5.20	28537
28538	630 mm <sup>2</sup> ditto.....	977.40	16.90	4.40	5.50	28538

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>450/750V low emission of smoke and corrosive gases, thermosetting insulated and sheathed cable to BS 7211 or acceptable recognized international standard, c/w and including brass buckle clips or brass fasteners, a deduction of fifty (50) and sixty (60) percent will be made to the rates involving labour for cables installed / re-installed in or taken down from conduits / trunkings and cable trays respectively (conduits, trunkings and cable trays measured separately) : -</b>					
28539	1.5 mm <sup>2</sup> 2 cores.....	40.80	5.70	2.20	2.60	28539
28540	2.5 mm <sup>2</sup> ditto.....	45.00	7.50	2.90	3.40	28540
28541	4 mm <sup>2</sup> ditto.....	51.50	8.50	3.10	3.60	28541
28542	6 mm <sup>2</sup> ditto.....	57.60	8.50	3.10	3.60	28542
28543	10 mm <sup>2</sup> ditto.....	78.60	9.40	3.40	4.00	28543
28544	16 mm <sup>2</sup> ditto.....	95.60	11.30	4.10	4.80	28544
28545	25 mm <sup>2</sup> ditto.....	135.00	12.20	4.40	5.20	28545
28546	35 mm <sup>2</sup> ditto.....	183.40	13.10	4.70	5.50	28546
28547	1.5 mm <sup>2</sup> 4 cores.....	53.90	8.50	3.10	3.60	28547
28548	2.5 mm <sup>2</sup> ditto.....	59.70	9.40	3.40	4.00	28548
28549	4 mm <sup>2</sup> ditto.....	80.40	11.30	4.10	4.80	28549
28550	6 mm <sup>2</sup> ditto.....	93.50	12.20	4.40	5.20	28550
28551	10 mm <sup>2</sup> ditto.....	120.00	13.10	4.70	5.50	28551
28552	16 mm <sup>2</sup> ditto.....	152.60	14.10	5.10	5.80	28552
28553	25 mm <sup>2</sup> ditto.....	216.60	15.90	5.70	6.50	28553
28554	35 mm <sup>2</sup> ditto.....	252.90	16.90	6.10	6.80	28554

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>600/1000V low emission of smoke and corrosive gases, cross-linked polyethylene insulated and sheathed, steel wire armoured cable to BS 6724-1 or acceptable recognized international standard, fixed with and including cleats or saddles or fixed to cable trays, a deduction of thirty (30) percent will be made to the rates involving labour for cables installed /re-installed in or taken down from cable trays (cable trays measured separately) : -</b>					
28555	1.5 mm <sup>2</sup> 2 cores.....	51.70	16.80	4.50	5.50	28555
28556	2.5 mm <sup>2</sup> ditto.....	54.10	16.80	4.50	5.50	28556
28557	4 mm <sup>2</sup> ditto.....	75.20	32.80	8.50	11.00	28557
28558	6 mm <sup>2</sup> ditto.....	81.30	32.80	8.50	11.00	28558
28559	10 mm <sup>2</sup> ditto.....	108.10	40.40	10.50	13.00	28559
28560	16 mm <sup>2</sup> ditto.....	123.20	40.40	10.50	13.00	28560
28561	25 mm <sup>2</sup> ditto.....	168.00	47.30	12.50	15.50	28561
28562	35 mm <sup>2</sup> ditto.....	216.60	48.80	13.00	16.00	28562
28563	50 mm <sup>2</sup> ditto.....	296.50	49.50	13.00	16.00	28563
28564	70 mm <sup>2</sup> ditto.....	380.70	53.40	14.00	17.90	28564
28565	95 mm <sup>2</sup> ditto.....	460.50	60.20	16.00	19.40	28565
28566	120 mm <sup>2</sup> ditto.....	568.90	66.30	17.00	21.40	28566
28567	150 mm <sup>2</sup> ditto.....	769.40	73.20	18.90	23.90	28567
28568	1.5 mm <sup>2</sup> 4 cores.....	82.80	38.10	10.00	12.50	28568
28569	2.5 mm <sup>2</sup> ditto.....	89.90	40.40	10.50	13.00	28569
28570	4 mm <sup>2</sup> ditto.....	110.30	41.90	11.00	14.00	28570
28571	6 mm <sup>2</sup> ditto.....	124.00	43.50	11.00	14.00	28571
28572	10 mm <sup>2</sup> ditto.....	150.00	45.00	11.50	15.00	28572
28573	16 mm <sup>2</sup> ditto.....	182.20	45.70	12.50	15.50	28573
28574	25 mm <sup>2</sup> ditto.....	245.30	47.30	12.50	15.50	28574
28575	35 mm <sup>2</sup> ditto.....	279.10	48.80	13.00	16.00	28575
28576	50 mm <sup>2</sup> ditto.....	332.40	49.50	13.00	16.00	28576
28577	70 mm <sup>2</sup> ditto.....	394.70	53.40	14.00	17.90	28577
28578	95 mm <sup>2</sup> ditto.....	546.10	60.20	16.00	19.40	28578

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>600/1000V low emission of smoke and corrosive gases, cross-linked polyethylene insulated and sheathed, steel wire armoured cable to BS 6724-1 or acceptable recognized international standard, fixed with and including cleats or saddles or fixed to cable trays, a deduction of thirty (30) percent will be made to the rates involving labour for cables installed /re-installed in or taken down from cable trays (cable trays measured separately) : - (Cont'd)</b>					
28579	120 mm <sup>2</sup> 4 cores.....	608.80	66.30	17.00	21.40	28579
28580	150 mm <sup>2</sup> ditto.....	828.70	73.20	18.90	23.90	28580
28581	185 mm <sup>2</sup> ditto.....	848.00	78.50	20.90	25.90	28581
28582	240 mm <sup>2</sup> ditto.....	1,086.90	85.40	21.90	27.40	28582
28583	300 mm <sup>2</sup> ditto.....	1,313.60	90.70	23.90	29.90	28583
28584	400 mm <sup>2</sup> ditto.....	1,637.10	94.50	24.40	30.90	28584
	<b>300/500V PVC insulated and PVC sheathed, all colours cores, to IEC 60227-4 or BS 6004 or acceptable recognized international standard, c/w and including brass buckle clips or brass fasteners, a deduction of fifty (50) and sixty (60) percent will be made to the rates involving labour for cables installed/re-installed in or taken down from conduits/trunkings and cable trays respectively (conduits, cable trays and trunkings measured separately) : -</b>					
28585	1.5 mm <sup>2</sup> 2 cores with E.C.C.....	10.90	5.70	2.20	2.60	28585
28586	2.5 mm <sup>2</sup> ditto.....	13.60	5.70	2.20	2.60	28586
28587	4 mm <sup>2</sup> ditto.....	21.30	8.50	3.10	3.60	28587
28588	6 mm <sup>2</sup> ditto.....	27.50	8.50	3.10	3.60	28588
28589	10 mm <sup>2</sup> ditto.....	50.30	11.30	4.10	4.80	28589
28590	16 mm <sup>2</sup> ditto.....	65.70	11.30	4.10	4.80	28590

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Per linear metre</i>	A	B	C	D	
	<b>450/750V PVC insulated or ethylene-vinylacetate rubber insulated or other equivalent synthetic elastomer insulated, heat resistant, single core, copper cable to IEC 60245-7 or acceptable recognized international standard, such as BS 6231 (voltage rating of 600/1000V type CU or CR), all colours, drawn into conduits/ trunking or fixed to cable trays, a deduction of fifteen (15) percent will be made to the rates involving labour for cables installed/re-installed in or taken down from conduits /trunkings and cable trays measured separately) : -</b>	\$	\$	\$	\$	
28591	1.5 mm <sup>2</sup> 1 core.....	3.50	1.50	0.50	0.60	28591
28592	2.5 mm <sup>2</sup> ditto.....	4.50	1.50	0.50	0.60	28592
28593	4 mm <sup>2</sup> ditto.....	6.10	1.50	0.50	0.60	28593
28594	6 mm <sup>2</sup> ditto.....	9.60	2.00	0.70	0.80	28594
28595	10 mm <sup>2</sup> ditto.....	16.90	2.00	0.70	0.80	28595
28596	16 mm <sup>2</sup> ditto.....	22.20	2.00	0.70	0.80	28596
28597	25 mm <sup>2</sup> ditto.....	33.40	2.50	0.80	0.90	28597
28598	35 mm <sup>2</sup> ditto.....	48.70	2.50	0.80	0.90	28598
28599	50 mm <sup>2</sup> ditto.....	65.30	2.90	0.90	1.20	28599
28600	70 mm <sup>2</sup> ditto.....	89.30	4.70	1.60	1.80	28600
28601	95 mm <sup>2</sup> ditto.....	121.90	5.70	1.80	2.20	28601
28602	120 mm <sup>2</sup> ditto.....	163.70	7.50	2.20	2.70	28602
28603	150 mm <sup>2</sup> ditto.....	269.10	9.40	2.70	3.30	28603
28604	185 mm <sup>2</sup> ditto.....	337.10	11.30	3.30	4.10	28604
28605	240 mm <sup>2</sup> ditto.....	421.00	13.10	3.80	4.70	28605
	<b>Cable, heat resistant drawn into conduits/trunkings (conduits and trunkings measured separately) : -</b>					
28606	1.5 mm <sup>2</sup> 1 core.....	5.30	1.50	0.50	0.60	28606
28607	2.5 mm <sup>2</sup> ditto.....	6.90	1.50	0.50	0.60	28607
28608	4 mm <sup>2</sup> ditto.....	9.20	1.50	0.50	0.60	28608

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>600/1000V PVC insulated and sheathed single steel wire armoured and PVC sheathed overall to IEC 60502-1 or acceptable recognized international standard, such as BS 6346, fixed with and including cleats or saddles or fixed to cable trays, a deduction of thirty (30) percent will be made to the rates involving labour for cables installed/re-installed in or taken down from cable trays (cable trays measured separately) : -</b>					
28609	1.5 mm <sup>2</sup> 2 cores.....	33.40	16.80	4.50	5.50	28609
28610	2.5 mm <sup>2</sup> ditto.....	37.20	16.80	4.50	5.50	28610
28611	4 mm <sup>2</sup> ditto.....	57.70	32.80	8.50	11.00	28611
28612	6 mm <sup>2</sup> ditto.....	63.30	32.80	8.50	11.00	28612
28613	10 mm <sup>2</sup> ditto.....	93.50	40.40	10.50	13.00	28613
28614	16 mm <sup>2</sup> ditto.....	102.70	40.40	10.50	13.00	28614
28615	25 mm <sup>2</sup> ditto.....	157.50	42.80	11.10	13.70	28615
28616	35 mm <sup>2</sup> ditto.....	205.40	43.70	11.80	14.50	28616
28617	50 mm <sup>2</sup> ditto.....	264.90	44.20	11.80	14.50	28617
28618	1.5 mm <sup>2</sup> 4 cores.....	60.00	38.10	10.00	12.50	28618
28619	2.5 mm <sup>2</sup> ditto.....	66.00	40.40	10.50	13.00	28619
28620	4 mm <sup>2</sup> ditto.....	79.70	41.90	11.00	14.00	28620
28621	6 mm <sup>2</sup> ditto.....	94.30	43.50	11.00	14.00	28621
28622	10 mm <sup>2</sup> ditto.....	115.10	45.00	11.50	15.00	28622
28623	16 mm <sup>2</sup> ditto.....	143.90	45.70	11.60	15.20	28623
28624	25 mm <sup>2</sup> ditto.....	174.00	47.30	12.50	15.50	28624
28625	35 mm <sup>2</sup> ditto.....	217.40	48.80	13.00	16.00	28625
28626	50 mm <sup>2</sup> ditto.....	281.00	49.50	13.00	16.00	28626
28627	70 mm <sup>2</sup> ditto.....	354.10	53.40	14.00	17.90	28627
28628	95 mm <sup>2</sup> ditto.....	444.40	60.20	16.00	19.40	28628
28629	120 mm <sup>2</sup> ditto.....	534.00	66.30	17.00	21.40	28629
28630	150 mm <sup>2</sup> ditto.....	732.10	73.20	18.90	23.90	28630
28631	185 mm <sup>2</sup> ditto.....	764.70	78.50	20.90	25.90	28631

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Per linear metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>600/1000V PVC insulated and sheathed single steel wire armoured and PVC sheathed overall to IEC 60502-1 or acceptable recognized international standard, such as BS 6346, fixed with and including cleats or saddles or fixed to cable trays, a deduction of thirty (30) percent will be made to the rates involving labour for cables installed/re-installed in or taken down from cable trays (cable trays measured separately) : - (Cont'd)</b>					
28632	240 mm <sup>2</sup> 4 cores.....	967.60	85.40	21.90	27.40	28632
28633	300 mm <sup>2</sup> ditto.....	1,128.30	90.70	23.90	29.90	28633
28634	400 mm <sup>2</sup> ditto.....	1,443.00	94.50	24.40	30.90	28634
28635	1.5 mm <sup>2</sup> 7 cores.....	115.00	45.00	11.50	15.00	28635
28636	1.5 mm <sup>2</sup> 12 cores.....	142.80	45.00	11.50	15.00	28636
28637	1.5 mm <sup>2</sup> 19 cores.....	190.50	51.80	13.50	17.00	28637
28638	1.5 mm <sup>2</sup> 27 cores.....	242.00	52.60	13.50	17.00	28638
28639	1.5 mm <sup>2</sup> 37 cores.....	287.60	56.40	15.00	18.50	28639
28640	1.5 mm <sup>2</sup> 48 cores.....	482.10	60.20	16.00	19.40	28640
28641	2.5 mm <sup>2</sup> 7 cores.....	150.90	53.40	14.00	17.90	28641
28642	2.5 mm <sup>2</sup> 12 cores.....	192.00	53.40	14.00	17.90	28642
28643	2.5 mm <sup>2</sup> 19 cores.....	261.50	57.90	15.50	18.90	28643
28644	2.5 mm <sup>2</sup> 27 cores.....	321.70	61.00	16.00	20.40	28644
28645	2.5 mm <sup>2</sup> 37 cores.....	545.90	62.50	16.50	20.90	28645
28646	2.5 mm <sup>2</sup> 48 cores.....	844.90	64.80	17.00	21.40	28646



Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Fire resistant, low emission of smoke and corrosive gases, thermosetting insulated and sheathed, steel wire armoured multi-core cable to BS 7846 (for voltage rating 600/1000V) or BS 7629-1 (for voltage rating 300/500V) or acceptable recognized international standard, c/w and including cleats or saddles, a deduction of twenty (20) and thirty (30) percent will be made to the rates involving labour for cables installed/re-installed in or taken down from conduits/ trunkings and cable trays respectively (conduits, trunkings and cable trays measured separately) : -</b>					
28647	1.5 mm <sup>2</sup> 2 cores.....	70.30	16.80	4.50	5.50	28647
28648	2.5 mm <sup>2</sup> ditto.....	85.70	16.80	4.50	5.50	28648
28649	4 mm <sup>2</sup> ditto.....	114.40	32.80	8.50	11.00	28649
28650	6 mm <sup>2</sup> ditto.....	131.90	32.80	8.50	11.00	28650
28651	10 mm <sup>2</sup> ditto.....	151.50	40.40	10.50	13.00	28651
28652	16 mm <sup>2</sup> ditto.....	164.90	40.40	10.50	13.00	28652
28653	25 mm <sup>2</sup> ditto.....	256.10	47.30	12.50	15.50	28653
28654	35 mm <sup>2</sup> ditto.....	288.60	48.80	13.00	16.00	28654
28655	50 mm <sup>2</sup> ditto.....	376.70	49.50	13.00	16.00	28655
28656	70 mm <sup>2</sup> ditto.....	504.70	53.40	14.00	17.90	28656
28657	95 mm <sup>2</sup> ditto.....	639.30	60.20	16.00	19.40	28657
28658	120 mm <sup>2</sup> ditto.....	751.70	66.30	17.00	21.40	28658
28659	150 mm <sup>2</sup> ditto.....	896.90	73.20	18.90	23.90	28659
28660	185 mm <sup>2</sup> ditto.....	956.40	78.50	20.90	25.90	28660
28661	240 mm <sup>2</sup> ditto.....	1,196.10	85.40	21.90	27.40	28661
28662	300 mm <sup>2</sup> ditto.....	1,411.70	90.70	23.90	29.90	28662
28663	400 mm <sup>2</sup> ditto.....	1,713.10	94.50	24.40	30.90	28663

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Fire resistant, low emission of smoke and corrosive gases, thermosetting insulated and sheathed, steel wire armoured multi-core cable to BS 7846 (for voltage rating 600/1000V) or BS 7629-1 (for voltage rating 300/500V) or acceptable recognized international standard, c/w and including cleats or saddles, a deduction of twenty (20) and thirty (30) percent will be made to the rates involving labour for cables installed/re-installed in or taken down from conduits/ trunkings and cable trays respectively (conduits, trunkings and cable trays measured separately) : - (Cont'd)</b>					
28664	1.5 mm <sup>2</sup> 4 cores.....	112.90	38.10	10.00	12.50	28664
28665	2.5 mm <sup>2</sup> ditto.....	135.00	40.40	10.50	13.00	28665
28666	4 mm <sup>2</sup> ditto.....	148.90	41.90	11.00	14.00	28666
28667	6 mm <sup>2</sup> ditto.....	170.30	43.50	11.00	14.00	28667
28668	10 mm <sup>2</sup> ditto.....	230.50	45.00	11.50	15.00	28668
28669	16 mm <sup>2</sup> ditto.....	256.70	45.70	12.50	15.50	28669
28670	25 mm <sup>2</sup> ditto.....	368.50	47.30	12.50	15.50	28670
28671	35 mm <sup>2</sup> ditto.....	411.90	48.80	13.00	16.00	28671
28672	50 mm <sup>2</sup> ditto.....	498.80	49.50	13.00	16.00	28672
28673	70 mm <sup>2</sup> ditto.....	626.00	53.40	14.00	17.90	28673
28674	95 mm <sup>2</sup> ditto.....	727.40	60.20	16.00	19.40	28674
28675	120 mm <sup>2</sup> ditto.....	857.60	66.30	17.00	21.40	28675
28676	150 mm <sup>2</sup> ditto.....	1,024.20	73.20	18.90	23.90	28676
28677	185 mm <sup>2</sup> ditto.....	1,092.10	78.50	20.90	25.90	28677
28678	240 mm <sup>2</sup> ditto.....	1,367.70	85.40	21.90	27.40	28678
28679	300 mm <sup>2</sup> ditto.....	1,615.70	90.70	23.90	29.90	28679
28680	400 mm <sup>2</sup> ditto.....	1,963.00	94.50	24.40	30.90	28680

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>600/1000V fire resistant, low emission of smoke and corrosive gases insulated, non-sheathed, single core cables to IEC 60331 /IEC 61034 or BS 6387 cat. C / BS 7846 / BS EN 50267 /BS EN 50265-1 &amp; 2 /BS 6724 c/w and including cleats or saddles, a deduction of fifty (50) and sixty (60) percent will be made to the rates involving labour for cables installed /re-installed in or taken down from conduits /trunkings respectively (conduits and trunkings measured separately) : -</b>					
28681	1.5 mm <sup>2</sup> .....	18.30	4.60	1.40	1.90	28681
28682	2.5 mm <sup>2</sup> .....	20.80	4.60	1.40	1.90	28682
28683	4 mm <sup>2</sup> .....	23.70	5.30	1.50	2.00	28683
28684	6 mm <sup>2</sup> .....	29.10	5.30	1.50	2.00	28684
28685	10 mm <sup>2</sup> .....	55.40	5.30	1.50	2.00	28685
28686	16 mm <sup>2</sup> .....	72.10	5.30	1.50	2.00	28686
28687	25 mm <sup>2</sup> .....	91.80	8.40	2.00	2.50	28687
28688	35 mm <sup>2</sup> .....	207.10	8.40	2.00	2.50	28688
28689	50 mm <sup>2</sup> .....	239.10	8.40	2.00	2.50	28689
28690	70 mm <sup>2</sup> .....	288.30	11.40	3.00	3.50	28690
28691	95 mm <sup>2</sup> .....	343.80	13.70	3.50	5.00	28691
28692	120 mm <sup>2</sup> .....	407.10	16.80	4.50	5.50	28692
28693	150 mm <sup>2</sup> .....	513.10	19.80	5.00	6.00	28693
28694	185 mm <sup>2</sup> .....	570.60	22.90	6.00	7.50	28694
28695	240 mm <sup>2</sup> .....	688.30	28.20	7.50	9.00	28695
28696	300 mm <sup>2</sup> .....	763.60	35.10	9.00	11.50	28696
28697	400 mm <sup>2</sup> .....	897.90	40.40	10.50	13.00	28697
28698	500 mm <sup>2</sup> .....	1,062.10	47.30	12.50	15.50	28698
28699	630 mm <sup>2</sup> .....	1,342.80	53.40	14.00	17.90	28699

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>600/1000V PVC insulated and sheathed single steel wire armoured and PVC sheathed overall to IEC 60502-1 or acceptable recognized international standard, such as BS 6346, laid in trench or cable ducts including suitable cable bed (excavation backfilling and cable ducts measured separately) : -</b>					
28700	1.5 mm <sup>2</sup> 2 cores.....	26.40	10.70	2.70	3.00	28700
28701	2.5 mm <sup>2</sup> ditto.....	29.90	10.70	2.70	3.00	28701
28702	4 mm <sup>2</sup> ditto.....	43.50	19.80	5.00	6.00	28702
28703	6 mm <sup>2</sup> ditto.....	48.90	19.80	5.00	6.00	28703
28704	10 mm <sup>2</sup> ditto.....	74.30	22.90	6.00	7.50	28704
28705	16 mm <sup>2</sup> ditto.....	83.80	22.90	6.00	7.50	28705
28706	25 mm <sup>2</sup> ditto.....	137.30	26.90	7.00	8.30	28706
28707	35 mm <sup>2</sup> ditto.....	183.80	28.20	7.60	9.50	28707
28708	50 mm <sup>2</sup> ditto.....	243.00	28.20	7.60	9.50	28708
28709	1.5 mm <sup>2</sup> 4 cores.....	45.50	24.40	6.00	8.00	28709
28710	2.5 mm <sup>2</sup> ditto.....	50.10	25.90	7.00	8.50	28710
28711	4 mm <sup>2</sup> ditto.....	63.40	27.40	7.50	9.00	28711
28712	6 mm <sup>2</sup> ditto.....	75.80	27.40	7.50	9.00	28712
28713	10 mm <sup>2</sup> ditto.....	96.90	29.00	7.70	9.40	28713
28714	16 mm <sup>2</sup> ditto.....	124.70	29.00	7.70	9.40	28714
28715	25 mm <sup>2</sup> ditto.....	152.50	30.50	7.90	9.80	28715
28716	35 mm <sup>2</sup> ditto.....	198.00	32.00	8.60	10.70	28716
28717	50 mm <sup>2</sup> ditto.....	259.50	32.00	8.60	10.70	28717
28718	70 mm <sup>2</sup> ditto.....	330.30	34.80	9.40	11.50	28718
28719	95 mm <sup>2</sup> ditto.....	414.10	36.60	10.00	12.50	28719
28720	120 mm <sup>2</sup> ditto.....	496.20	36.60	10.00	12.50	28720
28721	150 mm <sup>2</sup> ditto.....	686.90	39.60	10.50	13.00	28721

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>600/1000V PVC insulated and sheathed single steel wire armoured and PVC sheathed overall to IEC 60502-1 or acceptable recognized international standard, such as BS 6346, laid in trench or cable ducts including suitable cable bed (excavation backfilling and cable ducts measured separately) : - (Cont'd)</b>					
28722	185 mm <sup>2</sup> 4 cores.....	718.20	44.20	11.50	15.00	28722
28723	240 mm <sup>2</sup> ditto.....	916.50	50.30	13.50	16.50	28723
28724	300 mm <sup>2</sup> ditto.....	1,074.10	55.60	15.00	18.50	28724
28725	400 mm <sup>2</sup> ditto.....	1,382.10	58.70	15.50	18.90	28725
28726	1.5 mm <sup>2</sup> 7 cores.....	98.00	29.00	7.50	9.00	28726
28727	1.5 mm <sup>2</sup> 12 cores.....	125.30	29.00	7.50	9.00	28727
28728	1.5 mm <sup>2</sup> 19 cores.....	171.30	36.60	10.00	12.50	28728
28729	1.5 mm <sup>2</sup> 27 cores.....	222.90	36.60	10.00	12.50	28729
28730	1.5 mm <sup>2</sup> 37 cores.....	267.60	40.40	10.50	13.00	28730
28731	1.5 mm <sup>2</sup> 48 cores.....	458.80	40.40	10.50	13.00	28731
28732	2.5 mm <sup>2</sup> 7 cores.....	133.40	37.30	10.00	12.50	28732
28733	2.5 mm <sup>2</sup> 12 cores.....	172.00	37.30	10.00	12.50	28733
28734	2.5 mm <sup>2</sup> 19 cores.....	241.40	41.20	10.50	13.50	28734
28735	2.5 mm <sup>2</sup> 27 cores.....	300.80	41.90	11.00	14.00	28735
28736	2.5 mm <sup>2</sup> 37 cores.....	523.50	44.20	11.50	15.00	28736
28737	2.5 mm <sup>2</sup> 48 cores.....	818.00	45.00	11.50	15.00	28737

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Mineral insulated copper sheathed, 750V (heavy duty grade) cable to IEC 60702-1 and IEC 60702-2, or acceptable recognized international standard, such as BS 6207-3, fixed with and including spacing bar type saddles : -</b>					
28738	6 mm <sup>2</sup> 1 core.....	59.60	20.60	5.50	7.00	28738
28739	10 mm <sup>2</sup> ditto.....	91.00	21.30	5.50	7.00	28739
28740	16 mm <sup>2</sup> ditto.....	115.80	24.40	6.00	8.00	28740
28741	25 mm <sup>2</sup> ditto.....	142.80	25.90	7.00	8.50	28741
28742	35 mm <sup>2</sup> ditto.....	272.00	28.20	7.50	9.00	28742
28743	50 mm <sup>2</sup> ditto.....	301.80	29.70	8.00	10.00	28743
28744	70 mm <sup>2</sup> ditto.....	367.40	32.80	8.50	11.00	28744
28745	95 mm <sup>2</sup> ditto.....	453.70	41.90	11.00	14.00	28745
28746	120 mm <sup>2</sup> ditto.....	531.30	38.10	10.00	12.50	28746
28747	150 mm <sup>2</sup> ditto.....	667.30	41.90	11.00	14.00	28747
28748	185 mm <sup>2</sup> ditto.....	755.10	45.00	11.50	15.00	28748
28749	240 mm <sup>2</sup> ditto.....	913.20	47.30	12.50	15.50	28749
28750	1.5 mm <sup>2</sup> 2 cores.....	55.00	19.10	5.00	6.00	28750
28751	2.5 mm <sup>2</sup> ditto.....	63.50	20.60	5.50	7.00	28751
28752	4 mm <sup>2</sup> ditto.....	75.70	21.30	5.50	7.00	28752
28753	6 mm <sup>2</sup> ditto.....	91.40	22.90	6.00	7.50	28753
28754	10 mm <sup>2</sup> ditto.....	122.90	24.40	6.50	8.00	28754
28755	16 mm <sup>2</sup> ditto.....	152.40	25.90	7.00	8.50	28755
28756	25 mm <sup>2</sup> ditto.....	235.10	27.40	7.50	9.00	28756
28757	1.5 mm <sup>2</sup> 4 cores.....	68.40	20.60	5.50	7.00	28757
28758	2.5 mm <sup>2</sup> ditto.....	78.10	21.30	5.50	7.00	28758
28759	4 mm <sup>2</sup> ditto.....	97.80	23.60	6.00	8.00	28759
28760	6 mm <sup>2</sup> ditto.....	124.10	24.40	6.00	8.00	28760
28761	10 mm <sup>2</sup> ditto.....	164.60	25.90	7.00	8.50	28761
28762	16 mm <sup>2</sup> ditto.....	227.60	27.40	7.50	8.50	28762
28763	25 mm <sup>2</sup> ditto.....	314.70	29.70	8.00	10.00	28763

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Mineral insulated copper sheathed, 750V (heavy duty grade) cable to IEC 60702-1 and IEC 60702-2, or acceptable recognized international standard, such as BS 6207-3, with an overall protection of PVC sheath, fixed with and including spacing bar type saddles : -</b>					
28764	1 mm <sup>2</sup> 1 core.....	20.40	7.60	2.00	2.50	28764
28765	1.5 mm <sup>2</sup> ditto.....	24.70	7.60	2.00	2.50	28765
28766	2.5 mm <sup>2</sup> ditto.....	27.90	7.60	2.00	2.50	28766
28767	4 mm <sup>2</sup> ditto.....	45.90	20.60	5.50	7.00	28767
28768	6 mm <sup>2</sup> ditto.....	60.00	20.60	5.50	7.00	28768
28769	10 mm <sup>2</sup> ditto.....	90.30	21.30	5.50	7.00	28769
28770	16 mm <sup>2</sup> ditto.....	115.80	24.40	6.00	8.00	28770
28771	25 mm <sup>2</sup> ditto.....	142.80	25.90	7.00	8.50	28771
28772	35 mm <sup>2</sup> ditto.....	272.00	28.20	7.50	9.00	28772
28773	50 mm <sup>2</sup> ditto.....	301.80	29.70	8.00	10.00	28773
28774	70 mm <sup>2</sup> ditto.....	367.40	32.80	8.50	11.00	28774
28775	95 mm <sup>2</sup> ditto.....	447.90	35.80	9.00	11.50	28775
28776	120 mm <sup>2</sup> ditto.....	531.30	38.10	10.00	12.50	28776
28777	150 mm <sup>2</sup> ditto.....	661.10	41.90	11.00	14.00	28777
28778	185 mm <sup>2</sup> ditto.....	755.10	45.00	11.50	15.00	28778
28779	240 mm <sup>2</sup> ditto.....	913.20	47.30	12.50	15.50	28779
28780	1 mm <sup>2</sup> 2 cores.....	48.40	19.10	5.00	6.00	28780
28781	1.5 mm <sup>2</sup> ditto.....	55.00	19.10	5.00	6.00	28781
28782	2.5 mm <sup>2</sup> ditto.....	63.50	20.60	5.50	7.00	28782
28783	4 mm <sup>2</sup> ditto.....	75.70	21.30	5.50	7.00	28783
28784	6 mm <sup>2</sup> ditto.....	92.10	22.90	6.00	7.50	28784
28785	10 mm <sup>2</sup> ditto.....	122.90	24.40	6.00	8.00	28785
28786	16 mm <sup>2</sup> ditto.....	152.40	25.90	7.00	8.50	28786
28787	25 mm <sup>2</sup> ditto.....	235.10	27.40	7.50	9.00	28787

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Mineral insulated copper sheathed, 750V (heavy duty grade) cable to IEC 60702-1 and IEC 60702-2, or acceptable recognized international standard, such as BS 6207-3, with an overall protection of PVC sheath, fixed with and including spacing bar type saddles : - (Cont'd)</b>					
28788	1.5 mm <sup>2</sup> 4 cores.....	68.40	20.60	5.50	7.00	28788
28789	2.5 mm <sup>2</sup> ditto.....	78.10	21.30	5.50	7.00	28789
28790	4 mm <sup>2</sup> ditto.....	97.00	22.90	6.00	7.50	28790
28791	6 mm <sup>2</sup> ditto.....	124.10	24.40	6.00	8.00	28791
28792	10 mm <sup>2</sup> ditto.....	164.60	25.90	7.00	8.50	28792
28793	16 mm <sup>2</sup> ditto.....	227.60	27.40	7.50	9.00	28793
28794	25 mm <sup>2</sup> ditto.....	317.80	29.70	8.00	10.00	28794
	<b>Mineral insulated copper sheathed, 750V (heavy duty grade) cable to IEC 60702-1 and IEC 60702-2, or acceptable recognized international standard, such as BS 6207-3, laid in trenches (including suitable cable bed) or ducting (ducting, excavation and backing-filling measured separately) : -</b>					
28795	1 mm <sup>2</sup> 2 cores.....	37.30	9.10	2.50	3.00	28795
28796	1.5 mm <sup>2</sup> ditto.....	45.10	10.70	2.80	3.50	28796
28797	2.5 mm <sup>2</sup> ditto.....	51.30	10.70	2.80	3.50	28797
28798	4 mm <sup>2</sup> ditto.....	71.60	19.80	5.00	6.00	28798
28799	6 mm <sup>2</sup> ditto.....	85.80	19.80	5.00	6.00	28799
28800	10 mm <sup>2</sup> ditto.....	119.50	22.90	6.00	7.50	28800
28801	16 mm <sup>2</sup> ditto.....	147.00	22.90	6.00	7.50	28801
28802	25 mm <sup>2</sup> ditto.....	232.50	29.00	7.50	9.00	28802
28803	1.5 mm <sup>2</sup> 4 cores.....	71.60	24.40	6.00	8.00	28803
28804	2.5 mm <sup>2</sup> ditto.....	82.00	25.90	7.00	8.50	28804
28805	4 mm <sup>2</sup> ditto.....	100.70	27.40	7.10	8.80	28805
28806	6 mm <sup>2</sup> ditto.....	128.00	28.20	7.40	9.20	28806
28807	10 mm <sup>2</sup> ditto.....	165.80	28.60	7.50	9.40	28807
28808	16 mm <sup>2</sup> ditto.....	227.00	29.00	7.60	9.60	28808



Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>600/1000V XLPE/SWA/PVC cable to IEC 60502-1 or acceptable recognized international standard, such as BS 5467, fixed with and including cleats or saddles or fixed to cable trays, a deduction of thirty (30) percent will be made to the rates involving labour for cables installed /re-installed or taken down from cable trays (cable tray measured separately) : -</b>					
28809	500 mm <sup>2</sup> 1 core.....	852.10	47.30	12.50	15.50	28809
28810	630 mm <sup>2</sup> ditto.....	928.60	53.40	14.00	17.90	28810
28811	800 mm <sup>2</sup> ditto.....	1,100.50	66.30	17.00	21.40	28811
28812	1000 mm <sup>2</sup> ditto.....	1,338.90	88.40	23.40	28.90	28812
28813	4 mm <sup>2</sup> 2 cores.....	57.70	32.70	8.60	10.70	28813
28814	6 mm <sup>2</sup> ditto.....	64.50	33.70	8.80	11.10	28814
28815	10 mm <sup>2</sup> ditto.....	89.50	34.70	9.10	11.40	28815
28816	16 mm <sup>2</sup> ditto.....	100.40	36.80	9.60	11.80	28816
28817	25 mm <sup>2</sup> ditto.....	153.40	37.40	10.00	12.20	28817
28818	35 mm <sup>2</sup> ditto.....	201.00	39.60	10.00	12.70	28818
28819	50 mm <sup>2</sup> ditto.....	269.70	49.20	12.70	16.40	28819
28820	70 mm <sup>2</sup> ditto.....	343.00	51.30	13.60	16.80	28820
28821	95 mm <sup>2</sup> ditto.....	418.00	54.80	14.50	17.70	28821
28822	4 mm <sup>2</sup> 4 cores.....	73.10	35.90	9.40	11.80	28822
28823	6 mm <sup>2</sup> ditto.....	87.10	37.00	9.60	12.10	28823
28824	10 mm <sup>2</sup> ditto.....	108.50	38.10	10.00	12.50	28824
28825	16 mm <sup>2</sup> ditto.....	139.70	40.40	10.50	13.00	28825
28826	25 mm <sup>2</sup> ditto.....	168.10	41.20	11.00	13.50	28826
28827	35 mm <sup>2</sup> ditto.....	214.00	43.50	11.00	14.00	28827
28828	50 mm <sup>2</sup> ditto.....	287.70	54.10	14.00	17.90	28828
28829	70 mm <sup>2</sup> ditto.....	360.00	56.40	15.00	18.50	28829
28830	95 mm <sup>2</sup> ditto.....	448.20	60.20	16.00	19.40	28830
28831	120 mm <sup>2</sup> ditto.....	531.80	64.00	16.50	20.90	28831
28832	150 mm <sup>2</sup> ditto.....	725.50	66.30	17.00	21.40	28832

Item	CABLES (COPPER) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Per linear metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>600/1000V XLPE/SWA/PVC cable to IEC 60502-1 or acceptable recognized international standard, such as BS 5467, fixed with and including cleats or saddles or fixed to cable trays, a deduction of thirty (30) percent will be made to the rates involving labour for cables installed /re-installed or taken down from cable trays (cable tray measured separately) : - (Cont'd)</b>					
28833	185 mm <sup>2</sup> 4 cores.....	755.20	68.60	17.90	21.90	28833
28834	240 mm <sup>2</sup> ditto.....	953.70	70.90	18.50	23.40	28834
28835	300 mm <sup>2</sup> ditto.....	1,115.10	77.00	20.40	24.90	28835
28836	400 mm <sup>2</sup> ditto.....	1,429.80	80.80	20.90	26.40	28836
	<b>600/1000V XLPE/SWA/PVC cable to IEC 60502-1 or acceptable recognized international standard, such as BS 5467, laid in trenches (including suitable cable bed) or ducting (ducting, excavation and back-filling measured separately) : -</b>					
28837	4 mm <sup>2</sup> 2 cores.....	40.80	16.80	4.20	5.10	28837
28838	6 mm <sup>2</sup> ditto.....	46.70	17.30	4.30	5.20	28838
28839	10 mm <sup>2</sup> ditto.....	70.00	17.90	4.50	5.40	28839
28840	16 mm <sup>2</sup> ditto.....	80.20	18.60	4.90	6.30	28840
28841	25 mm <sup>2</sup> ditto.....	131.00	19.20	4.90	6.30	28841
28842	35 mm <sup>2</sup> ditto.....	178.60	21.30	5.40	6.70	28842
28843	50 mm <sup>2</sup> ditto.....	239.70	22.60	6.30	7.70	28843
28844	70 mm <sup>2</sup> ditto.....	311.70	24.70	6.70	8.10	28844
28845	95 mm <sup>2</sup> ditto.....	383.70	26.80	7.10	9.00	28845
28846	4 mm <sup>2</sup> 4 cores.....	55.20	18.60	4.70	5.70	28846
28847	6 mm <sup>2</sup> ditto.....	68.30	19.20	4.80	5.80	28847
28848	10 mm <sup>2</sup> ditto.....	87.80	19.80	5.00	6.00	28848
28849	16 mm <sup>2</sup> ditto.....	116.40	20.60	5.50	7.00	28849
28850	25 mm <sup>2</sup> ditto.....	144.90	21.30	5.50	7.00	28850
28851	35 mm <sup>2</sup> ditto.....	191.60	23.60	6.00	7.50	28851
28852	50 mm <sup>2</sup> ditto.....	255.20	25.20	7.00	8.50	28852
28853	70 mm <sup>2</sup> ditto.....	326.10	27.40	7.50	9.00	28853
28854	95 mm <sup>2</sup> ditto.....	411.30	29.70	8.00	10.00	28854
28855	120 mm <sup>2</sup> ditto.....	497.90	33.50	8.50	11.00	28855
28856	150 mm <sup>2</sup> ditto.....	690.40	36.60	10.00	12.50	28856

Item	CABLES FOR EARTHING	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>600/1000V XLPE/SWA/PVC cable to IEC 60502-1 or acceptable recognized international standard, such as BS 5467, laid in trenches (including suitable cable bed) or ducting (ducting, excavation and back-filling measured separately) : - (Cont'd)</b>					
28857	185 mm <sup>2</sup> 4 cores.....	720.50	39.60	10.50	13.00	28857
28858	240 mm <sup>2</sup> ditto.....	917.00	41.90	11.00	14.00	28858
28859	300 mm <sup>2</sup> ditto.....	1,074.00	45.00	11.50	15.00	28859
28860	400 mm <sup>2</sup> ditto.....	1,384.20	47.30	12.50	15.50	28860
	<b>Multi-core twisted signal cable, unarmoured, c/w aluminum shield as "Belden" AWG 24 : -</b>					
28861	1 pair.....	20.90	16.80	4.50	5.50	28861
28862	6 pairs.....	61.00	45.00	11.50	15.00	28862
28863	10 pairs.....	80.30	51.80	13.50	16.00	28863
	<b>450/750V PVC insulated cable to IEC 60227 or acceptable recognized international standard, such as BS 6004, fixed with and including brass buckle clips or brass fasteners : -</b>					
28864	1.5 mm <sup>2</sup> 1 core.....	5.20	3.70	0.90	1.20	28864
28865	2.5 mm <sup>2</sup> ditto.....	6.10	3.70	0.90	1.20	28865
28866	4 mm <sup>2</sup> ditto.....	7.40	3.70	0.90	1.20	28866
28867	6 mm <sup>2</sup> ditto.....	9.40	3.70	0.90	1.20	28867
28868	10 mm <sup>2</sup> ditto.....	15.80	3.70	0.90	1.20	28868
28869	16 mm <sup>2</sup> ditto.....	20.60	4.60	1.20	1.50	28869
28870	25 mm <sup>2</sup> ditto.....	29.30	4.60	1.20	1.50	28870
28871	35 mm <sup>2</sup> ditto.....	42.50	5.30	1.40	1.80	28871
28872	50 mm <sup>2</sup> ditto.....	54.90	5.30	1.40	1.80	28872
28873	70 mm <sup>2</sup> ditto.....	76.50	8.30	2.50	3.00	28873
28874	95 mm <sup>2</sup> ditto.....	105.60	11.30	3.00	3.50	28874
28875	120 mm <sup>2</sup> ditto.....	142.60	13.60	3.50	5.00	28875

Item	CABLES JOINT BOXES	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Cast iron cable end boxes, double loop in type. Suitable for cables with maximum cross sectional area of conductor up to : -</b>					
28876	2 x 16 mm <sup>2</sup> (conduit outlet).....	593.80	287.60	76.30	95.20	28876
28877	2 x 16 mm <sup>2</sup> (PVC tails outlet).....	631.10	325.40	85.70	107.20	28877
28878	16 mm <sup>2</sup> x 2 cores (conduit outlet).....	621.30	295.90	78.30	97.70	28878
28879	16 mm <sup>2</sup> x 2 cores (PVC tails outlet).....	661.70	336.70	88.70	111.20	28879
28880	1 x 16 mm <sup>2</sup> x 3 cores (conduit outlet).....	660.90	302.70	79.70	99.70	28880
28881	1 x 16 mm <sup>2</sup> x 3 cores (PVC tails outlet).....	705.70	348.00	92.20	115.10	28881
	<b>Cast iron cable end boxes, flat type, wall mounting : -</b>					
28882	16 mm <sup>2</sup> x 4 cores.....	643.50	295.90	78.30	98.20	28882
28883	25 mm <sup>2</sup> x 4 cores.....	681.90	313.30	82.70	103.70	28883
28884	35 - 50 mm <sup>2</sup> x 3 cores.....	792.60	338.90	89.70	112.20	28884
28885	35 - 50 mm <sup>2</sup> x 4 cores.....	897.60	364.60	96.20	120.10	28885
28886	70 mm <sup>2</sup> x 4 cores.....	1,008.60	407.60	107.70	134.60	28886
28887	95 mm <sup>2</sup> x 4 cores.....	1,096.30	432.60	114.10	142.50	28887
28888	120 - 150 mm <sup>2</sup> x 4 cores.....	1,270.40	444.60	117.10	146.50	28888
28889	185 mm <sup>2</sup> x 4 cores.....	1,544.80	468.00	123.60	154.50	28889
28890	240 mm <sup>2</sup> x 4 cores.....	1,781.20	520.90	137.60	172.00	28890
28891	300 mm <sup>2</sup> x 4 cores.....	1,990.00	573.00	151.50	189.40	28891

Item	SERVICE CABLE BOXES	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Service cable boxes, cast iron, for PVC insulated, sheathed and armoured cables, as comprising armoured bonds, claw connectors and filling with cold compound, fixed complete. Suitable for cables with maximum cross sectional area of conductor up to : -</b>					
28892	16 - 25 mm <sup>2</sup> 2 cores.....	730.50	355.40	93.80	-	28892
28893	35 - 50 mm <sup>2</sup> 2 cores and 16 mm <sup>2</sup> 4 cores.....	797.70	385.00	101.70	-	28893
28894	70 - 95 mm <sup>2</sup> 2 cores and 25 - 50 mm <sup>2</sup> 4 cores.....	1,059.20	425.70	112.40	-	28894
28895	120 - 185 mm <sup>2</sup> 2 cores and 70 - 120 mm <sup>2</sup> 4 cores.....	1,314.30	473.80	125.10	-	28895
28896	240 - 300 mm <sup>2</sup> 2 cores and 150 - 185 mm <sup>2</sup> 4 cores.....	1,856.80	536.80	141.70	-	28896
28897	400 mm <sup>2</sup> 2 cores and 240 - 300 mm <sup>2</sup> 4 cores.....	2,202.70	614.50	162.30	-	28897
	<b>Straight through boxes, cast iron for PVC insulated, sheathed and armoured cables as comprising armoured bonds, jointing sleeves and filling with cold compounds, fixed complete. Suitable for cables with maximum cross sectional area of conductors up to : -</b>					
28898	16 - 25 mm <sup>2</sup> 2 cores.....	672.40	355.40	93.80	-	28898
28899	35 - 50 mm <sup>2</sup> 2 cores and 16 mm <sup>2</sup> 4 cores.....	803.80	385.00	101.70	-	28899
28900	70 - 95 mm <sup>2</sup> 2 cores and 25 - 50 mm <sup>2</sup> 4 cores.....	934.60	425.70	112.40	-	28900
28901	120 - 185 mm <sup>2</sup> 2 cores and 70 - 120 mm <sup>2</sup> 4 cores.....	1,268.20	473.80	125.10	-	28901
28902	240 - 300 mm <sup>2</sup> 2 cores and 150 - 185 mm <sup>2</sup> 4 cores.....	1,848.60	536.80	141.70	-	28902
28903	400 mm <sup>2</sup> 2 cores and 240 - 300 mm <sup>2</sup> 4 cores.....	2,392.00	614.50	162.30	-	28903
	<b>Plastic straight through cable joint comprising armoured bonds, jointing sleeves and filling with cold compounds, fixed complete. Suitable for cables with maximum cross sectional area of conductor up to : -</b>					
28904	1.5 - 4 mm <sup>2</sup> 2 cores.....	402.90	246.80	66.80	-	28904
28905	6 - 10 mm <sup>2</sup> 2 cores.....	437.10	281.30	74.90	-	28905
28906	16 - 25 mm <sup>2</sup> 2 cores.....	487.30	314.70	83.10	-	28906
28907	35 - 50 mm <sup>2</sup> 2 cores and 16 mm <sup>2</sup> 4 cores.....	626.30	348.00	91.90	-	28907
28908	70 - 95 mm <sup>2</sup> 2 cores and 25 - 50 mm <sup>2</sup> 4 cores.....	768.10	388.70	102.60	-	28908
28909	120 - 185 mm <sup>2</sup> 2 cores and 70 - 120 mm <sup>2</sup> 4 cores.....	1,583.90	433.10	114.40	-	28909
28910	Link box for 240mm <sup>2</sup> 1 core MICS cable.....	1,329.60	57.40	15.00	18.90	28910
	<b>Plastic tee cable joint as "3M" comprising armoured bonds, jointing sleeves and filling with cold compounds, fixed complete. Suitable for cables with maximum cross sectional area of conductor up to : -</b>					
28911	1.5 - 6 mm <sup>2</sup> 2 cores.....	673.70	246.80	66.80	-	28911

**Section 29**

**ELECTRICAL INSTALLATION**

Item	CABLE FIXING	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Terminating glands for PVC insulated steel wire armoured and PVC sheathed overall c/w PVC shroud suitable for cable of overall diameter with maximum outer sheath of : -</b>					
29001	500 mm <sup>2</sup> 1 core.....	119.90	82.30	21.90	27.40	29001
29002	630 mm <sup>2</sup> ditto.....	119.90	82.30	21.90	27.40	29002
29003	800 mm <sup>2</sup> ditto.....	166.00	100.40	26.40	32.90	29003
29004	1000 mm <sup>2</sup> ditto.....	183.20	117.80	31.40	39.40	29004
29005	1.5 - 4 mm <sup>2</sup> 2 cores.....	56.70	49.80	13.50	16.50	29005
29006	1.5 - 2.5 mm <sup>2</sup> 4 cores, 6 - 10 mm <sup>2</sup> 2 cores.....	68.10	59.60	16.00	19.40	29006
29007	4 - 6 mm <sup>2</sup> 4 cores, 16 - 35 mm <sup>2</sup> 2 cores.....	78.50	65.70	17.00	21.90	29007
29008	10 - 35 mm <sup>2</sup> 4 cores, 50 - 95 mm <sup>2</sup> 2 cores.....	91.40	73.20	19.40	24.40	29008
29009	50 - 95 mm <sup>2</sup> 4 cores.....	110.10	79.30	20.90	26.40	29009
29010	120 - 150 mm <sup>2</sup> ditto.....	119.90	82.30	21.90	27.40	29010
29011	185 mm <sup>2</sup> ditto.....	166.00	100.40	26.40	32.90	29011
29012	240 mm <sup>2</sup> ditto.....	183.20	117.80	31.40	39.40	29012
29013	300 mm <sup>2</sup> ditto.....	233.10	140.40	36.90	46.40	29013
29014	400 mm <sup>2</sup> ditto.....	299.50	160.00	42.40	52.80	29014
	<b>PVC shroud only for PVC / SWA / PVCS cable of size : -</b>					
29015	1.5 - 4 mm <sup>2</sup> 2 cores.....	6.40	-	-	-	29015
29016	1.5 - 2.5 mm <sup>2</sup> 4 cores, 6 - 10 mm <sup>2</sup> 2 cores.....	9.60	-	-	-	29016
29017	4 - 6 mm <sup>2</sup> 4 cores, 16 - 35 mm <sup>2</sup> 2 cores.....	9.70	-	-	-	29017
29018	10 - 35 mm <sup>2</sup> 4 cores, 50 - 95 mm <sup>2</sup> 2 cores.....	17.80	-	-	-	29018
29019	50 - 95 mm <sup>2</sup> 4 cores.....	18.40	-	-	-	29019
29020	120 - 150 mm <sup>2</sup> ditto.....	23.20	-	-	-	29020
29021	185 mm <sup>2</sup> ditto.....	27.00	-	-	-	29021
29022	240 mm <sup>2</sup> ditto.....	31.60	-	-	-	29022
29023	300 mm <sup>2</sup> ditto.....	40.60	-	-	-	29023
29024	400 mm <sup>2</sup> ditto.....	44.20	-	-	-	29024

Item	CABLE FIXING (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Saddle clips or bridge, heavy gauge tinned brass, fixed to wood battens with round head brass screws (battens measured separately) : -</b>					
29025	20 x 40 mm.....	5.10	2.70	0.80	0.90	29025
29026	20 x 50 mm.....	5.50	2.70	0.80	0.90	29026
29027	20 x 60 mm.....	5.90	2.70	0.80	0.90	29027
29028	20 x 70 mm.....	7.30	3.70	0.90	1.20	29028
29029	20 x 80 mm.....	7.90	3.70	0.90	1.20	29029
29030	20 x 100 mm.....	8.40	3.70	0.90	1.20	29030
29031	20 x 120 mm.....	8.60	3.70	0.90	1.20	29031
	<b>Complete termination for MICS cables : -</b>					
	Including : -					
	(a) a complete seal, (brass pot, disc, compound and required number of 150 mm PVC insulating sleeves for the conductor) and					
	(b) a complete gland (gland body, gland nut and compression ring).					
29032	6 mm <sup>2</sup> 1 core.....	41.10	33.20	8.50	11.00	29032
29033	10 mm <sup>2</sup> ditto.....	48.10	34.70	9.00	11.50	29033
29034	16 mm <sup>2</sup> ditto.....	57.80	36.20	10.00	12.50	29034
29035	25 mm <sup>2</sup> ditto.....	61.50	40.00	10.50	13.00	29035
29036	35 mm <sup>2</sup> - 50 mm <sup>2</sup> ditto.....	70.80	44.50	11.50	15.00	29036
29037	70 mm <sup>2</sup> ditto.....	78.50	49.80	13.50	16.50	29037
29038	95 mm <sup>2</sup> ditto.....	82.40	52.80	14.00	17.90	29038
29039	120 mm <sup>2</sup> ditto.....	86.10	56.60	15.00	18.50	29039
29040	150 mm <sup>2</sup> ditto.....	96.60	59.60	16.00	19.40	29040
29041	185 mm <sup>2</sup> ditto.....	109.10	63.40	16.50	20.90	29041
29042	240 mm <sup>2</sup> ditto.....	125.20	65.70	17.00	21.40	29042



Item	CABLE FIXING (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Complete Termination for MICS cables :- (Cont'd)</b>					
	Including :-					
	(a) a complete seal, (brass pot, disc, compound and required number of 150 mm PVC insulating sleeves for the conductor) and					
	(b) a complete gland (gland body, gland nut and compression ring).					
29043	1 mm <sup>2</sup> 2 cores.....	64.70	40.80	11.00	13.50	29043
29044	1.5 mm <sup>2</sup> ditto.....	67.70	43.80	11.50	15.00	29044
29045	2.5 mm <sup>2</sup> ditto.....	73.10	46.80	12.50	15.50	29045
29046	4 mm <sup>2</sup> ditto.....	77.20	49.80	13.50	16.50	29046
29047	6 mm <sup>2</sup> ditto.....	80.20	52.80	14.00	17.90	29047
29048	10 mm <sup>2</sup> ditto.....	81.00	53.60	14.00	17.90	29048
29049	16 mm <sup>2</sup> ditto.....	87.60	56.60	14.50	18.50	29049
29050	25 mm <sup>2</sup> ditto.....	91.90	59.60	16.00	19.40	29050
29051	1.5 mm <sup>2</sup> 4 cores.....	78.50	49.80	13.50	16.50	29051
29052	2.5 mm <sup>2</sup> ditto.....	82.70	52.80	14.00	17.50	29052
29053	4 mm <sup>2</sup> ditto.....	84.70	53.60	14.10	17.70	29053
29054	6 mm <sup>2</sup> ditto.....	86.50	55.10	15.00	18.50	29054
29055	10 mm <sup>2</sup> ditto.....	88.90	56.60	15.00	18.50	29055
29056	16 mm <sup>2</sup> ditto.....	93.10	59.60	16.00	19.40	29056
29057	25 mm <sup>2</sup> ditto.....	116.00	63.40	16.50	20.90	29057

Item	CABLE FIXING (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Cables cleats, 2-bolt cleat as "B.I.C.C." for cable with overall diameter of the following : -</b>					
29058	50 mm - 75 mm.....	20.50	12.80	3.50	4.50	29058
29059	75 mm - 100 mm.....	31.40	17.40	4.50	5.50	29059
	<b>Cable tiles approved type (sample to be produced) : -</b>					
29060	450 x 100 x 25 mm.....	11.60	3.70	0.90	1.20	29060
29061	600 x 175 x 50 mm.....	18.30	5.30	1.20	1.80	29061
	<b>Cable sockets, forged copper, tinned, for the following size single core cables : -</b>					
29062	2.5 mm <sup>2</sup> .....	5.60	5.30	-	-	29062
29063	4 mm <sup>2</sup> .....	7.90	7.50	-	-	29063
29064	6 mm <sup>2</sup> .....	8.00	7.50	-	-	29064
29065	10 mm <sup>2</sup> .....	8.80	8.30	-	-	29065
29066	16 mm <sup>2</sup> .....	9.90	9.10	-	-	29066
29067	25 mm <sup>2</sup> .....	10.30	9.10	-	-	29067
29068	35 mm <sup>2</sup> .....	13.40	12.10	-	-	29068
29069	50 mm <sup>2</sup> .....	15.70	13.60	-	-	29069
29070	70 mm <sup>2</sup> .....	20.00	16.60	-	-	29070
29071	95 mm <sup>2</sup> .....	25.10	20.40	-	-	29071
29072	120 mm <sup>2</sup> .....	30.20	23.40	-	-	29072
29073	150 mm <sup>2</sup> .....	35.20	25.70	-	-	29073
29074	185 mm <sup>2</sup> .....	41.60	29.40	-	-	29074
29075	240 mm <sup>2</sup> .....	51.70	33.20	-	-	29075

Item	CABLE FIXING (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Cable sockets, forged copper, tinned, for the following size single core cables : - (Cont'd)</b>					
29076	300 mm <sup>2</sup> .....	64.40	39.30	-	-	29076
29077	400 mm <sup>2</sup> .....	81.70	44.50	-	-	29077
29078	500 mm <sup>2</sup> .....	99.60	49.10	-	-	29078
29079	630 mm <sup>2</sup> .....	134.30	55.10	-	-	29079
29080	800 mm <sup>2</sup> .....	208.00	61.20	-	-	29080
29081	1000 mm <sup>2</sup> .....	265.60	71.70	-	-	29081
	<b>Cable marker : -</b>					
29082	Concrete cable marker 230 x 180 x 100 mm.....	42.10	6.80	2.00	2.50	29082
29083	Cable tape off unit with insulating shroud.....	61.70	22.60	6.00	7.50	29083
	<i>Per kg</i>					
	<b>Jointing compound : -</b>					
29084	Jointing compound, cold pouring (Supply only).....	97.30	-	-	-	29084

Item	CONDUITS AND CONDUIT FITTING	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Heavy gauge galvanized welded screwed steel conduit to IEC 1035 or BS 4568, c/w all necessary accessories and fixed in saddles, chases, screed, within dry partition or on shuttering : -</b>					
	<b>Concealed conduit : -</b>					
29085	20 mm diameter.....	24.40	13.50	-	-	29085
29086	25 mm diameter .....	28.90	13.50	-	-	29086
29087	32 mm diameter.....	36.30	17.30	-	-	29087
	<b>Surface mounted conduit including all types of spacing saddles : -</b>					
29088	20 mm diameter.....	41.20	28.70	7.00	8.50	29088
29089	25 mm diameter .....	46.10	28.70	7.00	8.50	29089
29090	32 mm diameter.....	52.90	31.70	8.00	10.00	29090
29091	40 mm diameter.....	63.90	32.30	8.50	10.50	29091
29092	50 mm diameter.....	79.30	35.30	8.50	11.00	29092
	<b>Heavy gauge PVC conduit c/w all necessary accessories and fixed in saddles, chases, screed, within dry partition, or on shuttering : -</b>					
29093	20 mm diameter.....	12.60	10.80	3.50	4.20	29093
29094	25 mm diameter.....	16.70	13.10	4.20	5.10	29094
29095	32 mm diameter.....	21.50	13.90	4.40	5.40	29095
	<b>Draw wire in conduit : -</b>					
29096	Draw wire.....	1.10	0.80	-	-	29096

Item	CONDUITS AND CONDUIT FITTING (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Watertight flexible metallic conduit c/w all necessary accessories : -</b>					
29097	20 mm diameter.....	26.20	19.50	6.40	7.70	29097
29098	25 mm diameter.....	30.20	19.50	6.40	7.70	29098
29099	32 mm diameter.....	34.80	19.50	6.40	7.70	29099
29100	40 mm diameter.....	43.50	21.10	7.00	8.40	29100
29101	50 mm diameter.....	60.50	21.10	7.00	8.40	29101
	<b>Watertight flexible metallic conduit with PVC sheathed c/w all necessary accessories : -</b>					
29102	20 mm diameter.....	27.20	19.50	6.40	7.70	29102
29103	25 mm diameter.....	30.10	19.50	6.40	7.70	29103
29104	32 mm diameter.....	36.70	19.50	6.40	7.70	29104
29105	40 mm diameter.....	47.00	21.10	7.00	8.40	29105
29106	50 mm diameter.....	62.00	21.10	7.00	8.40	29106
	<i>Each</i>					
	<b>Adaptors male/female for flexible metallic conduit, brass, sweated or screwed onto conduit of the following sizes : -</b>					
29107	20 mm diameter.....	7.30	5.30	1.80	2.10	29107
29108	25 mm diameter.....	8.80	5.30	1.80	2.10	29108
29109	32 mm diameter.....	11.80	5.30	1.80	2.10	29109
29110	40 mm diameter.....	16.60	5.30	1.80	2.10	29110
29111	50 mm diameter.....	22.30	6.80	2.20	2.70	29111

Item	CONDUITS AND CONDUIT FITTING (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Brass female bushes for conduit of the following sizes : -</b>					
29112	20 mm diameter.....	2.20	1.50	0.50	0.60	29112
29113	25 mm diameter.....	2.70	1.50	0.50	0.60	29113
29114	32 mm diameter.....	3.20	1.50	0.50	0.60	29114
29115	40 mm diameter.....	4.20	1.70	0.60	0.70	29115
29116	50 mm diameter.....	8.60	2.70	0.90	1.00	29116
	<b>Brass male bushes for conduit of the following sizes : -</b>					
29117	20 mm diameter.....	2.40	1.50	0.50	0.60	29117
29118	25 mm diameter.....	3.00	1.50	0.50	0.60	29118
29119	32 mm diameter.....	3.20	1.50	0.50	0.60	29119
29120	40 mm diameter.....	4.90	1.70	0.60	0.70	29120
29121	50 mm diameter.....	8.40	2.70	0.90	1.00	29121
	<b>Rubber grommets of the following sizes : -</b>					
29122	20 mm diameter.....	1.70	1.50	0.50	0.60	29122
29123	25 mm diameter.....	1.90	1.50	0.50	0.60	29123
29124	32 mm diameter.....	2.20	1.50	0.50	0.60	29124
29125	40 mm diameter.....	2.80	1.70	0.60	0.70	29125
29126	50 mm diameter.....	4.30	2.70	0.90	1.00	29126

Item	CONDUITS AND CONDUIT FITTING (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Conduit boxes, malleable iron (galvanized) for heavy gauge steel conduits, round without lids for conduit of the following sizes : -</b>					
29127	20 mm diameter standard BESA boxes with 51 mm fixing centres.....	20.10	15.90	5.00	6.00	29127
29128	20 mm diameter deep pattern standard BESA boxes with 51 mm fixing centres.....	22.50	15.90	5.00	6.00	29128
29129	Lids and screws for standard BESA boxes.....	6.10	3.80	1.20	1.50	29129
29130	Break joint ring, galvanized iron.....	5.40	3.80	1.20	1.50	29130
29131	Metal break ring, or overlapping plate, galvanized iron, suitable for steel conduit box with 51 mm fixing centre.....	4.80	3.80	1.20	1.50	29131
	<b>Heavy spacing saddles for steel conduit of the following sizes : -</b>					
29132	20 mm diameter.....	10.30	9.10	3.00	3.50	29132
29133	25 mm diameter.....	10.60	9.10	3.00	3.50	29133
29134	32 mm diameter.....	11.20	9.10	3.00	3.50	29134
29135	40 mm diameter.....	15.40	10.60	3.50	4.20	29135
29136	50 mm diameter.....	16.30	10.60	3.50	4.20	29136
	<b>Heavy spacing saddles for PVC conduit of the following sizes : -</b>					
29137	20 mm diameter.....	9.20	8.30	2.70	3.30	29137
29138	25 mm diameter.....	9.80	8.30	2.70	3.30	29138
29139	32 mm diameter.....	10.30	8.30	2.70	3.30	29139
	<b>Ordinary duty spacing saddles (galvanized) for conduit of the following sizes : -</b>					
29140	20 mm diameter.....	5.90	5.30	1.80	2.10	29140
29141	25 mm diameter.....	6.10	5.30	1.80	2.10	29141
29142	32 mm diameter.....	6.50	5.30	1.80	2.10	29142
29143	40 mm diameter.....	7.50	5.30	1.80	2.10	29143
29144	50 mm diameter.....	8.30	5.30	1.80	2.10	29144
29145	Nipple, screwed, 20 mm.....	5.00	3.00	1.00	1.20	29145
29146	Lock nut, milled edge, round 20 mm.....	3.40	3.00	1.00	1.20	29146

Item	CONDUITS AND CONDUIT FITTING (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Solid couplers, screwed, malleable iron, galvanized, for steel conduit of the following sizes : -</b>					
29147	20 mm diameter.....	3.90	3.00	1.00	1.20	29147
29148	25 mm diameter.....	4.50	3.00	1.00	1.20	29148
29149	32 mm diameter.....	5.20	3.00	1.00	1.20	29149
29150	40 mm diameter.....	6.90	3.00	1.00	1.20	29150
29151	50 mm diameter.....	9.60	3.00	1.00	1.20	29151
	<b>Adaptable junction boxes, cast iron/sheet steel, galvanized, c/w cover (including cutting and drilling holes into wall and ceiling as required)</b>					
	<b>Cast iron, square : -</b>					
29152	75 x 75 x 50 mm.....	32.90	25.70	6.80	8.50	29152
29153	100 x 100 x 50 mm.....	36.80	27.20	7.50	9.00	29153
29154	150 x 150 x 75 mm.....	48.50	28.70	7.50	9.00	29154
29155	225 x 225 x 75 mm.....	86.50	35.50	9.00	11.50	29155
29156	300 x 300 x 75 mm.....	146.60	44.50	11.50	15.00	29156
	<b>Cast iron, oblong : -</b>					
29157	150 x 75 x 50 mm.....	38.30	27.20	7.50	9.00	29157
29158	225 x 150 x 75 mm.....	64.10	28.70	7.50	9.00	29158
29159	300 x 200 x 90 mm.....	101.60	35.50	9.00	11.50	29159
29160	450 x 300 x 100 mm.....	184.80	44.50	11.50	15.00	29160



Item	CONDUITS AND CONDUIT FITTING (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Adaptable junction boxes, cast iron/sheet steel, galvanized, c/w cover (including cutting and drilling holes into wall and ceiling as required) (Cont'd)</b>					
	<b>Sheet steel, square : -</b>					
29161	75 x 75 x 50 mm.....	30.70	25.70	6.80	8.50	29161
29162	100 x 100 x 50 mm.....	32.70	27.20	7.10	8.80	29162
29163	150 x 150 x 75 mm.....	36.70	28.70	7.60	9.50	29163
29164	225 x 225 x 75 mm.....	51.40	37.70	10.00	12.50	29164
29165	300 x 300 x 75 mm.....	65.30	44.50	11.50	15.00	29165
	<b>PVC adaptable junction box c/w cover (including cutting and drilling holes into wall and ceiling as required) : -</b>					
29166	75 x 75 x 44 mm .....	18.70	15.10	5.00	6.00	29166
29167	100 x 100 x 50 mm .....	21.60	17.40	5.70	6.90	29167
29168	150 x 150 x 75 mm (50 mm).....	29.80	20.40	6.70	8.10	29168
29169	225 x 225 x 75 mm .....	60.70	34.70	9.00	11.50	29169
	<b>Sheet metal cover plate c/w screws for adaptable junction box of the following sizes : -</b>					
29170	75 x 75 mm.....	6.30	5.30	1.80	2.10	29170
29171	100 x 100 mm.....	6.90	5.30	1.80	2.10	29171
29172	150 x 150 mm.....	8.40	5.30	1.80	2.10	29172
29173	225 x 225 mm.....	14.80	5.30	1.80	2.10	29173
29174	300 x 300 mm.....	22.10	7.50	2.50	3.00	29174
29175	150 x 75 mm.....	7.00	5.30	1.80	2.10	29175
29176	225 x 150 mm.....	11.00	5.30	1.80	2.10	29176
29177	300 x 200 mm.....	16.00	5.30	1.80	2.10	29177
29178	450 x 300 mm.....	27.80	7.50	2.50	3.00	29178

Item	CONDUITS AND CONDUIT FITTING (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Switch box of the following sizes :-</b>					
29179	Steel switch box 35 mm deep (1 gang).....	7.40	5.30	1.80	2.10	29179
29180	Steel switch box 47 mm deep (1 gang).....	8.10	5.30	1.80	2.10	29180
29181	Steel switch box 47 mm deep (2 gang).....	11.90	5.30	1.80	2.10	29181

Item	CABLE TRUNKING AND CABLE TRAY	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Cable trunking galvanized sheet steel suspended from ceiling soffit or fixed to wall with cover, an addition of fifty (50) percent will be made to the rate involving hanger or bracket for trunking installed all the way exceeding 450mm from ceiling soffit or wall: -</b>					
	<b>Trunking : -</b>					
29182	50 x 50 mm 1 compartment.....	67.10	47.40	11.00	13.50	29182
29183	50 x 75 mm ditto.....	72.80	49.20	11.00	14.00	29183
29184	75 x 75 mm ditto.....	78.80	51.00	11.50	15.00	29184
29185	50 x 100 mm ditto.....	78.80	51.00	11.50	15.00	29185
29186	75 x 100 mm ditto.....	93.10	57.10	13.00	16.00	29186
29187	100 x 100 mm ditto.....	100.50	57.10	13.00	16.00	29187
29188	100 x 150 mm ditto.....	115.00	61.50	14.00	17.90	29188
29189	150 x 150 mm ditto.....	131.10	68.20	16.00	19.40	29189
29190	150 x 200 mm ditto.....	146.50	73.90	17.00	21.40	29190
29191	150 x 250 mm ditto.....	160.60	79.30	18.90	23.90	29191
29192	150 x 500 mm ditto.....	222.40	96.00	24.90	29.10	29192
29193	200 x 200 mm ditto.....	160.60	79.30	18.90	23.90	29193
29194	300 x 300 mm ditto.....	207.00	96.00	24.90	29.10	29194
29195	50 x 100 mm 2 compartments.....	87.50	51.00	11.50	15.00	29195
29196	50 x 150 mm ditto.....	108.40	58.40	13.50	16.50	29196
29197	75 x 100 mm ditto.....	103.30	58.90	13.50	16.50	29197
29198	75 x 150 mm ditto.....	113.30	58.00	13.50	16.50	29198
29199	100 x 150 mm ditto.....	128.60	61.50	14.00	17.90	29199
29200	75 x 100 mm 3 compartments.....	113.20	58.90	13.50	16.50	29200
29201	75 x 150 mm ditto.....	122.00	58.00	13.50	16.50	29201
29202	100 x 150 mm ditto.....	131.70	61.50	14.00	17.90	29202
29203	150 x 150 mm ditto.....	162.90	68.20	16.00	19.40	29203
29204	150 x 200 mm ditto.....	178.30	73.90	17.00	21.40	29204

Item	CABLE TRUNKING AND CABLE TRAY (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Trunking cover : -</b>					
29205	50 mm wide.....	9.60	5.10	1.50	1.80	29205
29206	75 mm wide.....	10.80	4.50	1.50	1.80	29206
29207	100 mm wide.....	11.90	4.50	1.50	1.80	29207
29208	150 mm wide.....	20.60	6.80	2.20	2.70	29208
29209	200 mm wide.....	27.80	8.30	2.70	3.30	29209
29210	300 mm wide.....	39.30	10.10	3.30	4.00	29210
29211	500 mm wide.....	61.30	12.60	4.20	5.00	29211
	<b>Each</b>					
	<b>Extra over trunking of the following sizes for cross unit 4 way, with 4 connectors : -</b>					
29212	50 x 50 mm.....	68.00	35.50	9.00	11.50	29212
29213	75 x 75 mm.....	74.70	37.00	10.00	12.50	29213
29214	100 x 100 mm.....	81.50	39.30	10.50	13.00	29214
29215	100 x 150 mm.....	99.90	40.80	11.00	13.50	29215
29216	150 x 150 mm.....	116.40	44.50	11.50	15.00	29216
	<b>Extra over trunking for reducer unit with 2 connectors : -</b>					
29217	75 x 75 mm - 100 x 100 mm.....	73.20	33.20	8.50	11.00	29217
29218	100 x 100 mm - 100 x 150 mm.....	93.60	35.50	9.00	11.50	29218
29219	100 x 100 mm - 150 x 150 mm.....	101.90	37.70	10.00	12.50	29219
	<b>Extra over trunking of the following size for flat tee, edge tee unit with connectors : -</b>					
29220	50 x 50 mm.....	60.00	31.70	8.50	10.50	29220
29221	50 x 100 mm.....	68.20	33.20	8.50	11.00	29221
29222	75 x 75 mm.....	68.20	33.20	8.50	11.00	29222
29223	75 x 100 mm.....	72.80	35.50	9.00	11.50	29223
29224	100 x 100 mm.....	74.30	35.50	9.00	11.50	29224
29225	100 x 150 mm.....	93.80	37.70	10.00	12.50	29225
29226	150 x 150 mm.....	99.10	40.80	11.00	13.50	29226
29227	200 x 200 mm.....	110.70	44.50	11.50	15.00	29227

Item	CABLE TRUNKING AND CABLE TRAY (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Extra over trunking of the following size for flat elbow, internal or external elbow unit with connectors : -</b>					
29228	50 x 50 mm.....	53.30	31.70	8.50	10.50	29228
29229	50 x 100 mm.....	62.70	33.20	8.50	11.00	29229
29230	50 x 150 mm.....	78.20	35.50	9.00	11.50	29230
29231	75 x 75 mm.....	62.70	33.20	8.50	11.00	29231
29232	75 x 100 mm.....	68.10	35.50	9.00	11.50	29232
29233	75 x 150 mm.....	82.80	37.70	10.00	12.50	29233
29234	100 x 100 mm.....	70.40	35.50	9.00	11.50	29234
29235	100 x 150 mm.....	84.40	37.70	10.00	12.50	29235
29236	150 x 150 mm.....	89.00	40.80	11.00	13.50	29236
29237	150 x 500 mm.....	139.50	50.30	12.50	16.60	29237
29238	200 x 200 mm.....	102.90	44.50	11.50	15.00	29238
29239	300 x 300 mm.....	116.30	50.30	12.50	16.60	29239
29240	50 x 100 mm 2 compartments.....	69.30	33.20	8.50	11.00	29240
29241	50 x 150 mm 2 compartments.....	84.60	35.50	9.00	11.50	29241
29242	100 x 150 mm 2 compartments.....	102.90	37.70	10.00	12.50	29242
29243	75 x 100 mm 3 compartments.....	84.00	35.50	9.00	11.50	29243
29244	75 x 150 mm 3 compartments.....	103.70	36.60	9.50	12.00	29244
29245	100 x 150 mm 3 compartments.....	124.50	37.70	10.00	12.50	29245
29246	150 x 150 mm 3 compartments.....	147.00	39.10	10.50	13.00	29246
	<b>Blank end for cable trunking of the following sizes : -</b>					
29247	50 x 50 mm.....	13.80	10.60	3.50	4.50	29247
29248	50 x 100 mm.....	14.80	10.60	3.50	4.50	29248
29249	50 x 150 mm.....	17.10	10.60	3.50	4.50	29249
29250	75 x 75 mm.....	14.80	10.60	3.50	4.50	29250
29251	75 x 100 mm.....	15.20	10.60	3.50	4.50	29251
29252	100 x 100 mm.....	15.60	10.60	3.50	4.50	29252
29253	100 x 150 mm.....	18.30	10.60	3.50	4.50	29253

Item	CABLE TRUNKING AND CABLE TRAY (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Blank end for trunking of the following sizes : - (Cont'd)</b>					
29254	150 x 150 mm.....	21.40	10.60	3.50	4.50	29254
29255	150 x 500 mm.....	32.20	15.90	5.20	6.70	29255
29256	300 x 300 mm.....	37.70	15.90	5.20	6.70	29256
29257	Wiring clip for cable trunking.....	2.60	0.80	0.30	0.30	29257
	<i>Per linear metre</i>					
	<b>PVC mini-trunking to IEC 1084-1 or BS 4678 part 4, including all cross over, elbow, tee, blank end and fixing accessories: -</b>					
29258	16 x 16 mm.....	17.80	9.40	2.40	3.10	29258
29259	16 x 25 mm.....	23.10	11.40	3.70	4.50	29259
29260	16 x 40 mm.....	23.10	11.40	3.70	4.50	29260
29261	25 x 25 mm.....	23.10	11.40	3.70	4.50	29261
29262	25 x 40 mm.....	27.60	11.40	3.70	4.50	29262
29263	25 x 50 mm.....	27.60	11.40	3.70	4.50	29263
29264	32 x 50 mm.....	43.30	11.40	3.70	4.50	29264
29265	50 x 50 mm.....	43.30	11.40	3.70	4.50	29265
	<i>Per linear metre</i>					
	<b>Surface galvanized sheet steel weatherproof trunking, including all cross over, tee, bend, blank end and fixing accessories : -</b>					
29266	100 x 100 mm.....	215.10	117.40	30.70	38.30	29266
29267	150 x 150 mm.....	303.90	140.20	36.90	45.90	29267
	<i>Per linear metre</i>					
	<b>Exposed floor trunking, including all trunking fittings, crossover, tee, riser bend, outlet box and other accessories, manufactured from 1.6 mm galvanized steel, lids of 3 mm galvanized steel, flush or recessed covers, pyramid sides : -</b>					
29268	153 mm x 38 mm (2 compartments) trunking.....	116.20	45.70	12.50	15.50	29268
29269	228 mm x 38 mm (3 compartments) trunking.....	140.30	56.40	15.00	18.50	29269
	<i>Each</i>					
29270	153 mm x 38 mm (2 compartments) junction box.....	230.60	31.40	8.30	10.50	29270
29271	228 mm x 38 mm (3 compartments) junction box.....	258.30	39.30	10.50	13.00	29271

Item	CABLE TRUNKING AND CABLE TRAY (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Per linear metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Flush floor trunking, including all trunking fittings, tee, cross over, riser bend, outlet box and other accessories, manufactured from 1.6 mm galvanized steel, lids of 3 mm galvanized steel, flush or recessed covers : -</b>					
29272	153 mm x 38 mm (2 compartments) trunking.....	135.20	45.70	12.50	15.50	29272
29273	228 mm x 38 mm (3 compartments) trunking.....	167.10	56.40	15.00	18.50	29273
	<i>Each</i>					
29274	153 mm x 38 mm (2 compartments) junction box.....	246.50	31.40	8.30	10.50	29274
29275	228 mm x 38 mm (3 compartments) junction box.....	275.90	39.30	10.50	13.00	29275
	<i>Per linear metre</i>					
	<b>Skirting trunking, including all trunking fittings, riser bend, outlet lid and other accessories, manufactured from 1.6 mm sheet steel, stove epoxy polyester powder finish : -</b>					
29276	153 mm x 38 mm (2 compartments).....	106.30	45.70	12.50	15.50	29276
29277	225 mm x 50 mm (2 compartments).....	141.00	57.20	15.00	18.50	29277
29278	228 mm x 38 mm (3 compartments) .....	140.30	56.40	15.00	18.50	29278
29279	228 mm x 50 mm (3 compartments).....	141.80	57.90	15.50	18.90	29279
29280	300 mm x 50 mm (3 compartments).....	191.10	69.40	18.50	22.90	29280
	<b>Sill trunking, including all trunking fittings, riser bend, outlet lid and other accessories, manufactured from 1.2 mm sheet steel, stove epoxy polyester powder finish : -</b>					
29281	102 mm x 38 mm (2 compartments).....	94.10	45.70	12.50	15.50	29281
29282	153 mm x 38 mm (2 compartments).....	106.30	45.70	12.50	15.50	29282

Item	CABLE TRUNKING AND CABLE TRAY (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Galvanized metal sheet tray suspended from ceiling soffit, including all fittings, cross, tee, bend and other accessories : -</b>					
29283	75 mm wide .....	64.70	39.50	10.00	12.50	29283
29284	100 mm wide.....	76.30	43.80	10.50	13.00	29284
29285	150 mm wide.....	89.10	46.80	11.50	14.00	29285
29286	225 mm wide.....	113.70	51.80	12.50	15.50	29286
29287	300 mm wide.....	137.80	53.90	13.00	16.00	29287
29288	450 mm wide.....	174.10	60.20	15.00	18.50	29288
29289	600 mm wide.....	217.30	64.50	16.00	20.40	29289
	<i>Each</i>					
29290	Powerpole, 650 mm high as "MK" PPT650 WHI .....	923.90	66.50	17.80	21.70	29290
29291	Powerpole, 3.6 m high as "MK" PPA/100.....	2,732.60	612.30	161.40	202.40	29291
	<b>3 compartments PVC trunking to IEC 1084-1 or BS4678 part 4, size 145mm x 40mm: -</b>					
	<i>Per linear metre</i>					
29292	Straight section of trunking, including blank end, cover and fixing accessories.....	577.10	55.20	14.60	18.00	29292
	<i>Each</i>					
29293	Angle unit - flat, external or internal, including cover.....	118.00	39.90	10.70	13.20	29293
29294	Flat tee unit, including cover.....	128.90	39.90	10.70	13.20	29294
	<b>Plastic cable tray</b>					
	<i>Per linear metre</i>					
29295	Plastic cable tray, 150 mm wide.....	267.50	38.60	9.70	12.20	29295
	<b>Stainless steel weatherproof cable trunking, size 100 x 100 mm : -</b>					
	<i>Per linear metre</i>					
29296	Straight section of trunking, including blank end, cover and fixing accessories.....	188.40	57.10	13.00	16.00	29296
	<i>Each</i>					
29297	Extra over trunking for flat tee unit, including cover and connector.....	151.90	35.50	9.00	11.50	29297
29298	Extra over trunking for elbow - flat, internal or external, including cover and connector.....	140.10	35.50	9.00	11.50	29298



Item	SWITCH AND FUSE GEAR	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Switch fuses, metalclad, surface mounting, c/w HRC fuses :-</b>					
29299	Switch fuse 20A, SPN.....	391.10	49.80	13.20	16.50	29299
29300	Ditto 32A, SPN.....	410.00	55.30	14.80	18.30	29300
29301	Ditto 63A, SPN.....	483.70	71.00	18.80	23.70	29301
29302	Ditto 100A, SPN.....	623.00	109.20	29.10	36.50	29302
29303	Ditto 20A, TPN.....	504.50	65.00	16.80	21.20	29303
29304	Ditto 32A, TPN.....	517.90	65.00	16.80	21.20	29304
29305	Ditto 63A, TPN.....	652.50	109.20	29.10	36.50	29305
29306	Ditto 100A, TPN.....	889.30	151.80	40.00	50.40	29306
	<b>Neutral terminal :-</b>					
29307	Neutral terminal for switchfuse 15A.....	47.10	13.50	4.40	5.40	29307
29308	Neutral terminal for switchfuse 30A.....	47.10	13.50	4.40	5.40	29308
29309	Neutral terminal for switchfuse 60A.....	50.80	17.20	5.70	6.80	29309
29310	Neutral terminal for switchfuse 100A.....	62.60	29.20	7.90	9.90	29310
	<b>Fuse switches, metalclad, c/w conduit boxes, busbar chamber connection flanges and HRC fuses :-</b>					
29311	160A, TPN.....	1,293.40	180.90	47.90	60.20	29311
29312	200A, TPN.....	1,504.10	180.90	47.90	60.20	29312
29313	300A, TPN.....	2,957.90	292.30	77.00	96.70	29313
29314	400A, TPN.....	3,567.40	364.10	95.80	120.40	29314
29315	600A, TPN.....	5,032.60	425.40	112.50	140.20	29315
29316	800A, TPN.....	6,702.10	483.70	127.30	159.40	29316

Item	SWITCH AND FUSE GEAR (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Switch fuses all insulated SPN surface mounting, back or side entry c/w BS 1361 fuses : -</b>					
29317	20A - 80A.....	414.40	55.30	14.80	18.30	29317
	<b>Isolating switches, metalclad, surface mounting : -</b>					
29318	20A, DP.....	352.00	55.30	14.80	18.30	29318
29319	32A, DP.....	368.90	55.30	14.80	18.30	29319
29320	63A, DP.....	450.10	72.50	19.30	24.20	29320
29321	100A, DP.....	595.30	72.50	19.30	24.20	29321
29322	20A, TPN.....	392.60	72.50	19.30	24.20	29322
29323	32A, TPN.....	412.90	72.50	19.30	24.20	29323
29324	63A, TPN.....	497.60	76.20	20.20	25.40	29324
29325	100A, TPN.....	700.60	80.00	21.20	26.70	29325
29326	200A, TPN.....	1,292.70	176.40	46.90	58.30	29326
29327	300A, TPN.....	2,250.50	192.10	50.80	63.70	29327
29328	400A, TPN.....	2,730.70	206.30	54.80	68.10	29328
	<b>Isolating switches, all insulated : -</b>					
29329	20A, DP.....	271.50	44.10	11.40	14.80	29329
29330	32A, DP.....	283.90	44.10	11.40	14.80	29330
29331	63A, DP.....	338.70	55.30	14.80	18.30	29331
29332	80A, DP.....	391.00	54.60	14.80	18.30	29332
29333	100A, DP.....	475.30	54.60	14.80	18.30	29333

Item	SWITCH AND FUSE GEAR (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Isolating switch, weatherproof rated IP65 : -</b>					
29334	32A, TPN.....	616.20	110.70	29.10	36.50	29334
29335	63A, TPN.....	770.60	145.00	38.00	47.90	29335
29336	100A, TPN.....	1,097.60	176.40	46.90	58.30	29336
29337	160A, TPN.....	1,601.00	208.60	55.30	69.10	29337
29338	200A, TPN.....	1,897.90	240.00	63.20	79.00	29338
	<b>Changeover switches, metalclad : -</b>					
29339	30A, DP.....	1,463.10	55.30	14.80	18.30	29339
29340	60A, DP.....	1,793.10	72.50	19.30	24.20	29340
29341	100A, DP.....	2,638.40	91.20	24.20	30.60	29341
29342	30A, TP.....	1,480.20	72.50	19.30	24.20	29342
29343	60A, TP.....	1,811.60	91.20	24.20	30.60	29343
29344	100A, TP.....	2,674.00	127.10	33.60	42.00	29344
29345	30A, TPN.....	1,498.70	91.20	24.20	30.60	29345
29346	60A, TPN.....	2,085.70	104.70	29.60	35.50	29346
29347	100A, TPN.....	2,691.70	145.00	38.00	47.90	29347
	<b>Automatic changeover contactor c/w mechanical interlock and metal casing : -</b>					
29348	40A, TPN.....	850.70	129.30	34.10	42.50	29348
29349	60A, TPN.....	1,527.70	129.30	34.10	42.50	29349
29350	100A, TPN.....	2,865.20	151.00	40.00	49.90	29350
29351	200A, TPN.....	4,582.40	164.50	43.90	54.80	29351
29352	300A, TPN.....	7,336.10	164.50	43.90	54.80	29352
29353	400A, TPN.....	10,112.50	164.50	43.90	54.80	29353

Item	FUSE	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A	B	C	D	
	The rates shall include opening and closing of switch board/box covering, where required.	A	B	C	D	
	<i>Each</i>	\$	\$	\$	\$	
	<b>Metalclad cutouts, cast metal or sheet steel : -</b>					
29354	30A, SPN.....	88.60	35.90	9.90	12.30	29354
29355	60A, SPN.....	98.00	35.90	9.90	12.30	29355
29356	100A, SPN.....	132.00	54.60	14.80	18.30	29356
29357	30A, TPN.....	141.20	54.60	14.80	18.30	29357
29358	60A, TPN.....	253.60	63.60	16.80	21.20	29358
29359	100A, TPN.....	304.80	72.50	19.30	24.20	29359
	<b>Fuse holder only ceramic porcelain or thermoplastic, rewirable or cartridge type : -</b>					
29360	500V 30A.....	14.30	7.50	2.50	3.00	29360
29361	500V 60A.....	24.10	7.50	2.50	3.00	29361
29362	500V 100A.....	37.40	7.50	2.50	3.00	29362
29363	500V 200A.....	44.70	11.20	3.70	4.40	29363
	<b>Fuse base only ceramic porcelain or thermoplastic : -</b>					
29364	500V 30A.....	23.70	11.20	3.70	4.40	29364
29365	500V 60A.....	43.80	13.50	4.40	5.40	29365
29366	500V 100A.....	59.70	15.70	4.90	5.90	29366
29367	500V 200A.....	67.90	18.70	5.90	7.20	29367
	<b>Cartridge fuse links to IEC 60269-1 or BS 1362 : -</b>					
29368	Suitable for 13A plug-tops, 2A (yellow), 3A (blue), 5A (red), 10A (black) and 13A (brown).....	6.40	3.00	1.00	1.20	29368

Item	FUSE (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	The rates shall include opening and closing of switch board/box covering, where required.					
	<i>Each</i>					
	<b>HRC cartridge fuses to IEC 60269 or BS 88, with off-set tags or central tags of rating : -</b>					
29369	6A or 10A.....	13.10	5.20	1.70	2.10	29369
29370	16A.....	13.50	5.20	1.70	2.10	29370
29371	20A.....	13.50	5.20	1.70	2.10	29371
29372	25A.....	14.30	5.20	1.70	2.10	29372
29373	32A.....	14.30	5.20	1.70	2.10	29373
29374	40A.....	18.70	5.20	1.70	2.10	29374
29375	50A.....	18.70	5.20	1.70	2.10	29375
29376	63A.....	18.70	5.20	1.70	2.10	29376
29377	80A.....	30.90	7.50	2.20	2.70	29377
29378	100A.....	31.50	7.50	2.20	2.70	29378
29379	125A.....	45.40	9.00	2.50	3.00	29379
29380	160A.....	45.40	9.00	2.50	3.00	29380
29381	200A.....	46.20	9.00	2.50	3.00	29381
29382	250A.....	77.10	11.20	3.00	3.50	29382
29383	315A.....	84.90	11.20	3.00	3.50	29383
29384	350A.....	114.80	11.20	3.00	3.50	29384
29385	400A.....	118.50	15.00	3.90	4.90	29385
29386	450A.....	154.30	15.00	3.90	4.90	29386
29387	500A.....	169.90	15.00	3.90	4.90	29387
29388	630A.....	202.30	17.20	4.90	5.90	29388
29389	800A.....	257.80	17.20	4.90	5.90	29389
	<b>Semi-enclosed fuse to BS 3036 of rating : -</b>					
29390	3/5A.....	13.80	5.60	1.70	2.10	29390
29391	10/15/20A.....	18.00	6.20	1.70	2.10	29391
29392	25/30A.....	21.10	6.70	1.70	2.10	29392

Item	DISTRIBUTION BOARDS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Fuseboard to BS EN 60439-3 with 500V fuse base and holder, fixed, connected retained with labels, circuit list etc., including solid copper bars for neutral and for earth, suitable for fuses to IEC 60269 or BS 88 (HRC fuses measured separately) : -</b>					
29393	20/32A SPN 4 way .....	1,191.30	69.20	22.70	26.70	29393
29394	20/32A SPN 6 way .....	1,526.90	77.70	24.20	29.10	29394
29395	20/32A SPN 8 way .....	1,800.80	77.70	24.20	29.10	29395
29396	20/32A SPN 10 way .....	2,099.90	99.30	25.70	32.10	29396
29397	20/32A SPN 12 way .....	2,378.30	99.30	25.70	32.10	29397
29398	20/32A TPN 2 way.....	1,598.60	69.20	22.70	26.70	29398
29399	20/32A TPN 4 way.....	2,231.50	99.30	25.70	32.10	29399
29400	20/32A TPN 6 way.....	2,947.70	99.30	25.70	32.10	29400
29401	20/32A TPN 8 way.....	3,716.80	124.60	32.10	40.00	29401
29402	63A TPN 2 way .....	3,492.00	69.20	22.70	26.70	29402
29403	63A TPN 4 way .....	4,988.20	99.30	25.70	32.10	29403
29404	63A TPN 6 way .....	6,510.30	99.30	25.70	32.10	29404
29405	63A TPN 8 way .....	7,974.70	124.60	32.10	40.00	29405
	<b>Metal boxes only for distribution boards 250/500 V (as per approved pattern) including solid copper earth bar, neutral bar, circuit list etc., (fuses base and holder not included), for fuse-way of the following sizes : -</b>					
29406	32A SPN 4 - 6 way.....	382.70	50.80	13.00	16.30	29406
29407	32A SPN 7 - 9 way .....	660.40	68.50	17.60	22.00	29407
29408	32A SPN 10 - 12 way.....	710.90	96.20	24.70	31.10	29408
29409	32A TPN 2 - 4 way.....	899.20	96.20	24.70	31.10	29409
29410	63A TPN 4 way .....	1,464.70	96.20	24.70	31.10	29410
29411	63A TPN 6 way.....	1,566.80	123.10	31.60	39.50	29411
29412	63A TPN 8 way.....	1,668.20	149.30	38.00	47.90	29412

Item	DISTRIBUTION BOARDS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>MCB distribution boards to IEC 60439-3, metalclad, flush mounting with 100 A DP isolating switch for MCB to IEC 60898 (excluding MCBs and cutting into wall measured separately where applicable) :-</b>					
29413	SPN 4 - 6 way.....	284.70	33.90	8.40	10.90	29413
29414	SPN 7 - 9 way.....	331.60	49.20	12.80	15.80	29414
29415	SPN 10 - 12 way.....	382.00	66.90	16.80	21.20	29415
29416	SPN 13 - 15 way.....	446.20	87.90	21.10	26.20	29416
29417	SPN 16 - 18 way.....	498.80	112.70	25.30	32.10	29417
	<b>MCB distribution boards to IEC 60439-3, metalclad, surface mounting with 100 A DP isolating switch for MCB to IEC 60898 (excluding MCBs) :-</b>					
29418	SPN 4 - 6 way.....	304.10	51.30	13.00	16.30	29418
29419	SPN 7 - 9 way.....	353.70	69.10	17.60	22.00	29419
29420	SPN 10 - 12 way.....	414.40	97.10	24.70	31.10	29420
29421	SPN 13 - 15 way.....	509.50	153.00	39.00	48.40	29421
29422	SPN 16 - 18 way.....	563.60	187.20	47.70	59.20	29422
	<b>MCB distribution boards, metal case (locally made) surface mounting, with space for isolating switch if required, fixed, connected with labels, circuit list etc., including solid copper bars for neutral and for earth (MCBs &amp; isolating switch not included) :-</b>					
29423	TPN 2 way.....	282.20	52.30	13.30	16.80	29423
29424	SPN 1 - 3 way.....	202.00	49.20	12.80	15.80	29424
	<b>MCB distribution boards, metalclad, to IEC 60439-3, surface mounting with 80A DP RCCB (30mA) for MCBs to IEC 60898 (excluding MCBs) :-</b>					
29425	SPN 6 way.....	532.40	50.80	13.30	16.30	29425
29426	SPN 8 way.....	563.60	68.50	17.80	21.70	29426

Item	DISTRIBUTION BOARDS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>MCB distribution boards, metalclad, to IEC 60439-3, surface mounting split bar board with 80/100A DP switch and 60/80A, 30 mA RCD for MCBs to IEC 60898 (excluding MCBs) : -</b>					
29427	Single phase 4 - 6 way.....	588.40	50.80	13.30	16.30	29427
29428	Single phase 7 - 9 way.....	626.60	68.50	17.80	21.70	29428
29429	Single phase 10 - 12 way.....	671.50	96.20	24.70	31.10	29429
	<b>MCB distribution boards, metal clad, to IEC 60439-3, surface mounting with busbar rated at not less than 200A for MCBs to IEC 60898 (excluding MCBs) : -</b>					
29430	TPN 4 way (Direct termination).....	567.30	96.20	24.70	31.10	29430
29431	TPN 4 way with 100A TP isolator.....	851.50	96.20	24.70	31.10	29431
29432	TPN 6 way (Direct termination).....	841.40	122.30	31.60	39.50	29432
29433	TPN 6 way with 100A TP isolator.....	985.70	122.30	31.60	39.50	29433
29434	TPN 8 way (Direct termination).....	1,023.40	149.30	38.00	47.90	29434
29435	TPN 8 way with 100A TP isolator.....	1,105.50	149.30	38.00	47.90	29435
29436	TPN 12 way with 100A TP isolator.....	1,459.20	187.70	47.90	60.20	29436
29437	TPN 18 way with 160A TP isolator.....	2,118.70	227.00	58.30	73.10	29437
	<b>MCB distribution board accessories : -</b>					
29438	Cable clamp.....	9.90	3.80	1.20	1.50	29438
29439	Blanking plate.....	6.00	3.80	1.20	1.50	29439
29440	Back plate for mounting 1-3 MCB.....	19.30	3.80	1.20	1.50	29440



Item	DISTRIBUTION BOARDS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Miniature circuit breakers to IEC 60898 with rated instantaneous tripping current of Type B/Type C classification and rated short circuit breaking capacity of at least 6000 short circuit rating. The rates shall include opening and closing of MCB board covers or front plates, taking down and re-fixing of blanking plate where required : -</b>					
29441	5/10/16/20/32/40/50/63A SP.....	42.30	11.60	3.70	4.40	29441
29442	5/10/16/20/32/40/50/63A DP.....	98.50	11.60	3.70	4.40	29442
29443	5/10/16/20/32/40/50/63A TP.....	186.50	17.70	5.70	6.80	29443
29444	Complete set 40A lateral main MCB tap off unit similar to "Simplex" Cat. No. LMCU 270/2/DP40 .....	335.10	29.70	7.70	9.60	29444
	<b>Isolating switches, all insulated for MCB board, include opening and closing of MCB board cover/front plates : -</b>					
29445	30/32A DP.....	87.80	23.10	7.40	8.90	29445
29446	60/63A DP.....	91.10	23.10	7.40	8.90	29446
29447	100A DP.....	124.30	26.20	8.40	10.00	29447
29448	100A TP.....	174.50	26.20	8.40	10.00	29448
29449	200A DP.....	582.10	35.40	8.90	11.40	29449
29450	200A TP.....	893.60	35.40	8.90	11.40	29450

Item	DISTRIBUTION BOARDS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>MCCB distribution boards to IEC 60439-1 surface mounting, suitable for MCCB to IEC 60947-2 : -</b>					
29451	100A TPN 4 way.....	2,486.50	122.30	31.60	39.50	29451
29452	200A TPN 4 way.....	2,486.50	122.30	31.60	39.50	29452
29453	250A TPN 4 way.....	2,486.50	122.30	31.60	39.50	29453
29454	300A TPN 4 way.....	2,795.00	122.30	31.60	39.50	29454
29455	400A TPN 4 way.....	3,103.60	122.30	31.60	39.50	29455
29456	600A TPN 4 way.....	3,721.70	122.30	31.60	39.50	29456
29457	800A TPN 4 way.....	4,339.80	122.30	31.60	39.50	29457
29458	200A TPN 6 way.....	3,026.80	149.30	38.00	47.90	29458
29459	300A TPN 6 way.....	3,387.20	149.30	38.00	47.90	29459
29460	400A TPN 6 way.....	3,747.60	149.30	38.00	47.90	29460
29461	600A TPN 6 way.....	3,860.10	149.30	38.00	47.90	29461
29462	800A TPN 6 way.....	4,537.20	149.30	38.00	47.90	29462
29463	100A TPN 8 way.....	3,579.70	189.30	48.40	60.70	29463
29464	200A TPN 8 way.....	3,579.70	189.30	48.40	60.70	29464
29465	250A TPN 8 way.....	3,579.70	189.30	48.40	60.70	29465
29466	300A TPN 8 way.....	4,094.70	189.30	48.40	60.70	29466
29467	400A TPN 8 way.....	4,609.60	189.30	48.40	60.70	29467
29468	600A TPN 8 way.....	5,226.70	189.30	48.40	60.70	29468
29469	800A TPN 8 way.....	5,843.80	189.30	48.40	60.70	29469
29470	300A TPN 10 way.....	4,836.30	229.30	58.70	73.50	29470
29471	400A TPN 10 way.....	5,265.20	229.30	58.70	73.50	29471
29472	600A TPN 10 way.....	5,986.00	229.30	58.70	73.50	29472
29473	300A TPN 12 way.....	5,302.70	267.80	68.60	85.40	29473
29474	400A TPN 12 way.....	5,920.30	267.80	68.60	85.40	29474
29475	600A TPN 12 way.....	6,743.80	267.80	68.60	85.40	29475
29476	600A TPN 14 way.....	7,503.90	308.50	79.00	98.70	29476

Item	MOULDED CASE CIRCUIT BREAKERS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>TP moulded case circuit breaker (MCCB), 23kA breaking capacity and type-tested to IEC 60947-2 of the rated current : -</b>					
29477	15/20/30/32A.....	436.80	65.40	16.80	21.20	29477
29478	40/50/60/63A.....	456.30	85.40	21.70	27.20	29478
29479	75/100A.....	466.70	96.20	24.70	31.10	29479
29480	225/300A.....	1,609.00	96.20	24.70	31.10	29480
29481	400A.....	1,609.00	96.20	24.70	31.10	29481
	<b>TP moulded case circuit breaker (MCCB) c/w shunt trip coil for external tripping or connection, 40kA breaking capacity and type-tested to IEC 60947-2 of the rated current : -</b>					
29482	30/32/40/50A.....	733.10	73.10	18.80	23.70	29482
29483	60/63/75/100A.....	755.30	96.20	24.70	31.10	29483
29484	125/150/175/200/225A.....	1,072.00	96.20	24.70	31.10	29484
29485	250/300/315/350/400A.....	1,887.20	96.20	24.70	31.10	29485
29486	500/600/630A.....	2,665.20	112.30	29.10	36.50	29486
	<b>TP moulded case circuit breaker (MCCB) c/w shunt trip coil for external tripping or connection, 50kA breaking capacity and type-tested to IEC 60947-2 of the rated current : -</b>					
29487	250 - 400A.....	3,025.00	96.20	24.70	31.10	29487
29488	500 - 600A.....	3,955.50	112.30	29.10	36.50	29488
29489	630 - 800A.....	4,721.80	128.50	32.60	41.50	29489
	<b>TPN moulded case circuit breaker (MCCB) c/w shunt trip coil for external tripping or connection, 23kA breaking capacity and type-tested to IEC 60947-2 of the rated current : -</b>					
29490	15/20/30/32A.....	522.70	65.40	16.80	21.20	29490
29491	40/50/60/63A.....	542.00	85.40	21.70	27.20	29491
29492	75/100A.....	552.40	96.20	24.70	31.10	29492
29493	225/300A.....	2,334.10	96.20	24.70	31.10	29493
29494	400A.....	2,676.40	96.20	24.70	31.10	29494

Item	MOULDED CASE CIRCUIT BREAKERS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>SP moulded case circuit breaker (MCCB), 23kA breaking capacity and type-tested to IEC 60947-2 of the rated current : -</b>					
29495	15/20/30/32A.....	391.40	65.40	16.80	21.20	29495
29496	40/50/60/63A.....	410.60	85.40	21.70	27.20	29496
	<b>TPN moulded case circuit breaker (MCCB) c/w shunt trip coil for external tripping or connection, 40kA breaking capacity and type-tested to IEC 60947-2 of the rated current : -</b>					
29497	30/32/40/50A.....	945.40	73.10	18.80	23.70	29497
29498	60/63/75/100A.....	967.60	96.20	24.70	31.10	29498
29499	125/150/175/200/225A.....	1,373.50	96.20	24.70	31.10	29499
29500	250/300/315/350/400A.....	2,471.40	96.20	24.70	31.10	29500
29501	500/600/630A.....	3,533.30	112.30	29.10	36.50	29501
	<b>TPN moulded case circuit breaker (MCCB) c/w shunt trip coil for external tripping or connection, 50kA breaking capacity and type-tested to IEC 60947-2 of the rated current : -</b>					
29502	250 - 400A.....	3,981.00	96.20	24.70	31.10	29502
29503	500 - 600A.....	5,261.10	112.30	29.10	36.50	29503
29504	600 - 800A.....	6,224.40	128.50	32.60	41.50	29504
	<b>Metal box for TPN MCCB : -</b>					
29505	Metal box for TPN MCCB up to 100A.....	228.20	36.60	9.90	12.30	29505
29506	Metal box for TPN MCCB of 125A to 225A.....	338.50	36.60	9.90	12.30	29506
29507	Metal box for TPN MCCB of 300A to 400A.....	451.80	56.40	14.60	18.30	29507
29508	Metal box for TPN MCCB of 500A to 800A.....	588.10	56.40	14.60	18.30	29508
	<b>IDMT earth fault relay : -</b>					
29509	IDMT earth fault relay c/w necessary current transformers, accessories and interconnections etc. including site test to be witnessed and to the satisfaction of the supply company .....	4,551.00	112.30	29.10	36.50	29509
	<b>Metal box for IDMT relay : -</b>					
29510	Metal box for TPN MCCB up to 100A & IDMT relay.....	443.20	56.40	14.60	18.30	29510
29511	Metal box for TPN MCCB of 125A to 225A & IDMT relay.....	539.30	56.40	14.60	18.30	29511
29512	Metal box for TPN MCCB of 300A to 400A & IDMT relay.....	700.60	56.40	14.60	18.30	29512
29513	Metal box for TPN MCCB of 500A to 800A & IDMT relay.....	700.60	56.40	14.60	18.30	29513

Item	CONTACTORS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Contactors to IEC 60947-4-1 : -</b>					
29514	30/40A TPN with 220/380V coil.....	181.90	36.20	8.90	11.40	29514
29515	60A TPN with 220/380V coil.....	279.70	56.90	14.60	18.30	29515
29516	80/100A TPN with 220/380V coil.....	459.40	73.10	18.80	23.70	29516
29517	Metal box for 30/40A TPN contactor.....	134.30	41.90	10.90	13.80	29517
29518	Metal box for 60A TPN contactor.....	180.90	48.80	12.80	15.80	29518
29519	Metal box for 80/100A TPN contactor.....	274.90	56.40	14.60	18.30	29519
	<b>BUSBAR CHAMBER UNITS AND ACCESSORIES</b>					
	<i>Each</i>					
	<b>Busbar chamber units, 4 full size solid drawn copper busbars, c/w cover and main terminals : -</b>					
29520	200A 600 mm long.....	1,595.00	245.40	65.20	82.40	29520
29521	200A 900 mm long.....	1,920.10	349.30	92.80	116.00	29521
29522	200A 1200 mm long.....	2,257.80	419.30	111.60	139.70	29522
29523	200A 1500 mm long.....	2,828.60	450.90	119.90	150.50	29523
29524	300A 600 mm long.....	1,595.00	245.40	65.20	82.40	29524
29525	300A 900 mm long.....	1,920.10	349.30	92.80	116.00	29525
29526	300A 1200 mm long.....	2,257.80	419.30	111.60	139.70	29526
29527	300A 1500 mm long.....	2,828.60	450.90	119.90	150.50	29527
29528	400A 600 mm long.....	2,278.10	245.40	65.20	82.40	29528
29529	400A 900 mm long.....	2,738.40	349.30	92.80	116.00	29529
29530	400A 1200 mm long.....	2,986.00	419.30	111.60	139.70	29530
29531	400A 1500 mm long.....	3,376.70	450.90	119.90	150.50	29531
29532	500A 600 mm long.....	2,278.10	245.40	65.20	82.40	29532
29533	500A 900 mm long.....	2,738.40	349.30	92.80	116.00	29533
29534	500A 1200 mm long.....	2,986.00	419.30	111.60	139.70	29534
29535	500A 1500 mm long.....	3,461.10	450.90	119.90	150.50	29535

Item	BUSBAR CHAMBER UNITS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Busbar chamber units, 4 full size solid drawn copper busbars, c/w cover and main terminals : - (Cont'd)</b>					
29536	630A 600 mm long.....	2,190.20	419.30	111.60	139.70	29536
29537	630A 900 mm long.....	2,664.80	522.40	139.20	174.20	29537
29538	630A 1200 mm long.....	3,465.30	613.20	163.40	204.80	29538
29539	630A 1500 mm long.....	4,103.70	707.10	188.50	235.40	29539
29540	800A 600 mm long.....	2,302.80	419.30	111.60	139.70	29540
29541	800A 900 mm long.....	2,965.10	522.40	139.20	174.20	29541
29542	800A 1200 mm long.....	3,735.60	613.20	163.40	204.80	29542
29543	800A 1500 mm long.....	4,524.10	707.10	188.50	235.40	29543
	<b>Cover for busbar chamber unit of the following length and rating between 200A and 800A : -</b>					
29544	600 mm.....	241.10	17.50	5.70	6.80	29544
29545	900 mm .....	280.70	17.50	5.70	6.80	29545
29546	1200 mm.....	335.90	17.50	5.70	6.80	29546
29547	1500 mm.....	380.30	17.50	5.70	6.80	29547
	<b>Busbar clamp : -</b>					
29548	160A.....	73.10	7.60	2.00	2.50	29548
29549	300A - 400A.....	135.70	8.40	2.10	2.70	29549
29550	500A - 800A.....	186.70	9.10	2.40	3.00	29550
	<b>Cable clamps and brass cable sockets for use with busbar chambers : -</b>					
29551	32A.....	60.00	6.10	2.00	2.40	29551
29552	63A.....	60.00	6.10	2.00	2.40	29552
29553	100A.....	71.70	6.10	2.00	2.40	29553
29554	160A.....	75.40	9.90	3.20	3.90	29554

Item	BUSBAR CHAMBER UNITS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Cable clamps and brass cable sockets for use with busbar chambers : - (Cont'd)</b>					
29555	200A (cable socket).....	76.80	11.40	3.70	4.40	29555
29556	315A (cable socket).....	86.80	13.70	4.40	5.40	29556
29557	400A (cable socket).....	144.60	17.50	5.10	6.30	29557
29558	500A (cable socket).....	161.60	19.10	5.60	6.80	29558
29559	630A (cable socket).....	163.80	21.30	6.30	7.60	29559
29560	800A (cable socket).....	204.50	27.40	8.00	9.80	29560
	<b>Connection flanges (including cutting and drilling busbar chamber, assembly of switch to flange, and flange to busbar chamber with provision and installation of interconnections as necessary) : -</b>					
29561	SPN 32A.....	72.50	29.00	7.40	8.90	29561
29562	SPN 63A.....	72.50	29.00	7.40	8.90	29562
29563	SPN 100A.....	92.40	38.10	9.90	12.30	29563
29564	TPN 32A.....	90.20	35.80	8.90	11.40	29564
29565	TPN 63A.....	113.10	36.60	9.50	11.90	29565
29566	TPN 100A.....	142.70	44.20	11.40	14.80	29566
29567	TPN 160/200A.....	173.70	53.40	13.80	17.80	29567
29568	TPN 315A.....	215.20	73.20	18.80	23.70	29568
29569	TPN 400/500A.....	243.30	90.70	23.50	29.40	29569
29570	TPN 630/800A.....	273.60	110.50	28.60	36.00	29570
	<i>Per linear metre</i>					
	<b>Porcelain support for busbar or for use in link box : -</b>					
29571	Not exceeding 300A.....	20.40	13.70	3.50	4.90	29571
29572	300A - 500A.....	25.80	17.50	4.50	5.70	29572
29573	500A - 1000A.....	35.40	21.30	5.40	6.90	29573

Item	BUSBAR CHAMBER UNITS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Cable entry/conduit box of approved type for switchfuses, all necessary work including cutting and drilling of trunking, assembly and connection of switchfuses, etc. :-</b>					
29574	TPN 160/200A.....	204.70	73.20	18.80	23.70	29574
29575	TPN 315A.....	244.00	90.70	23.50	29.40	29575
29576	TPN 400/500A.....	311.00	110.50	28.60	36.00	29576
29577	TPN 630/800A.....	384.60	128.80	33.60	42.00	29577
	<i>Per square metre</i>					
	<b>Insulating sheet as paxolin or ebonite, etc., used in conjunction with distribution boxes and switch gear (to be drilled and cut to shape as required) :-</b>					
29578	1.5 mm thick.....	180.70	84.60	21.70	27.20	29578
29579	3 mm thick.....	270.80	112.80	29.10	36.50	29579
29580	7 mm thick.....	458.70	140.20	36.50	45.40	29580
29581	10 mm thick.....	615.10	168.40	43.90	54.80	29581
29582	12 mm thick.....	864.10	225.60	58.30	73.10	29582
29583	20 mm thick.....	1,047.80	282.00	73.10	90.80	29583
29584	25 mm thick.....	1,253.90	295.00	76.50	95.80	29584
	<i>Per linear metre</i>					
	<b>Busbar trunking, IP54, all-insulated, TPN, c/w ends, elbows and tee units, etc., copper busbar, trunking, supports, hangers, fixing accessories, labels and warning notice of the rated current :-</b>					
29585	600A.....	3,513.70	378.60	73.10	109.10	29585
29586	800A.....	3,695.80	567.80	127.30	163.90	29586
29587	1000A.....	4,243.90	662.50	148.60	191.00	29587
29588	1200A.....	5,252.10	757.10	169.80	218.70	29588
29589	1350A.....	5,782.00	814.00	182.60	235.00	29589
29590	1600A.....	6,693.50	898.70	202.40	259.60	29590
29591	2000A.....	7,814.30	994.10	223.60	287.30	29591
29592	2500A.....	10,736.70	1,089.50	244.80	314.90	29592



Item	BUSBAR CHAMBER UNITS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Per linear metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Busbar trunking, IP65, all-insulated, TPN, c/w ends, elbows and tee units, etc., copper busbar, trunking, supports, hangers, fixing accessories, labels and warning notice of the rated current : -</b>					
29593	600A.....	3,610.70	378.60	73.10	109.10	29593
29594	800A.....	3,792.80	567.80	127.30	163.90	29594
29595	1000A.....	4,352.30	662.50	148.60	191.00	29595
29596	1200A.....	5,386.90	757.10	169.80	218.70	29596
29597	1350A.....	5,926.60	814.00	182.60	235.00	29597
29598	1600A.....	6,866.10	898.70	202.40	259.60	29598
29599	2000A.....	8,024.70	994.10	223.60	287.30	29599
29600	2500A.....	11,027.60	1,089.50	244.80	314.90	29600
	<b>Busbar trunking, IP66, all-insulated, TPN, c/w ends, elbows and tee units, etc., copper busbar, trunking, supports, hangers, fixing accessories, labels and warning notice of the rated current : -</b>					
29601	600A.....	3,793.10	378.60	73.10	109.10	29601
29602	800A.....	3,975.30	567.80	127.30	163.90	29602
29603	1000A.....	4,529.90	662.50	148.60	191.00	29603
29604	1200A.....	5,543.10	757.10	169.80	218.70	29604
29605	1350A.....	6,061.40	814.00	182.60	235.00	29605
29606	1600A.....	6,979.50	898.70	202.40	259.60	29606
29607	2000A.....	8,095.40	994.10	223.60	287.30	29607
29608	2500A.....	11,326.70	1,089.50	244.80	314.90	29608
	<i>Each</i>					
	<b>Cable tap box, TPN metalclad with copper busbars for all-insulated totally enclosed plug-in type or feeder type busduct of the rated current : -</b>					
29609	600A.....	7,893.70	426.30	81.90	123.40	29609
29610	800A.....	8,668.10	510.90	98.20	147.60	29610
29611	1000A.....	9,390.60	596.30	114.50	172.30	29611
29612	1200A.....	9,759.20	681.70	131.30	196.90	29612

Item	BUSBAR CHAMBER UNITS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Cable tap box, TPN metalclad with copper busbars for all-insulated totally enclosed plug-in type or feeder type busduct of the rated current : - (Cont'd)</b>					
29613	1350A.....	11,337.80	757.10	145.60	218.70	29613
29614	1600A.....	12,177.40	832.50	160.40	240.40	29614
29615	2000A.....	13,396.10	917.90	176.70	265.60	29615
29616	2500A.....	19,541.70	1,041.00	200.40	300.60	29616
	<b>90° elbow, edgewise or flatwise, IP54, with copper busbar, trunking, weatherproof type for all-insulated totally enclosed TPN copper busduct of the rated current (linear length excluded and measured separately) : -</b>					
29617	600A.....	2,937.90	426.30	81.90	123.40	29617
29618	800A.....	3,027.70	510.90	98.20	147.60	29618
29619	1000A.....	3,258.60	596.30	114.50	172.30	29619
29620	1200A.....	3,583.40	681.70	131.30	196.90	29620
29621	1350A.....	3,798.40	757.10	145.60	218.70	29621
29622	1600A.....	4,116.80	832.50	160.40	240.40	29622
29623	2000A.....	4,527.70	917.90	176.70	265.60	29623
29624	2500A.....	6,242.90	1,041.00	200.40	300.60	29624
	<b>90° elbow, edgewise or flatwise, IP65, with copper busbar, trunking, weatherproof type for all-insulated totally enclosed TPN copper busduct of the rated current (linear length excluded and measured separately) : -</b>					
29625	600A.....	3,014.40	426.30	81.90	123.40	29625
29626	800A.....	3,104.40	510.90	98.20	147.60	29626
29627	1000A.....	3,338.40	596.30	114.50	172.30	29627
29628	1200A.....	3,671.10	681.70	131.30	196.90	29628
29629	1350A.....	3,890.80	757.10	145.60	218.70	29629
29630	1600A.....	4,217.00	832.50	160.40	240.40	29630
29631	2000A.....	4,637.30	917.90	176.70	265.60	29631
29632	2500A.....	6,355.70	1,041.00	200.40	300.60	29632

Item	BUSBAR CHAMBER UNITS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>90° elbow, edgewise or flatwise, IP66, with copper busbar, trunking, weatherproof type for all-insulated totally enclosed TPN copper busduct of the rated current (linear length excluded and measured separately) : -</b>					
29633	600A.....	3,170.40	426.30	81.90	123.40	29633
29634	800A.....	3,260.90	510.90	98.20	147.60	29634
29635	1000A.....	3,469.90	596.30	114.50	172.30	29635
29636	1200A.....	3,804.10	681.70	131.30	196.90	29636
29637	1350A.....	4,020.70	757.10	145.60	218.70	29637
29638	1600A.....	4,331.20	832.50	160.40	240.40	29638
29639	2000A.....	4,729.60	917.90	176.70	265.60	29639
29640	2500A.....	6,767.40	1,041.00	200.40	300.60	29640
	<b>Combination elbow, IP54, for all-insulated totally enclosed TPN copper busbar trunking of the rated current (linear length excluded and measured separately) : -</b>					
29641	600A.....	5,711.50	681.70	131.30	196.90	29641
29642	800A.....	5,859.20	817.90	157.50	235.90	29642
29643	1000A.....	6,287.70	954.10	183.10	275.40	29643
29644	1200A.....	6,904.00	1,090.20	210.30	314.40	29644
29645	1350A.....	7,305.20	1,211.00	233.00	349.50	29645
29646	1600A.....	7,913.70	1,332.60	256.20	385.00	29646
29647	2000A.....	8,702.20	1,468.80	282.80	424.00	29647
29648	2500A.....	12,085.30	1,665.70	320.30	480.80	29648
	<b>Combination elbow, IP65, for all-insulated totally enclosed TPN copper busbar trunking of the rated current (linear length excluded and measured separately) : -</b>					
29649	600A.....	5,864.40	681.70	131.30	196.90	29649
29650	800A.....	6,012.60	817.90	157.50	235.90	29650
29651	1000A.....	6,447.30	954.10	183.10	275.40	29651
29652	1200A.....	7,079.30	1,090.20	210.30	314.40	29652
29653	1350A.....	7,489.90	1,211.00	233.00	349.50	29653
29654	1600A.....	8,114.10	1,332.60	256.20	385.00	29654
29655	2000A.....	8,921.40	1,468.80	282.80	424.00	29655
29656	2500A.....	12,398.40	1,665.70	320.30	480.80	29656

Item	BUSBAR CHAMBER UNITS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Combination elbow, IP66, for all-insulated totally enclosed TPN copper busbar trunking of the rated current (linear length excluded and measured separately) : -</b>					
29657	600A.....	6,176.50	681.70	131.30	196.90	29657
29658	800A.....	6,325.70	817.90	157.50	235.90	29658
29659	1000A.....	6,710.30	954.10	183.10	275.40	29659
29660	1200A.....	7,345.50	1,090.20	210.30	314.40	29660
29661	1350A.....	7,749.80	1,211.00	233.00	349.50	29661
29662	1600A.....	8,342.60	1,332.60	256.20	385.00	29662
29663	2000A.....	9,106.10	1,468.80	282.80	424.00	29663
29664	2500A.....	13,134.20	1,665.70	320.30	480.80	29664
	<b>End closer, IP54, for all-insulated totally enclosed TPN copper busbar trunking of the rated current (linear length excluded and measured separately) : -</b>					
29665	600A.....	709.80	237.00	45.40	68.60	29665
29666	800A.....	746.50	260.10	50.40	75.50	29666
29667	1000A.....	777.00	283.90	54.80	81.90	29667
29668	1200A.....	809.90	307.80	59.70	88.90	29668
29669	1350A.....	843.30	330.80	63.70	95.80	29669
29670	1600A.....	891.70	369.30	71.10	106.60	29670
29671	2000A.....	950.30	407.00	78.50	118.00	29671
29672	2500A.....	1,078.70	463.90	89.30	134.30	29672
	<b>End closer, IP65, for all-insulated totally enclosed TPN copper busbar trunking of the rated current (linear length excluded and measured separately) : -</b>					
29673	600A.....	709.80	237.00	45.40	68.60	29673
29674	800A.....	746.50	260.10	50.40	75.50	29674
29675	1000A.....	777.00	283.90	54.80	81.90	29675
29676	1200A.....	809.90	307.80	59.70	88.90	29676
29677	1350A.....	843.30	330.80	63.70	95.80	29677
29678	1600A.....	891.70	369.30	71.10	106.60	29678
29679	2000A.....	950.30	407.00	78.50	118.00	29679
29680	2500A.....	1,078.70	463.90	89.30	134.30	29680

Item	BUSBAR CHAMBER UNITS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>End closer, IP66, for all-insulated totally enclosed TPN copper busbar trunking of the rated current (linear length excluded and measured separately) : -</b>					
29681	600A.....	709.80	237.00	45.40	68.60	29681
29682	800A.....	746.50	260.10	50.40	75.50	29682
29683	1000A.....	777.00	283.90	54.80	81.90	29683
29684	1200A.....	809.90	307.80	59.70	88.90	29684
29685	1350A.....	843.30	330.80	63.70	95.80	29685
29686	1600A.....	891.70	369.30	71.10	106.60	29686
29687	2000A.....	950.30	407.00	78.50	118.00	29687
29688	2500A.....	1,078.70	463.90	89.30	134.30	29688
	<b>Expansion joint, IP54, for all-insulated totally enclosed TPN copper busbar trunking of the rated current (linear length excluded and measured separately) : -</b>					
29689	600A.....	8,321.70	426.30	81.90	123.40	29689
29690	800A.....	8,517.80	510.90	98.20	147.60	29690
29691	1000A.....	8,606.30	596.30	114.50	172.30	29691
29692	1200A.....	9,464.90	681.70	131.30	196.90	29692
29693	1350A.....	10,710.00	757.10	145.60	218.70	29693
29694	1600A.....	11,061.20	832.50	160.40	240.40	29694
29695	2000A.....	11,458.10	917.90	176.70	265.60	29695
29696	2500A.....	15,748.50	1,041.00	200.40	300.60	29696
	<b>Expansion joint, IP65, for all-insulated totally enclosed TPN copper busbar trunking of the rated current (linear length excluded and measured separately) : -</b>					
29697	600A.....	8,321.70	426.30	81.90	123.40	29697
29698	800A.....	8,517.80	510.90	98.20	147.60	29698
29699	1000A.....	8,606.30	596.30	114.50	172.30	29699
29700	1200A.....	9,464.90	681.70	131.30	196.90	29700
29701	1350A.....	10,710.00	757.10	145.60	218.70	29701
29702	1600A.....	11,061.20	832.50	160.40	240.40	29702
29703	2000A.....	11,458.10	917.90	176.70	265.60	29703
29704	2500A.....	15,748.50	1,041.00	200.40	300.60	29704

Item	BUSBAR CHAMBER UNITS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Expansion joint, IP66, for all-insulated totally enclosed TPN copper busbar trunking of the rated current (linear length excluded and measured separately) : -</b>					
29705	600A.....	8,321.70	426.30	81.90	123.40	29705
29706	800A.....	8,517.80	510.90	98.20	147.60	29706
29707	1000A.....	8,606.30	596.30	114.50	172.30	29707
29708	1200A.....	9,464.90	681.70	131.30	196.90	29708
29709	1350A.....	10,710.00	757.10	145.60	218.70	29709
29710	1600A.....	11,061.20	832.50	160.40	240.40	29710
29711	2000A.....	11,458.10	917.90	176.70	265.60	29711
29712	2500A.....	15,748.50	1,041.00	200.40	300.60	29712
	<b>Flanged end, weatherproof type for all-insulated totally enclosed TPN copper busduct of the rated current (linear length excluded and measured separately) : -</b>					
29713	600A.....	2,018.30	237.00	45.40	68.60	29713
29714	800A.....	2,219.60	260.10	50.40	75.50	29714
29715	1000A.....	2,279.90	283.90	54.80	81.90	29715
29716	1200A.....	2,517.80	307.80	59.70	88.90	29716
29717	1350A.....	2,660.80	330.80	63.70	95.80	29717
29718	1600A.....	2,915.10	369.30	71.10	106.60	29718
29719	2000A.....	3,265.30	407.00	78.50	118.00	29719
29720	2500A.....	4,692.90	463.90	89.30	134.30	29720
	<b>Fuseswitch TPN, metalclad, plug-in type c/w HRC fuses for all-insulated totally enclosed TPN copper busduct of the rated current : -</b>					
29721	200A.....	5,064.50	520.10	117.00	150.50	29721
29722	400A.....	9,327.70	681.70	153.00	196.90	29722
29723	600A.....	12,574.20	871.00	195.50	251.20	29723

Item	BUSBAR CHAMBER UNITS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Per linear metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Busduct, TPN copper busbars, all-insulated, totally enclosed, indoor feeder type c/w ends, elbows, tee unit, supports, hangers, fixing accessories, etc. of the rated current : -</b>					
29724	600A.....	3,248.30	378.60	73.10	109.10	29724
29725	800A.....	3,343.60	449.30	86.90	129.80	29725
29726	1000A.....	3,874.10	520.10	100.20	150.50	29726
29727	1200A.....	4,911.10	591.70	114.00	170.80	29727
29728	1350A.....	5,447.10	653.20	125.90	189.00	29728
29729	1600A.....	6,306.50	724.00	139.70	208.80	29729
29730	2000A.....	7,360.60	804.80	155.00	232.50	29730
29731	2500A.....	10,115.40	889.40	171.30	256.70	29731
	<b>Busduct, TPN copper busbars, all-insulated totally enclosed, indoor plug-in type c/w ends, elbows, tee unit, supports, hangers, fixing accessories, etc. of the rated current : -</b>					
29732	600A.....	3,810.60	397.80	73.10	109.10	29732
29733	800A.....	3,909.90	449.30	86.90	129.80	29733
29734	1000A.....	4,468.10	520.10	100.20	150.50	29734
29735	1200A.....	5,489.50	591.70	114.00	170.80	29735
29736	1350A.....	6,038.30	653.20	125.90	189.00	29736
29737	1600A.....	6,972.60	724.00	139.70	208.80	29737
29738	2000A.....	8,089.10	804.80	155.00	232.50	29738
29739	2500A.....	11,449.90	889.40	171.30	256.70	29739
	<i>Each</i>					
	<b>MCCB, TPN, metal clad, plug-in type, minimum 40kA at 380V, for all-insulated totally enclosed TPN copper busduct of the rated current : -</b>					
29740	200A.....	6,694.60	520.10	117.00	150.50	29740
29741	400A.....	10,566.50	681.70	153.00	196.90	29741
29742	600A.....	13,226.20	871.00	195.50	251.20	29742

Item	BUSBAR CHAMBER UNITS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Per linear metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Busduct, TPN copper busbars, all-insulated totally enclosed, outdoor feeder c/w ends, elbows, tee unit, supports, hangers, fixing accessories, etc. of the rated current : -</b>					
29743	600A.....	3,793.10	378.60	73.10	109.10	29743
29744	800A.....	3,861.30	449.30	86.90	129.80	29744
29745	1000A.....	4,392.90	520.10	100.20	150.50	29745
29746	1200A.....	5,383.90	591.70	114.00	170.80	29746
29747	1350A.....	5,906.70	653.20	125.90	189.00	29747
29748	1600A.....	6,811.40	724.00	139.70	208.80	29748
29749	2000A.....	7,913.30	804.80	155.00	232.50	29749
29750	2500A.....	11,036.40	889.40	171.30	256.70	29750
	<i>Each</i>					
	<b>90° offset, edgewise or flatwise, IP54 for all insulated totally enclosed TPN copper busbar trunking of the rated current (linear length excluded and measured separately) : -</b>					
29751	600A.....	5,711.50	681.70	131.30	196.90	29751
29752	800A.....	5,859.20	817.90	157.50	235.90	29752
29753	1000A.....	6,287.70	954.10	183.10	275.40	29753
29754	1200A.....	6,904.00	1,090.20	210.30	314.40	29754
29755	1350A.....	7,305.20	1,211.00	233.00	349.50	29755
29756	1600A.....	7,913.70	1,332.60	256.20	385.00	29756
29757	2000A.....	8,702.20	1,468.80	282.80	424.00	29757
29758	2500A.....	12,085.30	1,665.70	320.30	480.80	29758



Item	BUSBAR CHAMBER UNITS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>90° offset, edgewise or flatwise, IP65 for all insulated totally enclosed TPN copper busbar trunking of the rated current (linear length excluded and measured separately) : -</b>					
29759	600A.....	5,864.40	681.70	131.30	196.90	29759
29760	800A.....	6,012.60	817.90	157.50	235.90	29760
29761	1000A.....	6,447.30	954.10	183.10	275.40	29761
29762	1200A.....	7,079.30	1,090.20	210.30	314.40	29762
29763	1350A.....	7,489.90	1,211.00	233.00	349.50	29763
29764	1600A.....	8,114.10	1,332.60	256.20	385.00	29764
29765	2000A.....	8,921.40	1,468.80	282.80	424.00	29765
29766	2500A.....	12,398.40	1,665.70	320.30	480.80	29766
	<b>90° offset, edgewise or flatwise, IP66 for all insulated totally enclosed TPN copper busbar trunking of the rated current (linear length excluded and measured separately) : -</b>					
29767	600A.....	6,176.50	681.70	131.30	196.90	29767
29768	800A.....	6,325.70	817.90	157.50	235.90	29768
29769	1000A.....	6,447.30	954.10	183.10	275.40	29769
29770	1200A.....	7,345.50	1,090.20	210.30	314.40	29770
29771	1350A.....	7,489.90	1,211.00	233.00	349.50	29771
29772	1600A.....	8,342.60	1,332.60	256.20	385.00	29772
29773	2000A.....	9,106.10	1,468.80	282.80	424.00	29773
29774	2500A.....	13,134.20	1,665.70	320.30	480.80	29774

Item	BUSBAR CHAMBER UNITS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Tee unit, weatherproof type for all-insulated totally enclosed TPN copper busduct of the rated current (linear length excluded and measured separately) : -</b>					
29775	200A.....	2,518.60	447.50	65.80	111.90	29775
29776	400A.....	2,716.70	458.70	65.80	123.10	29776
29777	600A.....	2,836.40	468.60	90.30	135.20	29777
29778	800A.....	3,061.60	562.40	108.10	161.90	29778
29779	1000A.....	3,281.20	655.50	126.40	189.50	29779
29780	1200A.....	3,661.10	749.40	144.60	216.20	29780
29781	1350A.....	3,883.50	832.50	160.40	240.40	29781
29782	1600A.....	4,197.50	916.40	176.20	264.60	29782
29783	2000A.....	4,647.10	1,009.50	194.50	291.20	29783
29784	2500A.....	6,402.40	1,144.90	220.10	330.70	29784
	<b>Underfloor busbar trunking unit (with colour) for final circuit distribution c/w trunking coupler, all necessary interconnection wirings and accessories : -</b>					
29785	Four compartments 300 mm wide, 1200 mm long.....	623.70	78.30	44.80	55.90	29785
29786	Four compartments 300 mm wide, 2400mm long.....	1,243.90	111.90	89.50	100.70	29786
	<b>Underfloor busbar trunking accessories : -</b>					
29787	Flexible connector assembly c/w 2 m long flexible conduit c/w all necessary wirings.....	89.00	33.50	22.40	33.60	29787
29788	Cross over bridge assembly for four compartments trunking.....	652.90	84.00	44.80	55.90	29788

Item	BUSBAR CHAMBER UNITS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Floor outlet box suitable for plug-in to underfloor busbar trunking socket c/w plug, 3000mm flexible conduit, wirings, and internal compartment for housing two module types. Power module shall have 2 gang 13A switched sockets ready for operate, telecom module shall have 2 telephone sockets for future connection, data module shall have 4 nos. RJ45 or 2 nos. BNC sockets for future connection. With combinations of : -</b>					
29789	2 nos. of power modules.....	719.80	123.10	44.80	55.90	29789
29790	1 no. of power module & 1 no. of telecom /data module.....	719.80	123.10	44.80	55.90	29790
29791	2 nos. of telecom /data modules, free combination.....	719.80	123.10	44.80	55.90	29791
	<b>Ditto but of three compartment type, with combination of : -</b>					
29792	3 nos. of power modules.....	746.00	128.70	44.80	55.90	29792
29793	2 nos. of power modules & 1 no. of telecom /data module.....	746.00	128.70	44.80	55.90	29793
29794	1 no. of power module & 2 nos. of telecom /data modules, free combination.....	746.00	128.70	44.80	55.90	29794
29795	3 nos. of telecom /data modules, free combination.....	746.00	128.70	44.80	55.90	29795
	<b>Ditto but of four compartment type, with combination of : -</b>					
29796	4 nos. of power modules.....	772.10	134.20	44.80	55.90	29796
29797	3 nos. of power modules & 1 no. of telecom /data module.....	772.10	134.20	44.80	55.90	29797
29798	2 nos. of power modules & 2 nos. of telecom /data modules, free combination.....	772.10	134.20	44.80	55.90	29798
29799	1 no. of power module & 3 nos. of telecom /data modules, free combination.....	772.10	134.20	44.80	55.90	29799
29800	4 nos. of telecom /data modules, free combination.....	772.10	134.20	44.80	55.90	29800

Item	RESIDUAL CURRENT CIRCUIT BREAKERS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Residual current operated circuit breaker (RCCB) to BS EN 61008 or IEC 61008 with minimum rated short circuit breaking capacity of 3 kA : -</b>					
29801	10/13/16/20A SP, 30 mA trip.....	124.10	23.10	7.40	8.40	29801
29802	25/40A SP, 30 mA trip.....	124.10	23.10	7.40	8.40	29802
29803	10/13/16/20A DP, 30 mA trip.....	201.60	23.10	7.40	8.40	29803
29804	25/32/40A DP, 30 mA trip.....	201.60	23.10	7.40	8.40	29804
29805	63A DP, 30 mA trip.....	265.30	23.10	7.40	8.40	29805
29806	80A DP, 30 mA trip.....	437.40	23.10	7.40	8.40	29806
29807	100A DP, 30 mA trip.....	608.60	23.10	7.40	8.40	29807
29808	25/40A TPN, 30 mA trip.....	300.70	42.30	10.90	13.80	29808
29809	25/40A TPN, 100 mA trip.....	309.10	42.30	10.90	13.80	29809
29810	63A TPN, 30 mA trip.....	317.50	42.30	10.90	13.80	29810
29811	63A TPN 100, mA trip.....	334.20	42.30	10.90	13.80	29811
29812	63A TPN, 300/500 mA trip.....	334.20	42.30	10.90	13.80	29812
29813	100A TPN, 30 mA trip.....	920.40	42.30	10.90	13.80	29813
29814	100A TPN, 100 mA trip.....	962.30	42.30	10.90	13.80	29814
29815	10/13/16/20A TPN, 30 mA trip.....	300.70	42.30	10.90	13.80	29815
29816	25/32A TPN, 30 mA trip.....	300.70	42.30	10.90	13.80	29816
	<b>Residual current operated circuit breaker (RCCB) to BS 4293 with minimum rated short circuit breaking capacity of 22 - 40 kA : -</b>					
29817	100A TPN, 500 mA trip.....	1,954.50	56.20	14.40	18.00	29817
29818	200A TPN, 500 mA trip.....	2,436.40	64.60	16.30	20.70	29818
29819	400A TPN, 500 mA trip.....	2,942.20	71.60	18.30	23.20	29819

Item	RESIDUAL CURRENT CIRCUIT BREAKERS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Metal box for RCCB, 40 to 100A DP : -</b>					
29820	2 ways.....	83.10	36.60	9.90	12.30	29820
29821	4 ways.....	118.50	36.60	9.90	12.30	29821
29822	6 ways.....	212.10	56.40	14.60	18.30	29822
29823	8 ways.....	293.80	56.40	14.60	18.30	29823
29824	12 ways.....	384.00	56.40	14.60	18.30	29824
	<b>Metal box for RCCB, 40 to 100A TPN : -</b>					
29825	2 ways.....	118.50	36.60	9.90	12.30	29825
29826	4 ways.....	274.60	36.60	9.90	12.30	29826
29827	6 ways.....	391.40	56.40	14.60	18.30	29827
29828	8 ways.....	469.40	56.40	14.60	18.30	29828
	<b>Residual current operated circuit breaker with integral overcurrent protection (RCBO) to BS EN61009 or IEC 61009 with rated instantaneous tripping current of Type B /Type C classification and minimum rated short circuit breaking capacity of 6kA : -</b>					
29829	10/13/16/20A DP, 30 mA trip.....	195.30	23.10	7.40	8.40	29829
29830	25/40A DP, 30 mA trip.....	195.30	23.10	7.40	8.40	29830

Item	KWH METERS AND BOXES	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>KWH Meter : -</b>					
29831	63A single phase.....	517.20	44.20	11.50	15.00	29831
29832	80A ditto.....	517.20	44.20	11.50	15.00	29832
29833	100A ditto.....	630.90	44.20	11.50	15.00	29833
29834	60A three phases (4-wire).....	1,052.10	55.60	14.50	18.20	29834
29835	100A ditto.....	1,052.10	55.60	14.50	18.20	29835
29836	200A ditto.....	1,052.10	55.60	14.50	18.20	29836
29837	400A ditto.....	1,052.10	55.60	14.50	18.20	29837
29838	600A ditto.....	1,052.10	55.60	14.50	18.20	29838
29839	1000A ditto.....	1,052.10	55.60	14.50	18.20	29839
29840	2000A ditto.....	1,052.10	55.60	14.50	18.20	29840
	<b>Metal boxes for above KWH meters, approved type : -</b>					
29841	Up to 60A single phase.....	137.20	35.80	9.00	11.50	29841
29842	80A single phase.....	137.20	35.80	9.00	11.50	29842
29843	100A single phase.....	137.20	35.80	9.00	11.50	29843
29844	Up to 2000A three phases.....	137.20	35.80	9.00	11.50	29844
29845	Metal box for 4 nos. current transformers.....	145.40	44.20	11.50	15.00	29845
	<b>Measuring Current Transformer : -</b>					
29846	100/5A ratio.....	146.90	41.90	11.00	14.00	29846
29847	200/5A ratio.....	155.70	41.90	11.00	14.00	29847
29848	400/5A ratio.....	241.00	41.90	11.00	14.00	29848
29849	500/5A ratio.....	241.00	41.90	11.00	14.00	29849
29850	600/5A ratio.....	245.10	41.90	11.00	14.00	29850
29851	1000/5A ratio.....	249.80	41.90	11.00	14.00	29851
29852	2000/5A ratio.....	367.10	41.90	11.00	14.00	29852

Item	KWH METERS AND BOXES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Measuring Current Transformer (Split Type) : -</b>					
29853	100/5A.....	561.50	41.90	11.00	14.00	29853
29854	200/5A.....	561.50	41.90	11.00	14.00	29854
29855	400/5A.....	583.40	41.90	11.00	14.00	29855
29856	500/5A.....	583.40	41.90	11.00	14.00	29856
29857	600/5A.....	583.40	41.90	11.00	14.00	29857
29858	1000/5A.....	628.00	41.90	11.00	14.00	29858
29859	2000/5A.....	1,822.60	41.90	11.00	14.00	29859
	<i>Each</i>					
29860	60A neutral link for meter board loop wire.....	69.80	25.90	6.80	8.50	29860
	<b>TIME SWITCHES &amp; BOXES</b>					
	<i>Each</i>					
29861	20A (1 day).....	252.10	15.10	3.90	6.00	29861
29862	20A (7 day).....	463.50	15.10	3.90	6.00	29862
29863	30A (1 day).....	328.50	15.10	3.90	6.00	29863
29864	30A (7 day).....	502.50	15.10	3.90	6.00	29864
29865	Metal box for 20A/30A time switch.....	113.00	15.10	3.90	6.00	29865
29866	Quartz class changing bell timer as "National" TD-72 .....	3,547.30	170.70	44.90	55.80	29866
	<b>Time delay switch, surface type, adjustable for period 1 - 3 minutes : -</b>					
29867	5A.....	152.20	15.10	3.90	6.00	29867
29868	10A.....	152.20	15.10	3.90	6.00	29868
	<b>E.L.V. TERMINAL UNITS</b>					
	<i>Each</i>					
29869	Extra low voltage terminal unit with stainless steel sign plate, each unit shall incorporate a 13A BS1362 fuse.....	194.10	25.90	6.80	8.50	29869

Item	ELECTRICAL APPLIANCES	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
29870	Electric rice cooker for 10 persons.....	302.40	13.10	3.40	4.80	29870
29871	Electric rice cooker for 15 persons.....	412.10	13.10	3.40	4.80	29871
29872	Electric cooker 3 or 4 rings.....	2,773.30	88.60	23.70	30.00	29872
29873	Electric cooker 2 rings.....	1,208.90	53.00	14.10	17.70	29873
29874	Electric cooker control switch.....	333.40	24.70	6.60	8.20	29874
29875	Water heater, instantaneous, 6 kW, single phase.....	896.80	53.00	14.10	17.70	29875
29876	Water heater, instantaneous, 18 kW, three phases.....	1,443.30	53.00	14.10	17.70	29876
29877	Water heater, instantaneous, 24 kW, three phases.....	1,574.70	88.60	23.70	30.00	29877
29878	Water heater, storage, n.e. 10 litres, single phase.....	1,387.70	53.00	14.10	17.70	29878
29879	Water heater, storage, 13 litres, single phase.....	1,387.70	53.00	14.10	17.70	29879
29880	Water heater, storage, 25 litres, single phase.....	1,663.40	53.00	14.10	17.70	29880
29881	Water heater, storage, 38 litres, single phase.....	2,296.70	53.00	14.10	17.70	29881
29882	Water heater, storage, 57 litres, single phase.....	2,560.40	53.00	14.10	17.70	29882
29883	Water heater, storage, 90 litres, single phase.....	3,458.90	88.60	23.70	30.00	29883
29884	Water heater, storage, 135 litres, single phase.....	4,688.60	88.60	23.70	30.00	29884
29885	Water heater, storage, 135 litres, three phases.....	5,251.50	88.60	23.70	30.00	29885
29886	Water heater, storage, 150 litres, single phase.....	5,148.60	88.60	23.70	30.00	29886
29887	Water heater, storage, 150 litres, three phases.....	5,652.20	88.60	23.70	30.00	29887
29888	Tubular heater, 300 mm.....	113.50	28.30	7.70	9.70	29888
29889	Tubular heater, 600 mm.....	381.10	28.30	7.70	9.70	29889
29890	Tubular heater, 1200 mm.....	426.60	28.30	7.70	9.70	29890
29891	Kettle, 3.5 - 4.5 litre, 2 kW (max), single phase.....	265.10	13.10	3.40	4.80	29891
29892	Water boiler, 3 kW (max.), single phase.....	3,072.80	13.10	3.40	4.80	29892
29893	Tea urn, 18 litres.....	852.10	13.10	3.40	4.80	29893
29894	Electric fire, 1 kW (max.), wall mounted.....	185.50	36.30	9.70	12.10	29894



Item	ELECTRICAL APPLIANCES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
29895	Radiator, 1.5 kW (max.), oil filled.....	722.70	53.00	14.10	17.70	29895
29896	Radiator, 2 kW (max.), oil filled.....	768.90	53.00	14.10	17.70	29896
29897	Radiator, 3 kW (max.), oil filled.....	784.60	53.00	14.10	17.70	29897
29898	Radiator, 1 kW (max.), infra-red.....	346.10	53.00	14.10	17.70	29898
29899	Radiator, 1.5 kW (max.), infra-red.....	399.00	53.00	14.10	17.70	29899
29900	Radiator, 2 kW (max.), infra-red.....	399.00	53.00	14.10	17.70	29900
29901	Convactor heater, 1.2 kW (max.).....	595.90	53.00	14.10	17.70	29901
29902	Wall mounted fan heater, 2 kW (max.).....	377.40	53.00	14.10	17.70	29902
29903	Convection heater, heavy duty, wall mounted, 3 kW c/w temperature cut-out and thermostat as 'Galoritech' Series BX .....	4,775.40	53.70	14.40	17.90	29903
29904	Wall clock, 300 mm diameter, battery operated, quartz.....	220.80	13.10	3.40	4.80	29904
29905	Hand dryer.....	663.10	21.80	5.80	7.30	29905
29906	Hand/face dryer, with deflector for hand or face drying, heater rating not less than 2.2 kW.....	700.30	21.80	5.80	7.30	29906
29907	Wall mounted hair dryer.....	742.90	22.40	5.90	7.80	29907
29908	Domestic refrigerator, 170 - 250 litres (CFC free).....	2,499.10	53.00	14.10	17.70	29908
29909	Domestic refrigerator, 250 - 320 litres (CFC free).....	3,269.10	53.00	14.10	17.70	29909
29910	Domestic refrigerator, 320 - 370 litres (CFC free).....	3,898.30	53.00	14.10	17.70	29910
29911	Dehumidifier as 'Frigidaire' FD 395 P8 .....	2,261.20	53.70	14.40	17.90	29911
29912	Dehumidifier, modified type, 3 kW as 'Calorex' DH 150 .....	49,859.90	53.70	14.40	17.90	29912
29913	Ditto 6.7 kW as 'Calorex' DH 300 .....	95,138.20	53.70	14.40	17.90	29913
29914	Insect killer, single phase c/w twin 18W UV fluorescent tubes, effective area not less than 30 m <sup>2</sup> for indoor application .....	1,416.70	53.00	14.10	17.70	29914
29915	Ditto but weatherproof type for outdoor application.....	1,979.20	53.00	14.10	17.70	29915

**Section 30**

**ELECTRICAL INSTALLATION**

Item	TESTING		Item
	(Note : The following items are not applicable for new installation. It will only be paid for testing on existing installation if ordered by the Maintenance Surveyor in writing.)	Lot	
		A	
		\$	
	<b>Periodic testing and inspection of electrical installation</b>		
	Testing and inspection of electrical installation comprising rising mains, protective conductors, earthing facilities, power supplies to all communal services, but excluding main switch board, in accordance with the requirements as specified in Chapter 406, Electricity Ordinance and the latest edition of Code of Practice for Electricity (Wiring) Regulations published by Electrical and Mechanical Services Department and all subsequent amendments thereto issued prior to the date of tendering, and the provision of electrical schematic, test report and test certificate which should be certified by Registered Electrical Worker of the appropriate grade.		
	<i>Per item</i>		
	<b>Type of premises : Hospital, Clinic &amp; Child Care Centre with installed capacity of switch gear ( with rating in single phase or three phases ) : -</b>		
30001	Not exceeding 200A.....	4,361.10	30001
30002	200A - 400A.....	5,100.40	30002
30003	400A - 630A.....	5,897.90	30003
30004	630A - 800A.....	6,628.90	30004
30005	800A - 1200A.....	8,157.40	30005
30006	1200A - 1600A.....	10,425.20	30006
30007	1600A - 2000A.....	12,692.90	30007
30008	2000A - 2500A.....	15,700.00	30008
30009	2500A - 3000A (including interconnection circuit breaker if any) .....	18,707.10	30009

Item	TESTING (CONT'D)	Lot	Item
	<i>Per item</i>	A	
		\$	
	<b>Type of premises : - Police Stations, F.S. Stations &amp; Ambulance Depots with installed capacity of switch gear ( with rating in single phase or three phases ) : -</b>		
30010	Not exceeding 200A.....	4,195.00	30010
30011	200A - 400A.....	4,934.30	30011
30012	400A - 630A.....	5,665.30	30012
30013	630A - 800A.....	6,346.50	30013
30014	800A - 1200A.....	7,825.10	30014
30015	1200A - 1600A.....	9,976.60	30015
30016	1600A - 2000A.....	12,128.10	30016
30017	2000A - 2500A.....	15,018.90	30017
30018	2500A - 3000A (including interconnection circuit breaker if any).....	17,909.70	30018
	<b>Type of premises : Institution Buildings including Primary, Secondary and Vocational Training School with installed capacity of switch gear ( with rating in single phase or three phases ) : -</b>		
30019	Not exceeding 200A.....	3,680.00	30019
30020	200A - 400A.....	4,311.30	30020
30021	400A - 630A.....	4,934.30	30021
30022	630A - 800A.....	5,557.30	30022
30023	800A - 1200A.....	6,803.40	30023
30024	1200A - 1600A.....	8,730.60	30024
30025	1600A - 2000A.....	10,599.60	30025
30026	2000A - 2500A.....	13,091.70	30026
30027	2500A - 3000A (including interconnection circuit breaker if any).....	15,583.70	30027

Item	TESTING (CONT'D)		Item
		Lot	
	<i>Per item</i>	A	
		\$	
	<b>Type of premises : Office Building including Office, Carpark and Post Office with installed capacity of switch gear (with rating in single phase or three phases ) : -</b>		
30028	Not exceeding 200A.....	3,854.40	30028
30029	200A - 400A.....	4,535.60	30029
30030	400A - 630A.....	5,216.70	30030
30031	630A - 800A.....	5,839.80	30031
30032	800A - 1200A.....	7,143.90	30032
30033	1200A - 1600A.....	9,121.00	30033
30034	1600A - 2000A.....	11,106.30	30034
30035	2000A - 2500A.....	13,714.70	30035
30036	2500A - 3000A (including interconnection circuit breaker if any).....	16,323.10	30036
	<b>Type of premises : - Quarters with installed capacity of switch gear ( with rating in single phase or three phases ) : -</b>		
30037	Not exceeding 200A.....	3,680.00	30037
30038	200A - 400A.....	4,311.30	30038
30039	400A - 630A.....	4,934.30	30039
30040	630A - 800A.....	5,557.30	30040
30041	800A - 1200A.....	6,803.40	30041
30042	1200A - 1600A.....	8,730.60	30042
30043	1600A - 2000A.....	10,599.60	30043
30044	2000A - 2500A.....	13,091.70	30044
30045	2500A - 3000A (including interconnection circuit breaker if any).....	15,583.70	30045

Item	TESTING (CONT'D)		Item
		Lot	
	<i>Per item</i>	A \$	
	<b>Type of premises : Prison, Correctional Institution and Detention Centre with installed capacity switch gear (with rating in single phase or three phases) : -</b>		
30046	Not exceeding 200A.....	4,535.60	30046
30047	200A - 400A.....	5,324.70	30047
30048	400A - 630A.....	6,122.20	30048
30049	630A - 800A.....	6,911.30	30049
30050	800A - 1200A.....	8,498.00	30050
30051	1200A - 1600A.....	10,823.90	30051
30052	1600A - 2000A.....	13,208.00	30052
30053	2000A - 2500A.....	16,439.40	30053
30054	2500A - 3000A (including interconnection circuit breaker if any).....	19,496.30	30054
	<b>Type of premises : Municipal Building including Civic Centre, Community Centre, Culture Centre, Theatre, Swimming Pool, Market, Mortuaries, Cemeteries, Libraries, Indoor Game Hall with installed capacity of switch gear ( with rating in single phase or three phases ) : -</b>		
30055	Not exceeding 200A.....	3,397.50	30055
30056	200A - 400A.....	3,912.60	30056
30057	400A - 630A.....	4,477.40	30057
30058	630A - 800A.....	5,042.30	30058
30059	800A - 1200A.....	6,180.30	30059
30060	1200A - 1600A.....	7,825.10	30060
30061	1600A - 2000A.....	9,519.70	30061
30062	2000A - 2500A.....	11,787.50	30062
30063	2500A - 3000A (including interconnection circuit breaker if any).....	13,939.00	30063

Item	TESTING (CONT'D)	Lot	Item
	<i>Per item</i>	A	
		\$	
	<b>Type of premises : Factory Building including Workshop, D.G. Store, Laboratory and Plant with installed capacity of switch gear (with rating in single phase or three phases) : -</b>		
30064	Not exceeding 200A.....	3,630.10	30064
30065	200A - 400A.....	4,253.10	30065
30066	400A - 630A.....	4,818.00	30066
30067	630A - 800A.....	5,441.00	30067
30068	800A - 1200A.....	6,687.10	30068
30069	1200A - 1600A.....	8,498.00	30069
30070	1600A - 2000A.....	10,317.20	30070
30071	2000A - 2500A.....	12,751.10	30071
30072	2500A - 3000A (including interconnection circuit breaker if any).....	15,193.30	30072
	<b>Type of premises : Court with installed capacity of switch gear ( with rating in single phase or three phases ) : -</b>		
30073	Not exceeding 200A.....	3,854.40	30073
30074	200A - 400A.....	4,535.60	30074
30075	400A - 630A.....	5,216.70	30075
30076	630A - 800A.....	5,839.80	30076
30077	800A - 1200A.....	7,143.90	30077
30078	1200A - 1600A.....	9,121.00	30078
30079	1600A - 2000A.....	11,106.30	30079
30080	2000A - 2500A.....	13,714.70	30080
30081	2500A - 3000A (including interconnection circuit breaker if any).....	16,323.10	30081

Item	TESTING (CONT'D)	Lot	Item
	<i>Per item</i>	A	
		\$	
	<b>Type of premises : Prestige Buildings including Museums, Art Galleries, Legislative Council Buildings, Government House with installed capacity of switch gear ( with rating in single phase or three phases ) : -</b>		
30082	Not exceeding 200A.....	3,572.00	30082
30083	200A - 400A.....	4,136.80	30083
30084	400A - 630A.....	4,701.70	30084
30085	630A - 800A.....	5,324.70	30085
30086	800A - 1200A.....	6,520.90	30086
30087	1200A - 1600A.....	8,273.70	30087
30088	1600A - 2000A.....	10,034.70	30088
30089	2000A - 2500A.....	12,410.50	30089
30090	2500A - 3000A (including interconnection circuit breaker if any).....	14,794.60	30090
	<b>Type of premises : Miscellaneous Premises including Playground, Stadium, Sportsground, Park, Hawker Bazaars, Pier, Public Latrines, Bath House, etc. with installed capacity of switch gear ( with rating in single phase or three phases ) : -</b>		
30091	Not exceeding 200A.....	3,231.40	30091
30092	200A - 400A.....	3,738.10	30092
30093	400A - 630A.....	4,253.10	30093
30094	630A - 800A.....	4,818.00	30094
30095	800A - 1200A.....	5,839.80	30095
30096	1200A - 1600A.....	7,426.40	30096
30097	1600A - 2000A.....	9,013.00	30097
30098	2000A - 2500A.....	11,106.30	30098
30099	2500A - 3000A (including interconnection circuit breaker if any).....	13,208.00	30099



Item	TESTING (CONT'D)		Item
		Lot	
	<i>Per item</i>	A	
		\$	
	<b>Type of premises : Domestic quarter flats where all existing switchgear, wiring, lighting, power points, appliances, etc. are inspected and tested, and test certificate is issued to enable the new tenant to obtain electricity supply from Power Company upon change of tenancy (with useable floor area of quarter) : -</b>		
30100	Not exceeding 50 m <sup>2</sup> .....	938.70	30100
30101	50 m <sup>2</sup> - 100 m <sup>2</sup> .....	1,132.20	30101
30102	100 m <sup>2</sup> - 150 m <sup>2</sup> .....	1,352.40	30102
30103	150 m <sup>2</sup> - 200 m <sup>2</sup> .....	1,596.60	30103
30104	Over 200 m <sup>2</sup> .....	1,819.20	30104
	<b>Testing of each emergency lighting : -</b>		
30105	Testing and provision of written report of single battery emergency lighting fitting including a discharge test to the battery, for a minimum at the 10-hour discharge rate according to the latest edition of Code of Practice for Minimum Fire Service Installation and Equipment and Inspection, Testing and Maintenance of Installation and Equipment published by Fire Services Department and all amendment subsequent thereto issued prior to the date of tendering.....	92.70	30105
30106	Inspection of emergency lighting by registered fire service contractor.....	40.70	30106
30107	Issue of FS251 on certification of emergency lighting installation.....	505.90	30107
	<b>Testing of circuit : -</b>		
	<i>Per way or point</i>		
30108	Measurement of current, single phase current.....	77.30	30108
30109	Measurement of current, three phases current, not exceeding 400A .....	96.60	30109
30110	Measurement of current, three phases current, exceeding 400A .....	116.00	30110
30111	Electrical earth loop impedance testing per point.....	6.20	30111
	<i>Per installation</i>		
30112	Testing of power factor correction installation up to 240 kVAR including PF control relays, circuit protective devices, contactors and capacitors.....	1,854.80	30112
30113	Testing of power factor correction installation exceeding 240 kVAR including PF control relays, circuit protective devices, contactors and capacitors.....	2,473.10	30113

Item	MISCELLANEOUS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Isolating transformer comply with BS171 / IEC76, including submission of test certificates : -</b>					
30114	Not exceeding 5 kVA.....	8,836.70	2,202.00	587.50	734.60	30114
30115	5 - 25 kVA.....	23,601.50	3,303.40	880.70	1,101.10	30115
30116	25 - 50 kVA.....	40,514.50	5,154.30	1,334.70	1,668.10	30116
30117	50 - 100 kVA.....	52,094.20	6,607.50	1,761.90	2,202.30	30117
30118	Add to last item for each additional 50 kVA or part thereof .....	12,789.30	1,651.70	440.40	550.80	30118
	<b>Active harmonic filter</b>					
	<b>Active harmonic filter c/w current transformer, wiring and all necessary accessories; with total rms current rating (Arms) rating up to : -</b>					
	<i>Each</i>					
30119	50A..... (The actual rate should be : \$134,261.90 for Item 30119A)	13,426.19	2,692.90	1,346.50	1,788.60	30119
30120	100A..... (The actual rate should be : \$183,004.90 for Item 30120A)	18,300.49	3,456.60	1,788.60	2,230.70	30120
30121	300A..... (The actual rate should be : \$277,478.00 for Item 30121A)	27,747.80	3,878.70	2,009.70	2,914.00	30121
	<b>Surge protection device</b>					
	<b>Surge protection device c/w necessary cable and wiring, which shall be capable of diverting the following current levels : -</b>					
	<i>Each</i>					
30122	80A per phase.....	6,749.30	108.50	56.30	92.50	30122
30123	120A per phase.....	6,749.30	108.50	56.30	92.50	30123
30124	160A per phase.....	6,749.30	108.50	56.30	92.50	30124
30125	200A per phase.....	7,252.50	128.70	56.30	92.50	30125
30126	240A per phase.....	7,252.50	128.70	56.30	92.50	30126
30127	360A per phase.....	7,252.50	128.70	56.30	92.50	30127
30128	480A per phase.....	7,252.50	128.70	56.30	92.50	30128
30129	600A per phase.....	9,337.20	160.80	112.50	132.60	30129
30130	720A per phase.....	9,337.20	160.80	112.50	132.60	30130
30131	960A per phase.....	12,295.30	221.00	160.70	201.00	30131

Item	MISCELLANEOUS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Electronic power meter c/w current transformer, wiring and all necessary accessories, using in circuit current rating up to :-</b>					
30132	60A.....	16,821.10	1,728.30	1,125.40	1,567.50	30132
30133	100A.....	16,821.10	1,728.30	1,125.40	1,567.50	30133
30134	200A.....	18,632.20	1,728.30	1,125.40	1,567.50	30134
30135	400A.....	20,865.40	2,150.30	1,346.50	2,009.70	30135
30136	600A.....	20,865.40	2,150.30	1,346.50	2,009.70	30136
30137	800A.....	20,865.40	2,150.30	1,346.50	2,009.70	30137
30138	1000A.....	22,917.30	2,692.90	1,668.00	2,230.70	30138
30139	1600A.....	22,917.30	2,692.90	1,668.00	2,230.70	30139
30140	2250A.....	22,917.30	2,692.90	1,668.00	2,230.70	30140
	<b>Ceiling rose and connector</b>					
30141	Ceiling rose surface 2 or 3 terminal cordgrip pattern.....	39.10	21.30	7.00	8.40	30141
30142	Ditto, small cap type.....	30.60	20.60	5.40	6.70	30142
30143	Connector porcelain, single way.....	6.50	2.70	0.90	1.10	30143
30144	Connector porcelain, double way.....	7.40	2.70	0.90	1.10	30144
	<i>Per way</i>					
30145	Connector moulded with non-rotatable tinned brass inserts 5 - 10A.....	2.70	1.00	0.30	0.30	30145
30146	Ditto, 15 - 30A.....	3.30	1.00	0.30	0.30	30146

Item	MISCELLANEOUS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Sundries : -</b>					
30147	Provision of framed as-built drawing / safety instruction in an aluminium frame suitable for A2 size paper c/w 3mm thick clear plastic front sheet & wooden back plate.....	672.30	27.70	8.90	10.90	30147
30148	Ditto, for A3 size paper.....	569.10	20.80	6.70	8.10	30148
30149	Numbered ferrule for 1 core PVC cable per way.....	11.60	9.10	2.30	-	30149
30150	Label for distribution board per way.....	6.90	1.70	0.80	0.80	30150
30151	Coloured phase marker with circuitry.....	1.10	0.70	0.30	0.30	30151
30152	Traffolyte type warning notice for switch room, size 300 x 150 mm.....	110.20	15.60	4.40	5.50	30152
30153	Traffolyte type label with engraved English and Chinese lettering, size up to 0.006 m <sup>2</sup> .....	13.70	2.50	0.70	0.90	30153
30154	Warning label for different cable colour code.....	62.90	15.60	4.40	5.50	30154
30155	Label on next date of Periodic Inspection and Testing.....	30.90	2.50	0.70	0.90	30155
30156	Label on testing of residual current device.....	20.80	2.50	0.70	0.90	30156
	<b>Motor starter D.O.L. T.P. with enclosure</b>					
30157	15/30A.....	499.30	55.30	14.60	18.30	30157
30158	45A.....	876.60	67.30	17.80	21.70	30158
30159	60A.....	1,012.00	71.00	18.80	23.70	30159
30160	Packing gland for circular P.V.C. or T.R.S. flexible cord (1 mm <sup>2</sup> or 1.5 mm <sup>2</sup> ) brass, with compression ring as required .....	13.40	1.00	0.20	0.30	30160
	<i>Per piece</i>					
	<b>Heat-shrunk corrosion protection sleeve as "RAYCHEM L.P.S.M." standard length 450 mm suitable for pipe size of : -</b>					
30161	300/210 mm.....	597.00	59.80	15.80	19.80	30161
30162	255/150 mm.....	575.60	57.60	15.30	19.30	30162
30163	196/140 mm.....	541.90	54.60	14.30	17.80	30163
30164	165/127 mm.....	507.50	50.80	13.30	16.80	30164
30165	150/104 mm.....	460.80	46.40	12.30	15.30	30165

Item	MISCELLANEOUS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
30166	Auto transformer 15 kVA, single phase, 50 Hz, with 400/260/240/220V tappings.....	9,632.20	225.60	57.70	72.30	30166
30167	Auto transformer 25 kVA, single phase, 50 Hz, with 400/260/240/220V tappings.....	13,285.30	225.60	57.70	72.30	30167
30168	Auto transformer 45 kVA, three phases, 50 Hz, with 600/420/400/380/346V tappings.....	19,059.00	245.40	63.00	78.70	30168
	<b>Weatherproof stainless steel grade 316 metal box /chamber other than those item explicitly specified for housing electrical instrument, switches, relays, socket outlets, MCB units etc. with minimum thickness 1.6 mm for casing and 2 mm for front panel, and with hinged cover, lock and handle, viewing glass. Square or rectangular pattern, including all bends, ends, inlets, junctions, connections, flanged joints and the like of the following sizes in volume: -</b>					
30169	Not exceeding 0.005 m <sup>3</sup> .....	571.10	100.40	60.30	120.60	30169
30170	0.005 m <sup>3</sup> - 0.01 m <sup>3</sup> .....	632.70	100.40	60.30	120.60	30170
30171	0.01 m <sup>3</sup> - 0.03 m <sup>3</sup> .....	931.80	100.40	60.30	120.60	30171
30172	0.03 m <sup>3</sup> - 0.05 m <sup>3</sup> .....	1,338.30	128.60	100.50	160.70	30172
30173	0.05 m <sup>3</sup> - 0.1 m <sup>3</sup> .....	1,699.00	128.60	100.50	160.70	30173
30174	0.1 m <sup>3</sup> - 0.3 m <sup>3</sup> .....	4,181.80	201.00	160.70	221.00	30174
	<b>Galvanized sheet metal box/chamber other than those items explicitly specified for housing electrical instrument, switches, relays, socket outlets, MCB units etc. with minimum thickness 1.6 mm for casing and 2 mm for front panel, and with hinged cover, lock and handle, viewing glass, painted overall where necessary. Square or rectangular pattern, including all bends, ends, inlets, junctions, connections, flanged joints and the like of the following sizes in volume : -</b>					
30175	Not exceeding 0.005 m <sup>3</sup> .....	209.80	35.90	9.50	11.90	30175
30176	0.005 m <sup>3</sup> - 0.01 m <sup>3</sup> .....	229.70	35.90	9.50	11.90	30176
30177	0.01 m <sup>3</sup> - 0.03 m <sup>3</sup> .....	285.50	44.10	11.40	14.80	30177
30178	0.03 m <sup>3</sup> - 0.05 m <sup>3</sup> .....	439.80	54.60	14.40	18.00	30178
30179	0.05 m <sup>3</sup> - 0.1 m <sup>3</sup> .....	617.30	63.60	16.80	21.20	30179
30180	0.1 m <sup>3</sup> - 0.3 m <sup>3</sup> .....	1,356.20	91.20	24.20	30.60	30180

Item	MISCELLANEOUS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Weather proof galvanized sheet metal box/chamber other than those items explicitly specified for housing electrical instrument, switches, relays, socket outlets, MCB units etc. with minimum thickness 1.6 mm for casing and 2 mm for front panel, and with hinged cover, lock and handle, viewing glass, painted overall where necessary. Square or rectangular pattern, including all bends, ends, inlets, junctions, connections, flanged joints and the like of the following sizes in volume : -</b>					
30181	Not exceeding 0.005 m <sup>3</sup> .....	288.70	100.40	60.30	120.60	30181
30182	0.005 m <sup>3</sup> - 0.01 m <sup>3</sup> .....	313.30	100.40	60.30	120.60	30182
30183	0.01 m <sup>3</sup> - 0.03 m <sup>3</sup> .....	433.00	100.40	60.30	120.60	30183
30184	0.03 m <sup>3</sup> - 0.05 m <sup>3</sup> .....	612.50	128.60	100.50	160.70	30184
30185	0.05 m <sup>3</sup> - 0.1 m <sup>3</sup> .....	756.80	128.60	100.50	160.70	30185
30186	0.1 m <sup>3</sup> - 0.3 m <sup>3</sup> .....	1,793.30	201.00	160.70	221.00	30186
	<b>Emergency call system</b>					
30187	Emergency call system (without remote monitoring panel) c/w indicating lamp, buzzer unit, emergency pull/push button, call/reset unit and metal casing.....	2,391.60	252.80	62.30	66.50	30187
30188	Emergency call system c/w 1 no. emergency call bell panel and 1 no. outdoor emergency unit (c/w indicating lamp, buzzer unit, emergency pull/push button, call/reset unit and metal casing).....	6,026.00	394.80	120.50	126.30	30188
30189	Emergency call system c/w 2 nos. emergency call bell panel and 1 no. outdoor emergency unit (c/w indicating lamp, buzzer unit, emergency pull/push button, call/reset unit and metal casing).....	6,559.70	536.70	178.60	186.10	30189
30190	Control panel indicator lamp (any colour).....	9.70	5.30	1.70	2.10	30190
30191	Control panel buzzer unit.....	65.30	32.00	10.40	12.30	30191
30192	Emergency pull/push button, call/reset unit.....	312.00	139.40	58.10	59.80	30192
30193	Mains supply drinking water dispenser to IEC 60335-2-24 of 45.5 litres /hour chilled drinking water (water pipe connection measured separately).....	4,241.90	97.40	24.40	30.90	30193
30194	Schematic wiring diagram and operation instruction contained in framed transparent perspex, wall mounted and fixed.....	139.40	18.00	8.20	9.10	30194

Item	SIMPLIFIED ITEMS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<b>Section 1 : Installation by galvanized steel surface conduit system/concealed conduit system</b>					
	<i>Each</i>					
	<b>Lighting point (lighting switch to be measured separately): -</b>					
30195	Lighting point c/w trunking, conduit, cable, and all necessary accessories.....	324.10	-	62.40	-	30195
30196	Lighting point c/w trunking, conduit, OHLS cable, and all necessary accessories.....	344.10	-	62.40	-	30196
	Add 8% to either of Items 30195 to 30196 inclusive for provision of circuit protective conductor in full length of conduit, and another 8% for provision of additional cable to feed maintained light point					
	<b>Power point : -</b>					
	Power point c/w conduit, trunking, boxes, PVC cable and all necessary accessories (socket outlet, switch, fuse spur, connection unit, RCD and the like to be measured separately)					
30197	Single phase, 13A or below.....	451.10	-	76.00	-	30197
30198	Single phase, 15 - 30A.....	486.00	-	76.00	-	30198
30199	Single phase, 30 - 45A.....	654.00	-	76.00	-	30199
30200	Three phases, 45A.....	867.20	-	76.00	-	30200
	Add 13% to either of Items 30197 to 30200 inclusive for provision of circuit protective conductor in full length of conduit					
	Power point c/w conduit, trunking, boxes, OHLS cable and all necessary accessories (socket outlet, switch, fuse spur, connection unit, RCD and the like to be measured separately)					
30201	Single phase, 13A or below.....	486.30	-	76.50	-	30201
30202	Single phase, 15 - 30A.....	512.00	-	76.50	-	30202
30203	Single phase, 30 - 45A.....	743.60	-	76.00	-	30203
30204	Three phases, 45A.....	980.40	-	76.00	-	30204
30205	Extra over power point for twin type outlet.....	2.90	-	-	-	30205
	Add 16% to either of Items 30201 to 30204 inclusive for provision of circuit protective conductor in full length of conduit					
	<b>Telephone, LAN and services outlet point : -</b>					
30206	Telephone point c/w trunking, conduit, draw wire, blank plate, and all necessary accessories.....	308.50	-	48.90	-	30206
30207	LAN point c/w trunking, conduit, draw wire, blank plate, and all necessary accessories.....	308.50	-	48.90	-	30207
30208	Services outlet point c/w trunking, conduit, draw wire, blank plate, and all necessary accessories.....	308.50	-	48.90	-	30208

Item	SIMPLIFIED ITEMS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<b>Section 2 : Installation by PVC surface conduit system</b>					
	<i>Each</i>					
	<b>Lighting point (lighting switch to be measured separately): -</b>					
30209	Lighting point c/w trunking, conduit, PVC cable, and all necessary accessories .....	216.50	-	45.00	-	30209
	<b>Power point : -</b>					
	Power point c/w conduit, trunking, boxes, PVC cable and all necessary accessories (socket outlet, switch, fuse spur, connection unit, RCD and the like to be measured separately)					
30210	Single phase, 13 A or below.....	332.80	-	54.70	-	30210
30211	Single phase, 15 - 30A.....	358.40	-	54.70	-	30211
30212	Single phase, 30 - 45A.....	626.60	-	54.70	-	30212
30213	Three phases, 45A.....	804.00	-	54.70	-	30213
30214	Extra over power point for twin type outlet.....	1.70	-	-	-	30214
	<b>Telephone point : -</b>					
30215	Telephone point c/w conduit, telephone outlet and all necessary accessories. ....	148.70	-	27.60	-	30215
	<b>Section 3 : Installation by surface wiring system</b>					
	<i>Each</i>					
	<b>Lighting point (lighting switch to be measured separately): -</b>					
30216	Lighting point c/w cable, plastic pattress and all necessary accessories.....	99.40	-	25.70	-	30216
	<b>Power point</b>					
	Power point c/w cable, boxes, and all necessary accessories (socket outlet, switch, fuse spur, connection unit, RCD and the like to be measured separately)					
30217	Single phase, 13A or below.....	163.00	-	19.40	-	30217
30218	Single phase, 15 - 30A.....	185.20	-	19.40	-	30218
30219	Single phase, 30 - 45A.....	434.20	-	19.40	-	30219
30220	Three phases, 45A.....	576.40	-	19.40	-	30220
	<b>Section 4 : Miscellaneous items</b>					
	<i>Each</i>					
30221	Supplementary bonding to metal type ceiling grid, window frame and service pipes c/w box for wiring not exceeding 2 m.....	12.20	-	2.50	-	30221
30222	Weather proof metal box with glazed panel for energy meter of all rating.....	139.00	-	11.20	-	30222



Item	FANS & VENTILATION SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Ceiling fan, c/w regulator and down rod of any length including application of "Loctite grade 242" glue to all thread parts of the fan : -</b>					
30223	900 mm diameter.....	430.30	99.70	26.20	32.60	30223
30224	1200 mm diameter.....	460.00	105.70	29.60	34.60	30224
30225	1400 mm diameter.....	503.00	113.20	34.60	39.50	30225
30226	For existing ceiling fan only, application of rust inhibitor as "Loctite 242" to screw thread, of each ceiling fan down rod (taking down and refix ceiling fan, where required, measured separately).....	19.70	-	-	-	30226
	<b>Wall mounted fan, 3-speed c/w off pull switch and oscillation control pull switch, cord-operated : -</b>					
30227	400 mm diameter.....	398.30	55.10	14.30	18.00	30227
30228	500 mm diameter.....	799.50	62.70	19.80	22.20	30228
30229	600 mm diameter.....	998.70	70.20	22.20	24.70	30229
30230	630 mm diameter.....	1,066.80	72.60	23.00	25.50	30230
	<b>Orbital fan, ceiling or wall mounted c/w regulator : -</b>					
30231	400 mm diameter.....	564.80	67.90	20.20	23.20	30231
	<b>Regulator for fan : -</b>					
30232	Regulator for fan, 3 speed or above.....	166.10	29.40	7.90	9.90	30232
	<b>Domestic exhaust fan, wall mounted c/w automatic shutter : -</b>					
30233	150 mm diameter.....	258.20	60.40	15.80	19.80	30233
30234	250 mm diameter.....	275.50	60.40	15.80	19.80	30234
30235	300 mm diameter.....	335.60	60.40	15.80	19.80	30235
	<b>Domestic exhaust fan, wall mounted, louvre type : -</b>					
30236	200 mm diameter.....	293.70	74.00	19.30	24.20	30236
30237	250 mm diameter.....	312.90	74.00	19.30	24.20	30237
30238	300 mm diameter.....	379.80	74.00	19.30	24.20	30238

Item	FANS & VENTILATION SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-fix	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Commercial exhaust fan, wall mounted, louvre type, c/w solenoid operated automatic shutter : -</b>					
30239	150 mm diameter.....	817.90	60.40	15.80	19.80	30239
30240	230 mm diameter.....	1,137.70	60.40	15.80	19.80	30240
30241	300 mm diameter.....	1,504.90	60.40	15.80	19.80	30241
	<b>Exhaust fan, propeller type : -</b>					
30242	250 mm diameter.....	378.10	77.80	20.20	25.70	30242
30243	315 mm diameter.....	484.10	77.80	20.20	25.70	30243
30244	335 mm diameter.....	535.80	77.80	20.20	25.70	30244
30245	400 mm diameter.....	749.30	98.10	25.70	32.10	30245
30246	450 mm diameter.....	842.70	110.20	29.10	36.50	30246
30247	500 mm diameter.....	936.20	122.30	32.10	40.00	30247
30248	630 mm diameter.....	1,746.50	208.40	54.80	68.10	30248
30249	800 mm diameter.....	2,851.10	305.70	80.00	100.20	30249
	<b>Plate axial fan, wall mounted c/w speed controller : -</b>					
30250	315 mm diameter; speed 940 rev./min., sound level less than 39dBA.....	2,509.80	129.80	34.10	42.50	30250
30251	375 mm diameter; speed 940 rev./min., sound level less than 45dBA.....	3,024.80	162.30	42.50	53.30	30251
30252	450 mm diameter; speed 870 rev./min, sound level less than 50dBA.....	3,737.30	194.80	50.80	63.70	30252
30253	630 mm diameter; speed 650 rev./min., sound level less than 51dBA.....	5,063.50	326.10	84.90	106.10	30253
	<b>Fume cupboard exhaust fan : -</b>					
30254	152 mm diameter; speed 2550 rev./min.....	6,554.50	60.40	15.80	19.80	30254
30255	241 mm diameter; speed 1350 rev./min.....	7,264.60	64.20	27.20	32.10	30255
30256	241 mm diameter; speed 2650 rev./min.....	9,087.70	64.20	27.20	32.10	30256
30257	305 mm diameter; speed 1440 rev./min.....	10,916.70	70.20	32.10	39.00	30257

Item	FANS & VENTILATION SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Exhaust fan, axial, speed 700 rev/min., 380V/3 phases/50Hz. :-</b>					
30258	560 mm diameter, 1.5 m <sup>3</sup> /sec. air volume, 30 pa static pressure.....	5,073.10	158.50	41.50	51.80	30258
30259	600 mm diameter, 2.3 m <sup>3</sup> /sec. air volume, 40 pa static pressure.....	6,351.40	208.40	54.80	68.10	30259
30260	800 mm diameter, 5.0 m <sup>3</sup> /sec. air volume, 50 pa static pressure.....	7,908.10	306.50	80.00	100.20	30260
	<b>Wiremesh protective guard for fan (all types) :-</b>					
30261	250 mm diameter.....	85.00	55.90	14.80	18.30	30261
30262	315 mm diameter.....	88.20	55.90	14.80	18.30	30262
30263	335 mm diameter.....	93.20	56.60	15.30	18.80	30263
30264	400 mm diameter.....	98.00	59.60	15.80	19.80	30264
30265	450 mm diameter.....	110.40	67.20	17.80	22.20	30265
30266	500 mm diameter.....	116.80	68.70	18.30	22.70	30266
30267	630 mm diameter.....	136.90	71.70	18.80	23.70	30267
30268	800 mm diameter.....	174.80	74.00	19.30	24.20	30268
	<b>G.I. wall cowl for propeller fan :-</b>					
30269	250 mm diameter.....	93.80	55.90	14.80	18.30	30269
30270	315 mm diameter.....	98.10	55.90	14.80	18.30	30270
30271	335 mm diameter.....	104.30	56.60	15.30	18.80	30271
30272	400 mm diameter.....	107.80	59.60	15.80	19.80	30272
30273	450 mm diameter.....	121.40	67.20	17.80	22.20	30273
30274	500 mm diameter.....	129.00	68.70	18.30	22.70	30274
30275	630 mm diameter.....	150.00	71.70	18.80	23.70	30275
30276	800 mm diameter.....	195.10	74.00	19.30	24.20	30276
	<b>Air curtain c/w motor, blowers, grilles, control switch :-</b>					
30277	600 mm long.....	1,018.20	97.40	25.70	32.10	30277
30278	900 mm long.....	1,245.60	105.40	37.00	42.90	30278
30279	1200 mm long.....	1,450.90	113.20	49.40	64.20	30279

Item	BEDHEAD TRUNKING AND STAFF/EMERGENCY/NURSE CALL SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set-aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
30280	Bedhead Trunking, constructed from aluminium extrusions of minimum size 180 mm(H) x 90 mm(D), 3 compartments c/w front plate and panel to accommodate electrical and medical gas bedhead services .....	1,206.00	43.50	13.60	14.60	30280
30281	Ditto, size 250 mm(H) x 90 mm(D).....	1,402.00	45.00	14.10	15.10	30281
	<i>Each</i>					
30282	Right angle vertical bend for bedhead trunking.....	1,154.80	36.60	11.60	12.10	30282
30283	End cap for bedhead trunking.....	142.30	14.50	8.90	8.90	30283
30284	Bedhead 13A single socket .....	323.60	36.20	9.60	10.10	30284
30285	Bedhead 13A single socket (switched).....	334.60	36.20	9.60	10.10	30285
30286	Bedhead 13A twin socket.....	489.80	36.20	9.60	10.10	30286
30287	Bedhead 13A single socket c/w RCD.....	1,043.70	36.20	9.60	10.10	30287
30288	Bedhead 13A single socket c/w RCD (switched).....	1,054.80	36.20	9.60	10.10	30288
30289	Bedhead 13A twin socket c/w RCD.....	1,210.00	36.20	9.60	10.10	30289
30290	Bedhead 13A twin socket c/w RCD (switched).....	1,232.10	36.20	9.60	10.10	30290
30291	Bedhead single switch c/w fuse spur.....	434.40	36.20	9.60	10.10	30291
30292	Bedlight switch c/w bedlight mounting bracket.....	589.50	36.20	9.60	10.10	30292
30293	Bedhead staff call socket.....	79.80	36.20	9.60	10.10	30293
30294	Angle poise bedlight unit c/w trunking mounting bracket for 11W compact fluorescent lamp.....	2,430.30	73.80	19.50	20.50	30294
	<b>Bedhead trunking-mounted fluorescent luminaries : -</b>					
30295	400 mm length.....	1,576.90	87.80	15.10	15.60	30295
30296	600 mm length.....	1,764.20	88.50	15.10	15.60	30296
30297	1000 mm length.....	2,116.10	89.30	15.10	15.60	30297
	<b>Indicator lamp : -</b>					
30298	Overdoor indicator lamp (red).....	301.40	36.20	9.60	10.10	30298

Item	BEDHEAD TRUNKING AND STAFF/EMERGENCY/NURSE CALL SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set-aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Hard-wire staff/emergency/nurse call system : -</b>					
30299	Bedhead staff call push/reset.....	874.00	44.30	10.10	10.60	30299
30300	Bedhead nurse call/present/reset unit with reassurance indicator and handset jack socket.....	1,317.20	44.30	10.20	10.70	30300
30301	Bedhead nurse call/present/reset unit with reassurance indicator, emergency pull/push unit and handset jack socket .....	1,538.80	44.30	10.20	10.70	30301
30302	Bedhead RDS control station.....	1,686.40	36.50	9.70	10.20	30302
30303	Staff/emergency/nurse call panel c/w intercom.....	2,979.70	109.70	14.50	15.50	30303
30304	Nurse call/reset unit with reset push.....	902.00	73.00	12.10	12.60	30304
30305	Nurse call/reset unit with reassurance indicator.....	957.40	73.00	12.10	12.60	30305
30306	Nurse call/reset unit with reassurance indicator and emergency pull/push unit.....	1,180.50	74.60	12.60	13.10	30306
	<b>Nurse/staff/emergency call control &amp; monitoring console/panel for hard-wire system c/w intercom and wiring : -</b>					
30307	Up to 10 ways.....	5,239.50	439.10	72.30	77.30	30307
30308	10 - 20 ways.....	5,573.10	479.10	77.30	82.20	30308
30309	20 - 30 ways.....	6,016.50	519.00	82.20	87.20	30309
30310	30 - 40 ways.....	6,953.70	558.90	87.20	92.20	30310
	<b>Multiplexed/microprocessor staff/emergency/nurse call system : -</b>					
30311	Bedhead nurse call/present/reset unit with reassurance indicator, emergency pull/push unit and handset jack socket .....	1,815.80	44.30	10.10	10.60	30311
30312	Bedhead nurse call/present/reset unit with reassurance indicator, RDS control and handset jack socket .....	3,249.70	48.90	10.60	11.10	30312
30313	Bedhead nurse call/present/reset unit with reassurance indicator, emergency pull/push, RDS control and handset jack socket .....	3,471.20	48.90	10.60	11.10	30313
30314	Bedhead nurse call/present/reset unit with reassurance indicator, RDS control, intercom and handset jack socket .....	4,523.80	48.90	10.60	11.10	30314
30315	Bedhead nurse call/present/reset unit with reassurance indicator, emergency pull/push, RDS control, intercom and handset jack socket .....	4,745.40	48.90	10.60	11.10	30315
30316	Bedhead speaker microphone unit.....	1,309.70	36.20	9.60	10.10	30316

Item	BEDHEAD TRUNKING AND STAFF/EMERGENCY/NURSE CALL SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set-aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Multiplexed/microprocessor staff/emergency/nurse call system : - (Cont'd)</b>					
30317	Light dimmer; PCB type.....	1,099.20	36.20	9.60	10.10	30317
30318	Nurse call/present/reset unit.....	1,068.10	73.00	12.10	12.60	30318
30319	Nurse call/present/reset unit with reassurance indicator.....	1,123.60	73.00	12.10	12.60	30319
30320	Nurse call/present/reset unit with reassurance indicator and intercom.....	2,401.50	76.90	12.60	13.10	30320
30321	Nurse/staff/emergency call panel c/w touch screen control, intercom and wiring .....	56,393.20	479.10	59.80	74.80	30321
	<b>Nurse/staff/emergency call control &amp; monitoring console/panel for multiplexed/microprocessor system c/w intercom and wiring : -</b>					
30322	Up to 10 ways.....	7,850.10	479.10	77.30	82.20	30322
30323	10 - 20 ways.....	9,956.00	519.00	82.20	87.20	30323
30324	20 - 30 ways.....	12,484.30	558.90	87.20	92.20	30324
30325	30 - 40 ways.....	15,023.60	598.80	92.20	97.20	30325
30326	40 - 60 ways.....	24,776.80	678.70	102.20	107.20	30326
30327	Keyboard console, 70 ways c/w LCD display and intercom.....	43,581.00	838.40	109.70	119.60	30327
	<b>Control circuit c/w cables/wiring, trunking, conduits (surface or concealed in partition and ceiling) and all necessary accessories and connected to nurse/emergency/staff call control panel : -</b>					
30328	Nurse call point.....	326.30	264.20	59.20	64.20	30328
30329	Nurse present/reset point.....	335.60	271.80	59.70	64.70	30329
30330	Nurse call/present/reset point.....	344.90	279.30	60.20	65.20	30330
30331	Emergency call point.....	326.30	264.20	59.20	64.20	30331
30332	Emergency reset point.....	326.30	264.20	59.20	64.20	30332
30333	Emergency call/reset point.....	335.60	271.80	59.70	64.70	30333
30334	Staff call point.....	326.30	264.20	59.20	64.20	30334
30335	Staff reset point.....	326.30	264.20	59.20	64.20	30335
30336	Staff call/reset point.....	335.60	271.80	59.70	64.70	30336

Item	BEDHEAD TRUNKING AND STAFF/EMERGENCY/NURSE CALL SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set-aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>General items applicable to all bedhead trunking and staff/emergency/nurse call system : -</b>					
30337	Headset; stethoscope type c/w parking bracket/hood to bedhead trunking.....	216.00	7.60	2.00	3.00	30337
30338	Dummy handset jack plug.....	40.00	7.60	2.00	3.00	30338
30339	Nurse call handset c/w call button only.....	543.20	11.70	4.90	5.40	30339
30340	Nurse call handset c/w call button and RDS control.....	631.80	11.70	4.90	5.40	30340
30341	Nurse call handset parking bracket.....	48.30	15.20	4.90	5.40	30341
30342	Nurse call handset linen clip.....	26.20	15.20	4.90	5.40	30342
30343	Nurse call handset socket.....	47.40	15.20	4.90	5.40	30343
30344	Nurse call handset c/w call button, RDS control and intercom microphone.....	3,104.00	15.50	4.90	5.40	30344
30345	Nurse call handset/patient remote call unit with nurse call push, power supply unit, reassurance indicator, intercom, bedlight switch, sound channel selector, volume control and flexible cable.....	3,208.20	15.50	4.90	5.40	30345
30346	Staff call unit, vandal-proof push.....	292.60	73.00	12.10	12.60	30346
30347	Emergency call unit.....	713.60	73.00	12.10	12.60	30347
30348	Present/reset unit.....	292.60	73.00	12.10	12.60	30348
30349	Present/reset unit with emergency pull/push unit .....	817.90	77.70	12.60	13.10	30349
30350	Repeater unit with indicator and mute switch .....	884.30	77.70	12.60	13.10	30350
30351	Pull-cord type nurse call unit with reassurance indicator.....	237.20	73.00	12.10	12.60	30351
30352	Splash-proof nurse call unit with reassurance indicator.....	403.40	73.00	12.10	12.60	30352
30353	Splash-proof nurse call/present/reset unit with reassurance indicator.....	906.50	77.70	12.60	13.10	30353
30354	Splash-proof present/reset unit.....	651.60	77.70	12.10	12.60	30354
30355	RDS jack socket unit.....	123.50	15.20	4.90	5.40	30355
30356	Buzzer unit.....	367.90	36.20	9.60	10.10	30356
30357	Call indicator.....	234.90	36.20	9.60	10.10	30357
30358	Call indicator c/w buzzer unit.....	537.80	40.00	10.10	10.60	30358
30359	Power supply unit 220/24V or 220/28V for nurse/emergency/staff call system .....	9,505.80	138.50	24.70	27.20	30359

Item	SUNDRIES	Take down and clear away	Item
	<i>Per square metre</i>	A \$	
	<b>Labour to disconnect all existing electrical installation for an area, take down and clearing the entire electrical installation inside the area (area shall be measured net on the gloss floor area of the building covered by the electrical installation) : -</b>		
30360	for area up to 100 m <sup>2</sup> .....	20.60	30360
30361	for area 101 - 500 m <sup>2</sup> .....	19.80	30361
30362	for area above 500 m <sup>2</sup> .....	18.90	30362



**Section 31**

**LOW VOLTAGE CUBICLE SWITCHBOARD**

## LOW VOLTAGE CUBICLE SWITCHBOARD

## SPECIAL CONDITIONS

Measurement  
generally

- I. For the avoidance of doubt, all rates in this Section shall only apply to the works executed by Approved Suppliers of Materials and Specialist Contractors for Public Works : Low Voltage Cubicle Switchboard Installation.

Unless otherwise specified separately in items under this Section, switchboard cubicle shall be measured on the basis of complete unit.

All electrical and other related work items except those items specifically included in this Section shall be measured and paid for at the appropriate rates under Sections 27 to 30 - Electrical Installation or other applicable Work Sections of this Schedule.

Measurement  
of multi-cubicle  
type switchboard

- II. The multi-cubicle type switchboard shall consist of cubicle columns (items are included in this Section) to accommodate different arrangement of switchgear, protective and metering units. To facilitate payment, the basic cubicle column shall consist of two base types basing on their panel lengths : -

Type A Cubicle Column : cubicle length - 750mm to 900mm

The cubicle column with this length shall accommodate the major switchgear units, such as air circuit breakers (ACB), automatic changeover units, MCCBs, fuseswitches and overload and earth fault relays units for ACBs etc.. It may also accommodate some switch gear units of smaller ratings together with the major units in the same cubicle column as indicated in the Works Order.

Type B Cubicle Column : cubicle length - 350mm to 450mm

The cubicle column with this length shall accommodate largely the smaller switchgear units, such as MCCBs, fuseswitches, switchfuses, isolators etc. of smaller ratings.

The arrangement of a whole cubicle switchboard as specified by the Works Order shall be a combination of different cubicle columns with the abovementioned length types to suit different requirements as required by the Works Order. The rate for the combined switchboard cubicle shall be the summation of single and/or multiples of the rates of the cubicle columns items under this Section which also describes the requirements on the height and depth of the cubicle columns. The side end panels of the utmost left and right cubicle columns shall be deemed to be included in the rates.

## Rates generally

- III. The rates for all items shall generally include for : -
- (a) Colour band and colour identification work.
  - (b) Lettering and engraving for identification, signs, labels in both English and Chinese.
  - (c) Identification plates, signs, notice plates, discs and labels in both English and Chinese.
  - (d) Priming or painting off site and proprietary finishes or surface treatment applied as part of the production process whether applied before or after fabrication and assembly.
  - (e) All protective and finishing painting work, apart from additional painting work specifically ordered by the Maintenance Surveyor in writing which shall be measured separately and paid for at the appropriate rates under Section 15 - Painting of this Schedule.

**SPECIAL CONDITIONS (CONT'D)**

III.	<ul style="list-style-type: none"> <li>(f) Any kind of fixing method including drilling of the background and provision of all supporting frames, fixings, hangers, brackets, nails, bolts, nuts, holes, screws, plugs, shotfired pins and the like.</li> <li>(g) Assembling and jointing together with the component parts of composite units and providing any necessary jointing materials.</li> <li>(h) Provision of all indication lamps.</li> <li>(i) Earth/equipotential bonding.</li> <li>(j) Design and submission of design drawings and the like.</li> <li>(k) Submission of catalogues, technical literature, data, calculations, test certificates and approval documentation covering the equipment and materials being supplied.</li> <li>(l) Preparing and submitting detail working drawings as required and all shop drawings for the fabrication and installation.</li> <li>(m) Attendance, as required, of the manufacturers' representative to assist in the installation and subsequent testing and commissioning.</li> <li>(n) Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Tests.</li> <li>(o) Provision all necessary power, labour and testing instrument of approved type for testing and commissioning.</li> <li>(p) Preparing and submitting operation and maintenance manuals and as-fitted drawings for items of works as required.</li> <li>(q) Provision of schematic diagrams covered front and back with plastic sheet including fixing to wall.</li> <li>(r) Provision of complete set of spare fuses complete with spare fuse board as specified.</li> <li>(s) Provision of manufacturer's guarantee.</li> </ul>	<b>Rates generally (cont'd)</b>
IV.	<p>The rates for "Take down and clear away" or " Take down and set aside for re-use" existing items in connection with low voltage cubicle switchboard installation shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) Take down all associated building services works.</li> <li>(b) Plugging off remaining ends with plugs or caps as required.</li> <li>(c) Preparing remaining ends of building services works to receive connections with new work if required.</li> <li>(d) Making good all works disturbed.</li> </ul>	<b>Rates for "Take down and clear away" or "Take down and set aside for re-use"</b>
V.	The Particular Specification for low voltage cubicle switchboard can be found in the Contract.	<b>Particular Specification</b>

Item	LOW VOLTAGE CUBICLE SWITCHBOARD	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Multi-cubicle type switchboard, factory built assembly (suitable for incoming / outgoing cabling from top or bottom), height : 2 to 2.2 m, depth : 1 to 1.5 m c/w compartments for switchgear /busbars / cables, segregations, door/panels, indication labels, engraved labels, push buttons, selector switches, all interconnecting, control and ancillary wiring and fixings, earth terminals, rubber insulating mat, operating handles and all necessary accessories : -</b>					
31001	Type A cubicle column (750 - 900 mm).....	25,487.90	3,548.60	1,827.50	1,910.60	31001
31002	Type B cubicle column (350 - 450 mm).....	22,787.00	2,838.90	1,495.20	1,578.30	31002
	<b>Draw-out type air-circuit breaker c/w DC shunt trip coil/release, electrical and mechanical interlock device and keys, control wiring and all necessary accessories : -</b>					
31003	3000/3200A; 4-pole.....	35,119.10	1,818.60	1,038.40	1,121.40	31003
31004	2500A; 4-pole.....	29,295.90	1,774.30	996.80	1,079.90	31004
31005	2000A; 4-pole.....	27,690.60	1,774.30	996.80	1,079.90	31005
31006	1500/1600A; 4-pole.....	20,946.60	1,729.90	955.30	1,038.40	31006
31007	1200A; 4-pole.....	19,561.50	1,685.60	913.80	996.80	31007
31008	1000A; 4-pole.....	18,405.50	1,685.60	913.80	996.80	31008
31009	800A; 4-pole.....	16,896.20	1,685.60	913.80	996.80	31009
31010	600A; 4-pole.....	16,302.70	1,581.50	872.20	955.30	31010
31011	500A; 4-pole.....	16,302.70	1,581.50	872.20	955.30	31011
31012	400A; 4-pole.....	16,302.70	1,581.50	872.20	955.30	31012
31013	3000/3200A; 3-pole.....	29,905.40	1,818.60	1,038.40	1,121.40	31013
31014	2500A; 3-pole.....	24,720.00	1,774.30	996.80	1,079.90	31014
31015	2000A; 3-pole.....	22,472.00	1,774.30	996.80	1,079.90	31015
31016	1500/1600A; 3-pole.....	18,575.50	1,729.90	955.30	1,038.40	31016
31017	1200A; 3-pole.....	16,601.90	1,685.60	913.80	996.80	31017
31018	1000A; 3-pole.....	15,638.00	1,685.60	913.80	996.80	31018
31019	800A; 3-pole.....	13,579.60	1,685.60	913.80	996.80	31019
31020	600A; 3-pole.....	13,016.90	1,581.50	872.20	955.30	31020
31021	500A; 3-pole.....	13,016.90	1,581.50	872.20	955.30	31021
31022	400A; 3-pole.....	13,016.90	1,581.50	872.20	955.30	31022

Item	LOW VOLTAGE CUBICLE SWITCHBOARD (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Four-pole air-circuit breaker (ACB) for automatic transfer switch c/w DC shunt trip coil/release, electrical and mechanical interlock device and keys, control wiring and all necessary accessories : -</b>					
31023	2000A.....	25,399.50	3,427.00	1,619.80	1,702.90	31023
31024	1500/1600A.....	19,399.30	3,338.30	1,578.30	1,661.40	31024
	<b>Four-pole automatic changeover switch c/w E&amp;M interlock : -</b>					
31025	200A.....	5,178.70	278.20	123.00	130.40	31025
31026	300A.....	6,936.90	278.20	123.00	130.40	31026
	<b>Four-pole automatic changeover contactor c/w E&amp;M interlock : -</b>					
31027	400A.....	7,433.80	283.90	130.40	138.70	31027
31028	500A.....	9,288.30	283.90	130.40	138.70	31028
31029	600A.....	9,288.30	283.90	130.40	138.70	31029
31030	800A.....	11,926.10	288.30	132.10	141.20	31030
31031	1000A.....	17,303.00	288.30	132.10	141.20	31031
	<b>Moulded case circuit breaker (MCCB); breaking capacity 50 kA r.m.s. c/w shunt trip coil, wiring and all necessary accessories : -</b>					
	<b>Three-pole type : -</b>					
31032	32A to 63A.....	1,408.70	297.20	136.20	145.40	31032
31033	100A to 225A.....	1,930.70	297.20	136.20	145.40	31033
31034	225A to 400A.....	2,956.20	297.20	136.20	145.40	31034
31035	500A.....	4,037.10	329.10	144.50	153.70	31035
31036	600/630A.....	5,075.00	341.60	144.50	153.70	31036
31037	800A.....	5,862.90	341.60	144.50	153.70	31037

Item	LOW VOLTAGE CUBICLE SWITCHBOARD (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
	<b>Moulded case circuit breaker (MCCB); breaking capacity 50 kA r.m.s. c/w shunt trip coil, wiring and all necessary accessories : - (Cont'd)</b>	\$	\$	\$	\$	
	<b>Four-pole type : -</b>					
31038	100A to 225A.....	2,476.00	297.20	136.20	145.40	31038
31039	225A to 400A.....	3,921.30	297.20	136.20	145.40	31039
31040	500A.....	6,431.60	329.10	144.50	153.70	31040
31041	600/630A.....	6,431.60	341.60	144.50	153.70	31041
31042	800A.....	7,692.30	341.60	144.50	153.70	31042
	<b>Fuse-switch; TP&amp;N c/w fuses : -</b>					
31043	32A.....	555.90	245.40	108.00	116.30	31043
31044	63A.....	723.30	245.40	108.00	116.30	31044
31045	100A.....	879.70	245.40	108.00	116.30	31045
31046	200A.....	1,406.60	245.40	108.00	116.30	31046
31047	300A.....	2,737.50	288.10	116.30	124.60	31047
31048	400A.....	3,159.70	288.10	116.30	124.60	31048
31049	500A.....	4,313.40	330.80	124.60	132.90	31049
31050	600A.....	4,313.40	330.80	124.60	132.90	31050
	<b>Isolating switch; TP &amp; N : -</b>					
31051	32A.....	494.30	245.40	108.00	116.30	31051
31052	63A.....	594.00	245.40	108.00	116.30	31052
31053	100A.....	837.80	245.40	108.00	116.30	31053
31054	200A.....	1,315.50	245.40	108.00	116.30	31054
31055	300A.....	2,344.80	288.10	116.30	124.60	31055
31056	400A.....	2,811.30	288.10	116.30	124.60	31056
31057	500A.....	3,543.90	330.80	124.60	132.90	31057
31058	600A.....	3,543.90	330.80	124.60	132.90	31058

Item	LOW VOLTAGE CUBICLE SWITCHBOARD (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Sundries</b>					
31059	Electro-mechanical type earth fault relay (single element) c/w wiring and accessories.....	4,109.30	327.40	121.30	131.30	31059
31060	Electro-mechanical type overcurrent relay (three element) c/w wiring and accessories.....	9,301.10	434.70	169.50	179.40	31060
31061	Microprocessor-based digital protection relay c/w wiring and accessories.....	10,256.50	338.50	156.20	164.50	31061
31062	Secondary battery system comprising trickle type battery chargers, sealed Ni-Cd/Ni-MH batteries, voltmeter, ammeter and battery test facilities, for voltage rating below 50V D.C.....	6,003.80	623.70	238.40	253.40	31062
	<b>Power factor correction module; 25kVAr per stage control c/w capacitor banks, automatic switching facilities, fuses, control relays, contactors, ammeters and all necessary control accessories; wiring and interconnection with other devices for functioning : -</b>					
31063	150 kVAr.....	16,636.30	998.90	378.80	397.10	31063
31064	200 kVAr.....	21,541.90	1,316.50	498.40	517.50	31064
31065	250 kVAr.....	26,010.20	1,634.10	618.00	638.00	31065
31066	300 kVAr.....	30,271.90	1,951.70	737.70	758.40	31066
31067	Add to last item for each additional 50 kVAr.....	4,521.60	317.60	119.60	120.50	31067
	<b>Sundries</b>					
31068	Voltmeter and associated wiring.....	1,448.00	338.50	156.20	164.50	31068
31069	Ammeter and associated wiring.....	1,286.00	338.50	156.20	164.50	31069
31070	Power factor meter and associated wiring.....	1,286.00	338.50	156.20	164.50	31070
31071	Maximum demand indicating meter and associated wiring.....	822.90	210.30	107.20	115.50	31071
31072	Microprocessor based digital multifunction power meter c/w all necessary interconnection wiring for functioning.....	4,985.70	338.50	156.20	164.50	31072
31073	Microprocessor based digital power analyzer c/w all necessary interconnection wiring for functioning.....	1,920.30	338.50	156.20	164.50	31073
31074	Anti-condensation heaters and thermostats in switchboard c/w with wiring and accessories .....	1,152.30	434.70	169.50	179.40	31074
31075	Undervoltage relay.....	677.80	210.30	107.20	115.50	31075

Item	LOW VOLTAGE CUBICLE SWITCHBOARD (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Current transformer (for protection) including all wiring and accessories : -</b>					
31076	3200/5A.....	580.30	175.30	107.20	115.50	31076
31077	3000/5A.....	580.30	175.30	107.20	115.50	31077
31078	2500/5A.....	567.10	175.30	107.20	115.50	31078
31079	2250/5A.....	543.80	175.30	107.20	115.50	31079
31080	2000/5A.....	543.80	175.30	107.20	115.50	31080
31081	1600/5A.....	537.60	175.30	107.20	115.50	31081
31082	1500/5A.....	537.60	175.30	107.20	115.50	31082
31083	1200/5A.....	523.30	175.30	107.20	115.50	31083
31084	1000/5A.....	516.60	175.30	107.20	115.50	31084
31085	800/5A.....	511.40	175.30	107.20	115.50	31085
31086	600/5A.....	510.10	175.30	107.20	115.50	31086
31087	500/5A.....	510.10	175.30	107.20	115.50	31087
31088	400/5A.....	510.10	175.30	107.20	115.50	31088
31089	300/5A.....	510.10	175.30	107.20	115.50	31089
31090	200/5A.....	472.60	175.30	107.20	115.50	31090
	<b>Current transformer (for measurement) including all wiring and accessories : -</b>					
31091	3200/5A.....	545.60	175.30	107.20	115.50	31091
31092	3000/5A.....	545.60	175.30	107.20	115.50	31092
31093	2500/5A.....	516.60	175.30	107.20	115.50	31093
31094	2250/5A.....	487.50	175.30	107.20	115.50	31094
31095	2000/5A.....	487.50	175.30	107.20	115.50	31095
31096	1600/5A.....	387.10	175.30	107.20	115.50	31096
31097	1500/5A.....	387.10	175.30	107.20	115.50	31097
31098	1200/5A.....	387.10	175.30	107.20	115.50	31098
31099	1000/5A.....	387.10	175.30	107.20	115.50	31099



Item	LOW VOLTAGE CUBICLE SWITCHBOARD (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Current transformer (for measurement) including all wiring and accessories : - (Cont'd)</b>					
31100	800/5A.....	387.10	175.30	107.20	115.50	31100
31101	600/5A.....	371.90	175.30	107.20	115.50	31101
31102	500/5A.....	371.90	175.30	107.20	115.50	31102
31103	400/5A.....	350.60	175.30	107.20	115.50	31103
31104	300/5A.....	343.30	175.30	107.20	115.50	31104
31105	200/5A.....	341.10	175.30	107.20	115.50	31105
	<i>Per linear metre</i>					
	<b>Copper busbar, triple pole and full neutral, enclosed inside switchboard c/w insulation and all necessary accessories : -</b>					
31106	3000A.....	8,984.30	241.10	94.70	102.20	31106
31107	2500A.....	7,448.80	241.10	94.70	102.20	31107
31108	2000A.....	5,892.60	221.40	87.20	94.70	31108
31109	1500A.....	4,504.60	211.20	83.90	91.40	31109
31110	1000A.....	3,266.60	202.60	79.70	87.20	31110
31111	800A.....	2,951.30	192.40	75.60	83.10	31111
31112	600A.....	2,635.40	182.90	72.30	79.70	31112
31113	400A.....	2,317.30	172.70	68.10	73.90	31113
	<i>Each</i>					
31114	Portable earthing equipment for main incoming air circuit breaker.....	2,328.20	302.60	107.20	119.60	31114
31115	Hydraulic operated truck for handling air circuit breaker, and all necessary accessories.....	4,591.30	747.20	179.40	203.50	31115

**Section 32**

**EMERGENCY GENERATOR INSTALLATION**

## EMERGENCY GENERATOR INSTALLATION

## SPECIAL CONDITIONS

- |                                    |   |
|------------------------------------|---|
| <b>Measurement of power supply</b> | I. All works of electrical power supply up to power supply points (e.g. switchfuses or isolator or spur unit and the like) for the equipment shall be measured separately and paid for at the appropriate rates under Sections 27 to 30 - Electrical Installation or other applicable Work Sections of this Schedule.   |
| <b>Rates generally</b>             | <p>II. The rates for all items shall generally include for : -</p> <ul style="list-style-type: none"> <li>(a) Colour band and colour identification work.</li> <li>(b) Lettering and engraving for identification, signs, labels in both English and Chinese.</li> <li>(c) Identification plates, signs, notice plates, discs and labels in both English and Chinese.</li> <li>(d) Priming or painting off site and proprietary finishes or surface treatment applied as part of the production process whether applied before or after fabrication and assembly.</li> <li>(e) All protective and finishing painting work, apart from additional painting work specifically ordered by the Maintenance Surveyor in writing which shall be measured separately and paid for at the appropriate rates under Section 15 - Painting of this Schedule.</li> <li>(f) Any kind of fixing method including drilling of the background and provision of all fixings, hangers, nails, bolts, nuts, holes, screws, washers, plugs, shotfired pins and the like.</li> <li>(g) Assembling and jointing together with the component parts of composite units and providing any necessary jointing materials.</li> <li>(h) All brackets and methods of supports including supporting frames and anti-vibration mounting.</li> <li>(i) Provision of expansion joints in services runs wherever they coincide with structural expansion joints.</li> <li>(j) Submission of catalogues, technical literature, data, calculations, original official birth certificate, manufacturing certificates, official test certificate for major components and approval documentation covering the equipment and materials being supplied.</li> <li>(k) Preparing and submitting detail working drawings as required and all shop drawings for the fabrication and installation.</li> <li>(l) Attendance, as required, of the manufacturers' representative to assist in the installation and subsequent testing and commissioning.</li> <li>(m) Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Tests.</li> <li>(n) Provision of all necessary power, fuel, labour and testing instrument of approved type for testing and commissioning.</li> <li>(o) Submitting all relevant documentation to Fire Services Department and obtaining necessary approval.</li> <li>(p) Obtaining necessary approval from Environment Protection Department including submission of all relevant documentation.</li> </ul> |

**SPECIAL CONDITIONS (CONT'D)**

- |      |   |   |
|------|---|---|
| II.  | <ul style="list-style-type: none"> <li>(q) Preparing and submitting operation and maintenance manuals and as-fitted drawings for items of works as required.</li> <li>(r) Provision of schematic diagrams covered front and back with plastic sheet including fixing to wall.</li> <li>(s) Provision of manufacturer's guarantee. Submission of sample board for all materials and accessories, and supply of samples of materials for testing (including testing to destruction).</li> <li>(t) Submission of sample board for all compact sized materials and accessories, and supply of samples of materials for testing (including testing to destruction).</li> </ul>   | <b>Rates generally<br/>(cont'd)</b>         |
| III. | <p>The rates for generator set shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) All necessary assembly, orientation, alignment, levelling, lifting and bolting down facilities, together with the provision of shims and packing pieces, the clocking of couplings between drivers and rotating equipment, strainers, instrumentation and the like.</li> <li>(b) Electric starting equipment including starter motor, starting battery with hardwood stand and cover, battery charger and all necessary wiring and switchgear.</li> <li>(c) Alternator complete with exciter, automatic voltage regulator and termination box including insulation as specified.</li> <li>(d) Engine mounted instrument panel including gauges, tachometer and hourmeter.</li> <li>(e) Protective screens for flywheel and coupling (if exposed) and other exposed moving parts.</li> <li>(f) Engine cooling system including pumps, pipeworks and valves, regulating device, radiator with fan, heat exchanger, expansion tank if required, ductwork and silencers.</li> <li>(g) All necessary pipework and associated fittings for filling, overflow, outlet, drain, return and vent including necessary connection and jointing, valves, pipework hangers, supports, anchor and the like.</li> <li>(h) Engine exhaust system including fan, silencer, bellows, hangers with anti-vibration spring mechanism, pipework, ductwork, insulation, cladding, clamps, flange couplings, heat resisting jointing and the like.</li> <li>(i) All necessary operational and control accessories (e.g. selector switch, key switch, fuel control solenoid, relays, fuses, contactors, push button, indication lamp, meters and the like) that are required to put the generator set in proper operation.</li> <li>(j) Anti-vibration materials and sound insulation materials in generator set bases.</li> <li>(k) Earth/equipotential bonding.</li> <li>(l) All lubricating oil and greases, including initial charge and subsequent replenishment during warranty period.</li> </ul> | <b>Rates for<br/>generator set</b>          |
| IV.  | <p>The rates for fuel oil supply system shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) Daily services fuel tank complete with socket connections for filling, overflow, outlet, drain, return and vent including all necessary fittings, union couplings, strainer, valve and the like, content gauge unit, oil drip tray and all necessary accessories.</li> </ul>  | <b>Rates for fuel<br/>oil supply system</b> |

**SPECIAL CONDITIONS (CONT'D)**

**Rates for fuel  
oil supply system  
(cont'd)**

- IV. (b) All necessary pipework and associated fittings for filling, overflow, outlet, drain, return and vent including necessary connections and jointing with diesel resistant jointing materials, valves, pipework hangers, supports, anchor and the like.
- (c) Oil transfer pump, injection pump, oil hand pump, injectors and filter.
- (d) Dial gauge, float switch, quick closing mechanism comprising break glass unit, pull handle, pulley, steel wire rope and the like.
- (e) Mild steel stand and all necessary accessories required for the completion of the system.
- (f) Hydraulic test on the system including draining, drying and flushing all pipeworks, fittings and valves after the test.

**Rates for  
lifting hoist**

- V. The rates for lifting hoist shall further include for : -
- (a) Geared trolley, load chain, hooks with catch and ball or roller bearings.
- (b) Submission of test certificate for load chain.
- (c) Submission of test certificate for the lift hoist.
- (d) Structural calculation and surveyor's certificate of I-beam.

**Rates for  
acoustic  
treatment  
installation**

- VI. The rates for acoustic treatment installation shall further include for providing all necessary suitable acoustic treatment to achieve acceptable noise levels as specified, including : -
- (a) Pipework acoustic sleeving to all pipes penetrating building structure and provision of split clamping rings, resilient hangers and seals.
- (b) Acoustic treatment to walls, doors, louvres and ceiling of emergency generator room and provision of galvanized steel framing with fixing accessories, polyester membrane lining and protective perforated steel sheeting.
- (c) Duct silencers for ventilation fans, air inlet louvres, air discharge louvres, coupled radiator and all other air passage.
- (d) Mufflers for engine exhaust air system.

**Rates for "Take  
down and clear  
away" or "Take  
down and set aside  
for re-use"**

- VII. The rates for "Take down and clear away" or " Take down and set aside for re-use" existing items in connection with emergency generator set shall further include for :-
- (a) Take down all associated plumbing works and building services works.
- (b) Plugging off remaining ends with plugs or caps as required.
- (c) Preparing remaining ends of plumbing works and building services works to receive connections with new work if required.
- (d) Making good all works disturbed.

**Particular  
Specification**

- VIII. The Particular Specification for emergency generator set can be found in the Contract.

**EMERGENCY GENERATOR INSTALLATION**

**32001 - 32011**

Item	<b>EMERGENCY GENERATOR SET</b>				Item	
	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use		
	A	B	C	D		
	\$	\$	\$	\$		
	<i>Per item</i>					
	<b>Emergency generator installation comprising diesel engine, alternator, electrical starting system, cooling system, fresh air supply/exhaust air system, exhaust air ductwork, exhaust pipework with cladding and thermal insulation (each within 10m), intake/discharge silencers, protection device and all necessary accessories : -</b>					
32001	Not exceeding 100 kVA ..... (The actual rate should be : \$133,153.10 for Item 32001A)	13,315.31	6,301.30	2,105.20	2,329.20	32001
32002	100 - 150 kVA..... (The actual rate should be : \$235,030.10 for Item 32002A)	23,503.01	7,901.60	2,463.60	2,687.50	32002
32003	150 - 200 kVA..... (The actual rate should be : \$271,188.10 for Item 32003A)	27,118.81	8,951.90	2,620.30	2,844.30	32003
32004	200 - 250 kVA..... (The actual rate should be : \$308,324.40 for Item 32004A)	30,832.44	10,152.10	2,889.10	3,113.00	32004
32005	250 - 300 kVA..... (The actual rate should be : \$346,984.70 for Item 32005A)	34,698.47	10,552.20	2,933.90	3,157.80	32005
32006	300 - 350 kVA..... (The actual rate should be : \$390,156.30 for Item 32006A)	39,015.63	11,852.50	3,090.60	3,359.40	32006
32007	350 - 400 kVA..... (The actual rate should be : \$441,501.90 for Item 32007A)	44,150.19	11,852.50	3,090.60	3,359.40	32007
32008	400 - 450 kVA..... (The actual rate should be : \$522,817.60 for Item 32008A)	52,281.76	12,902.70	3,225.00	3,493.80	32008
32009	450 - 500 kVA..... (The actual rate should be : \$568,337.40 for Item 32009A)	56,833.74	12,902.70	3,225.00	3,493.80	32009
32010	500 - 550 kVA..... (The actual rate should be : \$654,929.40 for Item 32010A)	65,492.94	15,103.10	3,538.60	3,852.10	32010
32011	550 - 600 kVA..... (The actual rate should be : \$704,433.70 for Item 32011A)	70,443.37	15,103.10	3,538.60	3,852.10	32011

Item	EMERGENCY GENERATOR SET (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per linear metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Exhaust pipework c/w cladding, thermal insulation and necessary accessories : -</b>					
32012	for generator set n.e. 100 kVA .....	1,802.80	276.60	62.10	71.00	32012
32013	for generator set 100 - 150 kVA.....	1,976.80	276.60	62.10	71.00	32013
32014	for generator set 150 - 200 kVA.....	2,165.40	322.70	75.40	84.30	32014
32015	for generator set 200 - 250 kVA.....	2,283.50	322.70	75.40	84.30	32015
32016	for generator set 250 - 300 kVA.....	2,339.40	322.70	75.40	84.30	32016
32017	for generator set 300 - 350 kVA.....	2,704.20	414.90	97.60	115.30	32017
32018	for generator set 350 - 400 kVA.....	2,884.40	414.90	97.60	115.30	32018
32019	for generator set 400 - 450 kVA.....	3,744.20	461.00	106.50	124.20	32019
32020	for generator set 450 - 500 kVA.....	4,264.80	559.50	134.30	145.50	32020
32021	for generator set 500 - 550 kVA.....	4,946.00	645.40	150.80	177.40	32021
32022	for generator set 550 - 600 kVA.....	5,515.10	749.80	167.80	190.30	32022
	<i>Per item</i>					
	<b>Fuel oil supply system c/w necessary accessories : -</b>					
32023	for generator set n.e. 100 kVA .....	4,721.70	1,337.50	553.60	604.70	32023
32024	for generator set 100 - 150 kVA.....	5,905.00	1,671.60	686.20	748.00	32024
32025	for generator set 150 - 200 kVA.....	6,286.00	1,734.60	727.40	805.80	32025
32026	for generator set 200 - 250 kVA.....	6,687.20	1,868.90	783.30	861.70	32026
32027	for generator set 250 - 300 kVA.....	7,088.20	2,005.70	829.50	901.20	32027
32028	for generator set 300 - 350 kVA.....	10,664.50	2,386.60	972.90	1,044.60	32028
32029	for generator set 350 - 400 kVA.....	13,785.10	2,629.90	1,007.20	1,141.50	32029
32030	for generator set 400 - 450 kVA.....	16,250.10	2,801.00	1,116.20	1,187.90	32030
32031	for generator set 450 - 500 kVA.....	19,379.40	3,133.50	1,175.10	1,231.10	32031
32032	for generator set 500 - 550 kVA.....	22,353.70	3,272.00	1,263.10	1,334.80	32032
32033	for generator set 550 - 600 kVA.....	25,471.20	3,693.10	1,454.80	1,622.70	32033

Item	EMERGENCY GENERATOR SET (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per item</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Topping up of fuel oil tanks with fuel of 0.005% sulphur content and of capacity : -</b>					
32034	Not exceeding 300 litres .....	2,754.00	-	-	-	32034
32035	300 - 400 litres.....	3,672.00	-	-	-	32035
32036	400 - 500 litres.....	4,589.90	-	-	-	32036
32037	500 - 600 litres.....	5,507.90	-	-	-	32037
32038	600 - 700 litres.....	6,425.90	-	-	-	32038
32039	700 - 800 litres.....	7,343.90	-	-	-	32039
32040	800 - 900 litres.....	8,261.90	-	-	-	32040
32041	900 -1000 litres.....	9,179.90	-	-	-	32041
32042	Add to last item for each additional 100 litres or part thereof.....	918.00	-	-	-	32042
	<b>Lifting hoist c/w geared trolley and all necessary accessories : -</b>					
32043	for generator set n.e. 100 kVA .....	4,851.90	1,935.00	550.00	594.40	32043
32044	for generator set 100 - 150 kVA.....	6,010.40	2,423.50	683.10	736.30	32044
32045	for generator set 150 - 200 kVA.....	6,282.70	2,423.50	683.10	736.30	32045
32046	for generator set 200 - 250 kVA.....	6,576.80	2,686.50	762.90	825.00	32046
32047	for generator set 250 - 300 kVA.....	6,927.60	2,855.50	807.30	869.40	32047
32048	for generator set 300 - 350 kVA.....	8,066.30	3,400.40	963.40	1,038.00	32048
32049	for generator set 350 - 400 kVA.....	8,726.40	3,400.40	984.80	1,046.40	32049
32050	for generator set 400 - 450 kVA.....	9,414.50	3,511.80	1,007.20	1,063.20	32050
32051	for generator set 450 - 500 kVA.....	10,092.20	3,623.70	1,018.40	1,085.50	32051
32052	for generator set 500 - 550 kVA.....	10,806.40	3,738.50	1,036.20	1,117.80	32052
32053	for generator set 550 - 600 kVA.....	11,494.50	3,916.90	1,085.50	1,152.70	32053



Item	EMERGENCY GENERATOR SET (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per item</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Acoustic treatment installation to the whole emergency generator set; all as necessary to achieve the specified noise levels : -</b>					
32054	for generator set n.e. 100 kVA .....	31,299.50	9,390.80	2,666.80	2,711.10	32054
32055	for generator set 100 - 150 kVA.....	34,003.70	10,202.10	2,892.10	2,945.30	32055
32056	for generator set 150 - 200 kVA.....	36,707.90	11,013.40	3,117.40	3,179.50	32056
32057	for generator set 200 - 250 kVA.....	39,395.20	11,820.10	3,342.70	3,413.70	32057
32058	for generator set 250 - 300 kVA.....	42,081.70	12,625.80	3,568.10	3,639.10	32058
32059	for generator set 300 - 350 kVA.....	44,785.90	13,437.10	3,793.40	3,873.30	32059
32060	for generator set 350 - 400 kVA.....	47,490.00	14,248.40	4,018.70	4,115.50	32060
32061	for generator set 400 - 450 kVA.....	50,177.40	15,055.10	4,244.10	4,332.80	32061
32062	for generator set 450 - 500 kVA.....	52,881.60	15,866.40	4,469.40	4,558.10	32062
32063	for generator set 500 - 550 kVA.....	55,568.10	16,672.20	4,694.80	4,792.30	32063
32064	for generator set 550 - 600 kVA.....	58,272.20	17,483.50	4,920.10	5,017.70	32064
	<b>Electrical installation c/w all cabling and wiring works including sensor cables, motor starters, conduits and trunking from switches to the equipment, earthing system and all necessary accessories : -</b>					
32065	for generator set n.e. 100 kVA .....	5,604.60	4,318.10	1,388.50	1,478.10	32065
32066	for generator set 100 - 150 kVA.....	6,343.80	4,792.70	1,433.30	1,522.90	32066
32067	for generator set 150 - 200 kVA.....	6,343.80	4,792.70	1,433.30	1,522.90	32067
32068	for generator set 200 - 250 kVA.....	6,649.60	4,968.90	1,478.10	1,567.70	32068
32069	for generator set 250 - 300 kVA.....	6,957.70	5,165.00	1,478.10	1,567.70	32069
32070	for generator set 300 - 350 kVA.....	7,233.60	5,327.00	1,499.60	1,589.10	32070
32071	for generator set 350 - 400 kVA.....	7,513.50	5,490.70	1,522.90	1,612.50	32071
32072	for generator set 400 - 450 kVA.....	7,751.50	5,629.20	1,544.40	1,633.90	32072
32073	for generator set 450 - 500 kVA.....	7,992.50	5,769.90	1,567.70	1,657.30	32073
32074	for generator set 500 - 550 kVA.....	8,183.50	5,886.60	1,589.10	1,678.70	32074
32075	for generator set 550 - 600 kVA.....	8,388.60	6,002.50	1,612.50	1,702.10	32075

Item	EMERGENCY GENERATOR SET (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per item</i>	A	B	C	D	
		\$	\$	\$	\$	
32076	Control cubicle c/w switchgear, wiring, contactors, starters, relays, meters, air circuit breaker, switches, battery charger, push buttons, cable terminal box, safety and protection devices, timers, control equipment, indicator lights, alarm, rubber mats and all necessary accessories : - for generator set n.e. 100 kVA .....	8,201.20	2,285.00	694.30	739.10	32076
32077	for generator set 100 - 150 kVA.....	10,535.30	2,937.60	892.30	937.00	32077
32078	for generator set 150 - 200 kVA.....	10,535.30	2,937.60	892.30	937.00	32078
32079	for generator set 200 - 250 kVA.....	13,448.60	3,263.90	991.70	1,045.40	32079
32080	for generator set 250 - 300 kVA.....	13,448.60	3,263.90	991.70	1,045.40	32080
32081	for generator set 300 - 350 kVA.....	17,575.70	3,590.30	1,036.50	1,099.20	32081
32082	for generator set 350 - 400 kVA.....	17,575.70	3,590.30	1,036.50	1,099.20	32082
32083	for generator set 400 - 450 kVA.....	20,459.80	3,887.70	1,126.10	1,197.70	32083
32084	for generator set 450 - 500 kVA.....	20,459.80	3,887.70	1,126.10	1,197.70	32084
32085	for generator set 500 - 550 kVA.....	22,461.50	4,221.90	1,170.90	1,251.50	32085
32086	for generator set 550 - 600 kVA.....	22,461.50	4,221.90	1,170.90	1,251.50	32086

**Section 33**

**AIR-CONDITIONING, HEATING AND VENTILATION**

## AIR-CONDITIONING, HEATING AND VENTILATION

## SPECIAL CONDITIONS

(Note : The following special conditions shall apply equally where appropriate to rates under Sections 33 and 34)

<b>Measurement of power supply</b>	I.	All works of electrical power supply up to power supply points (e.g. MCB switchboard or switchfuses or isolator or spur unit and the like) for the equipment shall be measured separately and paid for at the appropriate rates under Sections 27 to 30 Electrical Installation or other applicable Work Sections of this Schedule.
<b>Measurement of water supply or gas supply</b>	II.	All works of water supply and gas supply up to the respective termination point for the equipment and boilers shall be measured separately and paid for at the appropriate rates under applicable Work Sections of this Schedule.
<b>Measurement of pipework</b>	III.	Pipework shall be measured in linear metres over all in-line fittings, short running lengths and branches (but not through items of in-line equipment, headers and trapping sets).
<b>Measurement of ductwork</b>	IV.	Ductwork rectangular in section shall be measured in square metres whereas ductwork circular and oval in section shall be measured in linear metres. All types of ductwork shall be measured over all in-line fittings, short running lengths and branches (but not through items of in-line equipment).  Ductwork rectangular in section shall be measured net as the area of sheet material fabricated. Allowance for seams, joints and the like has been included in the rates.
<b>Measurement of insulation to rectangular ductwork</b>	V.	Insulation to ductwork rectangular in section shall be measured in square metres and to the net area in contact with the base of all ducting as installed and over all ducting fittings and joints.
<b>Measurement of insulation to pipework</b>	VI.	Insulation to pipework shall be measured the diameter of the pipes to be insulated.
<b>Rates generally</b>	VII.	The rates for all items shall generally include for : -  (a) Colour band and colour identification work.  (b) Lettering and engraving for identification, signs, labels in both English and Chinese.  (c) Identification plates, signs, notice plates, discs and labels in both English and Chinese.  (d) Priming or painting off site and proprietary finishes or surface treatment applied as part of the production process whether applied before or after fabrication and assembly.  (e) All supports in outdoor environment shall be hot dipped galvanised and painted.  (f) All protective and finishing painting work, apart from additional painting work specifically ordered by the Maintenance Surveyor in writing which shall be measured separately and paid for at the appropriate rates under Section 15 - Painting of this Schedule.

**SPECIAL CONDITIONS (CONT'D)**

VII.	<ul style="list-style-type: none"> <li>(g) Any kind of fixing method including provision of screws, nuts, bolts, shims, washers, spring compensated and seismic restraints and isolated components and the like.</li> <li>(h) Provision of expansion joints in service runs wherever they coincide with structural expansion joints.</li> <li>(i) Submission of catalogues, technical literature, data, calculations, test certificates and approval documentation covering the equipment and materials being supplied.</li> <li>(j) Preparing and submitting detail working drawings and combined services drawings as required and all shop drawings for the fabrication and installation.</li> <li>(k) Attendance, as required, of the manufacturers' representative to assist in the installation and subsequent testing and commissioning.</li> <li>(l) Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Tests.</li> <li>(m) Provision of all necessary power, fuel, labour and testing instrument of approved type for testing and commissioning.</li> <li>(n) Submitting all relevant documentation to Fire Services Department and obtaining necessary approval.</li> <li>(o) Preparing and submitting operation and maintenance manuals and as-fitted drawings for items of works including soft copies as required.</li> <li>(p) Provision of schematic diagrams covered front and back with plastic sheet including fixing to wall.</li> <li>(q) Provision of manufacturer's guarantee.</li> <li>(r) Attend fault and complaint during defects liability period.</li> <li>(s) Disposal of waste materials shall meet statutory requirements.</li> </ul>	<b>Rates generally (cont'd)</b>
VIII.	<p>The rates for equipment (e.g. chillers, heat pumps, air handling units, fans, pumps, tanks, heat exchangers and the like) shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) All necessary assembly, orientation, alignment, levelling, lifting and bolting down facilities, together with the provision of shims and packing pieces, the clocking of couplings between drivers and rotating equipment, strainers, instrumentation and the like.</li> <li>(b) Supporting frames.</li> <li>(c) Connections including flexible joints between pipework and equipment.</li> <li>(d) Flexible connections between ductwork and equipment.</li> <li>(e) All necessary operational and control accessories (e.g. valves, gauges, flow meters, indicating lamps and the like) forming part of the equipment, connection and termination.</li> <li>(f) Condensate drain pipes forming part of the equipment.</li> <li>(g) Final connections and terminations to electrical supply, control and interfacing monitoring and water supply including cables, wirings, conduits, trunkings, cable trays, fuses, control boxes, pipework, valves, gauges and necessary accessories required to energize the equipment in operating properly at specified duties.</li> </ul>	<b>Rates for equipment</b>

## SPECIAL CONDITIONS (CONT'D)

Rates for equipment  
(cont'd)

- VIII. (h) Anti-vibration mountings for plant, machinery and the like.
- (i) Anti-vibration materials and sound insulating materials in plant and machinery bases, so that when the installed equipment are put into operation, the resulting noise and vibration level at location within building and at adjacent or nearby building shall not exceed the acceptable limit as promulgated by the latest statutory requirements of the Environmental Protection Department.
- (j) Thermal insulation for plant, machinery and the like if required.
- (k) Motor starters (if the equipment requires motor starters).
- (l) Earth/equipotential bonding.

Rates for  
pipework

- IX. The rates for pipework shall further include for :-
- (a) All short lengths, cutting and waste, and joints in the running length.
- (b) All pipework brackets, supports, hangers, guides, anchors and the like and alternative method of jointing and fixing as specified (if any).
- (c) All in-line pipework fittings (e.g. bends, elbows, branches, reducers, tees, caps and the like) including connections, cutting and jointing pipes to fittings.
- (d) Screwed sockets, tappings, bosses and welding-necks welded to pipes or flanges including perforating the pipework or flanges.
- (e) Connections between pipework of different materials and differing grades of same material.
- (f) Spring compensated components of pipework support.
- (g) Wall, floor and ceiling plates.
- (h) Trapping sets.
- (i) Any flanges, unions or other devices used solely for erection purposes.
- (j) All jointing including provision of flexible connections and/or necessary adaptors and connectors, welding consumable, jointing tapes, flanges, unions, gasket, bolts and nuts and the like where required.
- (k) Expansion loops and compensators including connections, cutting and jointing to pipes and fittings.
- (l) Provision of all sleeves for casting in or building in where pipes pass through slabs, walls or beams and caulking between pipe and sleeve where required.
- (m) Fixing in any position to floors, walls and ceilings and fixing in chases, ducts, false ceilings and similar positions.
- (n) Insulation to pipework and in-line fittings including working or cutting insulation around supports, joints, bends, tees and other fittings in pipework and provision of adhesive, sealing tapes and vapour barriers, and finishing with aluminium foil or cement plaster or metal cladding and painting as required.

**SPECIAL CONDITIONS (CONT'D)**

- |       |  |   |
|-------|--|---|
| X.    | The rates for ductwork (rectangular in section or circular or oval in section) shall further include for : -   | <b>Rates for ductwork generally</b>                   |
|       | <ul style="list-style-type: none"> <li>(a) All short length, cutting and waste, joints including stiffeners and flanges in the running length and forming openings for branches.</li> <li>(b) All connections to fittings, equipment and ancillaries including flexible connections and providing all necessary materials, bolts, nuts, washers, brackets, supports, hangers and everything necessary for making joints and connections.</li> <li>(c) Alternative method of jointing and fixing as specified (if any).</li> <li>(d) Connections between ductwork of differing materials.</li> <li>(e) Spring compensated components of ductwork support.</li> <li>(f) Ductwork turns, splitter damper, mid-feathers, air duct cleaning points, access doors and openings, test holes and covers, flashing plates, companion frames and the like.</li> <li>(g) In-line fittings (e.g. bends, branches, elbows, reducers, tees, air turning vanes and the like).</li> <li>(h) All necessary components for earth continuity as specified.</li> </ul> |   |
| XI.   | The rates for ductwork circular or oval in section shall, in addition to the appropriate sub-clauses of Clause X, include for insulation including working or cutting around supports, small drains, vents or similar obstructions, joints, bends, tees, duct fittings, stiffeners, access doors, ancillaries and the like, and provision of adhesive, sealing tapes and vapour barriers, and finishing with aluminium foil or cement plaster and painting or metal cladding as required.  | <b>Rates for ductwork circular or oval in section</b> |
| XII.  | The rates for insulation to ductwork rectangular in section shall further include for : -  | <b>Rates for insulation to rectangular ductwork</b>   |
|       | <ul style="list-style-type: none"> <li>(a) All fixings, adhesive, sealing tapes, vapour barriers and the like.</li> <li>(b) Forming laps, welts, cut outs, recesses and the like.</li> <li>(c) Pointing, sealing, trowelling smooth, chamfered and sealed edges and the like.</li> <li>(c) Working around supports, small drains, vents or similar obstructions.</li> <li>(d) Working around ducting fittings, stiffeners, joints, access doors, ancillaries and the like.</li> <li>(e) Forming of angles and all other labours.</li> <li>(f) Finishing with aluminium foil or cement plaster or metal cladding and painting as required.</li> </ul>   |   |
| XIII. | The rates for in-line pipework equipment (e.g. valves, flow meters, gauges, strainers and the like) shall further include for : -  | <b>Rates for in-line pipework equipment</b>           |
|       | <ul style="list-style-type: none"> <li>(a) Cutting and jointing to pipes and fittings.</li> <li>(b) Stripping down repacking glands and preparing spindles, as appropriate, before installation.</li> <li>(c) Insulation as required and provision of adhesive, sealing tapes and vapour barriers, and finishing with aluminium foil or cement plaster or metal cladding and painting as required.</li> </ul>  |   |

## SPECIAL CONDITIONS (CONT'D)

**Rates for supervisory/control panel**

- XIV. The supervisory / control panel shall be measured on the basis of complete unit monitoring and controlling 3 control points (or pieces of air conditioning equipment). Rates for supervisory / control panel shall further include for all necessary relays, indicating lamp, push button package, selector switches and interconnecting cable and cable facilities including conduits, trunkings, trays and the like between equipment and supervisory/control panel and/or for connecting to existing supervisory/ control panel as required.

For supervisory/control panel controlling more than 3 pieces of air conditioning equipment, the rate shall be the sum of the rate for the basic unit for 3 pieces of air conditioning equipment and the rate for additional equipment which shall be measured separately in accordance with the relevant items in these Sections 33 - 34. For this purpose, every set of pump (including one standby pump), condenser, condensation unit, air handling unit, package chiller, heat pump, contactor for a group of fans or fan coil units shall mean one piece of equipment. An evaporator and an outdoor condensing unit of a split unit shall also mean one piece of equipment.

**Rates for boilers**

- XV. The rates for boilers shall further include for : -

- (a) All necessary assembly, orientation, alignment, levelling, lifting and bolting down facilities, together with the provision of shims and packing pieces, strainers, instrumentation and the like.
- (b) Supporting frames.
- (c) Provision of associated components.
- (d) All necessary operational and control accessories (e.g. heat exchanger, air nozzle, valves, thermostat, control panels, gauges, pumps, switches and the like), connection and termination.
- (e) Thermal insulation.
- (f) Storage tank with copper lining internally and thermal insulation and decoration as specified externally.
- (g) Final connections and terminations to electrical supply, water supply and/or gas supply including cables, wirings, conduits, trunkings, cable trays, fuses, control boxes, pipework, valves, gauges and necessary accessories required to energize the equipment in operating properly at specified duties.
- (h) Earth/equipotential bonding.
- (i) Obtaining approval from Environmental Protection Department (if required).

**Rates for "Take down and clear away" or "Take down and set aside for re-use"**

- XVI. The rates for "Take down and clear away" or "Take down and set aside for re-use" existing pipework, ductwork, equipment, boiler and the like shall further include for where applicable : -

- (a) All in-line pipework fittings and in-line pipework equipment including brackets, supports, hangers and the like.
- (b) Cutting into existing pipework, ductwork and the like in position.
- (c) Preparing remaining ends to receive joints with new work if required.
- (d) Plugging off remaining ends with plugs or caps as required.



**SPECIAL CONDITIONS (CONT'D)**

XVI.	<p>(e) In the case of equipment, boiler and the like, taking down all associated plumbing works and/or building services works.</p> <p>(f) Making good all works disturbed.</p>	<p><b>Rates for "Take down and clear away" or "Take down and set aside for re-use" (cont'd)</b></p>																																
XVII.	<p>The rates for insulation to pipework shall further include for : -</p> <p>(a) Cutting into existing insulation to pipework in position.</p> <p>(b) Taking down existing insulation either in whole or in part as required.</p> <p>(c) All preparation work including preparing remaining ends to receive new insulation if required.</p> <p>(d) All fixings, adhesive, sealing tapes, vapour barriers and the like.</p> <p>(e) Forming laps, welts, cut outs, recesses and the like.</p> <p>(f) Pointing, sealing, trowelling smooth, chamfered and sealed edges and the like.</p> <p>(g) Working around supports, small drains, vents or similar obstructions.</p> <p>(h) Working around in-line fittings, joints and the like.</p> <p>(i) Forming of angles and all other labours.</p> <p>(j) Finishing with aluminium foil or cement plaster or metal cladding and painting as required.</p> <p>(k) Making good all works disturbed.</p>	<p><b>Rates for insulation to pipework</b></p>																																
XVIII.	<p>Cooling capacity shall be based on the following criteria except otherwise specified: -</p> <table border="0" style="width: 100%;"> <tbody> <tr> <td style="vertical-align: top;">(i)</td> <td style="vertical-align: top;">Condenser</td> <td style="vertical-align: top;">Condensing air temperature (for air-cooled chiller only)</td> <td style="vertical-align: top;">35°C</td> </tr> <tr> <td></td> <td></td> <td style="vertical-align: top;">Condensing water entering temperature (for water-cooled chiller only)</td> <td style="vertical-align: top;">29°C</td> </tr> <tr> <td></td> <td></td> <td style="vertical-align: top;">Condensing water leaving temperature (for water-cooled chiller only)</td> <td style="vertical-align: top;">34°C</td> </tr> <tr> <td style="vertical-align: top;">(ii)</td> <td style="vertical-align: top;">Chiller</td> <td style="vertical-align: top;">Chilled water return temperature</td> <td style="vertical-align: top;">12°C</td> </tr> <tr> <td></td> <td></td> <td style="vertical-align: top;">Chilled water leaving temperature</td> <td style="vertical-align: top;">7°C</td> </tr> <tr> <td style="vertical-align: top;">(iii)</td> <td style="vertical-align: top;">Air handling equipment</td> <td style="vertical-align: top;">Entering air on evaporator</td> <td style="vertical-align: top;">27°C DB 21°C WB</td> </tr> <tr> <td></td> <td></td> <td style="vertical-align: top;">Supply air</td> <td style="vertical-align: top;">13°C DB (Saturated)</td> </tr> <tr> <td style="vertical-align: top;">(iv)</td> <td style="vertical-align: top;">PAU</td> <td style="vertical-align: top;">Entering air</td> <td style="vertical-align: top;">33°C DB 28°C WB</td> </tr> </tbody> </table>	(i)	Condenser	Condensing air temperature (for air-cooled chiller only)	35°C			Condensing water entering temperature (for water-cooled chiller only)	29°C			Condensing water leaving temperature (for water-cooled chiller only)	34°C	(ii)	Chiller	Chilled water return temperature	12°C			Chilled water leaving temperature	7°C	(iii)	Air handling equipment	Entering air on evaporator	27°C DB 21°C WB			Supply air	13°C DB (Saturated)	(iv)	PAU	Entering air	33°C DB 28°C WB	<p><b>Cooling capacity criteria</b></p>
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**SPECIAL CONDITIONS (CONT'D)****Particular  
Specification**

- XIX. The Particular Specification for air-conditioning, heating and ventilation can be found in the Contract.

Item	UNITARY AIR CONDITIONERS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Air to air packaged air conditioner (refrigerant R22) c/w motors, compressors, filter, filter chamber, noise control equipment, copper tube with pre-corrosion resisting treated aluminium fins cooling, coils, condensers, blowers, starters, refrigerant, drain pan, emergency stop button, probe type smoke detector, local control panel.</b>					
	<b>Externally or internally mounted, of cooling capacity : -</b>					
33001	10 - 15 kW.....	13,248.70	675.70	175.90	194.00	33001
33002	15 - 21 kW.....	15,174.80	693.00	191.20	202.10	33002
33003	21 - 30 kW.....	24,078.60	706.20	196.20	221.00	33003
33004	30 - 50 kW.....	33,607.10	729.60	200.60	232.50	33004
	<b>Smoke detector and indicator</b>					
33005	Probe type duct mounted smoke detector & indicator (tripping power supply is connected to F.S. panel), access panel, including modification of existing duct work and air-conditioner's control panel .....	1,431.80	226.90	62.50	65.40	33005
	<b>Air to air packaged air conditioner (refrigerant zero ODP) c/w motors, compressors, filter, filter chamber, noise control equipment, copper tube with pre-corrosion resisting treated aluminium fins cooling coils, condensers, blowers, starters, refrigerant, drain pan, emergency stop button, probe type smoke detector, local control panel.</b>					
	<b>External or internally mounted, of cooling capacity : -</b>					
33006	10 - 15 kW.....	15,792.40	675.70	175.90	194.00	33006
33007	15 - 21 kW.....	19,856.70	693.00	191.20	202.10	33007
33008	21 - 30 kW.....	31,606.40	706.20	196.20	221.00	33008
33009	30 - 50 kW.....	40,214.00	729.60	200.60	232.50	33009
33010	50 - 61 kW.....	47,440.60	753.80	207.10	240.10	33010
33011	61 - 91 kW.....	58,271.50	778.80	207.20	248.10	33011

Item	UNITARY AIR CONDITIONERS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Air cooled packaged heat recovery chiller (refrigerant zero ODP) c/w motor, compressor, condenser, blower, noise control equipment, copper tube with pre-corrosion resisting treated copper fins evaporators, filter drier, water strainer, crank case heater, switch, muffler, refrigerant, oil separator, safety cutout, control metering device, temperature thermometers, starter, receiver, seamless copper tubing, weather-proof cabinet, emergency stop button.</b>					
	<b>Cooling capacity : -</b>					
33012	300 - 400 kW..... (The actual rate should be : \$643,820.40 for Item 33012A)	64,382.04	12,347.40	3,357.10	4,528.20	33012
33013	400 - 500 kW..... (The actual rate should be : \$697,454.20 for Item 33013A)	69,745.42	13,704.80	3,728.10	5,027.90	33013
33014	500 - 600 kW..... (The actual rate should be : \$808,633.90 for Item 33014A)	80,863.39	15,693.80	4,415.30	5,526.00	33014
33015	600 - 700 kW..... (The actual rate should be : \$982,085.10 for Item 33015A)	98,208.51	17,093.40	4,851.20	6,277.80	33015
33016	700 - 800 kW..... (The actual rate should be : \$1,088,622.00 for Item 33016A)	10,886.22	18,067.90	5,095.00	6,379.70	33016
33017	800 - 900 kW..... (The actual rate should be : \$1,177,351.00 for Item 33017A)	11,773.51	18,802.90	5,239.80	6,578.60	33017
	<b>Acoustic enclosure for above chillers : -</b>					
33018	300 - 400 kW.....	85,792.40	2,542.80	723.90	1,107.30	33018
33019	400 - 500 kW.....	95,758.40	3,011.50	834.60	1,193.80	33019
33020	500 - 600 kW..... (The actual rate should be : \$108,183.20 for Item 33020A)	10,818.32	3,584.50	946.90	1,378.70	33020
33021	600 - 700 kW..... (The actual rate should be : \$135,007.90 for Item 33021A)	13,500.79	4,208.20	1,108.20	1,545.90	33021
33022	700 - 800 kW..... (The actual rate should be : \$149,767.10 for Item 33022A)	14,976.71	4,711.70	1,257.80	1,893.10	33022
33023	800 - 900 kW..... (The actual rate should be : \$162,159.30 for Item 33023A)	16,215.93	5,233.00	1,385.50	2,096.30	33023

Item	UNITARY AIR CONDITIONERS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Air cooled packaged water chiller (refrigerant zero ODP) for external mounting c/w motors, compressors, condensers, blowers, noise control equipment, copper tube with pre-corrosion resisting treated copper fins, evaporators, filter drier, water strainer, capacity controller, liquid receivers, starters, refrigerant, weather-proof cabinet, emergency stop button, local control panel.</b>					
	<b>Cooling capacity : -</b>					
33024	up to 44 kW.....	61,710.70	3,643.50	987.90	1,198.90	33024
33025	44 - 68 kW.....	82,396.90	4,681.00	1,168.80	1,738.70	33025
33026	68 - 100 kW..... (The actual rate should be : \$120,336.40 for Item 33026A)	12,033.64	6,076.10	1,567.10	2,347.20	33026
33027	100 - 150kW..... (The actual rate should be : \$166,818.20 for Item 33027A)	16,681.82	6,454.70	1,943.00	2,890.80	33027
33028	150 - 200 kW..... (The actual rate should be : \$207,117.40 for Item 33028A)	20,711.74	7,841.60	2,429.00	3,467.20	33028
33029	200 - 300 kW..... (The actual rate should be : \$242,473.50 for Item 33029A)	24,247.35	8,713.70	2,577.00	3,769.10	33029
33030	300 - 350 kW..... (The actual rate should be : \$382,150.00 for Item 33030A)	38,215.00	9,270.40	3,122.70	4,167.50	33030
33031	350 - 450 kW..... (The actual rate should be : \$440,802.10 for Item 33031A)	44,080.21	10,517.90	3,687.60	5,057.20	33031
	<b>Acoustic enclosure for above chillers : -</b>					
33032	up to 100 kW.....	25,623.90	1,446.60	268.30	442.90	33032
33033	100 - 150 kW.....	35,485.70	1,575.30	321.50	546.10	33033
33034	150 - 200 kW.....	44,047.90	1,909.60	381.10	746.60	33034
33035	200 - 300 kW.....	51,451.50	2,006.40	459.40	858.40	33035
33036	300 - 350 kW.....	81,114.60	2,312.60	540.80	948.70	33036
33037	350 - 450 kW.....	98,954.60	2,445.10	654.70	1,055.70	33037

Item	UNITARY AIR CONDITIONERS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Air cooled packaged water chiller (refrigerant zero ODP) for external mounting c/w motors, 'scroll' compressor, condensers, blowers, copper tube with pre-corrosion resisting treated aluminium fins, evaporator, filter drier, water strainer, capacity controller, starters, refrigerant, weather-proof cabinet, emergency stop button, local control panel, expansion vessel and circulating pump set.</b>					
	<b>Cooling capacity : -</b>					
33038	up to 25 kW.....	46,580.10	3,844.30	821.90	1,052.40	33038
33039	25 - 45 kW.....	60,002.70	4,522.70	1,004.60	1,187.20	33039
33040	45 - 100 kW..... (The actual rate should be : \$144,479.20 for Item 33040A)	14,447.92	5,427.20	1,369.90	2,009.10	33040
33041	100 - 140 kW..... (The actual rate should be : \$165,159.90 for Item 33041A)	16,515.99	6,784.00	2,009.10	2,870.20	33041
33042	140 - 170 kW..... (The actual rate should be : \$183,734.40 for Item 33042A)	18,373.44	7,349.40	2,100.40	3,157.20	33042
33043	170 - 230 kW..... (The actual rate should be : \$241,462.80 for Item 33043A)	24,146.28	8,367.00	2,648.40	3,635.50	33043
	<b>Interfacing and control panel</b>					
33044	Interfacing and control panel for VRV system control; for chiller control and for computer room units control (stainless steel 316 for control of 1 to 2 items).....	7,337.60	406.80	103.40	179.70	33044

Item	UNITARY AIR CONDITIONERS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Air to air split type air conditioners (refrigerant zero ODP) of cooling capacity as specified (direct expansion)</b>					
	<b>Condensing units c/w motors, compressors, condenser, copper tubes and pre-painted anti-corrosion resin coated aluminium fins, blowers, filter drier, refrigerant, refrigerant pipework to the internally mounted AHU/FCU, starters, weather-proof cabinet, emergency stop button, liquid receivers.</b>					
	<b>Cooling capacity : -</b>					
33045	up to 14 kW.....	12,812.90	1,937.80	455.90	630.30	33045
33046	14 - 20 kW.....	16,247.10	2,147.30	500.80	672.20	33046
33047	20 - 30 kW.....	23,491.50	2,282.60	553.40	723.30	33047
33048	30 - 44 kW.....	32,064.50	2,442.20	613.70	769.20	33048
33049	44 - 58 kW.....	50,733.30	2,611.30	663.00	815.10	33049
33050	58 - 86 kW.....	65,237.90	2,808.60	734.20	884.00	33050
	<b>Internal mounted DX AHU/FCU of copper tube and pre-treated anti-corrosion aluminium fin cooling coil, c/w filter chamber, flexible connector, air filters, filter clog indicator, starters, emergency stop button, local control panel.</b>					
	<b>Cooling capacity : -</b>					
33051	up to 14 kW.....	5,987.20	711.10	139.20	230.80	33051
33052	14 - 20 kW.....	7,256.30	755.20	156.20	248.00	33052
33053	20 - 30 kW.....	9,164.50	798.40	164.40	254.90	33053
33054	30 - 44 kW.....	15,069.40	841.60	173.70	258.30	33054
33055	44 - 58 kW.....	19,675.60	885.80	191.80	275.00	33055
33056	58 - 86 kW.....	23,240.80	910.20	197.80	277.30	33056

Item	UNITARY AIR CONDITIONERS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Air to air split type room air conditioner (direct expansion type), (refrigerant zero ODP), indoor and outdoor unit (shall consist of copper tube and pre-treated anti-corrosion aluminium fins), refrigerant pipe work not exceeding manufacturer's maximum permitted length, refrigerant, local control panel.</b>					
	<b>Complete set with indoor unit of wall mounted type, cooling only</b>					
	<b>Cooling capacity : -</b>					
33057	2.6 - 3.5 kW.....	6,508.10	1,239.90	323.30	390.30	33057
33058	3.5 - 5.2 kW.....	8,909.10	1,333.80	350.70	419.10	33058
33059	5.2 - 6.5 kW.....	11,729.10	1,500.10	378.10	447.70	33059
33060	6.5 - 7.5 kW.....	13,855.10	1,585.60	405.50	476.50	33060
33061	7.5 - 9.5 kW.....	16,600.20	1,664.50	432.90	505.20	33061
33062	9.5 - 12 kW.....	20,695.10	1,756.50	460.30	533.90	33062
	<b>Complete set with indoor unit of ceiling suspended type, cooling only</b>					
	<b>Cooling capacity : -</b>					
33063	5 - 6.5 kW.....	11,617.60	1,578.10	411.00	487.90	33063
33064	6.5 - 7.5 kW.....	13,012.70	1,643.80	438.40	516.60	33064
33065	7.5 - 9 kW.....	16,176.50	1,690.80	465.80	545.30	33065
33066	9 - 11 kW.....	19,380.70	1,784.70	493.10	574.00	33066
33067	11 - 13 kW.....	23,031.10	1,878.70	547.90	631.40	33067
33068	13 - 17 kW.....	28,474.40	1,982.00	597.30	682.00	33068



Item	UNITARY AIR CONDITIONERS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Air to air split type room air conditioner (direct expansion type), (refrigerant zero ODP), indoor and outdoor unit (shall consist of copper tube and pre-treated anti-corrosion aluminium fins), refrigerant pipe work not exceeding manufacturer's maximum permitted length, refrigerant, local control panel. (Cont'd)</b>					
	<b>Complete set with indoor unit of ceiling cassette type, cooling only</b>					
	<b>Cooling capacity : -</b>					
33069	5 - 6 kW.....	12,039.60	1,317.40	400.00	459.20	33069
33070	6 - 8 kW.....	15,649.70	1,596.90	416.40	499.40	33070
33071	8 - 11 kW.....	21,149.40	1,765.90	476.70	545.30	33071
33072	11 - 13 kW.....	24,791.70	1,850.50	493.10	574.00	33072
33073	13 - 16.5 kW.....	32,003.80	1,935.00	553.40	637.20	33073
	<b>Complete set with indoor unit of wall mounted type; cooling/heating (reverse cycle heat pump)</b>					
	<b>Cooling and heating capacity : -</b>					
33074	6 - 8 kW (cooling) and 7.5 - 9 kW (heating).....	15,157.50	1,679.50	460.30	533.90	33074
33075	8 - 11 kW (cooling) and 9 - 11 kW (heating).....	21,045.90	1,853.30	515.10	591.30	33075
	<b>Complete set with indoor unit of ceiling suspended type, cooling/heating (heat pump)</b>					
	<b>Cooling and heating capacity : -</b>					
33076	6 - 8 kW (cooling) and 7.5 - 9 kW (heating).....	17,301.40	1,831.70	498.60	579.80	33076
33077	8 - 11 kW (cooling) and 9 - 11 kW (heating).....	23,008.20	1,982.00	613.70	706.10	33077
	<b>Complete set with indoor unit of ceiling cassette type, cooling/heating (heat pump)</b>					
	<b>Cooling and heating capacity : -</b>					
33078	6 - 8 kW (cooling) and 7.5 - 9 kW (heating).....	19,340.40	1,737.80	476.70	568.30	33078
33079	8 - 11 kW (cooling) and 9 - 11 kW (heating).....	26,203.00	1,935.00	569.90	648.70	33079
	<b>Panel housing gauges</b>					
33080	Panel housing gauges for split type A/C outdoor units (stainless steel 316 weatherproof).....	2,146.70	325.50	82.80	143.80	33080

Item	UNITARY AIR CONDITIONERS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Computer room air conditioning unit (direct expansion type with refrigerant zero ODP), indoor and outdoor unit (outdoor unit shall consist of copper pipes and pre-treated anti-corrosion aluminium fins) with electrode boiler humidifier, electric reheat, microprocessor control with local alarm and BMS interface provisions, high efficient filter, refrigerant pipework with length not exceeding manufacturer's maximum permitted length, local control panel. Operating room conditions are 22°C, 50% RH at ambient 35°C.</b>					
	<b>Cooling capacity : -</b>					
33081	up to 13 kW.....	52,129.70	2,296.10	547.90	717.50	33081
33082	13 - 26 kW.....	68,149.10	2,701.50	669.60	834.10	33082
33083	26 - 35 kW.....	79,608.70	2,883.70	732.00	907.00	33083
33084	35 - 50 kW.....	91,177.30	3,065.00	797.30	974.10	33084
33085	50 - 75 kW..... (The actual rate should be : \$119,660.60 for Item 33085A)	11,966.06	3,196.50	853.10	1,016.60	33085
	<b>Water detection system</b>					
33086	Water detection system with control panel providing audio and visual alarm, location of leak, connected to water-sensing cable for operation .....	17,831.10	869.80	254.20	275.50	33086
	<b>Per linear metre</b>					
33087	Water sensing cable complete with branch connector, zone connector, compatible with the above water detection system c/w all necessary mountings .....	198.20	24.10	2.70	6.20	33087
	<b>Per set</b>					
33088	Temperature and humidity recorder.....	4,505.10	39.60	4.90	6.20	33088

Item	UNITARY AIR CONDITIONERS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per set</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Variable refrigerant volume (VRV) system (refrigerant zero ODP)</b>					
	<b>Outdoor condensing units c/w insulated gate bipolar transistor type inverter or the equivalent, hermetic scroll compressor, anti-corrosion resin coated condensing fin, propeller fan, accumulator, high pressure switch, crank case heater, over current protection for inverter, short recycling timer and oil recovery system, refrigerant (zero ODP), refrigerant pipework (with length not exceeding manufacturer's maximum permitted length) to the indoor units, weather proof cabinet, emergency stop button, local control panel for operation.</b>					
	<b>Cooling and heating (heat pump), capacity : -</b>					
33089	up to 14 kW.....	50,941.90	2,448.80	565.50	688.80	33089
33090	14 - 20 kW.....	69,902.80	2,639.50	669.00	807.10	33090
33091	20 - 30 kW.....	73,366.80	2,846.20	771.00	923.60	33091
33092	30 - 44 kW.....	96,367.90	3,024.60	875.10	1,035.00	33092
33093	44 - 58 kW..... (The actual rate should be : \$125,172.80 for Item 33093A)	12,517.28	3,199.30	973.70	1,124.50	33093
33094	58 - 86 kW..... (The actual rate should be : \$171,043.20 for Item 33094A)	17,104.32	3,409.80	1,104.60	1,302.50	33094
	<b>Cooling only, capacity : -</b>					
33095	up to 14 kW.....	45,069.60	2,448.80	565.50	688.80	33095
33096	14 - 20 kW.....	54,910.40	2,639.50	669.00	807.10	33096
33097	20 - 30 kW.....	67,853.20	2,846.20	771.00	923.60	33097
33098	30 - 44 kW.....	89,996.50	3,024.60	875.10	1,035.00	33098
33099	44 - 58 kW..... (The actual rate should be : \$116,904.30 for Item 33099A)	11,690.43	3,199.30	973.70	1,124.50	33099
33100	58 - 86 kW..... (The actual rate should be : \$157,222.40 for Item 33100A)	15,722.24	3,409.80	1,104.60	1,302.50	33100
	<b>Panel housing gauges</b>					
33101	Panel housing gauges for VRV outdoor units (stainless steel 316 weatherproof).....	2,400.30	325.50	82.80	143.80	33101

Item	UNITARY AIR CONDITIONERS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per set</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Internal mounted direct expansion fan coil unit of copper tube aluminium fins coils c/w filter and chamber, air filter, filter clog indicator, electric expansion valve, thermostat, fan speed control unit, auto-swing mechanism, starters, drain pan, connection to outdoor condensing unit.</b>					
	<b>Ceiling cassette type/concealed type; cooling only</b>					
	<b>Cooling capacity : -</b>					
33102	up to 3.8 kW.....	8,743.50	441.50	101.90	114.20	33102
33103	3.8 - 5.8 kW.....	9,543.90	479.10	115.10	127.40	33103
33104	5.8 - 9.4 kW.....	11,624.80	517.60	126.00	138.90	33104
33105	9.4 - 14.5 kW.....	13,193.90	556.10	137.00	150.40	33105
33106	14.5 - 22.3 kW.....	17,074.40	794.40	205.50	233.90	33106
33107	22.3 - 29.1 kW.....	20,465.60	1,191.60	274.00	300.80	33107
	<b>Ceiling suspended type; cooling only</b>					
	<b>Cooling capacity : -</b>					
33108	up to 3.8 kW.....	8,281.90	392.60	85.50	94.10	33108
33109	3.8 - 5.8 kW.....	9,378.20	435.90	97.50	106.80	33109
33110	5.8 - 9.4 kW.....	9,681.20	480.00	110.10	116.00	33110
33111	9.4 - 14.5 kW.....	10,380.40	523.20	115.60	133.20	33111
	<b>Ceiling mounted ducted type, cooling only</b>					
	<b>Cooling capacity : -</b>					
33112	up to 3.8 kW.....	7,447.20	392.60	85.50	94.10	33112
33113	3.8 - 5.8 kW.....	8,137.30	435.90	97.50	106.80	33113
33114	5.8 - 9.4 kW.....	9,915.80	480.00	110.10	116.00	33114
33115	9.4 - 14.5 kW.....	11,258.70	523.20	115.60	133.20	33115
	<b>Exposed wall mounted type, cooling only</b>					
	<b>Cooling capacity : -</b>					
33116	up to 3.8 kW.....	7,962.70	329.80	71.80	79.10	33116
33117	3.8 - 5.8 kW.....	9,053.10	366.10	81.90	89.60	33117
33118	5.8 - 9.4 kW.....	9,349.90	403.20	92.50	97.40	33118
33119	9.4 - 14.5 kW.....	10,043.20	439.50	97.10	111.80	33119

Item	UNITARY AIR CONDITIONERS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per set</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Internal mounted direct expansion fan coil unit of copper tube aluminium fins coils c/w filter and chamber, air filter, filter clog indicator, electric expansion valve, thermostat, fan speed control unit, auto-swing mechanism, starters, drain pan, connection to outdoor condensing unit. (Cont'd)</b>					
	<b>Ceiling cassette type/concealed type; cooling and heating (heat pump)</b>					
	<b>Cooling and heating capacity : -</b>					
33120	up to 3.8 kW.....	9,340.70	441.50	101.90	114.20	33120
33121	3.8 - 5.8 kW.....	10,196.00	479.10	115.10	127.40	33121
33122	5.8 - 9.4 kW.....	12,423.10	517.60	126.00	138.90	33122
33123	9.4 - 14.5 kW.....	14,101.90	556.10	137.00	150.40	33123
	<b>Ceiling suspended type; cooling and heating (heat pump) : -</b>					
	<b>Cooling and heating capacity : -</b>					
33124	up to 3.8 kW.....	10,212.50	392.60	85.50	94.10	33124
33125	3.8 - 5.8 kW.....	10,661.20	435.90	97.50	106.80	33125
33126	5.8 - 9.4 kW.....	11,110.80	480.00	110.10	116.00	33126
33127	9.4 - 14.5 kW.....	11,788.20	523.20	115.60	133.20	33127
	<b>Ceiling mounted ducted type, cooling and heating (heat pump): -</b>					
	<b>Cooling and heating capacity : -</b>					
33128	up to 3.8 kW.....	7,955.00	392.60	85.50	94.10	33128
33129	3.8 - 5.8 kW.....	8,691.20	435.90	97.50	106.80	33129
33130	5.8 - 9.4 kW.....	10,594.20	480.00	110.10	116.00	33130
33131	9.4 - 14.5 kW.....	12,030.60	523.20	115.60	133.20	33131

Item	UNITARY AIR CONDITIONERS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Room cooler, (refrigerant R22) with drain pan</b>					
	<b>Cooling capacity : -</b>					
33132	up to 2.8 kW.....	2,943.90	285.60	55.90	70.60	33132
33133	2.8 - 3.7 kW.....	3,618.20	345.70	71.20	104.50	33133
33134	3.7 - 4.6 kW.....	4,114.20	379.50	94.80	130.90	33134
33135	4.6 - 5.5 kW.....	4,690.80	506.30	103.60	155.00	33135
33136	5.5 - 6.3 kW.....	5,853.20	555.10	133.20	206.70	33136
	<b>Room cooler, (refrigerant zero ODP), with drain pan</b>					
	<b>Cooling capacity : -</b>					
33137	up to 2.8 kW.....	3,483.20	285.60	55.90	70.60	33137
33138	2.8 - 3.7 kW.....	4,282.00	345.70	71.20	104.50	33138
33139	3.7 - 4.6 kW.....	4,871.30	379.50	94.80	130.90	33139
33140	4.6 - 5.5 kW.....	5,541.20	506.30	103.60	155.00	33140
33141	5.5 - 6.3 kW.....	6,927.60	555.10	133.20	206.70	33141

Item	UNITARY AIR CONDITIONERS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Cold room air conditioning unit (direct expansion type), indoor and outdoor unit c/w refrigerant (zero ODP), pipework not exceeding manufacturer's maximum permitted length, local control panel c/w 1 set point.</b>					
	<b>Cold room of not less than 2.5 m height at 35° C ambient and indoor condition of 0° C - 4° C : -</b>					
33142	Cold room size up to 10 m <sup>2</sup> ..... (The actual rate should be : \$222,641.10 for Item 33142A)	22,264.11	4,942.70	1,105.20	1,454.00	33142
33143	Cold room size 10 - 20 m <sup>2</sup> ..... (The actual rate should be : \$236,710.20 for Item 33143A)	23,671.02	5,385.20	1,265.70	1,609.60	33143
33144	Cold room size 20 - 30 m <sup>2</sup> ..... (The actual rate should be : \$272,605.70 for Item 33144A)	27,260.57	5,863.30	1,474.50	1,816.80	33144
33145	Cold room size 30 - 40 m <sup>2</sup> ..... (The actual rate should be : \$309,736.00 for Item 33145A)	30,973.60	6,368.60	1,605.50	2,004.50	33145
33146	Cold room size 40 - 50 m <sup>2</sup> ..... (The actual rate should be : \$346,815.00 for Item 33146A)	34,681.50	6,812.90	1,796.20	2,144.60	33146
33147	Cold room size 50 - 60 m <sup>2</sup> ..... (The actual rate should be : \$429,825.60 for Item 33147A)	42,982.56	7,244.10	1,918.30	2,396.00	33147
	<b>Air cooled rooftop unit c/w direct-driven, hermetic, scroll type compressor, FC centrifugal supply air fans, outdoor fans, motors, copper tube aluminium fins coil selection, 25mm throwaway filters, temperature sensors, remote human interface, refrigerant (zero ODP) fully charged, emergency stop button, local control panel. Supply and fix with standard delivery and lifting method, such as using goods lifts of the building. (Remark: extra cost for delivery in case good lifts are not available shall be quoted separately)</b>					
	<b>Nominal air flow rate and (cooling capacity) : -</b>					
33148	2.3 m <sup>3</sup> /s (44 kW) to 2.9 m <sup>3</sup> /s (50 kW).....	71,064.00	3,687.70	913.20	2,009.10	33148
33149	2.9 m <sup>3</sup> /s (50 kW) to 3.8 m <sup>3</sup> /s (69 kW).....	81,527.10	3,918.20	1,141.50	2,191.80	33149
33150	3.8 m <sup>3</sup> /s (69 kW) to 4.3 m <sup>3</sup> /s (88 kW)..... (The actual rate should be : \$108,049.80 for Item 33150A)	10,804.98	4,148.70	1,369.90	2,374.40	33150
33151	4.3 m <sup>3</sup> /s (88 kW) to 5.7 m <sup>3</sup> /s (126 kW)..... (The actual rate should be : \$139,892.80 for Item 33151A)	13,989.28	4,379.20	1,598.20	2,557.10	33151
33152	5.7 m <sup>3</sup> /s (126 kW) to 6.8 m <sup>3</sup> /s (149 kW)..... (The actual rate should be : \$173,897.30 for Item 33152A)	17,389.73	5,531.60	1,826.50	2,739.70	33152

Item	REFRIGERANT CIRCUIT	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Copper refrigerant pipes without insulation of pipe diameter : -</b>					
33153	9 mm.....	49.60	40.70	2.80	3.00	33153
33154	15 mm.....	66.10	47.30	2.90	3.10	33154
33155	18 mm.....	73.30	49.80	3.10	3.20	33155
33156	22 mm.....	79.50	53.10	3.60	3.70	33156
33157	28 mm.....	97.60	59.70	3.80	4.00	33157
33158	35 mm.....	126.20	63.90	4.30	4.50	33158
	<b>Copper refrigerant pipes c/w polystyrene insulation, cement plaster, painting and finish of pipe diameter : -</b>					
33159	9 mm.....	98.50	69.70	4.80	5.20	33159
33160	15 mm.....	124.40	81.30	5.10	5.50	33160
33161	18 mm.....	137.60	86.30	5.20	5.60	33161
33162	22 mm.....	147.80	91.30	6.00	6.50	33162
33163	28 mm.....	177.40	102.90	6.70	7.00	33163
33164	35 mm.....	221.90	111.20	7.30	7.70	33164
	<b>Copper refrigerant pipes c/w phenolic foam insulation of pipe diameter : -</b>					
33165	9 mm.....	80.60	48.10	3.40	3.60	33165
33166	15 mm.....	104.50	56.40	3.60	3.80	33166
33167	18 mm.....	117.60	59.70	3.60	3.90	33167
33168	22 mm.....	130.80	63.90	4.30	4.50	33168
33169	28 mm.....	157.70	71.40	4.60	4.80	33169
33170	35 mm.....	194.80	77.20	5.10	5.30	33170



Item	REFRIGERANT CIRCUIT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per linear metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Copper refrigerant pipes c/w phenolic foam insulation, cement plaster, painting and finish of pipe diameter : -</b>					
33171	9 mm.....	113.20	69.70	4.80	5.20	33171
33172	15 mm.....	143.10	81.30	5.10	5.50	33172
33173	18 mm.....	160.50	86.30	5.20	5.60	33173
33174	22 mm.....	177.20	91.30	6.00	6.50	33174
33175	28 mm.....	213.70	102.90	6.70	7.00	33175
33176	35 mm.....	262.30	111.20	7.30	7.70	33176
	<b>Copper refrigerant pipes c/w flexible closed cell elastomeric insulation of pipe diameter : -</b>					
33177	9 mm.....	71.10	48.10	3.40	3.60	33177
33178	15 mm.....	92.10	56.40	3.60	3.80	33178
33179	18 mm.....	102.20	59.70	3.60	3.90	33179
33180	22 mm.....	111.20	63.90	4.30	4.50	33180
33181	28 mm.....	133.50	71.40	4.60	4.80	33181
33182	35 mm.....	167.60	77.20	5.10	5.30	33182
	<i>Each</i>					
	<b>Refrigerant circuit accessories</b>					
	<b>Refrigerant stop valves for copper refrigerant pipe diameter : -</b>					
33183	9 mm.....	70.50	25.40	14.90	19.10	33183
33184	15 mm.....	121.00	29.90	17.60	21.80	33184
33185	18 mm.....	156.50	31.90	17.70	22.00	33185
33186	22 mm.....	209.80	35.00	18.20	22.40	33186
33187	28 mm.....	220.40	37.30	18.60	22.80	33187
33188	35 mm.....	332.80	40.80	19.10	23.50	33188

Item	REFRIGERANT CIRCUIT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Refrigerant solenoid valves for copper refrigerant pipe diameter : -</b>					
33189	9 mm.....	288.80	22.00	14.90	19.10	33189
33190	15 mm.....	342.60	25.80	17.60	21.80	33190
33191	18 mm.....	506.10	27.60	17.70	22.00	33191
33192	22 mm.....	723.70	29.80	18.20	22.40	33192
33193	28 mm.....	943.20	35.30	18.60	22.80	33193
33194	35 mm.....	1,319.60	38.50	19.10	23.50	33194
	<b>Cartridge refrigerant filter/dryer for copper refrigerant pipe diameter : -</b>					
33195	9 mm.....	59.00	22.00	14.90	19.10	33195
33196	15 mm.....	78.20	25.80	17.60	21.80	33196
33197	18 mm.....	152.80	27.60	17.70	22.00	33197
33198	22 mm.....	216.30	29.80	18.20	22.40	33198
33199	28 mm.....	491.30	35.30	18.60	22.80	33199
33200	35 mm.....	586.20	38.50	19.10	23.50	33200
	<b>Refrigerant oil separator for copper refrigerant pipe diameter : -</b>					
33201	9 mm.....	240.70	24.00	14.90	19.10	33201
33202	15 mm.....	391.00	28.20	17.60	21.80	33202
33203	18 mm.....	461.40	30.10	17.70	22.00	33203
33204	22 mm.....	530.80	32.50	18.20	22.40	33204
33205	28 mm.....	547.80	37.60	18.60	22.80	33205
33206	35 mm.....	613.90	40.70	19.10	23.50	33206
	<b>Refrigerant sight glass of copper refrigerant pipe diameter : -</b>					
33207	9 mm.....	85.80	24.00	14.90	19.10	33207
33208	15 mm.....	98.00	28.20	17.60	21.80	33208
33209	18 mm.....	110.90	30.10	17.70	22.00	33209
33210	22 mm.....	127.70	32.50	18.20	22.40	33210
33211	28 mm.....	145.10	37.60	18.60	22.80	33211
33212	35 mm.....	349.80	39.70	19.10	23.50	33212

Item	REFRIGERANT CIRCUIT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Liquid receiver c/w liquid level gauge, purge valve, pressure relief valve and accessories : -</b>					
33213	0.02 - 0.03 m <sup>3</sup> .....	1,222.00	28.20	13.80	15.10	33213
33214	0.03 - 0.14 m <sup>3</sup> .....	1,469.60	37.60	18.10	19.40	33214
33215	0.14 - 0.2 m <sup>3</sup> .....	1,832.20	41.30	20.20	21.50	33215
33216	0.2 - 0.3 m <sup>3</sup> .....	2,193.30	43.20	22.40	23.70	33216
33217	0.3 - 0.52 m <sup>3</sup> .....	3,396.10	48.80	24.50	25.80	33217
	<b>Gauges c/w stop valve : -</b>					
33218	Refrigerant high pressure gauge.....	153.50	28.20	17.60	21.80	33218
33219	Refrigerant low pressure gauge.....	153.50	28.20	17.60	21.80	33219
	<i>Per Kg</i>					
	<b>Refrigerant</b>					
33220	Refrigerant (R134a) c/w charging.....	60.20	12.90	-	-	33220
33221	Refrigerant (R22) c/w charging.....	33.70	12.90	-	-	33221
33222	Refrigerant (R407C) c/w charging.....	146.40	12.90	-	-	33222
33223	Refrigerant (R410C) c/w charging.....	190.10	12.90	-	-	33223
33224	Lubricating oil c/w charging.....	148.80	12.90	-	-	33224
	<i>Each</i>					
	<b>Hi /Lo pressure cut-out</b>					
33225	Hi /Lo pressure cut-out c/w manual reset.....	225.60	28.20	17.60	21.80	33225
	<i>Per linear metre</i>					
	<b>Aluminium metal cladding not less than 0.8mm for insulated refrigerant pipe work of diameter: -</b>					
33226	9 mm.....	48.90	7.20	0.40	0.50	33226
33227	15 mm.....	52.00	7.80	0.50	0.50	33227
33228	18 mm.....	53.90	8.60	0.50	0.60	33228
33229	22 mm.....	55.80	9.20	0.60	0.70	33229
33230	28 mm.....	58.90	9.90	0.70	0.80	33230
33231	35 mm.....	62.10	10.60	0.80	0.90	33231

Item	AIR HANDLING & TREATMENT EQUIPMENT	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Air handling units (chilled/hot water) of copper tube aluminium fin cooling / heating coil, c/w double skin insulated galvanized iron casing, motor, blower, water pipe work, filter chamber, pre-filters and high efficiency filters, starters, thermostat/humidistat, emergency stop button, probe type smoke detector, filter clog indicator, stainless steel drain pan, associated power and control wiring.</b>					
	<b>Nominal air supply rate : -</b>					
33232	up to 1 m³/s.....	16,304.40	974.90	214.00	318.70	33232
33233	1 - 2 m³/s.....	21,513.90	1,063.40	259.20	349.40	33233
33234	2 - 3 m³/s.....	27,524.30	1,182.50	268.30	402.10	33234
33235	3 - 4 m³/s.....	37,933.50	1,271.00	351.80	445.10	33235
33236	4 - 5 m³/s.....	44,090.40	1,348.30	389.60	484.30	33236
33237	5 - 6 m³/s.....	48,934.90	1,428.70	437.00	526.20	33237
	<b>Air handling units (chilled/hot water) of copper tube aluminium fin cooling /heating coil, c/w double skin insulated galvanized iron casing, dual motors, blower, water pipe work, filter chamber, pre-filters and high efficiency filters, starters, thermostat/humidistat, emergency stop button, probe type smoke detector, filter clog indicator, stainless steel drain pan, associated power and control wiring.</b>					
	<b>Nominal air supply rate : -</b>					
33238	up to 1 m³/s.....	22,768.80	974.90	214.00	318.70	33238
33239	1 - 2 m³/s.....	27,964.60	1,063.40	259.20	349.40	33239
33240	2 - 3 m³/s.....	33,959.30	1,182.50	268.30	402.10	33240
33241	3 - 4 m³/s.....	44,341.10	1,271.00	351.80	445.10	33241
33242	4 - 5 m³/s.....	50,481.80	1,348.30	389.60	484.30	33242
33243	5 - 6 m³/s.....	55,313.60	1,428.70	437.00	526.20	33243
	<b>Interlocking control panel</b>					
33244	Interlocking control panel for an AHU (ON/OFF function for the AHU is treated as one item) (stainless steel 316 for control of 1 to 2 items).....	2,146.70	325.50	82.80	143.80	33244

Item	AIR HANDLING & TREATMENT EQUIPMENT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Computer room air conditioning unit (chilled water type), unit shall consist of copper pipes and aluminium fins, with electrode boiler humidifier, electric reheat, microprocessor control with local alarm and BMS interface provisions, high efficient filter, local control panel. Operating cooling capacity rated at 7°C/12.5°C chilled water in/out temperature and 22°C, 50% RH.</b>					
	<b>Cooling capacity : -</b>					
33245	up to 15 kW.....	38,376.80	3,957.40	913.20	1,148.10	33245
33246	15 - 33 kW.....	51,815.30	4,522.70	1,095.90	1,530.80	33246
33247	33 - 64 kW.....	68,347.70	5,088.00	1,278.50	1,913.40	33247
33248	64 - 100 kW.....	90,944.50	5,653.30	1,461.20	2,296.10	33248
	<b>Air purifier unit, corona discharge type, c/w local control panel, removable electrode tubes, painted heavy steel power generator, remote control with regulator, stainless steel casing, fuse, on/off switch, safety door switches, auto-off-manual switch, hour run meter, ampere meter, power electrode assemblies.</b>					
	<b>Nominal air supply rate : -</b>					
33249	up to 0.5 m³/s.....	8,607.40	610.60	79.80	134.40	33249
33250	0.5 - 1 m³/s.....	12,695.60	641.10	85.20	139.80	33250
33251	1 - 2 m³/s.....	24,686.80	696.00	90.50	145.10	33251
33252	2 -3 m³/s.....	36,789.90	734.70	95.80	150.50	33252
33253	3 -4 m³/s.....	48,904.00	787.60	98.50	153.20	33253
33254	4 - 5 m³/s.....	61,012.60	833.40	101.10	155.90	33254
33255	5 - 6 m³/s.....	73,147.30	912.80	106.50	161.30	33255

Item	AIR HANDLING & TREATMENT EQUIPMENT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Ultra violet sterilizer; factory assembled and tested, capable of killing airborne microbial contaminants with 90% of removal efficiency, UV lamps with control circuit, power generator, lamp support and inspection, access door with safety switch, manual control and CCMS control, local control panel, on/off switch, overload protective device, auto-off-manual switch, hour run meter, ampere meter.</b>					
	<b>Nominal air supply rate : -</b>					
33256	up to 0.5 m³/s.....	10,240.30	572.00	63.90	107.50	33256
33257	0.5 - 1 m³/s.....	13,321.20	610.60	83.60	118.30	33257
33258	1 - 2 m³/s.....	17,612.50	692.00	93.70	152.10	33258
33259	2 -3 m³/s.....	29,691.50	733.70	109.70	181.10	33259
33260	3 -4 m³/s.....	34,585.20	785.60	124.60	208.60	33260
33261	4 - 5 m³/s.....	46,748.90	825.30	138.40	216.60	33261
33262	5 - 6 m³/s.....	51,623.50	852.80	156.50	255.30	33262
	<i>Per set</i>					
	<b>Air pressure stabilizer / air pressure control valves, imported proprietary manufacture, c/w high speed sealed-for-life ball bearings, adjustable centrally located balance weight mechanism.</b>					
	<b>Blade size 300 - 430 mm for number of : -</b>					
33263	1 blade.....	5,048.80	424.60	110.20	114.00	33263
33264	2 blades.....	8,642.00	491.30	116.60	121.50	33264
33265	3 blades.....	12,810.90	558.00	118.70	129.00	33265
33266	4 blades.....	16,946.30	585.20	132.00	140.80	33266
33267	5 blades.....	21,913.70	623.70	139.50	154.30	33267
	<b>Blade size 431 - 610 mm for number of : -</b>					
33268	1 blade.....	10,238.20	434.00	111.80	119.30	33268
33269	2 blades.....	14,408.70	502.50	120.30	131.70	33269
33270	3 blades.....	19,236.30	570.20	123.50	134.90	33270
33271	4 blades.....	23,942.60	591.80	134.10	146.70	33271
33272	5 blades.....	28,995.50	634.00	151.20	160.70	33272

Item	AIR HANDLING & TREATMENT EQUIPMENT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per set</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Air pressure stabilizer / air pressure control valves, imported proprietary manufacture c/w high speed sealed-for-life ball bearings, adjustable centrally located balance weight mechanism. (Cont'd)</b>					
	<b>2-hour fire rated; blade size 300 - 430 mm for number of : -</b>					
33273	1 blade.....	7,927.40	424.60	110.20	114.00	33273
33274	2 blades.....	14,399.10	491.30	116.60	121.50	33274
33275	3 blades.....	21,035.30	558.00	118.70	129.00	33275
33276	4 blades.....	26,815.60	585.20	132.00	140.80	33276
33277	5 blades.....	35,072.80	623.70	139.50	154.30	33277
	<b>2-hour fire rated; blade size 431 - 610 mm for number of : -</b>					
33278	1 blade.....	16,817.70	434.00	111.80	119.30	33278
33279	2 blades.....	22,633.10	502.50	120.30	131.70	33279
33280	3 blades.....	30,092.60	617.70	123.50	134.90	33280
33281	4 blades.....	37,512.90	641.10	134.10	146.70	33281
33282	5 blades.....	45,773.30	686.90	151.20	160.70	33282
	<i>Each</i>					
	<b>Chilled water fan-coil units of 4 rows copper tube aluminium fin cooling coils, c/w filters, chilled water pipes and condensate pans, thermostats c/w 3-speed regulator with selector for heating (if required) (main chilled water distribution pipes to be measured separately), a deduction of ten percent (10%) will be made to the rate involving supply of fan-coil units of 3 rows cooling coils.</b>					
	<b>Ceiling mounted, surface mounted c/w casing with nominal supply air rate : -</b>					
33283	up to 0.095 m <sup>3</sup> /s.....	3,733.20	632.20	107.50	196.70	33283
33284	0.095 - 0.142 m <sup>3</sup> /s.....	3,915.10	682.00	133.60	225.20	33284
33285	0.142 - 0.190 m <sup>3</sup> /s.....	4,187.10	716.70	163.40	246.20	33285
33286	0.190 - 0.284 m <sup>3</sup> /s.....	4,963.50	774.00	184.20	272.50	33286
33287	0.284 - 0.378 m <sup>3</sup> /s.....	5,696.70	821.90	207.60	291.30	33287
33288	0.378 - 0.473 m <sup>3</sup> /s.....	7,526.20	858.50	229.90	317.70	33288
33289	0.473 - 0.567 m <sup>3</sup> /s.....	8,165.70	898.90	258.70	345.10	33289
33290	0.567 - 0.659 m <sup>3</sup> /s.....	8,776.60	922.40	283.20	373.00	33290

Item	AIR HANDLING & TREATMENT EQUIPMENT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Chilled water fan-coil units of 4 rows copper tube aluminium fin cooling coils, c/w filters, chilled water pipes and condensate pans, thermostats c/w 3-speed regulator with selector for heating (if required) (main chilled water distribution pipes to be measured separately), a deduction of ten percent (10%) will be made to the rate involving supply of fan-coil units of 3 rows cooling coils. (Cont'd)</b>					
	<b>Ceiling mounted fan coil unit, concealed type without casing with nominal supply air rate : -</b>					
33291	up to 0.095 m <sup>3</sup> /s.....	2,647.70	655.70	120.30	204.30	33291
33292	0.095 - 0.142 m <sup>3</sup> /s.....	2,823.70	698.90	148.00	235.40	33292
33293	0.142 - 0.190 m <sup>3</sup> /s.....	2,999.80	742.10	176.70	261.20	33293
33294	0.190 - 0.284 m <sup>3</sup> /s.....	3,468.80	804.10	199.10	292.40	33294
33295	0.284 - 0.378 m <sup>3</sup> /s.....	3,853.10	848.20	212.40	313.40	33295
33296	0.378 - 0.473 m <sup>3</sup> /s.....	4,642.30	881.10	238.50	339.70	33296
33297	0.473 - 0.567 m <sup>3</sup> /s.....	5,022.50	920.50	266.10	365.50	33297
33298	0.567 - 0.659 m <sup>3</sup> /s.....	5,394.40	955.30	299.10	391.80	33298
	<b>Vertical floor/wall mounted fan coil unit, surface mounting c/w casing with nominal supply air rate : -</b>					
33299	up to 0.095 m <sup>3</sup> /s.....	3,730.90	550.50	67.10	145.10	33299
33300	0.095 - 0.142 m <sup>3</sup> /s.....	3,905.30	591.80	94.80	171.50	33300
33301	0.142 - 0.190 m <sup>3</sup> /s.....	4,208.90	622.80	110.20	192.40	33301
33302	0.190 - 0.284 m <sup>3</sup> /s.....	4,950.40	680.10	130.90	218.80	33302
33303	0.284 - 0.378 m <sup>3</sup> /s.....	5,683.60	728.00	154.40	237.60	33303
33304	0.378 - 0.473 m <sup>3</sup> /s.....	7,513.10	764.60	176.70	264.50	33304
33305	0.473 - 0.567 m <sup>3</sup> /s.....	8,096.00	805.00	205.50	291.30	33305
33306	0.567 - 0.659 m <sup>3</sup> /s.....	8,708.30	828.50	229.90	319.30	33306



Item	AIR HANDLING & TREATMENT EQUIPMENT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Chilled water fan-coil units of 4 rows copper tube aluminium fin cooling coils, c/w filters, chilled water pipes and condensate pans, thermostats c/w 3-speed regulator with selector for heating (if required) (main chilled water distribution pipes to be measured separately), a deduction of ten (10) percent will be made to the rate involving supply of fan-coil units of 3 rows cooling coils. (Cont'd)</b>					
	<b>Vertical floor/wall mounted fan coil unit, concealed type, without casing with nominal supply air rate : -</b>					
33307	up to 0.095 m <sup>3</sup> /s.....	3,139.10	585.20	80.90	169.90	33307
33308	0.095 - 0.142 m <sup>3</sup> /s.....	3,459.20	635.00	107.00	193.00	33308
33309	0.142 - 0.190 m <sup>3</sup> /s.....	3,627.80	669.70	136.80	224.70	33309
33310	0.190 - 0.284 m <sup>3</sup> /s.....	4,231.00	727.00	157.60	245.60	33310
33311	0.284 - 0.378 m <sup>3</sup> /s.....	4,618.60	774.90	181.00	266.10	33311
33312	0.378 - 0.473 m <sup>3</sup> /s.....	5,825.90	811.60	203.30	296.20	33312
33313	0.473 - 0.567 m <sup>3</sup> /s.....	6,276.00	852.00	232.10	318.20	33313
33314	0.567 - 0.659 m <sup>3</sup> /s.....	6,801.30	875.50	259.10	351.50	33314
	<b>Fan coil unit controller</b>					
33315	Fan coil unit controller c/w thermostat, 3-speed selector, wiring, conduit and all necessary accessories.....	490.10	67.60	11.70	14.50	33315
	<b>Cassette type, ceiling concealed type, c/w condensate drain pump, overflow indication and alarm, chilled water pipes, condensate pans, coils, filters, face panel with discharge and return air grilles, ceiling mounted with nominal supply air rate: -</b>					
33316	up to 0.17 m <sup>3</sup> /s.....	5,524.80	688.80	133.10	224.00	33316
33317	0.17 - 0.2 m <sup>3</sup> /s.....	6,144.70	772.30	177.40	268.80	33317
33318	0.2 - 0.34 m <sup>3</sup> /s.....	6,354.50	855.80	221.80	313.60	33318
33319	0.34 - 0.5 m <sup>3</sup> /s.....	6,564.30	939.30	266.10	358.30	33319
	<b>Cassette type, ceiling concealed type, c/w built-in heater, overheat protection device, condensate drain pump, overflow indication and alarm, face panel with discharge and return air grilles, coils, filters, chilled water pipes and condensate pans, ceiling mounted with nominal supply air rate: -</b>					
33320	up to 0.17 m <sup>3</sup> /s.....	5,729.90	688.80	133.10	224.00	33320
33321	0.17 - 0.2 m <sup>3</sup> /s.....	6,349.80	772.30	177.40	268.80	33321
33322	0.2 - 0.34 m <sup>3</sup> /s.....	6,559.60	855.80	221.80	313.60	33322
33323	0.34 - 0.5 m <sup>3</sup> /s.....	6,769.40	939.30	266.10	358.30	33323
	<b>Panel housing contactor and fused spurs</b>					
33324	Panel housing contactor and fused spurs for fan coil units (stainless steel 316, normal or weatherproof).....	2,146.70	325.50	82.80	143.80	33324

Item	AIR HANDLING & TREATMENT EQUIPMENT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Chilled water fresh air pretreating unit c/w blower, blower motor, cooling/heating coil of copper tube resin coated aluminium fins, double skin casing, insulated drip pan, thermostats/humidistat, filter chamber and filters, starter, emergency stop button, probe type smoke detector, filter clog indicator, chilled water pipework (main chilled water distribution pipes to be measured separately)</b>					
	<b>Nominal supply air flow rate: -</b>					
33325	up to 1 m <sup>3</sup> /s.....	21,972.70	782.80	212.90	295.60	33325
33326	1 - 2 m <sup>3</sup> /s.....	30,491.00	1,095.90	292.80	412.10	33326
33327	2 - 3 m <sup>3</sup> /s.....	34,301.30	1,231.60	328.20	465.80	33327
33328	3 - 4 m <sup>3</sup> /s.....	45,221.50	1,617.70	425.80	609.20	33328
33329	4 - 5 m <sup>3</sup> /s.....	51,698.00	1,847.30	487.90	698.80	33329
33330	5 - 6 m <sup>3</sup> /s.....	58,561.90	2,097.80	558.90	788.30	33330
	<b>Variable air volume equipment</b>					
	<b>VAV linear diffuser with acoustic air boot : -</b>					
33331	up to 0.1 m <sup>3</sup> /s.....	284.20	43.20	5.30	6.50	33331
33332	0.1 - 0.2 m <sup>3</sup> /s.....	334.30	44.20	5.90	7.00	33332
33333	0.2 - 0.3 m <sup>3</sup> /s.....	395.00	46.00	6.40	7.50	33333
33334	0.3 - 0.4 m <sup>3</sup> /s.....	467.60	47.90	6.90	8.10	33334
	<b>VAV multi-outlet air distribution box (octopus) connected to terminal box and ductwork : -</b>					
33335	up to 0.3 m <sup>3</sup> /s.....	223.00	47.00	6.40	7.50	33335
33336	0.3 - 0.4 m <sup>3</sup> /s.....	239.80	48.80	7.50	8.60	33336
33337	0.4 - 0.5 m <sup>3</sup> /s.....	257.20	50.70	8.50	9.70	33337
33338	0.5 - 0.6 m <sup>3</sup> /s.....	275.90	52.60	9.60	10.80	33338
	<b>VAV thermostatic controller</b>					
33339	VAV thermostatic controller c/w conduit, wiring and all necessary accessories.....	490.10	67.60	11.70	14.50	33339

Item	AIR HANDLING & TREATMENT EQUIPMENT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>VAV/CAV terminal box c/w insulation, acoustical baffles, damper regulating controller : -</b>					
33340	up to 0.3 m <sup>3</sup> /s.....	4,329.90	358.20	60.70	117.20	33340
33341	0.3 - 0.4 m <sup>3</sup> /s.....	4,614.20	361.30	61.70	118.30	33341
33342	0.4 - 0.5 m <sup>3</sup> /s.....	4,780.30	363.30	62.80	119.30	33342
33343	0.5 - 0.6 m <sup>3</sup> /s.....	4,947.20	366.30	63.90	120.40	33343
	<b>Desiccant type fresh air pre-conditioner c/w total energy wheel with desiccant coating, an exhaust fan motor, flanged collars, a fresh air and washable air filters in both fresh and exhaust streams, casings and mounting; hinged access open panel.</b>					
	<b>Nominal air supply rate : -</b>					
33344	up to 0.25 m <sup>3</sup> /s.....	28,045.80	851.70	310.80	323.50	33344
33345	0.25 - 0.5 m <sup>3</sup> /s.....	41,873.90	889.20	326.50	345.50	33345
33346	0.5 - 0.8 m <sup>3</sup> /s.....	57,380.90	908.40	335.60	363.40	33346
33347	0.8 - 1.4 m <sup>3</sup> /s.....	88,129.00	931.00	344.20	372.30	33347
33348	1.4 - 2 m <sup>3</sup> /s..... (The actual rate should be : \$103,713.50 for Item 33348A)	10,371.35	953.60	353.10	381.30	33348
33349	2 - 2.9 m <sup>3</sup> /s..... (The actual rate should be : \$114,783.10 for Item 33349A)	11,478.31	976.20	361.80	390.20	33349
33350	2.9 - 3.6 m <sup>3</sup> /s..... (The actual rate should be : \$131,379.50 for Item 33350A)	13,137.95	998.80	370.80	399.20	33350
	<b>Dry steam humidifier, steam injection type using electric elements/electrodes, automatic water level control, overflow protection and drain connection.</b>					
33351	up to 15 kg/hr.....	28,881.00	452.30	177.40	179.20	33351
33352	15 - 30 kg/hr.....	36,143.30	508.80	221.80	224.00	33352
33353	30 - 60 kg/hr.....	50,486.40	565.30	266.10	268.80	33353

Item	AIR HANDLING & TREATMENT EQUIPMENT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Paper plate type fresh air pre-conditioner c/w supply air fan, non-flammable heat exchange element, exhaust air fan and resin set (washable) filter, motor, flanged collars, indoor and outdoor temperature sensors, remote controller.</b>					
	<b>Nominal air supply rate : -</b>					
33354	up to 0.25 m <sup>3</sup> /s.....	44,355.60	1,503.80	425.80	492.70	33354
33355	0.25 - 0.5 m <sup>3</sup> /s.....	67,128.90	1,789.90	487.90	573.30	33355
33356	0.5 - 0.8 m <sup>3</sup> /s.....	89,900.60	2,073.90	579.10	677.80	33356
33357	0.8 - 1.4 m <sup>3</sup> /s..... (The actual rate should be : \$112,700.60 for Item 33357A)	11,270.06	2,394.40	664.30	790.10	33357
33358	1.4 - 2 m <sup>3</sup> /s..... (The actual rate should be : \$129,001.70 for Item 33358A)	12,900.17	2,713.90	773.40	892.30	33358
33359	2 - 2.9 m <sup>3</sup> /s..... (The actual rate should be : \$170,466.80 for Item 33359A)	17,046.68	2,951.10	858.00	978.30	33359
33360	2.9 - 3.6 m <sup>3</sup> /s..... (The actual rate should be : \$197,459.60 for Item 33360A)	19,745.96	3,256.30	995.40	1,096.50	33360
	<b>Thermostat and humidistat</b>					
33361	Thermostat controller mounted on VAV terminal box c/w all necessary accessories.....	306.10	43.20	5.30	6.50	33361
33362	Space thermostat c/w wiring, conduit and necessary accessories.....	206.10	43.20	6.90	8.60	33362
33363	Space thermostat with digital setting and monitoring display c/w wiring, conduit and all functional accessories.....	1,462.30	43.20	6.90	8.60	33363
33364	Space humidistat c/w wiring, conduit and necessary accessories.....	206.10	43.20	6.90	8.60	33364
	<b>AIR DUCTS, THERMAL INSULATION &amp; ACCESSORIES</b>					
	<i>Each</i>					
	<b>Air duct cleaning</b>					
33365	Air duct cleaning point c/w metal flange and air tight screw plug fixing on air duct with no work on ceiling or demountable ceiling .....	48.60	-	-	-	33365
33366	Air duct cleaning point c/w metal flange, extended collar, air tight screw plug fixing on air duct with fixed ceiling .....	58.50	-	-	-	33366
	<i>Per point</i>					
33367	Inspection and photograph taking using borescope, c/w particulate and micro-biological monitoring report .....	373.40	-	-	-	33367
	<i>Per linear metre</i>					
33368	Air duct cleaning and disinfection process with proprietary type compressed air lance, disinfection application lance, sampling probe and necessary accessories, video recording, video inspection and reporting.....	86.30	-	-	-	33368

Item	AIR DUCTS, THERMAL INSULATION & ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per square metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Sheet metal ducts (rates for taking down of ductwork shall include for taking down of ALL duct accessories including dampers, registers, diffuser, heater, batteries, etc.)</b>					
	<b>GI sheet metal ductwork including air plenum; un-insulated : -</b>					
33369	0.8 mm thick.....	277.90	21.50	9.10	10.80	33369
33370	1 mm thick.....	293.20	22.40	9.60	11.30	33370
33371	1.2 mm thick.....	331.10	23.30	10.10	11.80	33371
33372	1.5 mm thick.....	390.80	24.10	10.70	12.40	33372
	<b>Glass fibre duct (rectangular/round/oval shape) : -</b>					
33373	48 kg/m³.....	393.60	21.50	9.10	10.80	33373
33374	64 kg/m³.....	410.20	22.40	9.60	11.30	33374
	<i>Per linear metre</i>					
	<b>Factory made GI round/oval spiral duct c/w insulation equivalent round diameter for equal capacity and friction loss : -</b>					
33375	up to 165 mm diameter.....	571.50	301.40	37.30	40.30	33375
33376	166 - 255 mm diameter.....	600.90	327.20	42.60	45.70	33376
33377	256 - 355 mm diameter.....	676.70	353.00	45.20	48.40	33377
33378	356 - 470 mm diameter.....	759.80	378.90	47.90	51.10	33378
33379	471 - 546 mm diameter.....	841.80	404.70	50.60	53.80	33379
33380	547 - 622 mm diameter.....	910.90	439.10	53.20	59.10	33380
33381	623 - 800 mm diameter.....	1,047.10	465.00	55.90	61.80	33381
	<i>Per square metre</i>					
	<b>Ductboard air duct</b>					
33382	Ductboard air duct including air plenum (phenolic foam or PU) .....	292.40	21.50	9.10	10.80	33382

Item	AIR DUCTS, THERMAL INSULATION & ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per square metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Stainless steel sheet metal air duct (including air plenum) : -</b>					
33383	0.6 mm thick.....	341.80	18.90	8.00	9.70	33383
33384	0.8 mm thick.....	432.50	21.50	9.10	10.80	33384
33385	1 mm thick.....	521.70	22.40	9.60	11.30	33385
33386	1.2 mm thick.....	566.70	23.30	10.10	11.80	33386
33387	1.5 mm thick.....	744.30	24.10	10.70	12.40	33387
	<i>Per linear metre</i>					
	<b>Factory made aluminium flexible duct bare without insulation : -</b>					
33388	up to 150 mm diameter.....	185.10	21.50	9.10	10.80	33388
33389	151 - 200 mm diameter.....	205.10	22.40	9.60	11.30	33389
33390	201 - 250 mm diameter.....	235.30	23.30	10.10	11.80	33390
33391	251 - 300 mm diameter.....	331.90	24.10	10.70	12.40	33391
	<b>Factory made aluminium flexible duct with 25 mm thick fibreglass insulation : -</b>					
33392	up to 150 mm diameter.....	275.00	37.90	14.40	18.80	33392
33393	151 - 200 mm diameter.....	324.80	38.70	14.90	19.40	33393
33394	201 - 250 mm diameter.....	384.60	39.60	15.40	19.90	33394
33395	251 - 300 mm diameter.....	510.60	40.50	16.00	20.40	33395
	<b>UPVC seamless circular duct : -</b>					
33396	150 mm diameter.....	129.60	21.50	9.10	10.80	33396
33397	200 mm diameter.....	167.80	23.30	10.10	11.80	33397
33398	250 mm diameter.....	205.80	25.00	11.20	12.90	33398

Item	AIR DUCTS, THERMAL INSULATION & ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per square metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Insulation for air duct/air plenum</b>					
	<b>Polystyrene insulation c/w cement plaster, galvanized wire netting, painting and finish :-</b>					
33399	25 mm thick.....	250.60	28.40	9.10	12.90	33399
33400	50 mm thick.....	287.90	29.30	9.60	13.40	33400
	<b>Fibreglass insulation :-</b>					
33401	25 mm thick; density 32 kg/m <sup>3</sup> .....	71.20	14.60	4.30	7.00	33401
33402	50 mm thick; density 32 kg/m <sup>3</sup> .....	100.80	15.50	4.80	7.50	33402
33403	25 mm thick; density 48 kg/m <sup>3</sup> .....	129.60	15.50	4.80	7.50	33403
33404	50 mm thick; density 48 kg/m <sup>3</sup> .....	160.50	16.40	5.30	8.10	33404
33405	25 mm thick; density 64 kg/m <sup>3</sup> .....	189.50	16.40	5.30	8.10	33405
33406	50 mm thick; density 64 kg/m <sup>3</sup> .....	221.80	17.20	5.90	8.60	33406
	<b>Phenolic foam insulation :-</b>					
33407	25 mm thick.....	201.30	14.60	4.30	5.40	33407
33408	50 mm thick.....	300.20	16.40	4.80	6.50	33408
	<b>Phenolic foam insulation c/w cement plaster, galvanized wire netting, painting and finish :-</b>					
33409	25 mm thick.....	304.80	28.40	9.10	12.90	33409
33410	50 mm thick.....	403.70	30.10	9.60	15.60	33410
	<b>Flexible closed cell electromeric insulation to air duct/air plenum :-</b>					
33411	19 mm thick.....	232.50	14.60	4.30	5.40	33411
33412	25 mm thick.....	277.10	15.50	4.80	5.90	33412
	<b>Flexible closed cell electromeric internal lining to air duct/air plenum :-</b>					
33413	19 mm thick.....	254.40	14.60	4.30	5.40	33413
33414	25 mm thick.....	302.10	15.50	4.80	5.90	33414

Item	AIR DUCTS, THERMAL INSULATION & ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per square metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Insulation for air duct/air plenum (Cont'd)</b>					
33415	Vapour barrier of double faced aluminium foil .....	25.70	14.60	4.30	5.40	33415
33416	Aluminium cladding for air ductwork; hammer finish.....	49.70	14.60	4.30	5.40	33416
	<i>Each</i>					
	<b>Air registers and diffusers</b>					
	<b>Air registers (aluminium type) c/w volume control damper of size :-</b>					
33417	up to 0.1 m <sup>2</sup> .....	204.90	12.90	4.30	5.40	33417
33418	0.1 - 0.3 m <sup>2</sup> .....	404.50	14.60	5.30	6.50	33418
33419	0.3 - 0.5 m <sup>2</sup> .....	890.60	16.40	6.40	7.50	33419
33420	0.5 - 0.8 m <sup>2</sup> .....	1,402.80	18.10	7.50	8.60	33420
	<b>Air registers (metal type c/w painting) c/w volume control damper of size :-</b>					
33421	up to 0.1 m <sup>2</sup> .....	158.00	12.90	4.30	5.90	33421
33422	0.1 - 0.3 m <sup>2</sup> .....	305.50	14.60	5.30	8.10	33422
33423	0.3 - 0.5 m <sup>2</sup> .....	598.80	16.40	6.40	8.60	33423
33424	0.5 - 0.8 m <sup>2</sup> .....	1,184.00	18.10	7.50	10.20	33424
	<b>Ceiling diffusers of all shape (aluminium type) with volume control damper of neck size :-</b>					
33425	up to 0.1 m <sup>2</sup> .....	232.50	14.60	4.30	5.40	33425
33426	0.1 - 0.2 m <sup>2</sup> .....	379.20	15.50	4.80	5.90	33426
33427	0.2 - 0.3 m <sup>2</sup> .....	525.90	16.40	5.30	6.50	33427
33428	0.3 - 0.5 m <sup>2</sup> .....	845.50	17.20	5.90	7.00	33428
	<b>Ceiling diffusers of all shape (metal type c/w painting) with volume control damper of neck size :-</b>					
33429	up to 0.1 m <sup>2</sup> .....	159.60	14.60	4.30	5.90	33429
33430	0.1 - 0.2 m <sup>2</sup> .....	306.30	15.50	4.80	6.50	33430
33431	0.2 - 0.3 m <sup>2</sup> .....	489.40	16.40	5.30	7.50	33431
33432	0.3 - 0.5 m <sup>2</sup> .....	818.50	17.20	5.90	8.60	33432



Item	AIR DUCTS, THERMAL INSULATION & ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Air registers and diffusers (Cont'd)</b>					
	<b>4 way supply air diffuser (metal type c/w painting) c/w adjustable damper and accessories : -</b>					
33433	up to 0.1 m <sup>2</sup> .....	179.90	12.90	5.30	7.00	33433
33434	0.1 - 0.3 m <sup>2</sup> .....	306.50	13.80	5.90	7.50	33434
33435	0.3 - 0.5 m <sup>2</sup> .....	433.10	14.60	6.40	8.10	33435
	<i>Per linear metre</i>					
	<b>Linear diffusers</b>					
	<b>Aluminium linear diffuser c/w adjustable damper and accessories : -</b>					
33436	1 slot.....	286.40	13.80	5.30	7.00	33436
33437	2 slots.....	341.10	13.80	5.30	7.00	33437
33438	3 slots.....	398.40	13.80	5.30	7.00	33438
33439	4 slots.....	455.80	13.80	5.30	7.00	33439
	<b>Aluminium linear diffuser c/w distribution plenum, adjustable damper and accessories : -</b>					
33440	1 slot.....	341.10	13.80	5.30	7.00	33440
33441	2 slots.....	398.40	13.80	5.30	7.00	33441
33442	3 slots.....	461.00	13.80	5.30	7.00	33442
33443	4 slots.....	523.50	13.80	5.30	7.00	33443
	<i>Each</i>					
	<b>Return air grille</b>					
	<b>Return air grille (metal type c/w painting) c/w air filter (including hinged type) and volume control damper : -</b>					
33444	up to 0.1 m <sup>2</sup> .....	251.80	12.90	5.30	7.00	33444
33445	0.1 - 0.3 m <sup>2</sup> .....	518.30	13.80	5.90	7.50	33445
33446	0.3 - 0.5 m <sup>2</sup> .....	816.00	14.60	6.40	8.10	33446
33447	0.5 - 0.8 m <sup>2</sup> .....	1,093.00	15.50	6.90	8.60	33447

Item	AIR DUCTS, THERMAL INSULATION & ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Return air grille (Cont'd)</b>					
	<b>Return air grille (aluminium type) c/w air filter and volume control damper : -</b>					
33448	up to 0.1 m <sup>2</sup> .....	303.90	12.90	4.30	5.90	33448
33449	0.1 - 0.3 m <sup>2</sup> .....	816.00	14.60	5.30	8.10	33449
33450	0.3 - 0.5 m <sup>2</sup> .....	1,109.40	16.40	6.40	8.60	33450
33451	0.5 - 0.8 m <sup>2</sup> .....	1,329.90	18.10	7.50	10.20	33451
	<b>Exhaust air grille (hinged type)</b>					
	<b>Aluminium type : -</b>					
33452	up to 0.2 m <sup>2</sup> .....	289.00	13.80	5.30	7.00	33452
33453	0.2 - 0.4 m <sup>2</sup> .....	451.30	14.60	5.90	7.50	33453
33454	0.4 - 0.6 m <sup>2</sup> .....	671.00	15.50	6.40	8.10	33454
	<b>Metal type with painting : -</b>					
33455	up to 0.2 m <sup>2</sup> .....	216.10	13.80	5.30	7.00	33455
33456	0.2 - 0.4 m <sup>2</sup> .....	305.50	14.60	5.90	7.50	33456
33457	0.4 - 0.6 m <sup>2</sup> .....	525.10	15.50	6.40	8.10	33457
	<b>Per square metre</b>					
33458	Stainless steel 316 exhaust air grille.....	1,497.60	23.90	10.70	13.40	33458
	<b>Each</b>					
	<b>Duct work accessories</b>					
33459	Ventglass L.A.....	177.40	10.30	4.30	5.40	33459
33460	Ventglass L.A. c/w insulation .....	262.10	11.20	4.30	5.90	33460
	<b>Dampers</b>					
	<b>Fire damper (all type c/w holding frame, enclosure, access panel, fusible link or electrical thermal link etc.) of F.S.D. approved type : -</b>					
33461	up to 0.1 m <sup>2</sup> .....	452.20	15.50	4.30	6.50	33461
33462	0.1- 0.3 m <sup>2</sup> .....	817.70	16.40	4.80	7.00	33462
33463	0.3 - 0.5 m <sup>2</sup> .....	1,256.10	17.20	5.30	7.50	33463
33464	0.5 - 0.8 m <sup>2</sup> .....	1,960.20	18.10	5.90	8.10	33464

Item	AIR DUCTS, THERMAL INSULATION & ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
	<b>Dampers (Cont'd)</b>	\$	\$	\$	\$	
	<b>Combined smoke and fire damper c/w holding frame, enclosure, access panel, fusible link or electromagnet release of F.S.D. approved type :-</b>					
33465	up to 0.1 m <sup>2</sup> .....	1,912.60	15.50	4.30	6.50	33465
33466	0.1- 0.3 m <sup>2</sup> .....	2,613.40	16.40	4.80	7.00	33466
33467	0.3 - 0.5 m <sup>2</sup> .....	3,480.20	17.20	5.30	7.50	33467
33468	0.5 - 0.8 m <sup>2</sup> .....	4,516.20	18.10	5.90	8.10	33468
	<b>Fire damper to louver door c/w all necessary accessories of F.S.D. approved type :-</b>					
33469	up to 0.1 m <sup>2</sup> .....	592.70	224.00	82.50	87.80	33469
33470	0.1- 0.3 m <sup>2</sup> .....	725.80	261.40	93.20	98.50	33470
33471	0.3 - 0.5 m <sup>2</sup> .....	846.80	298.70	101.10	106.50	33471
33472	0.5 - 0.8 m <sup>2</sup> .....	1,040.30	373.40	111.80	117.10	33472
	<b>Motorized damper c/w actuator, coupling, electrical connection, connected to an electricity supply point :-</b>					
33473	up to 0.1 m <sup>2</sup> .....	1,164.70	108.90	17.00	28.00	33473
33474	0.1- 0.3 m <sup>2</sup> .....	1,720.10	129.20	25.00	35.50	33474
33475	0.3 - 0.5 m <sup>2</sup> .....	2,270.60	143.50	27.70	43.00	33475
33476	0.5 - 0.8 m <sup>2</sup> .....	2,819.50	155.70	31.90	48.90	33476

Item	AIR DUCTS, THERMAL INSULATION & ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per square metre of surface area facing air stream</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Air filter c/w enclosure, holding frame and air gasket : -</b>					
33477	Filter for FCU/fresh air filter/pre-filter.....	856.80	17.60	8.00	10.80	33477
33478	Main filter cartridge type.....	1,014.30	17.60	8.00	10.80	33478
33479	HEPA filter.....	2,453.10	17.60	8.00	10.80	33479
	<i>Per set</i>					
	<b>Perforated diffuser c/w volume control damper and HEPA filter : -</b>					
33480	1200 mm x 600 mm.....	8,636.70	44.40	20.00	26.90	33480
33481	600 mm x 600 mm.....	4,582.00	35.50	16.00	21.50	33481
	<b>Electro-static filter and accessories</b>					
	<b>Nominal airflow rate : -</b>					
33482	up to 0.5 m <sup>3</sup> /s.....	4,183.70	50.90	13.30	16.10	33482
33483	0.5 - 1 m <sup>3</sup> /s.....	8,331.50	56.00	16.00	18.80	33483
33484	1 - 2 m <sup>3</sup> /s.....	16,623.10	61.10	18.60	21.50	33484
33485	2 - 3 m <sup>3</sup> /s.....	17,737.80	66.20	21.30	24.20	33485
33486	3 - 4 m <sup>3</sup> /s.....	19,540.00	76.30	24.00	26.90	33486
33487	4 - 5 m <sup>3</sup> /s.....	23,132.50	81.40	26.60	29.60	33487
33488	5 - 6 m <sup>3</sup> /s.....	25,703.60	91.60	29.30	32.30	33488
	<b>Active carbon filter c/w high-grade activated carbon filters and pre-filter and housed in a frame structure</b>					
	<b>Nominal airflow rate : -</b>					
33489	up to 0.5 m <sup>3</sup> /s.....	3,443.00	25.40	8.00	10.80	33489
33490	0.5 - 1 m <sup>3</sup> /s.....	5,158.50	30.50	10.70	13.40	33490
33491	1 - 2 m <sup>3</sup> /s.....	8,015.00	35.60	13.30	16.10	33491
33492	2 - 3 m <sup>3</sup> /s.....	11,442.10	40.70	16.00	18.80	33492
33493	3 - 4 m <sup>3</sup> /s.....	13,728.10	45.80	18.60	21.50	33493
33494	4 - 5 m <sup>3</sup> /s.....	18,296.10	50.90	21.30	24.20	33494
33495	5 - 6 m <sup>3</sup> /s.....	21,723.20	56.00	24.00	26.90	33495

Item	AIR DUCTS, THERMAL INSULATION & ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Electric duct heater of black sheathed element type c/w enclosure, access panel, safety cut-off, thermostat, sail switch and accessories : -</b>					
33496	up to 3 kW.....	1,462.80	22.40	8.00	9.70	33496
33497	3 - 6 kW.....	1,824.90	23.40	8.50	10.20	33497
33498	6 - 9 kW.....	2,186.90	24.40	9.10	10.80	33498
33499	9 - 12 kW.....	2,428.60	25.40	9.60	11.30	33499
	<b><i>Per set</i></b>					
	<b>Duct silencers : -</b>					
33500	up to 0.5 m <sup>3</sup> /s.....	1,886.10	87.80	16.00	26.90	33500
33501	0.5 - 0.75 m <sup>3</sup> /s.....	1,984.10	95.80	19.70	30.60	33501
33502	0.75 - 1 m <sup>3</sup> /s.....	2,741.10	103.80	24.00	34.90	33502
33503	Add to last item for each additional 0.25 m <sup>3</sup> /s or part thereof.....	757.00	8.00	3.70	4.30	33503
	<b><i>Per square metre</i></b>					
	<b>Ductwork acoustic insulation</b>					
33504	Ductwork acoustic insulation, 50mm thick including metal perforated sheet.....	691.40	31.00	9.10	13.40	33504
	<b>VALVE, PIPE WORKS AND ACCESSORIES</b>					
	<b><i>Per linear metre</i></b>					
	<b>Chilled water pipes</b>					
	<b>Chilled water pipework c/w 50 mm polystyrene insulation, cement plaster, painting &amp; finish of pipe diameter : -</b>					
33505	20 mm or below.....	119.60	67.20	4.50	5.20	33505
33506	25 mm.....	133.20	73.00	5.10	5.70	33506
33507	32 mm.....	146.20	78.00	5.70	6.40	33507
33508	40 mm.....	158.90	83.80	6.30	7.00	33508
33509	50 mm.....	188.50	97.10	6.90	7.50	33509
33510	65 mm.....	218.70	111.20	8.10	8.80	33510
33511	80 mm.....	254.90	125.30	9.50	10.20	33511
33512	100 mm.....	314.70	144.40	10.70	11.50	33512
33513	150 mm.....	449.30	191.70	17.70	19.20	33513

Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Chilled water pipework c/w 50 mm phenolic foam insulation, cement plaster, painting &amp; finish of pipe diameter : -</b>					
33514	20 mm or below.....	197.70	67.20	4.50	5.20	33514
33515	25 mm.....	225.80	73.00	5.10	5.70	33515
33516	32 mm.....	253.10	78.00	5.70	6.40	33516
33517	40 mm.....	273.30	83.80	6.30	7.00	33517
33518	50 mm.....	325.60	97.10	6.90	7.50	33518
33519	65 mm.....	388.60	111.20	8.10	8.80	33519
33520	80 mm.....	443.10	125.30	9.50	10.20	33520
33521	100 mm.....	538.60	144.40	10.70	11.50	33521
33522	150 mm.....	788.90	191.70	17.70	19.20	33522
	<b>Chilled water pipework c/w 50 mm phenolic foam insulation of pipe diameter : -</b>					
33523	20 mm or below.....	147.40	42.60	2.80	3.30	33523
33524	25 mm.....	169.00	46.30	3.20	3.70	33524
33525	32 mm.....	190.00	49.30	3.60	4.10	33525
33526	40 mm.....	205.20	53.00	4.00	4.50	33526
33527	50 mm.....	244.70	61.20	4.40	4.90	33527
33528	65 mm.....	292.90	70.20	5.10	5.60	33528
33529	80 mm.....	334.40	79.20	6.00	6.50	33529
33530	100 mm.....	417.70	101.20	6.80	7.40	33530
33531	150 mm.....	613.90	134.40	11.20	12.10	33531

Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Chilled water pipework c/w 25 mm flexible closed cell electromeric insulation, cement plaster, painting &amp; finish of pipe diameter : -</b>					
33532	20 mm or below.....	101.10	67.20	4.50	5.20	33532
33533	25 mm.....	115.80	73.00	5.10	5.70	33533
33534	32 mm.....	129.50	78.00	5.70	6.40	33534
33535	40 mm.....	141.20	83.80	6.30	7.00	33535
33536	50 mm.....	170.50	97.10	6.90	7.50	33536
33537	65 mm.....	201.60	111.20	8.10	8.80	33537
33538	80 mm.....	237.10	125.30	9.50	10.20	33538
33539	100 mm.....	293.80	144.40	10.70	11.50	33539
33540	150 mm.....	431.30	191.70	17.70	19.20	33540
	<b>Chilled water pipe c/w 20 mm flexible closed cell electromeric insulation &amp; finish of pipe diameter : -</b>					
33541	40 mm or below.....	109.70	63.90	6.30	7.00	33541
33542	50 mm.....	133.10	73.80	6.90	7.50	33542
33543	65 mm.....	157.90	84.60	8.10	8.80	33543
33544	80 mm.....	185.70	94.60	9.50	10.20	33544
33545	100 mm.....	232.80	109.50	10.70	11.50	33545
33546	150 mm.....	343.70	145.20	17.70	19.20	33546

Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Pre-insulated chilled water pipe c/w galvanized iron metal jacket for outdoor conditions : -</b>					
33547	25 mm diameter chilled water pipe c/w 50 mm thick insulation .....	182.40	50.40	3.40	3.90	33547
33548	32 mm diameter chilled water pipe c/w 50 mm thick insulation .....	202.60	54.80	3.80	4.30	33548
33549	40 mm diameter chilled water pipe c/w 50 mm thick insulation .....	218.60	58.60	4.30	4.80	33549
33550	50 mm diameter chilled water pipe c/w 65 mm thick insulation .....	326.10	62.90	4.70	5.30	33550
33551	65 mm diameter chilled water pipe c/w 65 mm thick insulation .....	356.40	72.80	5.20	5.70	33551
33552	80 mm diameter chilled water pipe c/w 65 mm thick insulation .....	404.20	83.40	6.00	6.60	33552
33553	100 mm diameter chilled water pipe c/w 65 mm thick insulation .....	476.00	93.90	7.10	7.70	33553
33554	125 mm diameter chilled water pipe c/w 65 mm thick insulation .....	568.60	108.30	8.10	8.60	33554
33555	150 mm diameter chilled water pipe c/w 75 mm thick insulation .....	808.10	143.70	13.30	14.40	33555
33556	200 mm diameter chilled water pipe c/w 75 mm thick insulation .....	1,012.60	186.70	20.00	21.50	33556
33557	250 mm diameter chilled water pipe c/w 75 mm thick insulation .....	1,270.10	235.10	26.60	29.60	33557
33558	300 mm diameter chilled water pipe c/w 75 mm thick insulation .....	1,449.10	283.50	33.30	37.60	33558
	<b>Pre-insulated chilled water pipe c/w galvanized iron metal jacket for indoor conditions : -</b>					
33559	25 mm diameter chilled water pipe c/w 25 mm thick insulation .....	121.10	50.40	3.40	3.90	33559
33560	32 mm diameter chilled water pipe c/w 25 mm thick insulation .....	135.80	54.80	3.80	4.30	33560
33561	40 mm diameter chilled water pipe c/w 25 mm thick insulation .....	148.60	58.60	4.30	4.80	33561
33562	50 mm diameter chilled water pipe c/w 40 mm thick insulation .....	219.30	62.90	4.70	5.30	33562
33563	65 mm diameter chilled water pipe c/w 40 mm thick insulation .....	257.50	72.80	5.20	5.70	33563
33564	80 mm diameter chilled water pipe c/w 40 mm thick insulation .....	283.30	83.40	6.00	6.60	33564
33565	100 mm diameter chilled water pipe c/w 40 mm thick insulation .....	373.70	93.90	7.10	7.70	33565
33566	125 mm diameter chilled water pipe c/w 40 mm thick insulation .....	429.90	108.30	8.10	8.60	33566
33567	150 mm diameter chilled water pipe c/w 50 mm thick insulation .....	562.50	143.70	13.30	14.40	33567
33568	200 mm diameter chilled water pipe c/w 50 mm thick insulation .....	707.80	186.70	20.00	21.50	33568
33569	250 mm diameter chilled water pipe c/w 50 mm thick insulation .....	888.50	235.10	26.60	29.60	33569
33570	300 mm diameter chilled water pipe c/w 50 mm thick insulation .....	1,050.00	283.50	33.30	37.60	33570



Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Condensate drain</b>					
	<b>GI drain pipe c/w 50 mm phenolic foam insulation, cement plaster, painting &amp; finish of pipe diameter : -</b>					
33571	20 mm or below.....	204.80	67.20	4.50	5.20	33571
33572	25 mm.....	238.50	73.00	5.10	5.70	33572
33573	32 mm.....	268.90	78.00	5.70	6.40	33573
33574	40 mm.....	289.90	83.80	6.30	7.00	33574
33575	50 mm.....	350.60	97.10	6.90	7.50	33575
33576	65 mm.....	417.10	111.20	8.10	8.80	33576
33577	80 mm.....	482.50	125.30	9.50	10.20	33577
	<b>GI drain pipe c/w 50 mm polystyrene insulation, cement plaster, painting &amp; finish of pipe diameter : -</b>					
33578	20 mm or below.....	126.70	67.20	4.50	5.20	33578
33579	25 mm.....	145.90	73.00	5.10	5.70	33579
33580	32 mm.....	162.00	78.00	5.70	6.40	33580
33581	40 mm.....	175.50	83.80	6.30	7.00	33581
33582	50 mm.....	213.50	97.10	6.90	7.50	33582
33583	65 mm.....	247.20	111.20	8.10	8.80	33583
33584	80 mm.....	294.30	125.30	9.50	10.20	33584

Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Condensate drain (cont'd)</b>					
	<b>GI drain pipe c/w 20 mm flexible closed cell electromeric insulation and finish of pipe diameter : -</b>					
33585	20 mm or below.....	108.20	67.20	4.50	5.20	33585
33586	25 mm.....	128.50	73.00	5.10	5.70	33586
33587	32 mm.....	145.30	78.00	5.70	6.40	33587
33588	40 mm.....	157.80	83.80	6.30	7.00	33588
33589	50 mm.....	195.50	97.10	6.90	7.50	33589
	<b>PVC drain pipe c/w 20 mm flexible closed cell electromeric insulation and finish of pipe diameter :-</b>					
33590	20 mm or below.....	91.90	67.20	4.50	5.20	33590
33591	25 mm.....	101.00	73.00	5.10	5.70	33591
33592	32 mm.....	110.10	78.00	5.70	6.40	33592
	<b>PVC flexible drain pipe of pipe diameter : -</b>					
33593	20 mm or below.....	18.40	16.60	3.40	3.70	33593
33594	25 mm.....	25.70	23.20	4.50	4.90	33594
33595	32 mm.....	28.80	25.70	5.10	5.40	33595
	<i>Each</i>					
	<b>GI drain pan c/w 50 mm phenolic foam insulation of size : -</b>					
33596	up to 0.55 m <sup>2</sup> .....	254.90	41.50	5.70	6.00	33596
33597	0.55 - 0.73 m <sup>2</sup> .....	360.90	62.20	12.40	17.90	33597
33598	0.73 - 0.9 m <sup>2</sup> .....	509.70	83.00	26.60	32.30	33598

Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Chilled water valves c/w 50 mm phenolic foam insulation</b>					
	<b>Chilled water gate valves c/w filled galvanized steel split boxes : -</b>					
33599	n.e. 20 mm .....	133.20	32.80	21.60	26.60	33599
33600	25 mm.....	157.50	35.90	22.00	27.10	33600
33601	32 mm.....	211.30	38.80	22.50	27.60	33601
33602	40 mm.....	256.70	41.90	23.00	28.00	33602
33603	50 mm.....	397.40	44.80	24.00	29.00	33603
33604	65 mm.....	752.10	47.80	25.40	30.00	33604
33605	80 mm.....	869.60	50.80	26.80	31.90	33605
33606	100 mm.....	1,063.50	52.70	28.30	33.40	33606
33607	150 mm.....	1,887.60	64.70	35.90	41.10	33607
	<b>Chilled water check valves c/w filled galvanized steel split boxes : -</b>					
33608	25 mm or below.....	168.00	35.90	22.00	27.10	33608
33609	32 mm.....	232.50	38.80	22.50	27.60	33609
33610	40 mm.....	290.60	41.90	23.00	28.00	33610
33611	50 mm.....	379.20	44.80	24.00	29.00	33611
33612	65 mm.....	400.40	47.80	25.40	30.00	33612
33613	80 mm.....	473.20	50.80	26.80	31.90	33613
33614	100 mm.....	756.30	52.70	28.30	33.40	33614
33615	150 mm.....	1,256.50	64.70	35.90	41.10	33615

Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Chilled water valves c/w 50 mm phenolic foam insulation (Cont'd)</b>					
	<b>Chilled water globe valves c/w filled galvanized steel split boxes : -</b>					
33616	25 mm or below.....	205.10	35.90	22.00	27.10	33616
33617	32 mm.....	292.90	38.80	22.50	27.60	33617
33618	40 mm.....	372.90	41.90	23.00	28.00	33618
33619	50 mm.....	517.50	44.80	24.00	29.00	33619
33620	65 mm.....	623.40	47.80	25.40	30.00	33620
33621	80 mm.....	791.20	50.80	26.80	31.90	33621
33622	100 mm.....	1,049.60	52.70	28.30	33.40	33622
33623	150 mm.....	1,825.00	64.70	35.90	41.10	33623
	<b>Chilled water 3 way modulating control valve c/w electric motors couplings, unions, adapters and filled galvanized steel split box : -</b>					
33624	25 mm or below.....	503.10	43.10	26.40	32.50	33624
33625	32 mm.....	635.60	46.60	27.10	33.10	33625
33626	40 mm.....	1,029.10	50.20	27.60	33.70	33626
33627	50 mm.....	1,385.20	53.80	28.70	34.90	33627
33628	65 mm.....	3,053.70	56.10	29.30	36.00	33628
33629	80 mm.....	4,355.80	60.90	32.20	38.30	33629
33630	100 mm.....	6,172.40	63.30	33.90	40.00	33630
	<b>Chilled water 3 way, 2 position electric control valve c/w motor, couplings, unions, adapters and filled galvanized steel split boxes : -</b>					
33631	25 mm or below.....	294.60	43.10	26.40	32.50	33631
33632	32 mm.....	512.30	46.60	27.10	33.10	33632
33633	40 mm.....	752.60	50.20	27.60	33.70	33633
33634	50 mm.....	1,094.10	53.80	28.70	34.90	33634
33635	65 mm.....	2,424.40	56.10	29.30	36.00	33635
33636	80 mm.....	3,844.40	60.90	32.20	38.30	33636
33637	100 mm.....	5,733.60	63.30	33.90	40.00	33637

Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A	B	C	D	
	<i>Each</i>					
	<b>Chilled water valves c/w 50 mm phenolic foam insulation (Cont'd)</b>	\$	\$	\$	\$	
	<b>Chilled water 2 way electric operated solenoid valve c/w unions, adapters, filled galvanized steel split box, insulation and finish :-</b>					
33638	25 mm or below.....	279.10	47.30	29.10	35.70	33638
33639	32 mm.....	468.90	51.30	29.70	36.40	33639
33640	40 mm.....	685.10	55.20	30.30	37.00	33640
33641	50 mm.....	954.70	59.20	31.60	38.30	33641
33642	65 mm.....	2,100.50	61.80	32.30	39.60	33642
33643	80 mm.....	3,324.20	67.00	35.40	42.10	33643
33644	100 mm.....	4,951.40	69.70	37.40	44.10	33644
	<b>Chilled water double regulating valve c/w metering station, insulation and finish, filled galvanized iron split boxes :-</b>					
33645	40 mm.....	656.40	55.20	30.30	37.00	33645
33646	50 mm.....	860.90	59.20	31.60	38.30	33646
33647	65 mm.....	1,835.30	61.80	32.30	39.60	33647
33648	80 mm.....	2,838.40	67.00	35.40	42.10	33648
33649	100 mm.....	3,001.40	69.70	37.40	44.10	33649
	<b>Pressure reducing valve :-</b>					
33650	15 mm or below.....	432.10	24.90	17.60	21.80	33650
33651	20 mm.....	529.80	27.40	18.00	22.20	33651
33652	25 mm.....	628.20	29.90	18.40	22.60	33652
33653	32 mm.....	764.40	32.40	18.80	23.00	33653
33654	40 mm.....	920.20	34.90	19.20	23.40	33654

Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
	<b>Chilled water valves c/w 50 mm phenolic foam insulation (Cont'd)</b>	\$	\$	\$	\$	
	<b>Balancing valve : -</b>					
33655	25 mm or below.....	316.50	29.90	18.40	22.60	33655
33656	32 mm.....	344.60	32.40	18.80	23.00	33656
33657	40 mm.....	376.10	34.90	19.20	23.40	33657
33658	50 mm.....	442.70	37.30	20.00	24.20	33658
33659	65 mm.....	919.40	39.00	20.40	25.00	33659
33660	80 mm.....	1,452.80	42.30	22.40	26.60	33660
33661	100 mm.....	2,608.80	44.00	23.60	27.90	33661
33662	150 mm.....	4,029.60	53.90	30.00	34.30	33662
	<b>Chilled water pipe work accessories : -</b>					
33663	Water flow switch.....	437.40	10.00	3.70	5.40	33663
33664	Direct reading water flow meter.....	5,926.30	53.90	27.70	28.50	33664
33665	Pressure gauge & cock.....	109.20	10.00	3.70	5.40	33665
33666	Thermometer & stainless steel thermometer well.....	1,518.20	31.50	13.30	16.10	33666
33667	Low temp cutout thermostat with manual reset.....	174.80	10.00	3.70	5.40	33667
	<b>Gate valve for sea water application 316 stainless steel : -</b>					
33668	25 mm.....	524.90	29.90	18.40	22.60	33668
33669	32 mm.....	563.60	32.40	18.80	23.00	33669
33670	40 mm.....	607.50	34.90	19.20	23.40	33670
33671	50 mm.....	661.70	37.30	20.00	24.20	33671
33672	65 mm.....	741.00	39.00	20.40	25.00	33672
33673	80 mm.....	845.60	42.30	22.40	26.60	33673
33674	100 mm.....	1,161.30	44.00	23.60	27.90	33674
33675	150 mm.....	1,944.50	53.90	30.00	34.30	33675
33676	200 mm.....	3,418.30	62.20	35.90	40.30	33676

Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Globe valve for sea water application 316 stainless steel : -</b>					
33677	25 mm.....	380.80	29.90	18.40	22.60	33677
33678	32 mm .....	468.40	32.40	18.80	23.00	33678
33679	40 mm.....	568.10	34.90	19.20	23.40	33679
33680	50 mm.....	692.10	37.30	20.00	24.20	33680
33681	65 mm.....	876.10	39.00	20.40	25.00	33681
33682	80 mm.....	1,034.70	42.30	22.40	26.60	33682
33683	100 mm.....	1,397.70	44.00	23.60	27.90	33683
33684	150 mm.....	2,812.40	53.90	30.00	34.30	33684
33685	200 mm.....	4,978.40	62.20	35.90	40.30	33685
	<b>Swing check valve for sea water application 316 stainless steel : -</b>					
33686	25 mm.....	266.00	29.90	18.40	22.60	33686
33687	32 mm .....	301.40	32.40	18.80	23.00	33687
33688	40 mm.....	376.70	34.90	19.20	23.40	33688
33689	50 mm.....	476.00	37.30	20.00	24.20	33689
33690	65 mm.....	622.80	39.00	20.40	25.00	33690
33691	80 mm.....	727.40	42.30	22.40	26.60	33691
33692	100 mm.....	1,056.60	44.00	23.60	27.90	33692
33693	150 mm.....	1,833.10	53.90	30.00	34.30	33693
33694	200 mm.....	3,229.20	62.20	35.90	40.30	33694

Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Drain cock : -</b>					
33695	25 mm diameter or below.....	130.90	29.90	18.40	22.60	33695
33696	50 mm diameter.....	158.60	37.30	20.00	24.20	33696
	<b>Strainer : -</b>					
33697	32 mm diameter or below.....	162.80	32.40	18.80	23.00	33697
33698	50 mm diameter.....	189.70	37.30	20.00	24.20	33698
33699	80 mm diameter.....	231.30	42.30	22.40	26.60	33699
33700	100 mm diameter.....	251.20	44.00	23.60	27.90	33700
33701	150 mm diameter.....	285.50	53.90	30.00	34.30	33701
	<b>Pipework vibration isolation</b>					
	<b>Pipe flexible rubber connector : -</b>					
33702	50 mm.....	316.60	37.30	20.00	24.20	33702
33703	65 mm.....	411.40	39.00	20.40	25.00	33703
33704	80 mm.....	461.30	42.30	22.40	26.60	33704
33705	100 mm.....	509.50	44.00	23.60	27.90	33705
33706	125 mm.....	794.00	49.00	26.80	31.10	33706
33707	150 mm.....	1,451.30	53.90	30.00	34.30	33707
	<i>Per linear metre</i>					
	<b>Pipe flexible metallic hose : -</b>					
33708	50 mm.....	384.90	12.30	0.90	1.00	33708
33709	65 mm.....	479.80	14.00	1.00	1.20	33709
33710	80 mm.....	528.20	15.90	1.20	1.30	33710
33711	100 mm.....	579.20	20.30	1.30	1.40	33711
33712	125 mm.....	862.10	23.60	1.80	2.00	33712
33713	150 mm.....	1,517.70	26.90	2.20	2.40	33713



Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A	B	C	D	
	<i>Each</i>					
	<b>Sundries</b>					
		\$	\$	\$	\$	
33714	Chiller sequence controller including transmitter, etc.....	482.30	20.80	10.70	12.40	33714
33715	Water flow sensor.....	385.60	16.60	8.50	9.70	33715
33716	Temperature sensor.....	163.90	17.40	8.50	9.70	33716
33717	Sail switch.....	183.00	15.80	7.50	9.10	33717
33718	Electromagnetic flow meter.....	2,994.40	223.60	71.00	102.10	33718
33719	Chemical storage tank.....	4,715.00	166.00	63.90	96.80	33719
33720	Chemical feed pump.....	3,259.70	149.40	53.20	75.30	33720
33721	Manual air vent.....	69.20	27.40	13.30	15.10	33721
33722	Automatic air vent.....	112.80	29.00	14.40	16.10	33722
33723	Temperature gauge with pocket.....	540.20	27.40	13.30	15.10	33723
33724	Testing point.....	243.80	19.90	10.70	11.80	33724
	<b>Butterfly valve : -</b>					
33725	25 mm or below.....	231.80	29.90	18.40	22.60	33725
33726	32 mm.....	291.00	32.40	18.80	23.00	33726
33727	40 mm.....	358.20	34.90	19.20	23.40	33727
33728	50 mm.....	441.30	37.30	20.00	24.20	33728
33729	65 mm.....	916.90	39.00	20.40	25.00	33729
33730	80 mm.....	958.10	42.30	22.40	26.60	33730
33731	100 mm.....	1,036.10	44.00	23.60	27.90	33731
33732	150 mm.....	1,275.00	53.90	30.00	34.30	33732

Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Water tank</b>					
	<b>Sheet metal water tank (feed &amp; expansion) c/w ball valve, vent, overflow, drain and mild steel support, anti-rust painting &amp; accessories of effective water capacity : -</b>					
33733	up to 250 litres.....	5,802.20	751.50	106.50	188.10	33733
33734	250 litres - 350 litres.....	6,377.70	845.40	133.10	215.00	33734
33735	350 litres - 500 litres.....	8,433.20	939.30	159.70	241.90	33735
	<b>Reinforced fibreglass water tank (feed &amp; expansion) c/w ball valve, vent, overflow, drain and mild steel support, painting &amp; accessories of effective water capacity : -</b>					
33736	up to 250 litres.....	3,268.80	770.30	133.10	217.70	33736
	<b>Water level controller</b>					
33737	Three water level controller for water tank for pump control and alarm c/w probes, contacts, wiring and electrical connection to pump control panel and accessories.....	1,419.00	175.90	59.10	105.90	33737

Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Insulation to pipework</b>					
	<b>Polystyrene insulation c/w cement plaster, finish and painting for chilled water pipework of diameter : -</b>					
33738	25 mm or below.....	69.00	27.40	4.30	4.80	33738
33739	32 mm.....	73.00	29.00	4.50	5.10	33739
33740	40 mm.....	78.10	30.70	4.80	5.40	33740
33741	50 mm.....	87.80	35.70	5.90	6.50	33741
33742	65 mm.....	98.10	40.70	6.40	7.00	33742
33743	80 mm.....	110.90	46.50	6.90	7.50	33743
33744	100 mm.....	128.10	53.10	9.10	9.70	33744
33745	150 mm.....	170.70	70.50	12.30	12.90	33745
	<b>Flexible closed cell elastomeric insulation c/w cement plaster, painting and finish for chilled water pipework of diameter : -</b>					
33746	25 mm or below.....	51.60	27.40	4.30	4.80	33746
33747	32 mm.....	56.30	29.00	4.50	5.10	33747
33748	40 mm.....	60.50	30.70	4.80	5.40	33748
33749	50 mm.....	69.80	35.70	5.90	6.50	33749
33750	65 mm.....	81.00	40.70	6.40	7.00	33750
33751	80 mm.....	93.10	46.50	6.90	7.50	33751
33752	100 mm.....	107.20	53.10	9.10	9.70	33752
33753	150 mm.....	152.70	70.50	12.30	12.90	33753
	<b>Aluminium metal cladding for insulated chilled water pipes of diameter : -</b>					
33754	25 mm or below.....	57.00	9.20	0.60	0.70	33754
33755	32 mm.....	60.10	9.90	0.70	0.80	33755
33756	40 mm.....	64.50	10.60	0.80	0.90	33756
33757	50 mm.....	69.90	12.30	0.90	1.00	33757

Item	VALVE, PIPE WORKS AND ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Insulation to pipework (Cont'd)</b>					
	<b>Aluminium metal cladding for insulated chilled water pipes of diameter : - (Cont'd)</b>					
33758	65 mm.....	77.70	14.00	1.10	1.20	33758
33759	80 mm.....	85.70	15.90	1.20	1.30	33759
33760	100 mm.....	97.40	20.30	1.30	1.40	33760
33761	150 mm.....	123.70	26.90	2.20	2.40	33761
	<b>Phenolic foam insulation c/w cement plaster, painting and finish for chilled water pipework of diameter : -</b>					
33762	25 mm or below.....	161.50	27.40	4.30	4.80	33762
33763	32 mm.....	179.90	29.00	4.50	5.10	33763
33764	40 mm.....	192.50	30.70	4.80	5.40	33764
33765	50 mm.....	224.90	35.70	5.90	6.50	33765
33766	65 mm.....	268.00	40.70	6.40	7.00	33766
33767	80 mm.....	299.10	46.50	6.90	7.50	33767
33768	100 mm.....	352.00	53.10	9.10	9.70	33768
33769	150 mm.....	510.40	70.50	12.30	12.90	33769
	<b>Phenolic foam insulation for chilled water pipework of diameter : -</b>					
33770	25 mm or below.....	106.20	9.20	0.60	0.70	33770
33771	32 mm.....	118.90	9.90	0.70	0.80	33771
33772	40 mm.....	127.60	10.60	0.80	0.90	33772
33773	50 mm.....	149.10	12.30	0.90	1.00	33773
33774	65 mm.....	178.30	14.00	1.00	1.20	33774
33775	80 mm.....	198.40	15.90	1.20	1.30	33775
33776	100 mm.....	236.30	20.30	1.30	1.40	33776
33777	150 mm.....	344.80	26.90	2.20	2.40	33777

Item	PUMP & ACCESSORIES	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Centrifugal fresh water pump, horizontal split casing type, c/w motor, strainer, drain and vent, orifice plates, starters and local control panel : -</b>					
33778	up to 5 kW.....	11,444.50	457.90	79.80	107.50	33778
33779	5 - 10 kW.....	17,709.10	671.60	85.20	112.90	33779
33780	10 - 15 kW.....	20,536.30	742.90	90.50	118.30	33780
33781	15 - 20 kW.....	23,404.20	866.00	95.80	123.60	33781
33782	20 - 30 kW.....	26,241.80	950.40	101.10	129.00	33782
	<b>Centrifugal salt water pump, horizontal split casing type, c/w motor, strainer, drain and vent, orifice plates, starters and local control panel : -</b>					
33783	up to 5 kW.....	16,987.10	457.90	79.80	107.50	33783
33784	5 - 10 kW.....	21,034.60	671.60	85.20	112.90	33784
33785	10 - 15 kW.....	24,416.10	742.90	90.50	118.30	33785
33786	15 - 20 kW.....	27,284.00	866.00	95.80	123.60	33786
33787	20 - 30 kW.....	30,398.70	950.40	101.10	129.00	33787
33788	30 - 50 kW.....	33,516.60	1,039.00	106.50	134.40	33788
	<b>Water booster pump c/w motor as a composite unit, strainer, drain and vent, starters, local control panel, membrane pressure vessel and sensors : -</b>					
33789	up to 5 kW.....	23,168.50	1,272.00	292.80	430.00	33789
33790	5 - 10 kW.....	28,830.90	1,424.60	319.40	483.80	33790
33791	10 - 15 kW.....	32,561.80	1,658.70	346.00	537.50	33791
33792	15 - 20 kW.....	34,733.60	1,883.60	372.60	591.30	33792

Item	PUMP & ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Flush water pump c/w motor, strainer, drain and vent, starters and local control panel : -</b>					
33793	up to 5 kW.....	13,399.90	457.90	79.80	107.50	33793
33794	5 - 10 kW.....	20,740.00	671.60	85.20	112.90	33794
33795	10 - 15 kW.....	24,056.00	742.90	90.50	118.30	33795
33796	15 - 20 kW.....	27,412.80	866.00	95.80	123.60	33796
	<b>Centrifugal hot water pump, horizontal split casing type, c/w motor, starters and local control panel : -</b>					
33797	up to 5 kW.....	25,966.20	457.90	79.80	107.50	33797
33798	5 - 10 kW.....	40,217.60	671.60	85.20	112.90	33798
33799	10 - 15 kW.....	46,675.20	742.90	90.50	118.30	33799
33800	15 - 20 kW.....	53,173.50	866.00	95.80	123.60	33800
	<b>Sewage pump c/w motor, starters and local control panel : -</b>					
33801	up to 5 kW.....	15,324.40	457.90	79.80	107.50	33801
33802	5 - 10 kW.....	18,817.60	671.60	85.20	112.90	33802
33803	10 - 15 kW.....	22,199.00	742.90	90.50	118.30	33803
33804	15 - 20 kW.....	25,067.00	866.00	95.80	123.60	33804
	<b>Sump pump, vertical centrifugal type, c/w submersible electric motor, pump control &amp; H/L alarm, guide bars, cable supports &amp; lifting chains, factory built-in suspension devices and discharge elbow for wet sump installation and cast iron/steel base for dry sump installation, starter and local control panel : -</b>					
33805	up to 5 kW.....	14,339.00	457.90	79.80	107.50	33805
33806	5 - 10 kW.....	16,723.70	671.60	85.20	112.90	33806
33807	10 - 15 kW.....	18,627.10	742.90	90.50	118.30	33807
33808	15 - 20 kW.....	24,882.20	866.00	95.80	123.60	33808
33809	20 - 30 kW.....	32,924.30	990.50	101.10	129.00	33809

Item	PUMP & ACCESSORIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>End suction pump c/w anti-vibration mounting, flexible joints , drain, vent, motor, starter and local control panel and local wiring.</b>					
33810	up to 5 kW.....	11,506.10	457.90	79.80	107.50	33810
33811	5 - 10 kW.....	16,723.70	671.60	85.20	112.90	33811
33812	10 - 15 kW.....	18,134.50	742.90	90.50	118.30	33812
33813	15 - 20 kW.....	21,002.40	866.00	95.80	123.60	33813
33814	20 - 30 kW.....	22,454.90	990.50	101.10	129.00	33814
	<b>Interfacing and control panel</b>					
33815	Interfacing and control panel for lead-lag pump control; in addition to the local control panels of the pumps (stainless steel 316 for control of 1 to 2 items).....	2,146.70	325.50	82.80	143.80	33815
	<b>Cooling tower c/w induced or forced draught fans, glass reinforced plastics (GRP) casing, open distribution pans or troughs fitted with coarse mesh grids, filled sheets with film-type vacuum-formed PVC c/w louvres and drift eliminators, metal parts with stainless steel to SS316 or the better equivalent, inlet/outlet water gate valve, drain, strainer, starter panel and local control panel, plus all related necessary accessories with nominal heat rejection capacity : -</b>					
33816	22 - 45 kW.....	6,738.60	904.50	310.50	403.10	33816
33817	45 - 69 kW.....	7,348.90	1,017.60	354.90	447.90	33817
33818	69 - 100 kW.....	8,846.00	1,130.70	399.20	492.70	33818
33819	100 - 150 kW.....	10,527.00	1,243.70	443.60	537.50	33819
33820	150 - 200 kW.....	13,041.20	1,356.80	487.90	582.30	33820
33821	200 - 300 kW.....	16,730.50	1,469.90	532.30	627.10	33821
33822	300 - 350 kW.....	23,759.50	1,582.90	576.60	671.90	33822
33823	350 - 450 kW.....	27,238.60	1,696.00	621.00	716.70	33823

## **Section 34**

### **AIR-CONDITIONING, HEATING AND VENTILATION**



Item	FANS & VENTILATION SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Dark room cowl</b>					
34001	Dark room cowl for 230 mm diameter.....	900.30	38.20	13.30	17.70	34001
	<i>Per linear metre</i>					
	<b>Anti-acidic/anti-corrosive PVC duct for exhaust fans of diameter : -</b>					
34002	150 mm.....	596.60	13.30	4.30	7.50	34002
34003	250 mm.....	620.20	16.60	5.30	8.60	34003
34004	300 mm.....	725.00	19.90	6.40	9.70	34004
	<i>Each</i>					
	<b>S.S. vent washer system c/w pump, exhaust blower, exhaust air duct, inspection door : -</b>					
34005	2 m x 1.53 m x 0.683 m.....	55,653.00	1,831.70	425.80	537.50	34005
	<b>Fan chamber c/w access panels for fans of diameter : -</b>					
34006	up to 300 mm.....	1,489.30	34.90	13.30	17.70	34006
34007	300 - 380 mm.....	1,783.60	38.20	13.80	18.80	34007
34008	380 - 500 mm.....	2,077.80	41.50	14.40	19.90	34008
34009	500 - 610 mm.....	2,837.60	44.80	14.90	21.00	34009
34010	610 - 800 mm.....	3,713.80	48.10	15.40	24.70	34010
	<b>Acoustic fan chamber c/w access panels for fans of diameter : -</b>					
34011	up to 300 mm.....	2,424.30	51.40	18.60	23.10	34011
34012	300 - 380 mm.....	3,020.90	54.80	19.20	24.20	34012
34013	380 - 500 mm.....	3,736.20	58.10	19.70	25.30	34013
34014	500 - 610 mm.....	4,748.10	61.40	20.20	26.30	34014
34015	610 - 800 mm.....	5,878.70	64.70	20.80	30.10	34015

Item	FANS & VENTILATION SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A	B	C	D	
		\$	\$	\$	\$	
	<i>Each</i>					
	<b>Duct access panel : -</b>					
34016	up to 0.1 m <sup>2</sup> .....	191.10	14.10	6.40	7.50	34016
34017	0.1 - 0.25 m <sup>2</sup> .....	284.40	15.80	7.50	8.60	34017
34018	0.25 - 0.5 m <sup>2</sup> .....	500.60	18.30	9.10	10.20	34018
	<b>Regulation damper</b>					
34019	Regulation damper c/w operating handle, access panel, device for position and locking the damper blades, label etc. ....	231.60	34.00	13.30	17.70	34019
	<i>Per square metre</i>					
	<b>Galvanized iron wire mesh</b>					
34020	Galvanized iron wire mesh (straight lattice mesh/diamond mesh).....	105.10	20.80	9.10	10.80	34020
	<i>Each</i>					
	<b>Axial-flow fan, aerofoil type c/w local control panel</b>					
	<b>Motor speed up to 1000 r.p.m., fan diameter : -</b>					
34021	up to 300 mm.....	2,401.30	122.10	31.90	40.30	34021
34022	300 - 380 mm.....	2,697.50	132.30	34.60	43.00	34022
34023	380 - 500 mm.....	3,570.00	142.50	37.30	45.70	34023
34024	500 - 610 mm.....	4,154.40	152.60	39.90	48.40	34024
34025	610 - 800 mm.....	5,603.30	162.80	42.60	51.10	34025
	<b>Motor speed up to 1500 r.p.m., fan diameter : -</b>					
34026	up to 300 mm.....	2,516.60	122.10	31.90	40.30	34026
34027	300 - 380 mm.....	3,446.80	132.30	34.60	43.00	34027
34028	380 - 500 mm.....	3,858.20	142.50	37.30	45.70	34028
34029	500 - 610 mm.....	4,442.60	152.60	39.90	48.40	34029
34030	610 - 800 mm.....	5,891.50	162.80	42.60	51.10	34030

Item	FANS & VENTILATION SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
34031	<b>Bifurcated fan</b> Bifurcated fan type, minimum air volume flow rate at 820 l/s and static pressure at 20 Pa .....	4,573.20	152.60	39.90	48.40	34031
	<b>Centrifugal fan, backward/forward bladed type c/w motor, drive belt and pulley, casing, access panel, metal enclosure, air plenum, starters and local control panel.</b>					
	<b>Fan diameter : -</b>					
34032	up to 300 mm.....	2,861.20	245.20	54.80	83.90	34032
34033	300 - 380 mm.....	3,981.50	267.60	62.80	87.60	34033
34034	380 - 500 mm .....	5,918.10	281.90	67.10	96.80	34034
34035	500 - 610 mm .....	9,164.80	294.10	74.50	102.10	34035
34036	610 - 800 mm.....	15,130.80	306.30	83.00	107.50	34036
	<b>Roof extraction fan c/w motor, centrifugal/mixed flow blower, casing, cowl, base, back -draught damper, bird entry preventer guard, control switch and starter.</b>					
	<b>Motor speed up to 900 r.p.m. (50-100 Pa), flow rate : -</b>					
34037	up to 0.5 m <sup>3</sup> /s.....	2,276.60	255.40	60.20	89.20	34037
34038	0.5 - 1 m <sup>3</sup> /s.....	2,705.40	277.80	68.10	93.00	34038
34039	1 - 1.5 m <sup>3</sup> /s.....	2,938.70	292.10	72.40	102.10	34039
	<b>Motor speed up to 1400 r.p.m. (75-125 Pa), flow rate : -</b>					
34040	up to 1 m <sup>3</sup> /s.....	2,894.40	277.80	68.10	93.00	34040
34041	1 - 1.5 m <sup>3</sup> /s.....	3,703.20	292.10	72.40	102.10	34041
34042	1.5 - 2 m <sup>3</sup> /s.....	5,701.30	305.30	80.40	108.00	34042
34043	2 - 4 m <sup>3</sup> /s.....	8,563.80	329.70	91.60	119.90	34043

Item	FANS & VENTILATION SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>In line mixed flow fan of fan diameter : -</b>					
34044	200 mm diameter 900 r.p.m.....	2,572.50	158.90	36.70	47.30	34044
34045	300 mm diameter 900 r.p.m.....	4,403.50	162.80	38.30	50.00	34045
34046	450 mm diameter 900 r.p.m.....	5,309.40	167.90	39.90	52.70	34046
34047	200 mm diameter 1400 r.p.m.....	2,735.50	158.90	36.70	47.30	34047
34048	300 mm diameter 1400 r.p.m.....	4,688.30	162.80	38.30	50.00	34048
34049	450 mm diameter 1400 r.p.m.....	5,736.60	167.90	39.90	52.70	34049
	<b>Propeller fan c/w galvanized iron casing with acoustic lining. Air flow rate based on static pressure 50 Pa : -</b>					
34050	up to 0.3 m <sup>3</sup> /s.....	2,062.50	245.20	54.80	83.90	34050
34051	0.3 - 0.6 m <sup>3</sup> /s.....	2,155.20	267.60	62.80	87.60	34051
34052	0.6 - 0.8 m <sup>3</sup> /s.....	2,390.40	281.90	67.10	96.80	34052
34053	0.8 - 1 m <sup>3</sup> /s.....	2,474.80	294.10	74.50	102.10	34053
34054	1 - 1.2 m <sup>3</sup> /s.....	2,783.00	306.30	83.00	107.50	34054
	<b>Direct-drive inline duct fan c/w acoustic casing and local control panel, fan diameter : -</b>					
34055	100 mm.....	1,250.20	327.90	115.30	143.30	34055
34056	200 mm.....	3,499.90	350.50	133.10	161.30	34056
34057	250 mm.....	5,139.70	361.80	141.90	170.20	34057
34058	280 mm.....	6,342.00	373.10	150.80	179.20	34058
34059	315 mm.....	7,106.10	395.70	159.70	188.10	34059
34060	400 mm.....	10,247.40	407.00	168.60	197.10	34060
	<b>Flameproof in-line fan</b>					
34061	Flameproof in-line fan, 880 r.p.m., fan diameter up to 330 mm.....	5,250.80	407.00	168.60	197.10	34061
	<b>Exhaust fan c/w automatic motorized weather-proof louvre, propeller type, fan diameter : -</b>					
34062	150 mm.....	820.30	35.50	17.70	22.20	34062
34063	230 mm.....	1,247.40	39.90	19.50	24.00	34063
34064	300 mm.....	1,553.60	44.40	21.30	25.70	34064

Item	FANS & VENTILATION SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Aluminium acoustic box c/w propeller fan</b>					
34065	Aluminium acoustic box c/w 250 mm diameter propeller fan of duty (0.17 m <sup>3</sup> /s, 40 Pa) and air grilles. Nominal size 450 x 450 x 700 mm.....	3,004.40	395.70	150.80	179.20	34065
	<b>Motor starter c/w push buttons, relays, circuit protective device : -</b>					
34066	up to 2.2 kW rating.....	314.90	40.70	8.00	10.80	34066
34067	2.2 - 5.5 kW rating.....	333.50	45.80	9.10	13.40	34067
34068	5.5 - 11 kW rating.....	1,656.00	50.90	10.70	16.10	34068
34069	11 - 15 kW rating.....	2,585.70	59.00	13.30	18.80	34069
	<b>Contactors c/w metal enclosure : -</b>					
34070	30 A SP & N.....	134.90	27.60	6.90	9.10	34070
34071	60 A SP & N.....	270.60	47.40	10.70	13.40	34071
34072	100 A SP & N.....	445.10	53.40	14.90	18.80	34072
34073	30 A TP & N.....	155.70	32.70	8.00	10.20	34073
34074	60 A TP & N.....	493.90	51.70	12.80	16.10	34074
34075	100 A TP & N.....	644.10	66.30	16.50	21.00	34075
	<b>Soft motor starter : -</b>					
34076	up to 2.2 kW rating.....	6,519.40	81.40	21.30	26.90	34076
34077	2.2 - 5.5 kW rating.....	7,603.30	91.60	26.60	32.30	34077
34078	5.5 - 12 kW rating.....	8,418.30	101.80	31.90	37.60	34078
34079	12 - 22 kW rating.....	9,098.70	111.90	37.30	43.00	34079
34080	22 - 37 kW rating.....	12,200.20	122.10	42.60	48.40	34080
	<b>Time switch c/w metal enclosure, overriding switch : -</b>					
34081	24-hour dial.....	353.80	16.30	4.30	6.50	34081
34082	7-day clock.....	565.20	16.30	4.30	6.50	34082
34083	with 3-minute delay.....	253.90	16.30	4.30	6.50	34083
	<b>Interlocking control panel</b>					
34084	Interlocking control panel for a group of fans (ON/OFF function for the group is treated as one item) (stainless steel 316 for control of 1 to 2 items).....	1,499.90	325.50	82.80	143.80	34084

Item	FANS & VENTILATION SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Grease filter type kitchen exhaust hood</b>					
	<b>Exhaust hood of 316 stainless steel sheet 1.2 mm thick with hair line finish c/w minimum 38 mm stainless steel angle iron frame and supports, 50mm thick grease filters, filter washing facilities, flushed fluorescent lighting with heat resistant wired glass diffusers and accessories with height up to and including 1.2 m, with the hood bottom perimeter to reference dimension.</b>					
	<b>Hood undersurface area of : -</b>					
34085	up to 3 m <sup>2</sup> .....	10,545.70	1,127.50	215.90	337.50	34085
34086	3 - 4 m <sup>2</sup> .....	13,449.50	1,403.30	321.10	436.30	34086
34087	4 - 5 m <sup>2</sup> .....	16,293.10	1,591.50	391.20	517.80	34087
34088	5 - 6 m <sup>2</sup> .....	19,336.60	1,627.90	496.60	583.70	34088
	<b>Washable grease filter</b>					
34089	500 x 500 x 50 mm thick.....	322.30	13.30	4.30	6.50	34089
	<b>Cleaning tank</b>					
34090	Stainless steel cleaning tank.....	3,642.20	83.00	21.30	26.90	34090
	<i>Per litre</i>					
34091	Cleaning detergent.....	51.50	-	-	-	34091

Item	FANS & VENTILATION SYSTEM (CONT'D)				Item	
	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use		
	A	B	C	D		
	\$	\$	\$	\$		
<i>Each</i>						
	<b>Water scrubbing type exhaust hood of 316 stainless steel sheet 1.2 mm thick with hair line finish c/w minimum 38 mm stainless steel angle iron frame and support, grease filters filter washing facilities, rotary baffles, inspection door, water recirculation system, control panel, flushed fluorescent lighting with heat resistant wired glass diffusers and accessories (with height up to and including 1.2 m, with the hood bottom perimeter as reference dimension), jet spray nozzles.</b>					
	<b>Hood undersurface area of : -</b>					
34092	up to 4 m <sup>2</sup> .....	30,100.70	1,430.80	337.00	454.60	34092
34093	4 - 5 m <sup>2</sup> .....	57,297.10	1,622.10	413.20	535.00	34093
34094	5 - 6 m <sup>2</sup> .....	62,261.70	1,794.00	527.70	640.60	34094
34095	Add to last item for each additional square metre or part thereof.....	4,904.00	94.60	25.20	35.60	34095
	<i>Per set</i>					
	<b>Vehicle exhaust hose and hose reel</b>					
34096	Vehicle exhaust hose reel c/w nozzle, hose clip, 10 m exhaust hose of 50 mm diameter c/w control panel and all necessary accessories .....	44,707.40	596.30	165.50	245.60	34096
34097	50 mm diameter. exhaust hose 10 m long.....	4,491.80	54.00	18.10	30.60	34097
	<i>Per linear metre</i>					
	<b>Flue pipe</b>					
34098	200 mm stainless steel flue pipe c/w fittings, 50 mm thick fibreglass insulation and 0.8 mm galvanized iron sheet cladding rain cap and steel wire .....	1,708.00	22.60	7.50	12.90	34098
	<i>Each</i>					
	<b>Sundries</b>					
34099	Acoustic enclosure for housing centrifugal fan.....	2,461.60	181.40	60.20	75.30	34099
34100	Weather proof control panel c/w motor starter, indicators, switches etc.....	14,931.00	224.90	75.10	127.40	34100
34101	Silencer of 304 stainless steel construction c/w corrosion resistant flanges 300 mm (diameter) x 1200 mm (long) .....	5,793.30	96.80	18.60	32.30	34101
	<i>Per set</i>					
	<b>High pressure cleansing unit</b>					
34102	Wall mounted unit flow rate 15.7 l/m at 175 bar pressure.....	16,119.20	283.90	88.90	107.50	34102
	<b>Full package 2 pump unit at 400 kPa working pressure : -</b>					
34103	up to 0.5 kW.....	3,984.20	223.90	47.90	64.50	34103
34104	0.6 - 2 kW.....	7,812.20	254.40	63.90	75.30	34104
34105	2.1 - 5 kW.....	14,532.30	264.60	69.20	80.60	34105

Item	WATER SCRUBBER	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per set</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Water scrubber/multi-throat venture scrubber c/w packings, FRP centrifugal fan, mist eliminator, pipework, nozzle, sump, 3 nos. recycling pump c/w pump motor, flow sensor, flow switch, air release valve, chemical metering pump, ORP and pH analyzer transmitter, chemical tank, fully enclosed acoustic panel chamber, local control panel for design flow rate of : -</b>					
34106	5.5 - 8 m³/s..... (The actual rate should be : \$354,434.80 for Item 34106A)	35,443.48	8,535.70	2,173.70	2,888.50	34106
34107	8 - 11.5 m³/s..... (The actual rate should be : \$529,361.50 for Item 34107A)	52,936.15	9,884.00	2,688.20	3,549.80	34107
34108	11.5 - 14.5 m³/s..... (The actual rate should be : \$660,721.20 for Item 34108A)	66,072.12	11,105.10	3,181.30	4,142.80	34108
	<i>Per square metre</i>					
	<b>Galvanized iron air duct c/w volume control damper, painted with anti-corrosive paint : -</b>					
34109	1 mm thick.....	338.00	28.40	9.10	13.40	34109
34110	1.2 mm thick.....	381.70	30.10	10.10	14.50	34110
	<i>Each</i>					
	<b>Silencer of PVC/PP construction c/w corrosion resistant flanges : -</b>					
34111	up to 0.5 m³/s.....	4,039.30	104.80	19.20	31.20	34111
34112	0.5 - 1 m³/s.....	6,632.40	128.20	26.60	38.20	34112
34113	1 - 1.5 m³/s.....	7,510.80	146.50	40.50	49.50	34113
34114	1.5 - 2 m³/s.....	9,929.40	164.90	49.50	61.30	34114
34115	Add to last item for each additional 0.5 m³/s or part thereof.....	2,190.10	20.40	5.30	8.60	34115
	<b>Sundries : -</b>					
34116	Chemical dosing tank c/w accessories, chemical metering pump set.....	1,341.20	33.60	8.00	16.10	34116
34117	ORP analyzer c/w sensor, transmitter and accessories.....	1,030.20	25.40	8.50	10.80	34117
34118	pH analyzer c/w sensor, transmitter and accessories.....	1,030.20	25.40	8.50	10.80	34118
34119	Portable chemical pump for NaOH/NaOCl.....	1,152.20	50.90	13.30	22.00	34119



Item	ENERGY SAVINGS CONTROL SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Energy savings control system for mechanical ventilation integrated with natural ventilation : -</b>					
34120	Wind speed sensor.....	8,926.70	226.10	62.10	80.60	34120
34121	Wind direction sensor.....	10,362.30	226.10	62.10	80.60	34121
34122	Wind speed and direction controller c/w power cables, control cables, contactors metal enclosure and all necessary accessories.....	6,066.60	678.40	177.40	268.80	34122
	<b>METAL WORKS IN ASSOCIATED WITH AIR-CONDITIONING INSTALLATION</b>					
	<i>Per square metre</i>					
34123	Elevated or overhauling platform for A/C equipment c/w metal work, railing, catladder, painting as per Structural Engineer's recommended detail (to be measured on platform surface area).....	2,743.60	154.10	45.80	64.50	34123
	<i>Each</i>					
34124	Surveyor's certificate for steel service platform for maintenance of A/C equipment.....	5,520.00	-	-	-	34124
	<b>SUPERVISORY/CONTROL PANEL/ENERGY METER</b>					
	<i>Each</i>					
34125	Supervisory/control panel of sheet metal box and stainless steel metal front plate c/w push buttons, indicating lamps, relays (or electrical control), selectors, electrical wiring and all necessary functional and operational component for the control of an A/C system comprising 3 control points.....	8,866.40	508.50	129.30	224.70	34125
34126	Every additional control point incorporating with the main supervisory/control panel .....	1,931.00	101.90	13.80	14.30	34126
34127	Hour run meter (all rating).....	470.60	19.30	4.80	8.10	34127
34128	Energy meter for chilled water.....	3,476.80	53.90	27.70	28.50	34128
34129	Sea water flow counter.....	2,140.50	44.80	18.10	19.40	34129
34130	Sea water direct reading flow meter (all size).....	6,044.30	53.90	27.70	28.50	34130
34131	Thermometers for chilled water.....	206.20	26.50	6.90	10.80	34131
34132	Digital temperature indicator.....	1,594.10	30.50	8.00	11.90	34132
34133	Movement detector, combined infrared and ultrasonic detection type c/w necessary accessories and connection to the alarm panel.....	513.30	66.20	27.70	28.50	34133

Item	VARIABLE SPEED MOTOR DRIVE	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Variable speed motor drive of rating : -</b>					
34134	up to 5 kW.....	8,404.20	46.80	12.30	16.10	34134
34135	5 - 10 kW.....	9,938.30	63.10	16.50	22.00	34135
34136	10 - 15 kW.....	11,472.40	79.40	20.80	28.00	34136
34137	15 - 20 kW.....	12,749.20	94.60	25.00	33.30	34137
34138	20 - 30 kW.....	23,294.90	108.90	27.70	37.60	34138
34139	30 - 40 kW.....	25,938.20	121.10	33.50	45.20	34139
34140	40 - 50 kW.....	29,568.20	132.30	37.80	48.40	34140
34141	50 - 60 kW.....	34,014.80	135.30	41.50	51.60	34141
	<b>CENTRAL CONTROL AND MONITORING SYSTEM (CCMS)</b>					
	<i>Each</i>					
34142	CCMS central control workstation c/w mouse and keyboard, TFT LCD monitor of viewable size 530mm (21" diagonally), A3 ink/laser printer capable of handling continuous paper, UPS capable of backup for 1 hour of operation for the PC, monitor and printer and 16-bit/full duplex audio system c/w speakers.....	18,536.30	113.10	26.60	35.80	34142
34143	Uninterrupted power supply capable for 1 hour operation for the PC.....	7,238.40	56.50	13.30	17.90	34143
34144	Portable operator terminal hardware c/w weight of less than 2 Kg, run on rechargeable battery, capable of retrieving and storing information to and from CCMS server and DDC controllers and Input method can be keyboard, touch screen, track point and/or mouse.....	13,566.50	11.30	4.40	7.20	34144
34145	DDC controller hardware c/w RAM and the clock shall be provided with power backup of 72 hours instant recharged capacitor or 12-hour trickle recharged batteries, universal inputs and universal outputs.....	3,610.20	113.10	26.60	35.80	34145
34146	Unitary controller hardware with processor speed at least 10 MHz and minimum of 512 Kbytes RAM.....	4,524.30	22.60	8.90	13.40	34146
34147	Gateway/interfacing hardware c/w processor speed at least 16.7 MHz and minimum of 2 Mbytes RAM. The gateway, which also acts as a general purpose controller, shall have the same analog/digital input and output points.....	5,138.80	22.60	8.90	13.40	34147
34148	CCMS central database repository shall reside in the CCMS server. The database server shall use client/server technology and comply with Microsoft Open Database Connectivity (ODBC) latest version and support ISO SQL 89.....	906.40	22.60	-	-	34148
34149	ACMV sub-system unitary controllers for temperature/humidity/pressure controllers with plug-in proportional type with integrated circuits controllers shall be available with either 0 to 20V DC proportional output, two-position output, or any combination.....	8,238.20	56.50	13.30	17.90	34149
34150	Programmable DDC controller for VAV Box.....	726.90	43.20	5.30	6.50	34150

Item	CENTRAL CONTROL AND MONITORING SYSTEM (CCMS) (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Sensors, control valves and dampers</b>					
34151	Temperature sensors.....	410.00	43.20	6.90	8.60	34151
34152	Humidity sensors.....	1,193.50	43.20	6.90	8.60	34152
34153	Absolute humidity (dew point) sensors.....	1,220.40	43.20	6.90	8.60	34153
34154	Combined type humidity and temperature sensors.....	1,238.50	43.20	6.90	8.60	34154
34155	Differential pressure sensors.....	1,238.50	43.20	6.90	8.60	34155
34156	Air velocity sensors.....	1,538.60	43.20	6.90	8.60	34156
34157	Contamination sensors.....	1,538.60	43.20	6.90	8.60	34157
34158	Flow sensors.....	383.00	43.20	6.90	8.60	34158
34159	Occupancy sensor.....	488.10	43.20	6.90	8.60	34159
34160	Control valves, modulating type with a turn down ratio of at least 50 to 1 and c/w valves actuator. Valve bodies shall be cast gunmetal, brass, cast iron or as otherwise indicated. Valves shall have authority of at least 0.5 (50%).....	6,101.60	63.30	33.90	40.00	34160
34161	Two-position control dampers, dampers shall be sized for minimum pressure drop at the indicated ductwork size.....	800.10	15.50	4.30	6.50	34161
34162	Modulating and proportioning dampers, dampers shall be sized for an effective linear air flow control characteristic within the angle of rotation and maximum pressure drops specified.....	800.10	15.50	4.30	6.50	34162
34163	Dampers at louvres, dampers located immediately adjacent to intake and exhaust louvres shall be furnished in sizes as indicated because of reduced free area at louvres.....	800.10	15.50	4.30	6.50	34163
34164	Isolation dampers that shall provide tight shut-off with negligible leakage, and shall withstand the applied pressure, velocities and turbulence in the open position.....	800.10	15.50	4.30	6.50	34164
34165	Fire and smoke dampers that shall meet all requirements of NFPA 90A and shall where indicated bear the 2 hour UL fire damper label.....	906.60	15.50	4.30	6.50	34165
34166	Damper actuator that shall be of the linear or rotary type for either modulating or two-positioning control.....	1,203.40	90.50	13.30	21.50	34166
34167	Carbon monoxide monitor/alarm sensors.....	312.80	46.80	6.90	8.60	34167
34168	Nitrogen dioxide sensors.....	914.90	46.80	6.90	8.60	34168
34169	Carbon dioxide (CO <sub>2</sub> ) sensor of non dispersive technology with sensing range of 0 to 2000 ppm, accuracy within 5%. Duct / wall mounted.....	1,617.20	46.80	6.90	8.60	34169
	<i>Per linear metre</i>					
	<b>Cables</b>					
34170	Low capacitance cable.....	10.10	7.60	2.30	2.80	34170
34171	Shield twist pair cable.....	12.60	7.60	2.30	2.80	34171
34172	Multi-mode 62.5/125 fiber optic cable.....	37.80	7.60	2.30	2.80	34172

Item	SUNDRIES	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<b>Labour to disconnect all existing air-conditioning and ventilation installation for an area, take down and clearing the entire air-conditioning and ventilation installation inside the area (area shall be measured net on the gross floor area of the building covered by the air-conditioning services installation) : -</b>					
	<i>Per square metre</i>					
34173	for area up to 100 m <sup>2</sup> .....	-	-	24.70	-	34173
34174	for area 100 - 500 m <sup>2</sup> .....	-	-	24.10	-	34174
34175	for area above 500 m <sup>2</sup> .....	-	-	22.50	-	34175
	<i>Per point/per type</i>					
	<b>IAQ testing/assessment and report as described in A/C G.S. sub-section A9.19-IAQ equipment and System Test under Section A9 : Inspection, Commissioning and Testing : -</b>					
34176	Carbon dioxide.....	184.00	-	-	-	34176
34177	Carbon monoxide.....	184.00	-	-	-	34177
34178	Respirable suspended particulate.....	276.00	-	-	-	34178
34179	Nitrogen dioxide.....	184.00	-	-	-	34179
34180	Ozone.....	920.00	-	-	-	34180
34181	Formaldehyde.....	184.00	-	-	-	34181
34182	Total volatile organic compound.....	276.00	-	-	-	34182
34183	Radon.....	184.00	-	-	-	34183
34184	Airborne bacteria.....	276.00	-	-	-	34184
34185	Room temperature.....	92.00	-	-	-	34185
34186	Relative humidity.....	92.00	-	-	-	34186
34187	Air movement.....	92.00	-	-	-	34187

Item	SUNDRIES (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per set</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Solar collector panel complying BS EN 12975 with minimum efficiency 65% at 30K temperature difference between average fluid temperature and ambient air temperature with solar irradiation = 800W/m<sup>2</sup> : -</b>					
34188	up to 1 m <sup>2</sup> .....	2,527.40	452.30	114.80	167.00	34188
34189	1 m <sup>2</sup> - 2 m <sup>2</sup> .....	3,681.50	542.70	137.80	200.40	34189
34190	2 m <sup>2</sup> - 3 m <sup>2</sup> .....	5,896.20	607.80	154.30	224.40	34190
34191	3 m <sup>2</sup> - 4 m <sup>2</sup> .....	8,117.20	680.80	172.80	251.40	34191
34192	4 m <sup>2</sup> - 5 m <sup>2</sup> .....	10,345.30	762.50	193.60	281.50	34192
34193	5 m <sup>2</sup> - 6 m <sup>2</sup> .....	12,581.20	854.00	216.80	315.30	34193
34194	6 m <sup>2</sup> - 7 m <sup>2</sup> .....	14,826.10	956.50	242.80	353.20	34194
	<b>Solar collector control panel</b>					
34195	Solar collector control panel with solar hot water system controller, including the control of circulation pump, solar hot water storage tank, level switch, safety device & all necessary accessories.....	1,767.90	302.20	89.30	167.50	34195
	<b>Solar hot water storage tank c/w insulation complying BS5500 c/w all necessary accessories : -</b>					
34196	up to 100 litres.....	2,191.00	190.70	45.00	83.50	34196
34197	100 - 200 litres.....	2,346.90	200.20	47.30	87.70	34197
34198	200 - 300 litres.....	2,703.70	210.20	49.70	92.10	34198
34199	300 - 400 litres.....	4,996.50	220.60	52.10	96.70	34199
34200	400 - 500 litres.....	7,056.70	231.70	54.70	101.40	34200
	<b>Pyranometer</b>					
34201	Pyranometer complying ISO 9060 c/w all functional accessories.....	1,521.60	164.40	43.10	83.50	34201
	<b>Stainless steel plate type heat exchanger of heat transfer capacity: -</b>					
34202	up to 25 kW.....	8,657.50	996.00	203.80	274.80	34202
34203	25 - 50 kW.....	25,585.20	1,095.60	224.20	279.00	34203
34204	50 - 100 kW.....	50,452.00	1,205.20	246.60	306.80	34204
34205	100 - 200 kW.....	60,454.60	1,325.80	271.20	337.50	34205
34206	200 - 300 kW.....	80,380.80	1,458.40	298.40	371.20	34206

Item	STEAM AND HOT WATER SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A	B	C	D	
		\$	\$	\$	\$	
	<b>Steam plant and equipment c/w steam boiler, combustion chamber, automatic burner with controls, blow-down valve, all necessary valves, tanks, thermometer, steam pressure gauge, boiler feed pump with controls, water level gauge glass, water level control, local control panel and protection, drip tray, cleaning tools, chemical dosing equipment, draught gauge, meters, quartz clock and condensate/feed tank : -</b>					
	<i>Each</i>					
34207	Water heating capacity 401 - 500 kg/hr..... (The actual rate should be : \$507,894.10 for Item 34207A)	50,789.41	12,488.90	4,881.10	5,568.50	34207
	<b>Air-water heat pump (zero ODP refrigerant) c/w motor, compressor, condenser, evaporator coil, centrifugal blower, automatic safety controls within common cabinet, refrigerant receiver, moisture indicator, sight glass, thermal expansion valve, filter drier, heat exchanger, lockout relay, fan motor, thermal overload protector, time delay, phase monitor, hour meter and control panel : -</b>					
34208	Water heating capacity 8 - 14 kW.....	34,238.20	1,850.00	377.90	435.40	34208
34209	Water heating capacity 14 - 28 kW.....	63,253.40	3,151.50	547.20	671.90	34209
34210	Water heating capacity 28 - 44 kW..... (The actual rate should be : \$139,349.60 for Item 34210A)	13,934.96	4,402.10	792.00	882.60	34210
34211	Water heating capacity 44 - 68 kW..... (The actual rate should be : \$171,504.20 for Item 34211A)	17,150.42	5,642.60	1,066.20	1,674.90	34211
34212	Water heating capacity 68 - 100 kW..... (The actual rate should be : \$207,057.20 for Item 34212A)	20,705.72	6,922.80	1,369.00	2,542.40	34212
34213	Water heating capacity 100 - 150 kW..... (The actual rate should be : \$254,139.00 for Item 34213A)	25,413.90	8,348.40	2,166.90	3,233.10	34213
	<i>Per linear metre</i>					
	<b>Black mild steel steam return pipeworks c/w preformed rigid glass fibre insulation system, hammered aluminium sheeting of pipe diameter : -</b>					
	<b>Heavy quality</b>					
34214	15 mm.....	101.50	54.80	4.30	4.80	34214
34215	20 mm.....	121.00	67.20	4.50	5.20	34215
34216	25 mm.....	140.40	73.00	5.10	5.70	34216
34217	32 mm.....	161.20	78.00	5.70	6.40	34217
34218	40 mm.....	174.90	83.80	6.30	7.00	34218
34219	50 mm.....	225.00	97.10	6.90	7.50	34219
34220	65 mm.....	273.20	111.20	8.10	8.80	34220
34221	80 mm.....	336.20	125.30	9.50	10.20	34221
34222	100 mm.....	466.50	144.40	10.70	11.50	34222
34223	150 mm.....	621.10	191.70	17.70	19.20	34223

Item	STEAM AND HOT WATER SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per linear metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Black mild steel condensate return pipeworks c/w preformed rigid glass fibre insulation system, hammered aluminium sheeting of pipe diameter : -</b>					
	<b>Heavy quality</b>					
34224	15 mm.....	89.20	54.80	4.30	4.80	34224
34225	20 mm.....	108.00	67.20	4.50	5.20	34225
34226	25 mm.....	126.80	73.00	5.10	5.70	34226
34227	32 mm.....	146.60	78.00	5.70	6.40	34227
34228	40 mm.....	159.70	83.80	6.30	7.00	34228
34229	50 mm.....	194.30	97.10	6.90	7.50	34229
34230	65 mm.....	239.30	111.20	8.10	8.80	34230
34231	80 mm.....	281.20	125.30	9.50	10.20	34231
34232	100 mm.....	348.00	146.00	10.70	11.50	34232
34233	150 mm.....	518.10	191.70	17.70	19.20	34233
	<b>Galvanized steel compressed air pipeworks of pipe diameter : -</b>					
	<b>Heavy quality</b>					
34234	15 mm.....	51.00	38.20	2.80	3.10	34234
34235	20 mm.....	64.10	47.30	2.80	3.30	34235
34236	25 mm.....	77.00	51.40	3.20	3.70	34236
34237	32 mm.....	90.20	54.80	3.60	4.10	34237
34238	40 mm.....	99.30	58.90	4.00	4.50	34238
34239	50 mm.....	121.60	68.00	4.40	4.90	34239
34240	65 mm.....	152.70	78.00	5.10	5.60	34240
34241	80 mm.....	180.80	88.00	6.00	6.50	34241
34242	100 mm.....	226.20	101.20	6.80	7.40	34242
34243	150 mm.....	320.40	134.40	11.20	12.10	34243

Item	STEAM AND HOT WATER SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A	B	C	D	
	<i>Per linear metre</i>					
	<b>Copper pipe for hot water system c/w preformed rigid glass fibre insulation system, hammered aluminium sheeting of pipe diameter : -</b>	\$	\$	\$	\$	
34244	below 12 mm.....	76.70	52.80	3.50	3.80	34244
34245	12 mm.....	86.70	57.20	3.60	3.90	34245
34246	15 mm.....	99.50	61.50	3.70	4.10	34246
34247	18 mm.....	111.30	64.70	3.90	4.20	34247
34248	22 mm.....	140.70	69.10	4.60	4.90	34248
34249	28 mm.....	165.70	77.60	5.00	5.30	34249
34250	35 mm.....	208.30	83.10	5.50	5.80	34250
34251	42 mm.....	236.40	89.50	5.90	6.20	34251
34252	54 mm.....	285.20	102.50	6.60	6.90	34252
34253	67 mm.....	364.90	115.40	6.80	7.10	34253
34254	76 mm.....	468.90	125.10	8.00	8.30	34254
34255	108 mm.....	629.80	158.60	9.30	9.70	34255
34256	133 mm.....	765.40	185.50	11.00	11.30	34256
34257	159 mm.....	882.00	211.40	12.40	12.80	34257
	<b>Copper pipe for cold water system of pipe diameter : -</b>					
34258	below 12 mm.....	46.40	40.70	2.70	2.90	34258
34259	12 mm.....	54.60	44.00	2.80	3.00	34259
34260	15 mm.....	65.30	47.30	2.80	3.10	34260
34261	18 mm.....	75.20	49.80	3.00	3.20	34261
34262	22 mm.....	88.30	53.10	3.60	3.80	34262
34263	28 mm.....	107.20	59.70	3.80	4.00	34263
34264	35 mm.....	143.10	63.90	4.30	4.50	34264
34265	42 mm.....	166.70	68.90	4.50	4.80	34265
34266	54 mm.....	205.70	78.80	5.10	5.30	34266
34267	67 mm.....	274.60	88.80	5.20	5.50	34267
34268	76 mm.....	370.20	96.30	6.10	6.40	34268
34269	108 mm.....	481.00	122.00	7.20	7.40	34269
34270	133 mm.....	568.10	142.70	8.40	8.70	34270
34271	159 mm.....	657.20	162.60	9.60	9.90	34271



Item	STEAM AND HOT WATER SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Steam, condensate return, compressed air and hot water valves c/w preformed rigid glass fibre insulation.</b>					
	<b>Y-type strainers c/w filled aluminium split boxes : -</b>					
34272	32 mm or below.....	264.70	43.90	22.50	27.60	34272
34273	40 mm.....	284.60	47.40	23.00	28.00	34273
34274	50 mm.....	308.70	50.70	24.00	29.00	34274
34275	65 mm.....	342.40	53.00	24.40	30.00	34275
34276	80 mm.....	346.30	57.50	26.80	31.90	34276
34277	100 mm.....	411.70	59.70	28.30	33.40	34277
34278	150 mm.....	465.80	73.30	35.90	41.10	34278
	<b>Globe valve c/w filled aluminium split boxes : -</b>					
34279	15mm.....	75.00	33.80	21.10	26.20	34279
34280	20 mm .....	95.90	37.20	21.60	26.60	34280
34281	25 mm.....	120.10	40.60	22.00	27.10	34281
34282	32 mm.....	165.30	43.90	22.50	27.60	34282
34283	40 mm.....	215.90	47.40	23.00	28.00	34283
34284	50 mm.....	324.50	50.70	24.00	29.00	34284
	<b>Parallel slide valve c/w filled aluminium split boxes : -</b>					
34285	65 mm.....	1,470.10	53.00	24.40	30.00	34285
34286	80 mm.....	2,541.80	57.50	26.80	31.90	34286
34287	100 mm.....	3,860.60	59.70	28.30	33.40	34287
34288	150 mm.....	7,198.80	73.30	35.90	41.10	34288

Item	STEAM AND HOT WATER SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Steam, condensate return, compressed air and hot water valves c/w preformed rigid glass fibre insulation (Cont'd)</b>					
	<b>Safety and relief valve c/w filled aluminium split boxes : -</b>					
34289	32 mm or below.....	798.20	43.90	22.50	27.60	34289
34290	40 mm.....	1,165.50	47.40	23.00	28.00	34290
34291	50 mm.....	1,408.80	50.70	24.00	29.00	34291
34292	65 mm.....	2,860.40	53.00	24.40	30.00	34292
34293	80 mm.....	4,236.50	57.50	26.80	31.90	34293
34294	100 mm.....	6,135.90	59.70	28.30	33.40	34294
34295	150 mm.....	7,913.20	73.30	35.90	41.10	34295
	<b>Pressure reducing valve c/w filled aluminium split boxes : -</b>					
34296	32 mm or below.....	1,242.80	43.90	22.50	27.60	34296
34297	40 mm.....	1,546.80	47.40	23.00	28.00	34297
34298	50 mm.....	1,926.00	50.70	24.00	29.00	34298
34299	65 mm.....	2,492.50	53.00	24.40	30.00	34299
34300	80 mm.....	3,684.20	57.50	26.80	31.90	34300
34301	100 mm.....	4,101.40	59.70	28.30	33.40	34301
34302	150 mm.....	5,151.50	73.30	35.90	41.10	34302

Item	STEAM AND HOT WATER SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Steam, condensate return, compressed air and hot water valves c/w preformed rigid glass fibre insulation (Cont'd)</b>					
	<b>Temperature and pressure gauge</b>					
34303	Temperature gauge c/w filled aluminium split boxes.....	636.40	31.00	13.30	15.10	34303
34304	Pressure gauge c/w filled aluminium split boxes.....	170.40	31.00	13.30	15.10	34304
	<b>Steam separator c/w filled aluminium split boxes : -</b>					
34305	32 mm or below.....	1,908.00	43.90	22.50	27.60	34305
34306	40 mm.....	2,378.40	47.40	23.00	28.00	34306
34307	50 mm.....	2,965.50	50.70	24.00	29.00	34307
34308	65 mm.....	3,843.90	53.00	24.40	30.00	34308
34309	80 mm.....	4,681.60	57.50	26.80	31.90	34309
34310	100 mm.....	5,788.30	59.70	28.30	33.40	34310
34311	150 mm.....	8,508.80	73.30	35.90	41.10	34311
	<i>Per set</i>					
	<b>Steam trap set comprising of globe valve, strainer, float operated steam trap, sight glass, check valve, gate valve and all union c/w filled aluminium split boxes; connect to pipe diameter of : -</b>					
34312	32 mm or below.....	4,203.70	434.00	97.40	118.30	34312
34313	40 mm.....	5,552.10	462.20	113.40	134.40	34313
34314	50 mm.....	6,303.90	480.90	127.80	149.40	34314
34315	65 mm.....	7,434.90	512.90	142.70	161.30	34315
34316	80 mm.....	8,563.50	542.00	158.60	177.40	34316
34317	100 mm.....	10,063.80	575.80	170.30	192.40	34317
34318	150 mm.....	13,762.90	601.20	186.30	206.40	34318

Item	STEAM AND HOT WATER SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Steam, condensate return, compressed air and hot water valves c/w preformed rigid glass fibre insulation (Cont'd)</b>					
	<b>Check valve c/w filled aluminium split boxes : -</b>					
34319	65 mm.....	399.50	53.00	24.40	30.00	34319
34320	80 mm.....	473.20	57.50	26.80	31.90	34320
34321	100 mm.....	756.30	59.70	28.30	33.40	34321
34322	150 mm.....	1,256.50	73.30	35.90	41.10	34322
	<b>Drain valve c/w hose union ends and loose key and filled aluminium split box : -</b>					
34323	50 mm.....	428.50	50.70	24.00	29.00	34323
34324	65 mm.....	571.90	53.00	24.40	30.00	34324
34325	80 mm.....	717.20	57.50	26.80	31.90	34325
34326	100 mm.....	907.60	59.70	28.30	33.40	34326
34327	150 mm.....	1,390.80	73.30	35.90	41.10	34327
	<b>Gate valve c/w filled aluminium split boxes : -</b>					
34328	50 mm.....	578.80	50.70	24.00	29.00	34328
34329	65 mm.....	657.20	53.00	24.40	30.00	34329
34330	80 mm.....	760.40	57.50	26.80	31.90	34330
34331	100 mm.....	991.30	59.70	28.30	33.40	34331
34332	150 mm.....	1,820.10	73.30	35.90	41.10	34332

Item	STEAM AND HOT WATER SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Insulation of pipeworks</b>					
	<b>Preformed rigid glass fibre insulation c/w hammered aluminium cladding for black mild steel condensate pipe of diameter : -</b>					
34333	15 mm.....	39.90	19.90	3.70	3.90	34333
34334	20 mm.....	46.70	24.90	4.30	4.50	34334
34335	25 mm.....	52.40	27.40	4.40	4.60	34335
34336	32 mm.....	57.60	29.00	4.40	4.80	34336
34337	40 mm.....	62.40	30.70	4.80	5.40	34337
34338	50 mm.....	72.50	35.70	5.90	6.50	34338
34339	65 mm.....	84.60	40.70	6.40	7.00	34339
34340	80 mm.....	97.80	46.50	6.90	7.50	34340
34341	100 mm.....	114.30	53.10	9.10	9.70	34341
34342	150 mm.....	187.40	70.50	12.30	12.90	34342
	<b>Preformed rigid glass fibre insulation c/w hammered aluminium cladding for black mild steel steam pipe of diameter : -</b>					
34343	15 mm.....	52.20	19.90	3.70	3.90	34343
34344	20 mm.....	59.70	24.90	4.30	4.50	34344
34345	25 mm.....	65.90	27.40	4.40	4.60	34345
34346	32 mm.....	72.20	29.00	4.40	4.80	34346
34347	40 mm.....	77.60	30.70	4.80	5.40	34347
34348	50 mm.....	103.30	35.70	5.90	6.50	34348
34349	65 mm.....	118.50	40.70	6.40	7.00	34349
34350	80 mm.....	152.70	46.50	6.90	7.50	34350
34351	100 mm.....	234.40	53.10	9.10	9.70	34351
34352	150 mm.....	290.40	70.50	12.30	12.90	34352

Item	STEAM AND HOT WATER SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A	B	C	D	
	<i>Per linear metre</i>					
	<b>Insulation of pipeworks ( Cont'd )</b>	\$	\$	\$	\$	
	<b>Preformed rigid glass fibre insulation c/w hammered aluminium cladding for copper pipe of hot water system of diameter : -</b>					
34353	below 12 mm.....	47.10	29.00	3.70	4.30	34353
34354	12 mm.....	51.10	32.40	4.00	4.60	34354
34355	15 mm.....	53.90	34.00	4.30	4.80	34355
34356	18 mm.....	57.40	36.50	4.80	5.40	34356
34357	22 mm.....	75.20	39.00	5.20	5.80	34357
34358	28 mm.....	83.50	43.20	5.50	6.10	34358
34359	35 mm.....	92.20	46.50	5.90	6.50	34359
34360	42 mm.....	98.70	49.80	6.40	7.00	34360
34361	54 mm.....	112.80	57.30	6.90	7.50	34361
34362	67 mm.....	128.10	64.70	7.50	8.10	34362
34363	76 mm.....	140.00	70.50	8.50	9.70	34363
34364	108 mm.....	200.50	88.80	10.70	11.80	34364
34365	133 mm.....	257.70	103.70	12.80	14.00	34365
34366	159 mm.....	294.00	118.70	14.90	15.60	34366
	<i>Each</i>					
	<b>Plugged branch</b>					
34367	25 mm plugged branch.....	25.60	13.30	4.30	5.40	34367

**Section 35**

**FIRE SERVICES**

## FIRE SERVICES

## SPECIAL CONDITIONS

- Measurement of power supply**
- I. All works of electrical power supply up to power supply points (e.g. switchgear or isolator or spur unit and the like) for the equipment shall be measured separately and paid for at the appropriate rates under Sections 27 to 30 - Electrical Installation or other applicable Work Sections of this Schedule.
- For the avoidance of doubt, all items for pump sets in this section shall only apply to the works executed for Fire Services Installation by the Approved Suppliers of Materials and Specialist Contracts for Public Works : Fire Services Installation.
- Measurement of excavations, ducts, chases, holes and other subsidiary work**
- II. All trench excavation shall be measured separately and paid for at the appropriate rates under Section 01 - Excavation of this Schedule. All pipe ducts, concrete thrust blocks and anchor blocks, chases in, and holes through existing walls, ceilings and similar for pipes, etc., (but not mortices or holes for brackets) except specifically stated, shall be measured and paid for at the appropriate rates under Section 02 - Concrete Work, Section 03 - Brickwork and Blockwork, Section 16 - Drainage and Cable duct or other applicable Work Sections of this Schedule.
- Measurement of pipework**
- III. Pipework shall be measured in linear metres over all in-line fittings, short running lengths and branches.
- Measurement of fire alarm indicating/control panel**
- IV. The fire alarm indicating/control panel shall be assumed to be located on the same floor as the fire services installation. When this panel is located on other floor, the interconnecting cables and the conduit facilities shall be measured separately from the control panel to the junction box on that floor for which the fire alarm points of that floor are grouped for connection to the control panel. In such case, the junction box shall be assumed to be located as near as possible to the control panel.
- Measurement of heat resistant cables & low smoke zero halogen cables**
- V. Cables for the equipment, control/indicating panels, fire alarm points, etc. have been allowed in the rates under this Section. No measurement shall be made for cables except for heat resistant cables where specifically ordered by the Maintenance Surveyor in writing.
- Heat resistant cables & low smoke zero halogen cables shall be measured the net length as fixed in linear metres.
- Rates generally**
- VI. The rates for all items shall generally include for : -
- (a) Colour band and colour identification work.
  - (b) Lettering and engraving for identification, signs, labels in both English and Chinese.
  - (c) Identification plates, signs, notice plates, discs and labels in both English and Chinese.
  - (d) Priming or painting off site and proprietary finishes or surface treatment applied as part of the production process whether applied before or after fabrication and assembly.
  - (e) All protective and finishing painting work, apart from additional painting work specifically ordered by the Maintenance Surveyor in writing which shall be measured separately and paid for at the appropriate rates under Section 15 - Painting of this Schedule.
  - (f) Any kind of fixing method including provision of screws, nuts, bolts, shims, washers, clips, hangers, supports, brackets, spring compensated and seismic restraints and isolating components and the like.



**SPECIAL CONDITIONS (CONT'D)**

VI.	<ul style="list-style-type: none"> <li>(g) Provision of expansion joints in service runs wherever they coincide with structural expansion joints.</li> <li>(h) Submission of catalogues, technical literature, data, calculations, test certificates and approval documentation covering the equipment and materials being supplied.</li> <li>(i) Preparing and submitting detail working drawings as required and all shop drawings for the fabrication and installation.</li> <li>(j) Attendance, as required, of the manufacturers' representative to assist in the installation and subsequent testing and commissioning.</li> <li>(k) Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Tests.</li> <li>(l) Provision of all necessary power, fuel, labour and testing instrument of approved type for testing and commissioning.</li> <li>(m) Submitting all relevant documentation to Fire Services Department and obtaining necessary approval.</li> <li>(n) Preparing and submitting operation and maintenance manuals and as-fitted drawings for items of works as required.</li> <li>(o) Provision of schematic diagrams covered front and back with plastic sheet including fixing to wall.</li> <li>(p) Provision of manufacturer's guarantee.</li> </ul>	<b>Rates generally (cont'd)</b>
VII.	<p>The rates for pipework shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) All short lengths, cutting and waste, and joints in the running length.</li> <li>(b) All pipework brackets, supports, hangers, guides, anchors and the like and alternative method of jointing and fixing as specified (if any).</li> <li>(c) All pipework fittings (e.g. bends, elbows, branches, reducers, tees, caps and the like) including connections, cutting and jointing pipes to fittings.</li> <li>(d) Screwed sockets, tappings, bosses and welding-necks welded to pipes or flanges including perforating the pipework or flanges.</li> <li>(e) Connections between pipework of different materials and differing grades of same material.</li> <li>(f) Wall, floor and ceiling plates.</li> <li>(g) All jointing including provision of flexible connections and/or necessary adaptors and connectors, welding consumable, jointing tapes, flanges, unions, gasket, bolts and nuts and the like where required.</li> <li>(h) Expansion loops and compensators including connections, cutting and jointing to pipes and fittings.</li> </ul>	<b>Rates for pipework</b>

## SPECIAL CONDITIONS (CONT'D)

<b>Rates for pipework (cont'd)</b>	VII.	<ul style="list-style-type: none"> <li>(i) Provision of all sleeves for casting in or building in where pipes pass through slabs, walls or beams and caulking between pipe and sleeve where required.</li> <li>(j) Fixing in any position to floors, walls and ceilings including laying in trenches and fixing in chases, ducts, false ceilings and similar positions, and wrapping with protective tape where required.</li> </ul>
<b>Rates for in-line pipework equipment</b>	VIII.	<p>The rates for in-line pipework equipment (e.g. valves, flow meters, gauges, strainers and the like) shall further include for : -</p> <ul style="list-style-type: none"> <li>(a) Cutting and jointing to pipes and fittings.</li> <li>(b) Stripping down repacking glands and preparing spindles, as appropriate, prior to installation.</li> </ul>
<b>Rates for fire alarm call points, fire alarm bell points, smoke detector points and heat detector points</b>	IX.	<p>The rates for fire alarm call points, fire alarm bell points, smoke detector points and heat detector points shall further include for cable, conduits, fire alarm push, fire alarm bell, smoke detector, heat detector and all necessary accessories for connection to the fire alarm control/ indication panel or the fire alarm system.</p>
<b>Rates for sprinkler points and dry pendent sprinkler points</b>	X.	<p>The rates for sprinkler points and dry pendent sprinkler points shall further include for sprinkler head, riser/down-drop/range pipe including modification and connection to existing sprinkler system. For new installation, the distribution pipe shall be measured separately and paid for at appropriate rates under this Section.</p>
<b>Rates for control/ indicating panels</b>	XI.	<p>Control / indicating panel shall be measured on the basis of complete unit monitoring and controlling the number of zones as specified. Rates for control/indicating panels shall further include for all necessary relays, indicating lamp, push button package, selector switches and the interconnecting cable and associated conduit/trunking between the equipment and the control/indicating panel and/or for connecting to existing control/indicating panel as required.</p>
<b>Rates for equipment</b>	XII.	<p>The rates for equipment shall further include for : -</p> <ul style="list-style-type: none"> <li>(a) All necessary assembly, orientation, alignment, levelling and bolting down, together with the provision of shims and packing pieces, the clocking of couplings between drivers and rotating equipment, strainers, instrumentation and the like.</li> <li>(b) Supporting frames.</li> <li>(c) Connections including flexible joints between pipework and equipment.</li> <li>(d) Flexible connections and anti-vibration connections between pipework and equipment.</li> <li>(e) All necessary operational and control accessories (e.g. valves, gauges, flow meters, indicating lamps and the like) forming part of the equipment, connection and termination.</li> <li>(f) Final connections and terminations to electrical supply and water supply including cables, wirings, conduits, trunkings, cable trays, fuses, control boxes, pipework, valves, gauges and necessary accessories required to energize the equipment in operating properly at specified duties.</li> </ul>

**SPECIAL CONDITIONS (CONT'D)**

XII.	<ul style="list-style-type: none"> <li>(g) Anti-vibration mountings for plant, machinery and the like.</li> <li>(h) Anti-vibration materials and sound insulating materials in plant and machinery bases.</li> <li>(i) Motor starters (if motors in the equipment require motor starters).</li> <li>(j) Earth/equipotential bonding as specified.</li> </ul>	<b>Rates for equipment (cont'd)</b>
XIII.	<p>The rates for heat resistant cables &amp; low smoke zero halogen cables shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) Laying or fixing in different locations, such as drawing into under-ground pipe ducts, laying or drawing into trunkings, drawing into conduits, suspending from insulators or catenaries, wrapping around equipment.</li> <li>(b) In case of cables drawn into existing conduits, existing ducts or existing trunkings, removing and putting back existing covers, existing inspection lids and the like.</li> <li>(c) Making cable-joints.</li> <li>(d) Determining circuits, lacing into circuit groups and provision of draw-wires, draw cables and the like as required.</li> <li>(e) All necessary fixings complete with accessories and fittings as required.</li> <li>(f) Provision of all sleeves for casting in or building in where cables pass through slabs, walls or beams and caulking between cable and sleeve where required.</li> </ul>	<b>Rates for heat resistant cables &amp; low smoke zero halogen cables</b>
XIV.	<p>The rates for "Take down and clear away" or " Take down and set aside for re-use" existing items in connection with fire services installation shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) Take down all associated building services works.</li> <li>(b) All in-line fittings including brackets, supports, hangers and the like.</li> <li>(c) Cutting into existing pipework and the like in position.</li> <li>(d) Plugging off remaining ends with plugs or caps as required.</li> <li>(e) Preparing remaining ends of building services works to receive connections with new work if required.</li> <li>(f) In the case of equipment and the like, taking down all associated pipeworks and/or building services works.</li> <li>(g) Making good all works disturbed.</li> </ul>	<b>Rates for "Take down and clear away" or "Take down and set aside for re-use"</b>
XV.	<p>The Particular Specification for fire services can be found in the Contract.</p>	<b>Particular Specification</b>

Item	AUTOMATIC/MANUAL FIRE ALARM SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Automatic/manual fire alarm points c/w cables/surface cables and all necessary accessories and connected to the fire alarm control panel : -</b>					
35001	Fire alarm call point with break glass type alarm push c/w metal hammer and chains .....	386.40	185.10	42.50	49.60	35001
35002	Fire alarm bell point; 150 - 250 mm diameter.....	535.90	185.10	42.50	49.60	35002
35003	Weatherproof type fire alarm bell point; 150 - 250 mm diameter.....	652.50	185.10	42.50	49.60	35003
35004	Smoke detector point, ionization type.....	517.80	185.10	42.50	49.60	35004
35005	Smoke detector point c/w remote indicator, ionization type.....	699.50	313.90	72.70	83.90	35005
35006	Smoke detector point; addressable type, ionization type.....	853.20	209.30	48.60	56.30	35006
35007	Smoke detector point, optical type.....	517.80	185.10	42.50	49.60	35007
35008	Smoke detector point c/w remote indicator, optical type.....	699.50	313.90	72.70	83.90	35008
35009	Smoke detector point; addressable type, optical type.....	853.20	209.30	48.60	56.30	35009
35010	Heat detector point; fixed temperature type, Grade 1.....	496.10	185.10	42.50	49.60	35010
35011	Heat detector point; fixed temperature type, Grade 2.....	496.10	185.10	42.50	49.60	35011
35012	Heat detector point; fixed temperature type, Grade 3.....	496.10	185.10	42.50	49.60	35012
35013	Heat detector point; fixed temperature type; addressable type, Grade 1.....	831.20	209.30	48.60	56.30	35013
35014	Heat detector point: fixed temperature type, addressable type, Grade 2.....	831.20	209.30	48.60	56.30	35014
35015	Heat detector point; fixed temperature type; addressable type, Grade 3.....	831.20	209.30	48.60	56.30	35015
35016	Heat detector point c/w remote indicator, Grade 1.....	675.80	313.90	72.70	83.90	35016
35017	Heat detector point c/w remote indicator, Grade 2.....	675.80	313.90	72.70	83.90	35017
35018	Heat detector point c/w remote indicator, Grade 3.....	675.80	313.90	72.70	83.90	35018
35019	Heat detector point; rate of rise temperature type, Grade 1.....	524.00	185.10	42.50	49.60	35019
35020	Heat detector point; rate of rise temperature type, Grade 2.....	524.00	185.10	42.50	49.60	35020
35021	Heat detector point; rate of rise temperature type, Grade 3.....	524.00	185.10	42.50	49.60	35021
35022	Heat detector point; rate of rise temperature type; addressable type, Grade 1.....	831.20	209.30	48.60	56.30	35022
35023	Heat detector point; rate of rise temperature type; addressable type, Grade 2.....	831.20	209.30	48.60	56.30	35023
35024	Heat detector point; rate of rise temperature type; addressable type, Grade 3.....	831.20	209.30	48.60	56.30	35024
35025	Heat detector point; combined rate of rise and fixed temperature type, Grade 1.....	609.10	185.10	42.50	49.60	35025
35026	Heat detector point; combined rate of rise and fixed temperature type, Grade 2.....	609.10	185.10	42.50	49.60	35026
35027	Heat detector point; combined rate of rise and fixed temperature type, Grade 3.....	609.10	185.10	42.50	49.60	35027

Item	AUTOMATIC/MANUAL FIRE ALARM SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Automatic/manual fire alarm points c/w cables/surface cables and all necessary accessories and connected to the fire alarm control panel : - (Cont'd)</b>					
35028	Heat detector point; combined rate of rise and temp. type; addressable type, Grade 1 .....	874.60	209.30	48.60	56.30	35028
35029	Heat detector point; combined rate of rise and temp. type; addressable type, Grade 2 .....	874.60	209.30	48.60	56.30	35029
35030	Heat detector point; combined rate of rise and temp. type; addressable type, Grade 3 .....	874.60	209.30	48.60	56.30	35030
35031	Intrinsically safe heat detector point, Grade 1.....	1,297.50	185.10	42.50	49.60	35031
35032	Intrinsically safe heat detector point, Grade 2.....	1,297.50	185.10	42.50	49.60	35032
35033	Intrinsically safe heat detector point, Grade 3.....	1,297.50	185.10	42.50	49.60	35033
35034	Intrinsically safe smoke detector point.....	1,484.30	185.10	42.50	49.60	35034
35035	Multi-sensor detector with 2 sensing elements (i.e. optical + heat).....	2,180.00	185.10	42.50	49.60	35035
35036	Probe unit.....	2,008.60	185.10	42.50	49.60	35036
35037	Interface control point c/w control module, relay and all necessary accessories.....	919.20	185.10	42.50	49.60	35037
35038	Remote indicator for smoke/heat detector c/w interconnecting wiring and conduits .....	181.10	128.80	30.20	34.30	35038
35039	Weatherproof remote indicator for smoke/heat detector c/w interconnecting wiring and conduits .....	371.30	128.80	30.20	34.30	35039
35040	End of line tester.....	145.90	76.50	16.90	18.40	35040
35041	Visual fire alarm c/w all cables, conduits and necessary accessories and connected to fire alarm control panel .....	584.30	185.10	42.50	49.60	35041
35042	Additional contactor/relay/electronic components in the fire alarm panel for shut down air-conditioning/ventilation equipment .....	309.30	76.50	16.90	18.40	35042
	<i>Per lot</i>					
35043	Provide direct link to the Fire Control Centre of Fire Services Department including all terminating equipment at each end of the link and the first year rental charge.....	5,739.10	-	-	-	35043
	<i>Each</i>					
	<b>Nickel-metal hydride battery c/w charger and metal box housing of the following capacity : -</b>					
35044	n.e. 10 ampere hour.....	2,445.80	82.00	12.80	13.30	35044
35045	10 - 20 ampere hour.....	3,985.60	82.00	12.80	13.30	35045
35046	20 - 30 ampere hour.....	8,605.20	82.00	12.80	13.30	35046
35047	30 - 40 ampere hour.....	8,968.20	90.20	13.80	14.30	35047
35048	40 - 50 ampere hour.....	10,152.70	90.20	13.80	14.30	35048
35049	50 - 60 ampere hour.....	14,298.40	90.20	13.80	14.30	35049

Item	AUTOMATIC/MANUAL FIRE ALARM SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Fire alarm control/indicating panel c/w contacts/auxiliary contacts for shut down of A/C &amp; ventilation equipment, connection of fire link/lift homing and all necessary accessories (including design for the fire alarm control system, training &amp; providing all passwords) : -</b>					
35050	Panel of 4 zones or less.....	3,131.50	233.60	38.40	40.90	35050
35051	Ditto 5 - 8 zones.....	4,765.20	245.90	40.90	43.50	35051
35052	Ditto 9 - 12 zones.....	6,343.10	258.20	43.50	46.10	35052
35053	Ditto 13 - 18 zones.....	7,865.00	270.50	46.10	48.60	35053
35054	Add to last item for each additional 4 zones or part thereof.....	1,466.00	12.30	2.60	2.60	35054
	<b>Intelligent addressable type fire alarm control/indicating panel c/w contacts/auxiliary contacts for shut down of A/C &amp; ventilation equipment, connection of fire link/lift homing and all necessary accessories (including design for the fire alarm control system, training &amp; providing all passwords) : -</b>					
35055	Panel of 50 points or less.....	20,133.40	258.20	43.50	46.10	35055
35056	Ditto 51 - 100 points.....	20,178.20	305.10	52.00	58.00	35056
35057	Ditto 101 - 150 points.....	31,445.50	389.80	68.20	75.10	35057
35058	Ditto 151 - 200 points.....	40,193.00	439.00	77.60	84.40	35058
35059	Add to last item for each additional 50 points or part thereof.....	6,243.40	30.10	6.00	6.80	35059
35060	System printer.....	1,704.60	44.30	5.10	5.60	35060
	<b>SPRINKLER SYSTEM</b>					
	<i>Each</i>					
	<b>Sprinkler Point : -</b>					
35061	Sprinkler head (quartzoid bulb type), 68°C / 93°C c/w cover plate/protective guard (where applicable), riser/down drop/range pipe, modification and connection to the existing distribution pipe if necessary and all necessary accessories .....	128.60	71.80	20.50	22.00	35061
35062	Sprinkler head (quartzoid bulb type), 68°C / 93°C for false ceiling, flush pattern, pendant type, c/w adjustable chromium plated metal ceiling masking plate, riser/down drop/range pipe, modification and connection to the existing distribution pipe if necessary and all necessary accessories .....	224.90	71.80	20.50	22.00	35062
35063	Sprinkler head (fast response type) c/w cover plate/protective guard (where applicable), riser/down drop/range pipe, modification and connection to the existing distribution pipe if necessary and all necessary accessories .....	148.70	71.80	20.50	22.00	35063
35064	Sprinkler head (fast response type) for false ceiling, flush pattern, pendant type, c/w adjustable chromium plated metal ceiling masking plate, riser/down drop/range pipe, modification and connection to the existing distribution pipe if necessary and all necessary accessories .....	244.10	71.80	20.50	22.00	35064

Item	SPRINKLER SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Sprinkler Point : - (Cont'd)</b>					
35065	Sprinkler head, dry pendent type (quartzoid bulb type) c/w cover plate, riser/down drop/range pipe, modification and connection to the existing distribution pipe if necessary and all necessary accessories .....	528.90	71.80	20.50	22.00	35065
35066	Sprinkler head (quartzoid bulb type), quick response and vandal type suitable for cell of prison, c/w cover plate, riser/down drop/range pipe, modification and connection to the existing distribution pipe (where applicable) and all necessary accessories (the fusible element assembly consistently breaks away when connected to 18.15 kg weight dropped 0.153 m) .....	304.20	79.70	20.50	22.00	35066
35067	Institutional style quick response flush pendent sprinkler c/w escutcheon plate and lock ring, riser/down drop/range pipe, modification and connection to existing distribution pipe if necessary and all necessary accessories.....	630.10	79.70	20.50	22.00	35067
35068	Institutional style quick response flush sidewall sprinkler c/w escutcheon plate and lock ring, riser/down drop/range pipe, modification and connection to existing distribution pipe if necessary and all necessary accessories.....	699.10	79.70	20.50	22.00	35068
35069	Cabinet for spare sprinkler.....	176.30	10.80	6.10	6.60	35069
35070	Sprinkler head guard.....	29.50	10.80	6.10	6.60	35070
35071	Sprinkler cover plate.....	15.50	10.80	6.10	6.60	35071
35072	Drain and refill the sprinkler system with all necessary accessories for AA&I works controlled by the main control valve set. The formal process in suspension of the FS system shall be included.....	195.30	-	-	-	35072
35073	Drain and refill the sprinkler system with all necessary accessories for AA&I works controlled by the subsidiary control valve set. The formal process in suspension of the FS system shall be included.....	177.50	-	-	-	35073
	<i>Per set</i>					
	<b>Sprinkler control valve set c/w control wiring, all necessary accessories including valves, alarm valves, pressure gauges, pressure switch, water motor alarm gong retardation chamber, flow switch etc.</b>					
35074	100 mm diameter.....	6,114.30	605.20	181.20	205.70	35074
35075	150 mm diameter.....	6,490.80	685.70	194.40	219.00	35075
35076	Subsidiary stop valve.....	2,224.30	49.20	25.60	29.90	35076
	<i>Each</i>					
	<b>Pre-action valve package c/w control wiring, swing check valve, gate valve, proper size drain top, flow control valve, pressure gauges, alarm gong, detection control panel with 72 hrs standby period, and all necessary accessories : -</b>					
	<b>T1 type</b>					
35077	Valve package for pipe of 80 mm diameter.....	10,610.00	685.70	194.40	219.00	35077
35078	Ditto 100 mm diameter.....	12,277.50	766.20	207.80	232.30	35078
35079	Ditto 150 mm diameter.....	15,457.40	846.70	221.10	245.60	35079

Item	SPRINKLER SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Pre-action valve package c/w control wiring, swing check valve, gate valve, proper size drain top, flow control valve, pressure gauges, alarm gong, detection control panel with 72 hrs standby period, and all necessary accessories : - (Cont'd)</b>					
	<b>T2 type</b>					
35080	Valve package for pipe of 80 mm diameter.....	10,610.00	685.70	194.40	219.00	35080
35081	Ditto 100 mm diameter.....	12,277.50	766.20	207.80	232.30	35081
35082	Ditto 150 mm diameter.....	15,457.40	846.70	221.10	245.60	35082
	<b>Detection control for pre-action system</b>					
35083	Detection control panel for pre-action system c/w timer, valve trim box, solenoid valve, pressure switches, charger and nickel cadmium battery, alarm bell and all necessary accessories .....	6,375.50	233.60	38.40	40.90	35083
35084	Manual emergency push button station c/w cables, conduits (surface or concealed type) and all necessary accessories including connection to the detection control panel.....	389.10	185.10	42.50	49.60	35084
	<b>Re-cycling pre-action valve package c/w control wiring, swing check valve, gate valve, proper size drain top flow control valve, pressure gauges, alarm gong and all necessary accessories : -</b>					
35085	Valve package for pipe of 80 mm diameter.....	11,130.80	685.70	194.40	219.00	35085
35086	Ditto 100 mm diameter.....	12,859.20	766.20	207.80	232.30	35086
	<b>Detection control for re-cycling pre-action system</b>					
35087	Detection control panel for re-cycling pre-action c/w timer, valve trim box, solenoid valve, pressure switches, charger and nickel cadmium battery for 72 hrs standby period, alarm bell and all necessary accessories .....	6,375.50	233.60	38.40	40.90	35087
35088	Heat detector for re-cycling pre-action system c/w low smoke fire resisting cables and all necessary accessories and connected to re-cycling pre-action detection panel.....	3,082.30	209.30	48.60	56.30	35088
35089	Manual emergency push button station c/w cables, conduits (surface or concealed type) and all necessary accessories including connection to the detection control panel.....	389.10	185.10	42.50	49.60	35089
	<b>Dry pipe system c/w air compressor unit, air maintenance device, air supply copper pipes, pressure relief valve for air supply pipework, dryer or freezer for air supply system, restrictor for air supply system, alarm valve, shut off valves, clush valve mounting brackets, vibration eliminator to maintain system air pressure of 3.5 bar in 3 minutes, and testing facilities including quick-acting test valve: -</b>					
35090	System for protected area n.e. 50 m <sup>2</sup> .....	5,373.40	398.70	107.50	112.60	35090
35091	System for protected area 50 m <sup>2</sup> - 100 m <sup>2</sup> .....	8,736.20	438.60	117.70	122.80	35091
	<b>Sprinkler inlet</b>					
35092	Fire services sprinkler inlet.....	547.50	72.60	35.30	35.80	35092



Item	HYDRANT/HOSEREEL SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
35093	30 m long hosereel c/w all necessary pipework and fittings including connection to the existing hosereel system (pipe with within 3 m from existing pipe and up to 32 mm diameter shall be included, extra length measured separately) .....	920.40	291.30	52.20	55.80	35093
35094	Metal box for hose reel nozzle c/w glass front panel.....	57.40	10.80	6.10	6.60	35094
35095	Drain and refill the hydrant/hosereel system for execution of work for wet system .....	177.50	-	-	-	35095
35096	Hydrant outlet (single) c/w all necessary fitting including connection to the existing hydrant system (pipe work measured separately) .....	461.00	146.50	35.30	35.80	35096
35097	Pedestal type cast iron, round head external street hydrant outlet c/w all necessary fitting including connection to the existing hydrant system (pipe work measured separately) .....	2,513.00	262.40	69.60	87.50	35097
35098	Fire Services inlet twin type.....	663.00	73.20	35.30	35.80	35098
35099	Parity valve (all sizes).....	242.10	44.30	23.90	28.10	35099
35100	Street hydrant outlet (single) c/w all necessary fitting including connection to existing hydrant system (pipework measured separately) .....	719.20	230.20	49.10	51.70	35100
35101	Ditto (twin outlet).....	765.70	278.50	52.70	55.80	35101
35102	Metal identification plate for F.S. inlet leather & lock for F.S. inlet.....	48.10	9.70	5.10	5.60	35102
35103	Direct reading flowmeter.....	5,590.30	52.30	26.60	27.10	35103
35104	Pressure reducing valve set.....	1,166.90	44.30	23.90	28.10	35104
35105	Carry out test on water pressure and flow at pedestal street hydrant installed by others using calibrated equipment. ....	1,776.80	-	-	-	35105
	<b>PIPE WORK AND PUMPS</b>					
	<i>Per linear metre</i>					
	<b>Galvanized steel pipes c/w all necessary accessories for fire services system : -</b>					
35106	25 mm diameter.....	58.90	25.40	1.70	2.00	35106
35107	32 mm diameter.....	69.00	27.10	2.00	2.20	35107
35108	40 mm diameter.....	75.70	29.10	2.10	2.40	35108
35109	50 mm diameter.....	97.20	33.60	2.40	2.60	35109
35110	65 mm diameter.....	117.30	38.50	2.70	3.00	35110
35111	80 mm diameter.....	141.40	43.50	3.20	3.40	35111
35112	100 mm diameter.....	191.50	55.60	3.70	3.80	35112
35113	150 mm diameter.....	267.80	73.80	6.00	6.40	35113
35114	200 mm diameter.....	405.50	92.00	7.30	7.80	35114

Item	PIPE WORK AND PUMPS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Ductile steel pipe c/w all necessary accessories for fire services system: -</b>					
35115	150 mm diameter.....	460.80	73.80	6.00	6.40	35115
35116	200 mm diameter.....	673.00	92.00	7.30	7.80	35116
35117	250 mm diameter.....	900.20	110.20	8.80	9.40	35117
	<b>Underground ductile steel pipe c/w all necessary accessories for fire services system : -</b>					
35118	150 mm diameter.....	427.50	55.60	4.50	4.80	35118
35119	200 mm diameter.....	627.50	69.20	5.50	5.80	35119
35120	250 mm diameter.....	841.90	82.90	6.60	7.00	35120
	<i>Each</i>					
	<b>Gate valve c/w padlock (where applicable) and all necessary accessories : -</b>					
35121	25 mm diameter.....	105.30	32.20	19.60	23.90	35121
35122	32 mm diameter.....	150.20	34.90	20.00	24.30	35122
35123	40 mm diameter.....	179.80	37.60	20.50	24.70	35123
35124	50 mm diameter.....	250.50	40.20	21.30	25.60	35124
35125	65 mm diameter.....	650.40	42.90	22.60	26.90	35125
35126	80 mm diameter.....	806.50	45.60	23.90	28.10	35126
35127	100 mm diameter.....	1,126.30	49.20	25.60	29.90	35127
35128	150 mm diameter.....	1,951.40	67.10	34.10	39.70	35128
35129	200 mm diameter.....	3,096.60	85.00	42.60	49.50	35129
35130	250 mm diameter.....	4,296.70	98.40	49.50	55.40	35130

Item	PIPE WORK AND PUMPS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Gate valve for sprinkler system c/w tamper-proof electric switch to indicate valve operational mode including remote indication on F.S. control panel : -</b>					
35131	32 mm diameter.....	608.50	106.40	32.80	38.00	35131
35132	40 mm diameter.....	638.70	109.10	33.30	38.40	35132
35133	50 mm diameter.....	705.20	111.80	34.10	39.20	35133
35134	65 mm diameter.....	1,361.50	114.50	35.40	40.50	35134
35135	80 mm diameter.....	1,516.10	117.20	36.70	41.80	35135
35136	100 mm diameter.....	1,821.80	120.70	38.40	43.50	35136
35137	150 mm diameter.....	2,640.10	138.60	46.90	53.30	35137
35138	200 mm diameter.....	3,758.50	156.50	55.40	63.10	35138
	<b>Globe valve: -</b>					
35139	25 mm diameter.....	115.90	32.20	19.60	23.90	35139
35140	32 mm diameter.....	160.80	34.90	20.00	24.30	35140
35141	40 mm diameter.....	210.90	37.60	20.50	24.70	35141
35142	50 mm diameter.....	319.30	40.20	21.30	25.60	35142
35143	65 mm diameter.....	719.20	42.90	22.60	26.90	35143
35144	80 mm diameter.....	916.50	45.60	23.90	28.10	35144
35145	100 mm diameter.....	1,305.70	49.20	25.60	29.90	35145
35146	150 mm diameter.....	2,346.00	67.10	34.10	39.70	35146
35147	200 mm diameter.....	3,829.50	85.00	42.60	49.50	35147
35148	250 mm diameter.....	5,688.30	98.40	49.50	55.40	35148

Item	PIPE WORK AND PUMPS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Globe valve for sprinkler system c/w tamper-proof electric switch to indicate valve operational mode including remote indication on F.S. control panel : -</b>					
35149	32 mm diameter.....	620.10	106.40	32.80	38.00	35149
35150	40 mm diameter.....	667.70	109.10	33.30	38.40	35150
35151	50 mm diameter.....	769.90	111.80	34.10	39.20	35151
35152	65 mm diameter.....	1,436.00	114.50	35.40	40.50	35152
35153	80 mm diameter.....	1,617.90	117.20	36.70	41.80	35153
35154	100 mm diameter.....	1,990.50	120.70	38.40	43.50	35154
35155	150 mm diameter.....	3,028.00	138.60	46.90	53.30	35155
35156	200 mm diameter.....	4,516.70	156.50	55.40	63.10	35156
35157	250 mm diameter.....	6,370.00	169.90	62.30	69.10	35157
	<b>Non return valve : -</b>					
35158	32 mm diameter.....	192.50	34.90	20.00	24.30	35158
35159	40 mm diameter.....	237.40	37.60	20.50	24.70	35159
35160	50 mm diameter.....	477.80	40.20	21.30	25.60	35160
35161	65 mm diameter.....	584.00	42.90	22.60	26.90	35161
35162	80 mm diameter.....	689.20	45.60	23.90	28.10	35162
35163	100 mm diameter.....	991.80	49.20	25.60	29.90	35163
35164	150 mm diameter.....	1,794.90	67.10	34.10	39.70	35164
35165	200 mm diameter.....	3,109.90	85.00	42.60	49.50	35165
35166	250 mm diameter.....	4,523.80	98.40	49.50	55.40	35166

Item	PIPE WORK AND PUMPS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Y-type strainer : -</b>					
35167	32 mm diameter.....	261.80	34.90	20.00	24.30	35167
35168	40 mm diameter.....	321.90	37.60	20.50	24.70	35168
35169	50 mm diameter.....	483.10	40.20	21.30	25.60	35169
35170	65 mm diameter.....	522.10	42.90	22.60	26.90	35170
35171	80 mm diameter.....	636.30	45.60	23.90	28.10	35171
35172	100 mm diameter.....	879.40	49.20	25.60	29.90	35172
35173	150 mm diameter.....	1,793.50	67.10	34.10	39.70	35173
35174	200 mm diameter.....	2,850.70	85.00	42.60	49.50	35174
35175	250 mm diameter.....	4,879.70	98.40	49.50	55.40	35175
	<b>Sluice valve, wedge type c/w spindle cap : -</b>					
35176	150 mm diameter.....	1,960.60	67.10	34.10	39.70	35176
35177	200 mm diameter.....	3,097.20	85.00	42.60	49.50	35177
35178	250 mm diameter.....	4,798.20	98.40	49.50	55.40	35178
	<b>Puddle flange tank connector : -</b>					
35179	100 mm diameter.....	583.70	48.70	25.60	29.90	35179
35180	150 mm diameter.....	669.40	66.50	34.10	39.70	35180
35181	200mm diameter.....	880.70	84.20	42.60	49.50	35181
35182	250 mm diameter.....	1,190.30	97.50	49.50	55.40	35182
	<b>Sundries</b>					
35183	Vortex inhibitor (all sizes).....	3,628.40	48.70	25.60	29.90	35183
35184	Non-ferrous filter (all sizes).....	1,614.10	48.70	25.60	29.90	35184
35185	Air relief valve (all sizes).....	113.50	32.20	19.60	23.90	35185
35186	Anti-pollution valve (all sizes).....	650.40	42.90	22.60	26.90	35186
35187	Pressure gauge (all sizes).....	154.60	32.20	19.60	23.90	35187
35188	Oil dumped gauge for sprinkler system.....	343.30	34.90	20.00	24.30	35188

Item	PIPE WORKS AND PUMPS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
	<b>Sundries (Cont'd)</b>	\$	\$	\$	\$	
35189	Electric alarm pressure switch c/w conduits (surface or concealed type), trunkings, cables for connection to the fire alarm control/indication panel and control equipment and all accessories .....	1,242.10	237.40	69.10	76.80	35189
35190	Water alarm flow switch c/w conduits (surface or concealed type), trunkings, cables for connection to the fire alarm control/indication panel and control equipment and all accessories .....	585.80	237.40	69.10	76.80	35190
35191	Subsidiary monitor stop valve set per zone c/w limit switch, conduits (surface or concealed type), trunkings, cables for connection to the fire control indication panel and all accessories .....	2,018.70	258.40	77.80	85.50	35191
	<b>Centrifugal pump, horizontal split case type c/w gauges, drain and vent, orifice plates, electrical wirings, connected to a power supply switch, control wirings &amp; associated conduit/trunking, connected to and including start/stop control panel in the same room and installed on a concrete plinth : -</b>					
35192	up to 5 kW (inclusive).....	5,100.80	563.40	102.30	117.70	35192
35193	5 - 10 kW (inclusive).....	8,144.90	583.50	107.50	122.80	35193
35194	10 - 15 kW (inclusive).....	11,315.40	603.60	112.60	127.90	35194
35195	15 - 20 kW (inclusive).....	14,252.20	623.70	117.70	133.00	35195
35196	20 - 25 kW (inclusive).....	17,223.20	643.90	122.80	138.20	35196
35197	25 - 30 kW (inclusive).....	20,317.20	664.00	127.90	143.30	35197
35198	Add to last item for each additional 5 kW or part thereof.....	2,900.10	20.10	5.10	5.10	35198
	<b>Centrifugal pump, end-suction type c/w gauges, drain and vent, orifice plates, electrical wirings, connected to a power supply switch, control wirings &amp; associated conduit/trunking, connected to and including start/stop control panel in the same room and installed on a concrete plinth : -</b>					
35199	up to 5 kW (inclusive).....	5,126.10	563.40	102.30	117.70	35199
35200	5 - 10 kW (inclusive).....	7,709.40	583.50	107.50	122.80	35200
35201	10 - 15 kW (inclusive).....	10,023.50	603.60	112.60	127.90	35201
35202	15 - 20 kW (inclusive).....	12,809.10	623.70	117.70	133.00	35202
35203	20 - 25 kW (inclusive).....	14,736.20	643.90	122.80	138.20	35203
35204	25 - 30 kW (inclusive).....	17,558.20	664.00	127.90	143.30	35204
35205	Add to last item for each additional 5 kW or part thereof.....	2,052.60	20.10	5.10	5.50	35205

Item	PIPE WORKS AND PUMPS (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A	B	C	D	
	<i>Each</i>	\$	\$	\$	\$	
	<b>Centrifugal Jockey Pump, c/w items as described above : -</b>					
35206	up to 5 kW (inclusive).....	4,832.60	563.40	102.30	117.70	35206
35207	5 - 10 kW (inclusive).....	7,887.90	583.50	107.50	122.80	35207
35208	Add to last item for each additional 5 kW or part thereof.....	2,700.70	20.10	5.10	5.10	35208
	<b>Sundries</b>					
35209	Remote supervisory/start stop control panel for pump c/w all necessary accessories .....	3,131.50	233.60	38.40	40.90	35209
35210	High/low level switch c/w conduits (surface or concealed type), trunking, sensing device, interconnection wiring and cables from water tank to indication and control panel for indication and control functions and all necessary for proper functioning of fire services system .....	1,256.30	209.30	48.10	55.30	35210
35211	Sprinkler proving pipe and all necessary accessories.....	2,148.00	44.30	23.00	23.50	35211
	<b>Expansion joint c/w all necessary accessories for fire services system : -</b>					
35212	32 mm diameter.....	425.50	31.70	18.30	22.50	35212
35213	40 mm diameter.....	427.80	34.10	18.70	22.90	35213
35214	50 mm diameter.....	470.70	36.50	19.50	23.60	35214
35215	65 mm diameter.....	531.40	38.10	20.00	24.40	35215
35216	80 mm diameter.....	578.90	41.40	21.80	26.00	35216
35217	100 mm diameter.....	661.70	43.00	23.00	27.20	35217
35218	150 mm diameter.....	1,097.00	52.70	29.30	33.60	35218
35219	200 mm diameter.....	1,567.80	60.80	35.10	39.40	35219

Item	<b>FIRE RESISTANT CABLES</b> (Note : The following Items 35220 to 35245 inclusive will only be paid for if ordered by the Maintenance Surveyor in writing)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>BS6387 Category B heat resistant cables c/w all necessary accessories : -</b>					
35220	1.5 mm <sup>2</sup> 1-core.....	18.10	3.70	1.00	1.30	35220
35221	2.5 mm <sup>2</sup> 1-core.....	20.60	3.70	1.00	1.30	35221
35222	1.5 mm <sup>2</sup> 7-cores.....	120.00	17.80	5.10	5.30	35222
35223	2.5 mm <sup>2</sup> 7-cores.....	140.60	21.70	6.10	6.80	35223
35224	1.5 mm <sup>2</sup> 12-cores.....	159.80	17.80	5.10	5.30	35224
35225	2.5 mm <sup>2</sup> 12-cores.....	185.30	21.70	6.10	6.80	35225
35226	1.5 mm <sup>2</sup> 19-cores.....	218.00	20.20	5.60	5.80	35226
35227	2.5 mm <sup>2</sup> 19-cores.....	290.70	23.30	6.10	6.80	35227
35228	1.5 mm <sup>2</sup> 27-cores.....	299.40	22.90	6.10	6.80	35228
35229	2.5 mm <sup>2</sup> 27-cores.....	354.30	25.20	6.60	7.40	35229
35230	1.5 mm <sup>2</sup> 7-cores PVC/SWA/PVC.....	437.10	17.80	5.10	5.30	35230
35231	2.5 mm <sup>2</sup> 7-cores PVC/SWA/PVC.....	498.70	21.70	6.10	6.80	35231
35232	1.5 mm <sup>2</sup> 12-cores PVC/SWA/PVC.....	586.60	17.80	5.10	5.30	35232
35233	2.5 mm <sup>2</sup> 12-cores PVC/SWA/PVC.....	612.50	22.50	6.10	6.80	35233
35234	1.5 mm <sup>2</sup> 19-cores PVC/SWA/PVC.....	733.30	20.20	5.30	5.80	35234
35235	2.5 mm <sup>2</sup> 19-cores PVC/SWA/PVC.....	808.00	23.30	6.10	6.80	35235
35236	1.5 mm <sup>2</sup> 27-cores PVC/SWA/PVC.....	834.00	22.90	6.10	6.80	35236
35237	2.5 mm <sup>2</sup> 27-cores PVC/SWA/PVC.....	906.70	25.20	6.50	7.40	35237
	<b>BS 6387 Category CWZ heat resistant cables c/w all necessary accessories: -</b>					
35238	10 mm <sup>2</sup> 1-core.....	57.20	4.50	1.50	1.80	35238
35239	16 mm <sup>2</sup> 1-core.....	75.40	5.20	1.50	1.80	35239
35240	25 mm <sup>2</sup> 1-core.....	94.50	6.70	1.90	2.30	35240
35241	35 mm <sup>2</sup> 1-core.....	218.30	7.40	1.90	2.30	35241
35242	50 mm <sup>2</sup> 1-core.....	253.00	8.20	2.30	2.80	35242
35243	70 mm <sup>2</sup> 1-core.....	302.80	9.00	2.50	3.00	35243
35244	95 mm <sup>2</sup> 1-core.....	361.60	11.30	3.00	4.10	35244
35245	120 mm <sup>2</sup> 1-core.....	427.80	13.50	3.50	4.30	35245



Item	<b>FIRE RESISTANT CABLES (CONT'D)</b> (Note : The following Items 35246 to 35269 inclusive will only be paid for if ordered by the Maintenance Surveyor in writing)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>BS 6387 Category CWZ heat resistant cables c/w all necessary accessories: - (Cont'd)</b>					
35246	10 mm <sup>2</sup> 4-cores PVC/SWA/PVC.....	229.90	35.80	9.60	11.70	35246
35247	16 mm <sup>2</sup> 4-cores PVC/SWA/PVC.....	257.00	36.60	10.10	12.20	35247
35248	25 mm <sup>2</sup> 4-cores PVC/SWA/PVC.....	375.90	37.40	10.60	12.70	35248
35249	35 mm <sup>2</sup> 4-cores PVC/SWA/PVC.....	421.20	38.80	11.10	13.20	35249
35250	50 mm <sup>2</sup> 4-cores PVC/SWA/PVC.....	512.40	39.50	11.70	13.90	35250
35251	70 mm <sup>2</sup> 4-cores PVC/SWA/PVC.....	651.10	42.60	12.20	14.40	35251
35252	95 mm <sup>2</sup> 4-cores PVC/SWA/PVC.....	756.60	47.70	13.20	15.70	35252
35253	120 mm <sup>2</sup> 4-cores PVC/SWA/PVC.....	893.80	53.10	14.20	17.00	35253
	<b>BS 6387 Category CWZ heat resistance cables, low smoke, zero halogen cables complying with IEC 754, Part 1 and 2 and IEC 1034 Part 2 c/w all necessary accessories: -</b>					
35254	10 mm <sup>2</sup> 1-core.....	57.20	4.50	1.50	1.80	35254
35255	16 mm <sup>2</sup> 1-core.....	75.40	5.20	1.50	1.80	35255
35256	25 mm <sup>2</sup> 1-core.....	94.50	6.70	1.90	2.30	35256
35257	35 mm <sup>2</sup> 1-core.....	218.30	7.40	1.90	2.30	35257
35258	50 mm <sup>2</sup> 1-core.....	253.00	8.20	2.30	2.80	35258
35259	70 mm <sup>2</sup> 1-core.....	302.80	9.00	2.50	3.00	35259
35260	95 mm <sup>2</sup> 1-core.....	361.60	11.30	3.00	4.10	35260
35261	120 mm <sup>2</sup> 1-core.....	427.80	13.50	3.50	4.30	35261
35262	10 mm <sup>2</sup> 4-cores.....	229.90	35.80	9.60	11.70	35262
35263	16 mm <sup>2</sup> 4-cores.....	257.00	36.60	10.10	12.20	35263
35264	25 mm <sup>2</sup> 4-cores.....	375.90	37.40	10.60	12.70	35264
35265	35 mm <sup>2</sup> 4-cores.....	421.20	38.80	11.10	13.20	35265
35266	50 mm <sup>2</sup> 4-cores.....	512.40	39.50	11.70	13.90	35266
35267	70 mm <sup>2</sup> 4-cores.....	651.10	42.60	12.20	14.40	35267
35268	95 mm <sup>2</sup> 4-cores.....	756.60	47.70	13.20	15.70	35268
35269	120 mm <sup>2</sup> 4-cores.....	893.80	53.10	14.20	17.00	35269

Item	<b>GAS TOTAL FLOODING SYSTEM</b>	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>FM-200 gas cylinder c/w discharge valve with safety device, check valve, manifolds, pressure gauge, low pressure switch, dip tubes, liquid level indicator, mounting brackets, nameplate, signal wiring and all necessary accessories (including design and calculation for the gas total flooding system) : -</b>					
35270	27 - 40 kg.....	20,585.50	685.60	92.10	102.30	35270
35271	40 - 50 kg.....	24,502.90	771.30	102.30	112.60	35271
35272	50 - 70 kg.....	32,041.60	857.00	112.60	122.80	35272
35273	70 - 100 kg.....	42,981.90	942.70	122.80	133.00	35273
35274	100 - 140 kg.....	57,433.80	1,028.40	133.00	143.30	35274
35275	140 - 180 kg.....	71,995.30	1,114.10	143.30	153.50	35275
35276	Discharge nozzle.....	352.20	23.70	10.20	10.70	35276
	<b>FM-200 system control and indicating panel c/w control wiring, signal wiring with main fire alarm control panel, coincidence unit, electronic components, battery/charger and all necessary accessories (including design and calculation for the gas total flooding system) : -</b>					
35277	Panel of 2 zones.....	6,121.60	225.40	37.40	39.90	35277
35278	Panel of 4 zones.....	9,955.20	233.60	38.40	40.90	35278
35279	Panel of 8 zones.....	13,322.80	245.90	40.90	43.50	35279
35280	System odouriser.....	1,312.50	72.90	17.10	21.30	35280
	<i>Per linear metre</i>					
	<b>Heavy galvanized steel pipework to BS 1387/ISO65 butt welded and fittings to BS 1740 Part 1 c/w all necessary accessories (including design and calculation for the gas total flooding system) : -</b>					
35281	20 mm diameter.....	61.80	45.00	2.70	3.20	35281
35282	25 mm diameter.....	74.50	49.00	3.00	3.50	35282
35283	32 mm diameter.....	87.60	52.10	3.50	3.90	35283
35284	40 mm diameter.....	96.40	56.10	3.80	4.30	35284

Item	GAS TOTAL FLOODING SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Mild steel pipework to BS 3601 seamless Schedule 40 and fittings to BS 1740 Part 1 c/w all necessary accessories (including design and calculation for the gas total flooding system) : -</b>					
35285	50 mm diameter.....	132.10	70.30	4.70	5.10	35285
35286	65 mm diameter.....	158.80	80.60	5.50	6.00	35286
35287	80 mm diameter.....	193.20	90.80	6.40	6.80	35287
35288	100 mm diameter.....	249.40	116.20	7.30	7.70	35288
	<b>Mild steel pipework to BS 3601 seamless Schedule 40 and fittings to BS 1560 Part 2 Class 300 Table PE1 c/w all necessary accessories (including design and calculation for the gas total flooding system) : -</b>					
35289	150 mm diameter.....	359.20	154.30	11.90	12.80	35289
	<i>Each</i>					
	<b>Equipment/components for FM-200 system c/w all necessary accessories and connected to control/ indication panel</b>					
35290	Gas release actuator.....	1,297.50	185.10	42.50	49.60	35290
35291	Lock off/indication panel.....	2,005.60	152.90	38.40	40.90	35291
35292	Gas discharge flashing light.....	329.20	128.80	30.20	34.30	35292
35293	Manual release pull unit.....	440.30	185.10	42.50	49.60	35293
35294	Yodalarm.....	541.70	185.10	42.50	49.60	35294
35295	Abort unit.....	629.70	185.10	42.50	49.60	35295
35296	Compartment protected by FM-200 system warning notice.....	139.70	15.70	2.50	3.00	35296
35297	Smoke detector point compatible with panel.....	517.80	185.10	42.50	49.60	35297
35298	Auto/manual key switch unit with housing.....	806.90	193.20	42.50	49.60	35298
35299	Warning light for evacuation and gas discharge.....	461.90	185.10	42.50	49.60	35299
35300	Agent release module for parallel wiring of agent initiators c/w all necessary accessories .....	450.90	185.10	42.50	49.60	35300
	<i>Per kg</i>					
35301	Charge/recharge/refilling gas into cylinder including all necessary works and delivery .....	416.70	-	-	-	35301

Item	PORTABLE EQUIPMENT	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Portable equipment c/w all necessary accessories : -</b>					
35302	3 kg dry powder extinguisher.....	365.50	58.70	9.60	10.10	35302
35303	4.5 litres water type extinguisher.....	233.00	58.70	9.60	10.10	35303
35304	4.5 kg CO <sub>2</sub> type fire extinguisher.....	379.60	58.70	9.60	10.10	35304
35305	4.5 litres foam type fire extinguisher.....	244.70	58.70	9.60	10.10	35305
35306	9 litres water type fire extinguisher.....	234.50	60.30	9.60	10.10	35306
35307	9 kg CO <sub>2</sub> type fire extinguisher.....	2,111.30	60.30	9.60	10.10	35307
35308	9 litres foam type fire extinguisher.....	246.20	60.30	9.60	10.10	35308
35309	9 kg NAFS III type fire extinguisher.....	862.70	60.30	9.60	10.10	35309
	<b>Refilling of portable fire extinguisher: -</b>					
	<i>Per kg</i>					
35310	CO <sub>2</sub> refill.....	41.10	-	-	-	35310
	<i>Per litres</i>					
35311	Water refill.....	29.30	-	-	-	35311
35312	Foam refill.....	29.30	-	-	-	35312
	<i>Each</i>					
	<b>Sundries</b>					
35313	Sand bucket.....	52.70	3.80	2.50	2.50	35313
35314	Fire blanket, heavy type.....	148.30	11.60	4.60	5.10	35314

Item	AUTOMATIC FIXED SPRAYER UNITS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>HCFC-124 automatic type fixed sprayer unit and all necessary accessories : -</b>					
35315	5.7 kg.....	3,965.20	362.20	81.90	92.10	35315
35316	7.2 kg.....	4,319.80	378.30	84.40	94.70	35316
35317	10.7 kg.....	7,239.90	394.40	87.00	97.20	35317
35318	13.8 kg.....	7,592.80	410.50	89.60	99.80	35318
35319	15.3 kg.....	8,789.10	426.60	92.10	102.30	35319
35320	19.5 kg.....	10,941.30	442.70	94.70	104.90	35320
	<b>NAFS-III automatic type fixed sprayer unit and all necessary accessories : -</b>					
35321	4 kg.....	4,288.80	346.10	79.30	89.60	35321
35322	9 kg.....	7,569.50	386.30	84.70	94.90	35322
35323	16 kg.....	15,136.60	536.50	119.40	136.50	35323
	<b>EMERGENCY LIGHTING</b>					
	<i>Each</i>					
	<b>Exit sign box to BS 5266 c/w lamp, NiMH battery, charger for 2 hours, automatic changeover device, inverter/ballast indications and switch, cables, conduits (surface or concealed in partitions and ceiling), all necessary accessories and connection to power supply switch/terminal : -</b>					
35324	Illuminated exit sign box, 400 - 650 mm long.....	642.40	183.40	42.50	49.60	35324
35325	Illuminated exit sign box without battery, charger and changeover, 400 - 650 mm long.....	445.20	183.40	42.50	49.60	35325
35326	Illuminated exit sign box using LED as light source, 400 – 650 mm long.....	597.70	183.40	42.50	49.60	35326
35327	Illuminated exit sign box using LED as light source without battery, charger and changeover, 400 – 650 mm long.....	411.50	183.40	42.50	49.60	35327

Item	EMERGENCY LIGHTING (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Central battery power supply system for emergency lighting</b>					
	<b>Central power supply, monitoring and control panel c/w rectifier/charger, inverter, storage and all necessary accessories of the battery, switchgear, zone indication and control software and instrumentation, control following capacity : -</b>					
35328	below 100 Ah.....	21,097.20	143.50	33.30	35.30	35328
35329	100 - 200 Ah.....	39,328.30	159.50	34.30	36.30	35329
35330	200 - 300 Ah.....	56,901.00	175.40	35.30	37.40	35330
35331	300 - 400 Ah.....	74,144.50	191.40	36.30	38.40	35331
35332	400 - 500 Ah.....	80,115.30	238.30	43.00	45.30	35332
	<b>UPS or static inverter system c/w static transfer switch with synchronizing and phase maintenance bypass switch, storage battery, charger, rectifier, inverter and lock equipment, control following capacity : -</b>					
35333	below 100 Ah.....	24,261.80	165.10	38.30	40.60	35333
35334	100 - 200 Ah.....	45,227.60	183.40	39.40	41.80	35334
35335	200 - 300 Ah.....	65,436.20	201.70	40.60	43.00	35335
35336	300 - 400 Ah.....	85,266.20	220.10	41.80	44.20	35336
35337	400 - 500 Ah.....	92,132.60	274.10	49.50	52.10	35337
	<b>Emergency lighting fittings</b>					
35338	Centrally supplied emergency lighting unit 5W - 40W, to BS EN 60598-2-22 (without battery) c/w heat resistance cable, conduits, all necessary accessories and connection to central control panel .....	568.80	183.40	42.50	49.60	35338
35339	Emergency luminaire, 10W, 12V, to BS EN60598-2-22 c/w heat resistance cable, conduits, all necessary accessories and connection to central control panel .....	599.90	183.40	42.50	49.60	35339

Item	EMERGENCY LIGHTING (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Self-contained emergency lighting unit, weather and vandal resistant c/w NiMH battery, charger, automatic changeover device, cables, conduits (surface or concealed in partitions and ceiling), all necessary accessories and connection to power supply switch/terminal : -</b>					
35340	With 2 hours battery operating capacity.....	470.70	183.40	42.50	49.60	35340
35341	With 3 hours battery operating capacity.....	591.90	183.40	42.50	49.60	35341
35342	Luminaire 28W, 2D, with 2 hours battery operating capacity.....	738.90	183.40	42.50	49.60	35342
35343	T8 fluorescent lamp with 2 hours battery operating capacity, electronic ballast, 18W.....	829.50	183.40	42.50	49.60	35343
35344	Ditto, 36W.....	829.50	183.40	42.50	49.60	35344
35345	Ditto, 54W.....	947.90	183.40	42.50	49.60	35345
35346	T5 fluorescent lamp with 2 hours battery operating capacity, electronic ballast, 14W.....	947.90	183.40	42.50	49.60	35346
35347	Ditto, 28W.....	829.50	183.40	42.50	49.60	35347
35348	Ditto, 35W.....	919.20	183.40	42.50	49.60	35348
35349	Ditto, 49W.....	1,044.80	183.40	42.50	49.60	35349
35350	Ditto, 54W.....	1,249.90	183.40	42.50	49.60	35350
35351	Modification of the luminaire for connection to the central control panel and centrally supplied emergency lighting point including power supply and control cable installed inside flexible conduit.....	257.70	-	-	-	35351
	<b>Self luminous exit sign or directional sign plates to BS 5499 Part 2 comprising of clear perspex front plate, coloured perspex back plate plugging and screwing to wall and colour luminous film sandwiched between front and back plate : -</b>					
35352	Size up to 600 mm x 200 mm (H).....	299.20	58.10	9.60	10.10	35352
35353	Size up to 1200 mm x 250 mm (H).....	482.00	59.70	9.60	10.10	35353
	<b>NiMH battery and charger kit for self-contained emergency luminaire: -</b>					
35354	Charger kit installed inside surface mounted luminaire including necessary modification for the addition of the kit.....	258.50	59.70	9.60	10.10	35354
35355	Charger kit installed inside recessed mounted luminaire including necessary modification for the addition of the kit.....	258.50	59.70	9.60	10.10	35355
35356	Charger kit installed inside a metal box mounted next to and connected to the recessed mounted luminaire including necessary modification for the addition of the kit.....	444.50	59.70	9.60	10.10	35356

Item	AUDIO/VISUAL ADVISORY SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Design, supply and install audio/ visual fire alarm equipment; electrical and control points c/w cables, conduit (surface or concealed in partitions and ceiling) and all necessary accessories and connected to the audio/visual fire alarm control panel : -</b>					
35357	Loudspeakers; surface/concealed mounted c/w metal enclosure.....	563.70	183.40	42.50	49.60	35357
35358	Flashing light directional sign boxes; single side; overall size up to 500 mm x 150 mm x 200mm (H); comprising metal sign box, perspex backing and front sheeting, flashing unit, battery and charger, electrical gear and all necessary accessories; ceiling mounted.....	956.10	183.40	42.50	49.60	35358
35359	Ditto but double side.....	1,125.60	183.40	42.50	49.60	35359
	<b>Audio-visual fire alarm control/indicating panel c/w pre-amplifier and amplifier, automatic long play recorder, cassette tape, repeater, random access message module, master controller, multiplex alarm system, system/auxiliary power supply, connection of fire link and all necessary accessories : -</b>					
35360	Panel of 4 zones or less.....	24,934.80	340.20	43.50	46.10	35360
35361	Ditto 5 - 8 zones.....	33,907.40	364.80	48.60	53.70	35361
35362	Ditto 9 - 12 zones.....	40,978.30	389.40	53.70	58.90	35362
35363	Ditto 13 - 18 zones.....	46,035.70	414.00	58.90	64.00	35363
35364	Add to last item for each additional 4 zones or part thereof.....	3,155.70	24.60	5.10	5.10	35364
	<b>DISCONNECTION EXISTING FIRE SERVICES INSTALLATION</b>					
	<i>Per square metre</i>					
	<b>Labour to disconnect all existing fire services installation for an area, take down and clear away entire fire services installation inside the area (area shall be measured net on the gross floor area of the building covered by the fire services installation) : -</b>					
35365	Area with sprinkler (up to 100 m <sup>2</sup> ).....	-	-	12.40	-	35365
35366	Area with sprinkler (100 - 500 m <sup>2</sup> ).....	-	-	12.30	-	35366
35367	Area with sprinkler (above 500 m <sup>2</sup> ).....	-	-	11.80	-	35367
35368	Area without sprinkler (up to 100 m <sup>2</sup> ).....	-	-	5.20	-	35368
35369	Area without sprinkler (100 - 500 m <sup>2</sup> ).....	-	-	5.10	-	35369
35370	Area without sprinkler (above 500 m <sup>2</sup> ).....	-	-	4.60	-	35370



**Section 36**

**LIQUEFIED PETROLEUM GAS**

## LIQUEFIED PETROLEUM GAS

## SPECIAL CONDITIONS

<b>Measurement of excavations, chases, holes and other subsidiary work</b>	I.	All trench excavation shall be measured separately and paid for at the appropriate rates under Section 01 - Excavation of this Schedule. All chases in, and holes through existing walls, ceilings, etc. for tubing and pipes, (but not mortices or holes for brackets) shall be measured and paid for at the appropriate rates under Section 02 - Concrete Work, Section 03 - Brickwork and Blockwork or other applicable Work Sections of this Schedule.
<b>Measurement of pipework</b>	II.	Pipework shall be measured in linear metres over all in-line fittings, short running lengths and branches.
<b>Measurement of pressure test of existing pipework</b>	III.	Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Test have been allowed in the rates under this Section. No measurement will be made for testing and commissioning except for pressure test of existing pipework where specifically ordered by the Maintenance Surveyor in writing.
<b>Rates generally</b>	IV.	<p>The rates for all items shall generally include for : -</p> <ul style="list-style-type: none"> <li>(a) Colour band and colour identification work.</li> <li>(b) Lettering and engraving for identification, signs, labels in both English and Chinese.</li> <li>(c) Identification plates, signs, notice plates, discs and labels in both English and Chinese.</li> <li>(d) Priming or painting off site and proprietary finishes or surface treatment applied as part of the production process whether applied before or after fabrication and assembly.</li> <li>(e) All protective and finishing painting work, apart from additional painting work specifically ordered by the Maintenance Surveyor in writing which shall be measured separately and paid for at the appropriate rates under Section 15 - Painting Section of this Schedule.</li> <li>(f) Any kind of fixing method including provision of screws, nuts, bolts, shims, washers, clips, brackets, hangers, supports and the like.</li> <li>(g) Provision of expansion joints in service runs wherever they coincide with structural expansion joints.</li> <li>(h) Submission of catalogues, technical literature, data, calculations, test certificates and approval documentation covering the equipment and materials being supplied.</li> <li>(i) Preparing and submitting detail working drawings as required and all shop drawings for the fabrication and installation.</li> <li>(j) Attendance, as required, of the manufacturers' representative to assist in the installation and subsequent testing and commissioning.</li> <li>(k) Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Tests, except pressure test of existing pipework. (Note : - Pressure test of existing pipework shall be measured separately if ordered by the Maintenance Surveyor in writing)</li> </ul>

**SPECIAL CONDITIONS (CONT'D)**

IV.	<ul style="list-style-type: none"> <li>(l) Provision of all necessary testing instrument of approved type for testing and commissioning</li> <li>(m) Provision of mock-up work as specified.</li> <li>(n) Preparing and submitting operation and maintenance manuals and as-fitted drawings for items of works as required.</li> <li>(o) Provision of schematic diagrams covered front and back with plastic sheet including fixing to wall.</li> <li>(p) Provision of manufacturer's guarantee.</li> </ul>	<b>Rates generally (cont'd)</b>
V.	<p>The rates for pipework shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) All short lengths, cutting and waste, and joints in the running length.</li> <li>(b) All pipework brackets, supports, hangers, guides, anchors and the like and alternative method of jointing and fixing as specified (if any).</li> <li>(c) All pipework fittings (e.g. bends, elbows, branches, reducers, tees, caps and the like) including connections, cutting and jointing pipes to fittings.</li> <li>(d) Screwed sockets, tappings, bosses and welding-necks welded to pipes or flanges including perforating the pipework or flanges.</li> <li>(e) Connections between pipework of different materials and differing grades of same material.</li> <li>(f) Wall, floor and ceiling plates.</li> <li>(g) All jointing including provision of flexible connections and/or necessary adaptors and connectors, welding consumable, jointing tapes, flanges, unions, gasket, bolts and nuts and the like where required.</li> <li>(h) Expansion loops and compensators including connections, cutting and jointing to pipes and fittings.</li> <li>(i) Provision of all sleeves for casting in or building in where pipes pass through slabs, walls or beams and caulking between pipe and sleeve where required.</li> <li>(j) Fixing in any position to floors, walls and ceilings including laying in trenches and fixing in chases, ducts, false ceilings and similar positions, and wrapping with protective tape where required.</li> </ul>	<b>Rates for pipework</b>
VI.	<p>The rates for in-line pipework equipment (e.g. valves, flow meters, gauges and the like) shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) Cutting and jointing to pipes and fittings.</li> <li>(b) Stripping down repacking glands and preparing spindles, as appropriate, prior to installation.</li> </ul>	<b>Rates for in-line pipework equipment</b>

## SPECIAL CONDITIONS (CONT'D)

<b>Rates for equipment</b>	VII.	The rates for equipment shall further included for :- <ul style="list-style-type: none"> <li>(a) All necessary assembly, orientation, alignment, levelling and bolting down, together with the provision of shims and packing pieces, strainers, instrumentation and the like.</li> <li>(b) Provision of all associated components.</li> <li>(c) All necessary operational and control accessories forming part of the equipment.</li> <li>(d) Final connections and terminations to water supply and gas supply including all necessary pipework, valves, gauges and necessary accessories required for energizing the equipment to properly operate at specified duties.</li> <li>(e) Earth/equipotential bonding.</li> </ul>
<b>Rates for pressure test of existing pipework</b>	VIII.	The rates for pressure test of existing pipework (including associated in-line pipework fittings and in-line pipework equipment and the like) shall include for :- <ul style="list-style-type: none"> <li>(a) De-gasing and cleaning of pipeline by any means necessary before carrying out test.</li> <li>(b) All preparation work including temporary sealing ends of pipes and connections</li> <li>(c) Provision of all necessary testing instrument of approved type for pressure test.</li> <li>(d) Provision of test record.</li> <li>(e) Submission of Surveyor Certificate as specified.</li> <li>(f) Making good all works disturbed.</li> </ul>
<b>Rates for "Take down and clear away" or "Take down and set aside for re-use"</b>	IX.	The rates for "Take down and clear away" or "Take down and set aside for re-use" existing items in connection with liquefied petroleum gas installation shall further include for :- <ul style="list-style-type: none"> <li>(a) Taking down all associated pipeworks and building services works (if any).</li> <li>(b) All in-line fittings including brackets, support, hangers and the like.</li> <li>(c) Cutting into existing pipework in position.</li> <li>(d) De-gasing of existing pipework (including associated in-line fittings and the like) as required.</li> <li>(e) Plugging off remaining ends with plugs or caps as required.</li> <li>(f) Preparing remaining ends of pipeworks and building services works (if any) to receive connections with new work if required.</li> <li>(g) Making good all works disturbed.</li> </ul>
<b>Particular Specification</b>	X.	The Particular Specification for liquefied petroleum gas can be found in the Contract.

Item	LIQUEFIED PETROLEUM GAS (LPG) INSTALLATION	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per set</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Cylinder storage system including the initial supply of 50 kg LPG cylinder of LP gas, changeover valve c/w indicator, flexible hose c/w adaptor, pigtails, pressure gauge, manifold valve with or without check valve, safety devices and necessary pipeworks inside LP gas store : -</b>					
36001	1 - 4 cylinders.....	2,984.40	386.00	74.70	83.30	36001
36002	5 - 8 cylinders.....	5,637.10	514.60	86.20	96.00	36002
36003	9 - 12 cylinders.....	8,188.30	643.30	97.70	108.60	36003
36004	13 - 16 cylinders.....	9,795.70	772.00	109.20	121.20	36004
36005	17 - 20 cylinders.....	11,872.70	900.60	120.70	133.90	36005
	<i>Each</i>					
	<b>Above ground bulk LPG storage vessel c/w saddle, pressure relief valve, shut off valve, emergency valve, liquid level device, contents and pressure gauges, manhole, vent pipes, filling and drain connections, and other associated accessories, for water capacity : -</b>					
36006	Up to 2000 litres..... (The actual rate should be : \$188,162.00 for Item 36006A)	18,816.20	32,184.40	5,364.10	5,806.10	36006
36007	2000 - 4000 litres..... (The actual rate should be : \$220,275.00 for Item 36007A)	22,027.50	33,793.70	5,632.50	6,129.80	36007
36008	4000 - 5000 litres..... (The actual rate should be : \$252,592.30 for Item 36008A)	25,259.23	34,329.90	5,721.50	6,274.00	36008
36009	5000 - 7000 litres..... (The actual rate should be : \$284,882.20 for Item 36009A)	28,488.22	35,001.30	5,833.60	6,441.50	36009
36010	7000 - 9000 litres..... (The actual rate should be : \$316,796.40 for Item 36010A)	31,679.64	37,548.70	6,258.00	6,920.90	36010
	<b>Extra for underground vessel including securing facilities against flotation, fittings made accessible above ground level, extra coating, cathodic protection, for water capacity : -</b>					
36011	Up to 2000 litres.....	12,543.30	2,145.50	357.50	578.40	36011
36012	2000 - 4000 litres.....	16,175.10	2,482.80	413.80	690.10	36012
36013	4000 - 5000 litres.....	19,846.10	2,697.50	449.70	781.20	36013
36014	5000 - 7000 litres.....	21,676.90	2,758.90	459.70	846.50	36014
36015	7000 - 9000 litres.....	23,534.00	2,789.50	465.20	907.20	36015
	<b>Excess flow valve</b>					
36016	Excess flow valve for cylinder liquid take-off line.....	445.20	32.80	18.20	18.80	36016

Item	LIQUEFIED PETROLEUM GAS (LPG) INSTALLATION (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per set</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Vaporizer, indirect heated type, flameproof/explosion proof c/w necessary accessories, valves, rubber hose, etc. for vaporizing capacity : -</b>					
36017	25 kg/hr.....	18,399.20	665.50	109.20	114.90	36017
36018	50 kg/hr.....	25,782.30	829.60	137.90	143.70	36018
	<i>Each</i>					
36019	Changeover device for liquid withdrawal LPG.....	1,375.40	34.60	12.10	12.60	36019
36020	Changeover device for vapour withdrawal LPG.....	1,375.40	34.60	12.10	12.60	36020
36021	Medium/low pressure regulator, fail shut off type (all size) c/w necessary accessories, valves, pressure gauge, etc.....	3,228.20	41.90	12.10	12.60	36021
36022	High/medium pressure regulator c/w active & monitor regulator (all size) and necessary accessories, valves, pressure gauge, etc.....	4,613.70	52.00	12.10	12.60	36022
	<i>Per linear metre</i>					
	<b>Galvanized mild steel gas pipe c/w all necessary accessories :-</b>					
36023	15 mm diameter.....	41.30	22.90	1.60	1.90	36023
36024	20 mm diameter.....	51.30	28.40	1.70	2.00	36024
36025	25 mm diameter.....	68.60	30.80	1.90	2.20	36025
36026	32 mm diameter.....	78.50	32.80	2.20	2.40	36026
36027	40 mm diameter.....	86.00	35.40	2.40	2.60	36027
36028	50 mm diameter.....	109.70	40.80	2.70	2.90	36028
36029	65 mm diameter.....	131.90	46.70	3.10	3.40	36029
36030	80 mm diameter.....	159.70	52.70	3.70	3.90	36030
36031	100 mm diameter.....	215.60	67.40	4.20	4.40	36031
36032	150 mm diameter.....	300.50	89.50	6.80	7.30	36032

Item	LIQUEFIED PETROLEUM GAS (LPG) INSTALLATION (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Underground galvanized mild steel gas pipe c/w all necessary accessories :-</b>					
36033	20 mm diameter.....	44.60	22.40	1.50	1.60	36033
36034	25 mm diameter.....	60.80	24.20	1.60	1.70	36034
36035	32 mm diameter.....	69.90	25.80	1.70	1.90	36035
36036	40 mm diameter.....	76.80	28.00	1.90	2.10	36036
36037	50 mm diameter.....	98.50	32.00	2.10	2.30	36037
36038	65 mm diameter.....	118.90	36.90	2.50	2.70	36038
36039	80 mm diameter.....	144.40	41.50	2.90	3.10	36039
36040	100 mm diameter.....	195.30	53.00	3.20	3.50	36040
36041	150 mm diameter.....	272.70	70.50	5.20	5.60	36041
	<i>Each</i>					
	<b>Third stage governor regulator : -</b>					
36042	15 mm diameter.....	147.90	29.80	20.90	25.60	36042
36043	20 mm diameter.....	304.40	32.80	21.30	26.10	36043
36044	25 mm diameter.....	402.20	35.80	21.80	26.60	36044
	<i>Per linear metre</i>					
	<b>Copper gas pipe c/w all necessary accessories : -</b>					
36045	12 mm diameter.....	44.50	24.40	1.50	1.50	36045
	<i>Each</i>					
	<b>LPG meter c/w all necessary accessories : -</b>					
36046	Up to 2.5 m <sup>3</sup> /hr.....	447.10	29.80	20.90	25.60	36046
36047	2.5 - 6.5 m <sup>3</sup> /hr.....	821.20	42.80	26.10	30.80	36047
36048	6.5 - 10.5 m <sup>3</sup> /hr.....	1,138.80	55.70	31.30	36.00	36048

Item	LIQUEFIED PETROLEUM GAS (LPG) INSTALLATION (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>LPG isolating valve, globe type, including adaptors and flange as required :-</b>					
36049	15 mm diameter.....	79.10	29.80	20.90	25.60	36049
36050	20 mm diameter.....	116.40	32.80	21.30	26.10	35050
36051	25 mm diameter.....	153.70	35.80	21.80	26.60	36051
36052	32 mm diameter.....	189.80	38.80	22.30	27.00	36052
36053	40 mm diameter.....	233.10	41.80	22.80	27.50	36053
36054	50 mm diameter.....	330.50	44.80	23.70	28.50	36054
36055	65 mm diameter.....	473.70	47.70	25.10	29.90	36055
36056	80 mm diameter.....	662.80	50.70	26.60	31.30	36056
36057	100 mm diameter.....	1,067.30	54.70	28.50	33.20	36057
36058	150 mm diameter.....	1,806.90	74.60	37.90	44.10	36058
	<b>LPG quick-action shut-off valve, fail safe, lever operated globe type, including adaptors and flange as required :-</b>					
36059	15 mm diameter.....	210.70	29.80	20.90	25.60	36059
36060	20 mm diameter.....	276.50	32.80	21.30	26.10	35060
36061	25 mm diameter.....	337.60	35.80	21.80	26.60	36061
36062	32 mm diameter.....	421.90	38.80	22.30	27.00	36062
36063	40 mm diameter.....	521.40	41.80	22.80	27.50	36063
36064	50 mm diameter.....	904.40	44.80	23.70	28.50	36064
36065	65 mm diameter.....	1,595.90	47.70	25.10	29.90	36065
36066	80 mm diameter.....	2,217.20	50.70	26.60	31.30	36066
36067	100 mm diameter.....	2,700.30	54.70	28.50	33.20	36067
36068	150 mm diameter.....	4,345.30	74.60	37.90	44.10	36068
	<b>LPG solenoid valve c/w all necessary accessories :-</b>					
36069	Up to 12 mm diameter.....	1,557.80	29.80	20.90	25.60	36069
36070	12 - 20 mm diameter.....	1,970.60	32.80	21.30	26.10	36070



Item	LIQUEFIED PETROLEUM GAS (LPG) INSTALLATION (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Bronze non-return/check valve :-</b>					
36071	25 mm diameter.....	153.70	35.80	21.80	26.60	36071
36072	32 mm diameter.....	239.70	38.80	22.30	27.00	36072
36073	40 mm diameter.....	301.90	41.80	22.80	27.50	36073
36074	50 mm diameter.....	402.10	44.80	23.70	28.50	36074
36075	80 mm diameter.....	707.50	50.70	26.60	31.30	36075
	<b>Bronze Y-strainer : -</b>					
36076	25 mm diameter.....	133.60	35.80	21.80	26.60	36076
36077	32 mm diameter.....	174.40	38.80	22.30	27.00	36077
36078	40 mm diameter.....	215.30	41.80	22.80	27.50	36078
36079	50 mm diameter.....	321.10	44.80	23.70	28.50	36079
36080	80 mm diameter.....	614.70	50.70	26.60	31.30	36080
	<b>Bronze gate valve : -</b>					
36081	25 mm diameter.....	93.20	35.80	21.80	26.60	36081
36082	32 mm diameter.....	119.90	38.80	22.30	27.00	36082
36083	40 mm diameter.....	143.00	41.80	22.80	27.50	36083
36084	50 mm diameter.....	208.40	44.80	23.70	28.50	36084
36085	80 mm diameter.....	408.00	50.70	26.60	31.30	36085
	<b>LPG equipment, with GU mark, c/w all necessary accessories :-</b>					
36086	LPG water heater with or without wall case 5 - 10 litres/min.....	3,553.60	389.30	64.60	75.40	36086
36087	Table stove/ring burner 1 or 2 ring.....	1,097.80	62.70	14.20	15.40	36087
36088	Table stove/ring burner 3 or 4 ring.....	2,697.60	67.10	15.10	15.70	36088
36089	Domestic cooker.....	882.80	62.70	14.20	15.40	36089
36090	Cooking range c/w oven under 20 kW (commercial type, open or solid tip) .....	8,866.50	322.20	58.00	63.70	36090

Item	LIQUEFIED PETROLEUM GAS (LPG) INSTALLATION (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>LPG equipment, with GU mark, c/w all necessary accessories :- (Cont'd)</b>					
36091	LPG rice cooker 5 - 20 litres.....	1,760.60	62.70	14.20	15.40	36091
36092	LPG steamer - single unit.....	6,317.00	295.40	58.00	63.70	36092
36093	LPG steamer - double unit.....	11,500.10	322.20	63.70	69.40	36093
36094	LPG cooking range c/w 450 mm quallie - single unit.....	4,890.50	295.40	58.00	63.70	36094
36095	LPG cooking range c/w 450 mm quallie - double unit.....	7,811.80	367.00	69.40	78.00	36095
36096	LPG cooking range c/w 600 mm quallie - single unit.....	5,236.80	313.30	63.70	69.40	36096
36097	LPG cooking range c/w 600 mm quallie - double unit.....	8,487.30	384.90	72.30	80.80	36097
36098	LPG cooking range c/w 900 mm quallie - single unit.....	6,587.70	349.10	64.90	70.60	36098
	<i>Per linear metre</i>					
	<b>Pressure test of existing LPG pipework :-</b> (Note : The following four items will only be paid for if ordered by the Maintenance Surveyor in writing)					
36099	15 - 25 mm.....	32.60	-	-	-	36099
36100	25 - 50 mm .....	49.50	-	-	-	36100
36101	50 - 80 mm .....	76.10	-	-	-	36101
36102	80 - 200 mm .....	169.10	-	-	-	36102
	<b>Sundries:-</b>					
	<i>Each</i>					
36103	Take down and clear away existing banned sink water heater.....	-	-	66.30	-	36103
	<i>Per lot</i>					
36104	Provide facilities for temporary gas supply (LPG & gas cylinders supplied by others) including connection, subsequent disconnection, removal of equipment from site.....	4,145.80	-	-	-	36104
	<i>Each</i>					
36105	Stainless steel box 1.5 mm thick, glass-fronted; size 230 mm x 250 mm x 250 mm.....	393.30	40.90	9.60	10.10	36105
36106	LPG vaporizer, indirect heated type, flameproof/explosion proof c/w necessary accessories, valves, rubber hose, etc. for vaporizing capacity 100 kg/hr.....	51,039.00	1,079.50	162.70	168.50	36106
36107	LPG water boiler, continuous supply type c/w internal water tank, heater, thermostat, water level indicator, ball valve, operational controls, safety features, control panel, flame failure device and all necessary accessories, capacity 120 litres.....	44,872.10	679.30	170.80	197.00	36107
36108	LPG water heater c/w internal water tank, operational controls, safety features, control panel, flame failure device and all necessary accessories, capacity 370 litres.....	60,113.60	679.30	170.80	197.00	36108

**Section 37**

**TOWN GAS**

## TOWN GAS

## SPECIAL CONDITIONS

<b>Measurement of excavations, chases, holes and other subsidiary work</b>	I.	All trench excavation shall be measured separately and paid for at the appropriate rates under Section 01 - Excavation of this Schedule. All chases in, and holes through existing walls, ceilings, etc. for tubing and pipes, (but not mortices or holes for brackets) shall be measured and paid for at the appropriate rates under Section 02 - Concrete Work, Section 03 - Brickwork and Blockwork or other applicable Work Sections of this Schedule.
<b>Measurement of pipework</b>	II.	Pipework shall be measured in linear metres over all in-line fittings, short running lengths and branches.
<b>Measurement of pressure test of existing pipework</b>	III.	Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Test have been allowed in the rates under this Section. No measurement will be made for testing and commissioning except for pressure test of existing pipework where specifically ordered by the Maintenance Surveyor in writing.
<b>Rates generally</b>	IV.	<p>The rates for all items shall generally include for : -</p> <ul style="list-style-type: none"> <li>(a) Colour band and colour identification work.</li> <li>(b) Lettering and engraving for identification, signs, labels in both English and Chinese.</li> <li>(c) Identification plates, signs, notice plates, discs and labels in both English and Chinese.</li> <li>(d) Priming or painting off site and proprietary finishes or surface treatment applied as part of the production process whether applied before or after fabrication and assembly.</li> <li>(e) All protective and finishing painting work, apart from additional painting work specifically ordered by the Maintenance Surveyor in writing which shall be measured separately and paid for at the appropriate rates under Section 15 - Painting of this Schedule.</li> <li>(f) Any kind of fixing method including provision of screws, nuts, bolts, shims, washers, clips, brackets, hangers, supports and the like.</li> <li>(g) Provision of expansion joints in service runs wherever they coincide with structural expansion joints.</li> <li>(h) Submission of catalogues, technical literature, data, calculations, test certificates and approval documentation covering the equipment and materials being supplied.</li> <li>(i) Preparing and submitting detail working drawings as required and all shop drawings for the fabrication and installation.</li> <li>(j) Attendance, as required, of the manufacturers' representative to assist in the installation and subsequent testing and commissioning.</li> <li>(k) Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Tests, except pressure test of existing pipework. (Note : - Pressure test of existing pipework shall be measured separately if ordered by the Maintenance Surveyor in writing)</li> </ul>

**SPECIAL CONDITIONS (CONT'D)**

IV.	<ul style="list-style-type: none"> <li>(l) Provision of all necessary testing instrument of approved type for testing and commissioning</li> <li>(m) Provision of mock-up work as specified.</li> <li>(n) Preparing and submitting operation and maintenance manuals and as-fitted drawings for items of works as required.</li> <li>(o) Provision of schematic diagrams covered front and back with plastic sheet including fixing to wall.</li> <li>(p) Provision of manufacturer's guarantee.</li> </ul>	<b>Rates generally (cont'd)</b>
V.	<p>The rates for pipework shall further include for : -</p> <ul style="list-style-type: none"> <li>(a) All short lengths, cutting and waste, and joints in the running length.</li> <li>(b) All pipework brackets, supports, hangers, guides, anchors and the like and alternative method of jointing and fixing as specified (if any).</li> <li>(c) All pipework fittings (e.g. bends, elbows, branches, reducers, tees, caps and the like) including connections, cutting and jointing pipes to fittings.</li> <li>(d) Screwed sockets, tappings, bosses and welding-necks welded to pipes or flanges including perforating the pipework or flanges.</li> <li>(e) Connections between pipework of different materials and differing grades of same material.</li> <li>(f) Wall, floor and ceiling plates.</li> <li>(g) All jointing including provision of flexible connections and/or necessary adaptors and connectors, welding consumable, jointing tapes, flanges, unions, gasket, bolts and nuts and the like where required.</li> <li>(h) Expansion loops and compensators including connections, cutting and jointing to pipes and fittings.</li> <li>(i) Provision of all sleeves for casting in or building in where pipes pass through slabs, walls or beams and caulking between pipe and sleeve where required.</li> <li>(j) Fixing in any position to floors, walls and ceilings including laying in trenches and fixing in chases, ducts, false ceilings and similar positions, and wrapping with protective tape where required.</li> </ul>	<b>Rates for pipework</b>
VI.	<p>The rates for in-line pipework equipment (e.g. valves, flow meters, gauges and the like) shall further include for : -</p> <ul style="list-style-type: none"> <li>(a) Cutting and jointing to pipes and fittings.</li> <li>(b) Stripping down repacking glands and preparing spindles, as appropriate, prior to installation.</li> </ul>	<b>Rates for in-line pipework equipment</b>

**SPECIAL CONDITIONS (CONT'D)****Rates for pressure test of existing pipework**

- VII. The rates for pressure test of existing pipework (including associated in-line fittings and in-line pipework equipment and the like) shall include for :-
- (a) De-gasing and cleaning of pipeline by any means necessary before carrying out test.
  - (b) All preparation work including temporary sealing ends of pipes and connections
  - (c) Provision of all necessary testing instrument of approved type for pressure test.
  - (d) Provision of test record.
  - (e) Submission of Surveyor Certificate as specified.
  - (f) Making good all works disturbed.

**Rates for "Take down and clear away" or "Take down and set aside for re-use"**

- VIII. The rates for "Take down and clear away" or "Take down and set aside for re-use" existing items in connection with town gas installation shall further include for :-
- (a) Taking down all associated pipeworks and building services works (if any).
  - (b) All in-line fittings including brackets, support, hangers and the like.
  - (c) Cutting into existing pipework in position.
  - (d) De-gasing of existing pipework (including associated in-line fittings and the like) as required.
  - (e) Plugging off remaining ends with plugs or caps as required.
  - (f) Preparing remaining ends of pipeworks and building services works (if any) to receive connections with new work if required.
  - (g) Making good all works disturbed.

**Particular Specification**

- IX. The Particular Specification for town gas can be found in the Contract.

Item	TOWN GAS INSTALLATION	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per linear metre</i>					
	<b>Galvanized mild steel gas pipe c/w all necessary accessories :-</b>					
37001	15 mm diameter.....	41.30	22.90	1.60	1.90	37001
37002	20 mm diameter.....	51.30	28.40	1.70	2.00	37002
37003	25 mm diameter.....	68.60	30.80	1.90	2.20	37003
37004	32 mm diameter.....	78.50	32.80	2.20	2.40	37004
37005	40 mm diameter.....	86.00	35.40	2.40	2.60	37005
37006	50 mm diameter .....	109.70	40.80	2.70	2.90	37006
37007	65 mm diameter.....	131.90	46.70	3.10	3.40	37007
37008	80 mm diameter.....	159.70	52.70	3.70	3.90	37008
37009	100 mm diameter.....	215.60	67.40	4.20	4.40	37009
37010	150 mm diameter.....	300.50	89.50	6.80	7.30	37010
37011	200 mm diameter.....	460.10	111.60	8.20	8.80	37011
37012	250 mm diameter.....	619.00	133.70	10.00	10.60	37012
	<b>Underground galvanized mild steel gas pipe c/w all necessary accessories :-</b>					
37013	20 mm diameter.....	44.60	22.40	1.50	1.60	37013
37014	25 mm diameter.....	60.80	24.20	1.60	1.70	37014
37015	32 mm diameter.....	69.90	25.80	1.70	1.90	37015
37016	40 mm diameter.....	76.80	28.00	1.90	2.10	37016
37017	50 mm diameter .....	98.50	32.00	2.10	2.30	37017
37018	65 mm diameter.....	118.90	36.90	2.50	2.70	37018
37019	80 mm diameter.....	144.40	41.50	2.90	3.10	37019
37020	100 mm diameter.....	195.30	53.00	3.20	3.50	37020
37021	150 mm diameter.....	272.70	70.50	5.20	5.60	37021
37022	200 mm diameter.....	421.60	87.90	7.30	7.70	37022
37023	250 mm diameter.....	569.70	105.30	9.20	9.90	37023

Item	TOWN GAS INSTALLATION (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Isolating valve, globe type, including adaptors and flanges as required :-</b>					
37024	15 mm diameter.....	79.10	29.80	20.90	25.60	37024
37025	20 mm diameter.....	116.40	32.80	21.30	26.10	37025
37026	25 mm diameter.....	153.70	35.80	21.80	26.60	37026
37027	32 mm diameter.....	189.80	38.80	22.30	27.00	37027
37028	40 mm diameter.....	233.10	41.80	22.80	27.50	37028
37029	50 mm diameter .....	330.50	44.80	23.70	28.50	37029
37030	65 mm diameter.....	473.70	47.70	25.10	29.90	37030
37031	80 mm diameter.....	662.80	50.70	26.60	31.30	37031
37032	100 mm diameter.....	1,067.30	54.70	28.50	33.20	37032
37033	150 mm diameter.....	1,806.90	74.60	37.90	44.10	37033
37034	200 mm diameter.....	2,636.30	94.50	47.40	55.00	37034
37035	250 mm diameter.....	3,416.70	109.40	55.00	61.70	37035
	<b>Quick action shut-off valves, lever-operated globe type, including adaptors and flanges as required :-</b>					
37036	20 mm diameter.....	276.50	32.80	21.30	26.10	37036
37037	25 mm diameter.....	337.60	35.80	21.80	26.60	37037
37038	32 mm diameter.....	421.90	38.80	22.30	27.00	37038
37039	40 mm diameter.....	521.40	41.80	22.80	27.50	37039
37040	50 mm diameter .....	904.40	44.80	23.70	28.50	37040
37041	65 mm diameter.....	1,595.90	47.70	25.10	29.90	37041
37042	80 mm diameter.....	2,217.20	50.70	26.60	31.30	37042
37043	100 mm diameter.....	2,700.30	54.70	28.50	33.20	37043
37044	150 mm diameter.....	4,345.30	74.60	37.90	44.10	37044
37045	200 mm diameter.....	6,051.40	94.50	47.40	55.00	37045
37046	250 mm diameter.....	7,780.80	109.40	55.00	61.70	37046



Item	TOWN GAS INSTALLATION (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Town gas outlet point c/w cocks, including adaptors and flanges as required :-</b>					
37047	20 mm diameter.....	124.40	36.10	23.50	28.70	37047
37048	25 mm diameter.....	164.40	39.40	24.00	29.20	37048
37049	32 mm diameter.....	203.10	42.70	24.60	29.80	37049
37050	40 mm diameter.....	249.00	45.90	25.00	30.30	37050
37051	50 mm diameter .....	349.00	49.20	26.10	31.30	37051
37052	65 mm diameter.....	495.90	52.50	27.70	32.90	37052
37053	80 mm diameter.....	705.00	55.80	29.20	34.40	37053
37054	100 mm diameter.....	1,128.00	60.20	31.30	36.50	37054
37055	150 mm diameter.....	1,905.40	82.00	41.70	48.60	37055
37056	200 mm diameter.....	3,136.10	103.90	52.20	60.50	37056
	<b>Bronze non-return/check valve : -</b>					
37057	25 mm diameter.....	153.70	35.80	21.80	26.60	37057
37058	32 mm diameter.....	239.70	38.80	22.30	27.00	37058
37059	40 mm diameter.....	301.90	41.80	22.80	27.50	37059
37060	50 mm diameter .....	402.10	44.80	23.70	28.50	37060
37061	80 mm diameter.....	707.50	50.70	26.60	31.30	37061
	<b>Bronze Y-strainer : -</b>					
37062	25 mm diameter.....	133.60	35.80	21.80	26.60	37062
37063	32 mm diameter.....	174.40	38.80	22.30	27.00	37063
37064	40 mm diameter.....	215.30	41.80	22.80	27.50	37064
37065	50 mm diameter .....	321.10	44.80	23.70	28.50	37065
37066	80 mm diameter.....	614.70	50.70	26.60	31.30	37066

Item	TOWN GAS INSTALLATION (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Bronze gate valve :-</b>					
37067	25 mm diameter.....	93.20	35.80	21.80	26.60	37067
37068	32 mm diameter.....	119.90	38.80	22.30	27.00	37068
37069	40 mm diameter.....	143.00	41.80	22.80	27.50	37069
37070	50 mm diameter .....	208.40	44.80	23.70	28.50	37070
37071	80 mm diameter.....	408.00	50.70	26.60	31.30	37071
	<b>Gas cock</b>					
37072	2-way gas cock.....	284.80	35.30	22.90	28.10	37072
37073	2-way gas cock, laboratory type.....	535.60	35.30	22.90	28.10	37073
	<b>Provision of check meter position, including adaptors and provisions of necessary short length of pipes :-</b>					
37074	Jointing to 50 mm diameter galvanized steel pipes.....	72.20	44.80	23.70	28.50	37074
37075	Jointing to 100 mm diameter galvanized steel pipes.....	144.00	54.70	28.50	33.20	37075
37076	Jointing to 150 mm diameter galvanized steel pipes.....	242.60	74.60	37.90	44.10	37076
37077	Jointing to 200 mm diameter galvanized steel pipes.....	431.50	94.50	47.40	55.00	37077
	<b>Sundries :-</b>					
37078	Stainless steel box 1.5 mm thick, glass-fronted; size 230 mm x 250 mm x 250 mm.....	393.30	40.90	9.60	10.10	37078
	<b>Per linear metre</b>					
	<b>Pressure test of existing town gas pipeworks :-</b> (Note : The following four items will only be paid for if ordered by the Maintenance Surveyor in writing)					
37079	15 - 25 mm.....	33.60	-	-	-	37079
37080	25 - 50 mm.....	51.00	-	-	-	37080
37081	50 - 80 mm.....	78.30	-	-	-	37081
37082	80 - 200 mm.....	174.00	-	-	-	37082

**Section 38**

**CATERING EQUIPMENT**

## CATERING EQUIPMENT

## SPECIAL CONDITIONS

**Measurement of power supply**

- I. All works of electrical power supply up to power supply points (e.g. switchgear or isolator or spur unit and the like) for the equipment shall be measured separately and paid for at the appropriate rates under Sections 27 to 30 - Electrical Installation or other applicable Work Sections of this Schedule.

For the avoidance of doubt, all items for kitchen furniture in this section shall only apply to the works executed by the Approved Suppliers of materials and Specialist Contractors for Public Works : Catering Equipment Installation.

**Measurement of water supply, waste disposal and gas supply**

- II. All works of water supply, waste disposal and gas supply up to the respective termination point for the equipment shall be measured separately and paid for at the appropriate rates under applicable Work Sections of this Schedule.

**Rates generally**

- III. The rates for all items shall generally include for : -
- (a) Colour band and colour identification work.
  - (b) Lettering and engraving for identification, signs, labels in both English and Chinese.
  - (c) Identification plates, signs, notice plates, discs and labels in both English and Chinese.
  - (d) Priming or painting off site and proprietary finishes or surface treatment applied as part of the production process whether applied before or after fabrication and assembly.
  - (e) All protective and finishing painting work, apart from additional painting work specifically ordered by the Maintenance Surveyor in writing which shall be measured separately and paid for at the appropriate rates under Section 15 - Painting of this Schedule.
  - (f) Any kind of fixing method including drilling of the background and provision of all fixings, nails, bolts, nuts, washers, holes, screws, plugs, shotfired pins and the like.
  - (g) Assembling and jointing together with the component parts of composite units and providing any necessary jointing materials.
  - (h) All brackets and methods of supports.
  - (i) Provision of expansion joints in service runs wherever they coincide with structural expansion joints.
  - (j) Submission of catalogues, technical literature, data, calculations, test certificates and approval documentation covering the equipment and materials being supplied.
  - (k) Preparing and submitting detail working drawings as required and all shop drawings for the fabrication and installation.
  - (l) Attendance, as required, of the manufacturers' representative to assist in the installation and subsequent testing and commissioning.
  - (m) Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Tests.

**SPECIAL CONDITIONS (CONT'D)**

III.	<ul style="list-style-type: none"> <li>(n) Provision of all necessary power, fuel, labour and testing instrument of approved type for testing and commissioning.</li> <li>(o) Preparing and submitting operation and maintenance manuals and as-fitted drawings for items of works as required.</li> <li>(p) Provision of schematic diagrams covered front and back with plastic sheet including including fixing to wall.</li> <li>(q) Provision of manufacturer's guarantee.</li> </ul>	<b>Rates generally (cont'd)</b>
IV.	<p>The rates for kitchen equipment shall further include for : -</p> <ul style="list-style-type: none"> <li>(a) All necessary assembly, orientation, alignment, levelling and bolting down, together with the provision of shims and packing pieces, the clocking of couplings between drivers and rotating equipment, strainers, instrumentation and the like.</li> <li>(b) Provision of all associated components.</li> <li>(c) All necessary operational and control accessories forming part of the equipment.</li> <li>(d) Final connections and terminations to electrical supply, water supply, waste disposal and gas supply including all necessary cables, wirings, conduits, trunkings, cable trays, pipework, traps, grease traps, valves, gauges and necessary accessories required for energizing the equipment to properly operate at specified duties.</li> <li>(e) Motor starters (if motors in the equipment require motor starters).</li> <li>(f) Earth/equipotential bonding.</li> </ul>	<b>Rates for kitchen equipment</b>
V.	<p>The rates for kitchen furniture shall further include for : -</p> <ul style="list-style-type: none"> <li>(a) All framing and components to ensure the rigidity and stability of the finished work.</li> <li>(b) All accessories necessary for the work.</li> <li>(c) Forming holes for pipes, water taps, building services installations, sink and the like if required.</li> <li>(d) All necessary ironmongeries including door hinges, pull handles and the like.</li> </ul>	<b>Rates for kitchen furniture</b>
VI.	<p>The rates for "Take down and clear away" or "Take down and set aside for re-use" existing kitchen equipment shall further include for : -</p> <ul style="list-style-type: none"> <li>(a) Taking down all associated plumbing works and building services works.</li> <li>(b) Plugging off remaining ends with plugs or caps as required.</li> <li>(c) Preparing remaining ends of plumbing works and building services works to receive connections with new work if required.</li> <li>(d) Making good all works disturbed.</li> </ul>	<b>Rates for "Take down and clear away" or "Take down and set aside for re-use"</b>
VII.	<p>The Particular Specification for catering equipment can be found in the Contract.</p>	<b>Particular Specification</b>

Item	CATERING EQUIPMENT	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Kitchen equipment</b>					
	<b>Chinese cooking range c/w burners, air blowers, gas cock, operational and safety controls, splash plate, water faucet, water pot, flame failure device, automatic gas controller with solenoid valves, refractory brick lined combustion chamber, removable stainless steel plate for spice pots, flue pipes, tail pots and all necessary accessories :-</b>					
38001	2 x 600 mm diameter wok, 2200 x 1200 x 800 mm high.....	18,009.30	1,400.30	217.70	261.60	38001
38002	1 x 600 mm diameter wok, 2200 x 1200 x 800 mm high.....	13,507.00	1,050.20	199.80	243.70	38002
	<b>Chinese cooking steamer c/w burners, air blowers, gas cock, 3 steam trays per steamer unit, rice pans, operational and safety controls, water faucet, flame failure device, automatic gas controller with solenoid valves, flue pipe, dim sum plates, dim sum tray stand, steamer funnel and all necessary accessories :-</b>					
38003	950 x 1200 x 800 mm high (single unit).....	13,510.40	700.10	173.80	217.70	38003
38004	1800 x 1200 x 800 mm high (double unit).....	21,049.00	800.20	199.80	243.70	38004
	<b>Gas fire range c/w oven fitted with cooking shelves, hangers and base plate, rings, griddle top, burners, flame failure device, control taps, splash back, thermostat, thermal insulation, adjustable legs and all necessary accessories :-</b>					
38005	Heavy duty type.....	7,112.80	701.50	173.80	199.80	38005
	<b>Gas burners c/w griddle top, burners, flame failure device and all necessary accessories :-</b>					
38006	Single burner town gas hot plate.....	1,780.90	72.30	17.90	26.90	38006
38007	Double burner town gas hot plate.....	3,157.30	82.70	22.40	31.40	38007
	<b>Gas stock pot stoves c/w burners, gas cock, flame failure device, automatic gas controller with solenoid valves, gratings, drip tray, oil pan and all necessary accessories :-</b>					
38008	1 head, 550 x 650 x 900 mm high.....	4,099.00	347.60	89.60	107.50	38008
38009	2 heads, 1100 x 1200 x 900 mm high.....	5,932.10	441.50	107.50	134.40	38009
	<b>Rice cooker c/w extra rice cooker bowl and cover, rubber hose connection and automatic flame keeping :-</b>					
38010	2 - 5 litres, 420 mm diameter x 400 mm high.....	1,965.50	72.30	17.90	26.90	38010
38011	5 - 9 litres, 530 mm diameter x 420 mm high.....	2,221.70	82.70	22.40	31.40	38011

Item	CATERING EQUIPMENT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Kitchen equipment (Cont'd)</b>					
	<b>Upright refrigerator with doors, control panel, compressors cabinet, condensing unit, door hardware and latches, thermal insulation, thermometer, internal lighting and all necessary accessories :-</b>					
38012	550 litres, 750 x 800 x 2000 mm high.....	11,582.50	176.80	69.90	86.90	38012
38013	1200 litres, 1500 x 800 x 2000 mm high.....	16,626.20	223.40	112.90	129.90	38013
	<b>Upright freezer with doors, control panel, compressors cabinet, condensing unit, door hardware and latches, thermal insulation, thermometer, internal lighting and all necessary accessories :-</b>					
38014	550 litres, 750 x 800 x 2000 mm high.....	12,582.30	176.80	69.90	86.90	38014
38015	1200 litres, 1500 x 800 x 2000 mm high.....	18,077.20	223.40	112.90	129.90	38015
	<b>Upright refrigerator/freezer with doors, control panel, compressors cabinet, condensing unit, door hardware and latches, thermal insulation, thermometer, internal lighting and all necessary accessories :-</b>					
38016	550 litres, 750 x 800 x 2000 mm high.....	20,422.10	176.80	69.90	86.90	38016
38017	1200 litres, 1500 x 800 x 2000 mm high.....	28,453.10	223.40	112.90	129.90	38017
	<b>Dish washer c/w door, adjustable legs, built-in rinse booster, automatic fill, safety cut-out switch, liquid detergent dispenser, rinse line injector, booster pumps, signal lamps, instrument panel, drain pump, dish racks, cup racks and associated side tables :-</b>					
38018	Dish washer, 28 litres, 14 kW approx., size 750 x 650 x 2000 mm high.....	23,666.20	422.70	138.90	165.70	38018
	<b>Sterilizing sink for milk bottles free standing, with sink cover and internal basket complete with all accessories :-</b>					
38019	Sterilizing sink, 8 litres heating capacity.....	4,889.00	92.50	44.80	48.40	38019
	<b>Electric water boiler, continuous supply type c/w internal water tank, heater, thermostat, water level indicator, ball valve, access to maintenance door, indicating light, switch and faucet :-</b>					
38020	32 litres, 3 kW.....	4,147.70	347.60	107.50	125.40	38020
38021	65 litres, 9 kW.....	6,643.30	394.50	134.40	152.30	38021

Item	CATERING EQUIPMENT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Kitchen equipment (Cont'd)</b>					
	<b>Electric insect killer; wall mounted type :-</b>					
38022	100 W.....	983.10	89.40	34.60	39.00	38022
38023	200 W.....	1,591.40	106.90	39.00	43.50	38023
	<b>Fan-assisted balance flue, instantaneous gas water heater c/w temperature selector and flames failure device; with capacity of :-</b>					
38024	8.8 litres/min. at 25°C temperature rise.....	5,313.50	432.10	107.50	125.40	38024
	<b>Balance flue, instantaneous gas water heater c/w temperature selector and flames failure devices; with capacity of :-</b>					
38025	10 litres/min. at 25°C temperature rise.....	4,155.20	432.10	107.50	125.40	38025
38026	16 litres/min. at 25°C temperature rise.....	5,033.10	432.10	107.50	125.40	38026
	<b>Steam cabinet c/w burner, gas cock, steaming cabinet with removable wire shelf, flame failure device, automatic gas controller with solenoid valves, flue pipe, valves, lighting touch, inspection door, drain trough, flue pipe, sight glass and all necessary accessories :-</b>					
38027	Gas steaming, three decks oven, 1200 x 1000 x 1500 mm high.....	20,841.70	695.10	174.70	201.60	38027
38028	Single door type steam cabinet, 850 mm (H) x 1100 mm (W) x 1870 mm (D).....	18,618.40	601.20	156.80	179.20	38028
38029	3-door type steam cabinet, 1900 mm (H) x 950 mm (W) x 1100 mm (D).....	21,634.20	695.10	174.70	201.60	38029
	<b>Gas kettle c/w burner</b>					
38030	Gas single steaming kettle range, 60 kW burner rating, 1000 x 1200 x 800 mm high, c/w burner, gas cock, 3 trays with pans and covers, water faucet, flame failure devices, automatic gas controller with solenoid valves, flue pipe and all necessary accessories.....	12,705.00	601.20	156.80	179.20	38030
38031	Gas titling kettle, 150 litres, 1350 x 1100 x 1050 mm high, c/w burner, gas cock, operational controls, safety features, control panel, flame failure device and all necessary accessories .....	77,062.10	695.10	174.70	201.60	38031
	<b>Bain Marie with hot cabinet c/w drainage tap to well, thermostat, push handle, rubber corner bumpers, castors, protective panel with temperature control, switch and power light, flexible coiled cable and all necessary accessories :-</b>					
38032	1200 x 650 x 900 mm high, 1.6 kW.....	7,730.40	601.20	156.80	179.20	38032



Item	CATERING EQUIPMENT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Kitchen equipment (Cont'd)</b>					
	<b>Gas salamander broiler; range mounted, c/w broiling grid with grates, grid lock, valve controls and automatic lighting :-</b>					
38033	12kW, 1200 x 500 x 950 mm high approx.....	7,410.40	521.30	129.90	152.30	38033
	<b>Electric beverage bottle cooler; c/w cabinet, lids with hardware and locking device, thermal insulation, refrigeration system, evaporator coils, condenser, controls and all necessary accessories :-</b>					
38034	700 x 500 x 900 mm high overall; 120 bottles of 200 ml size in vertical storage .....	5,624.80	183.20	71.70	85.10	38034
	<b>Electric sterilizer c/w heating element fitted with safety device, water container with covered handle, dipping trays, grab-handle with hooks and stands :-</b>					
38035	2 kW approx.; 22.5 litres.....	4,399.80	164.40	58.20	67.20	38035
	<b>Sundries :-</b>					
38036	Cooker and oven with grille top.....	11,731.50	347.60	106.50	124.20	38036
38037	Deep fat fryer, 20 kW.....	13,670.20	347.60	106.50	124.20	38037
38038	Deep fat fryer c/w cooker.....	15,169.90	347.60	106.50	124.20	38038
38039	Grill, 7.5 kW/hr.....	12,738.60	521.30	128.60	150.80	38039
38040	Pastry oven, 10 kW.....	16,884.00	521.30	128.60	150.80	38040
38041	Commercial mincer, 430 x 210 x 380 mm high approx.....	7,197.10	130.30	44.80	49.30	38041
38042	Flour mixer, 20 litres.....	21,583.40	258.30	87.80	103.00	38042
38043	Flour bin trolley.....	1,916.50	46.10	17.70	22.20	38043
38044	Potato peeler, 300 kg/hr.....	13,911.30	176.80	69.90	86.90	38044
38045	Slicer, 615 x 480 x 450 mm high approx.....	4,612.30	130.30	44.80	49.30	38045
38046	Café set, 2 litres.....	2,876.80	46.10	17.70	22.20	38046
38047	Ice maker, 800 x 600 x 530 mm high approx., 1.1 kW.....	17,349.60	176.80	69.90	86.90	38047
38048	Micro-wave oven, 1000W.....	1,091.70	46.50	17.90	22.40	38048
38049	Tea boiler, 45 litres.....	2,181.60	258.30	87.80	103.00	38049
38050	Mobile rice warmer, 650 x 650 x 850 mm high approx.....	2,051.90	46.10	17.70	22.20	38050
38051	Mobile soup warmer, 650 x 650 x 850 mm high approx.....	2,051.90	46.10	17.70	22.20	38051
38052	Mobile table, 1400 x 760 x 860 mm high approx. with two undershelves.....	3,455.40	46.10	17.70	22.20	38052

Item	CATERING EQUIPMENT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Kitchen equipment (Cont'd)</b>					
	<b>Sundries :- (Cont'd)</b>					
38053	Service counter c/w under-counter boiler, 1850 x 850 x 700 mm high approx.....	12,843.60	400.10	114.70	132.60	38053
38054	Rubbish bin and lid, 38 litres.....	257.10	10.90	8.90	9.80	38054
38055	Wooden top table 1900 x 750 x 850mm high.....	3,298.90	226.10	71.00	88.70	38055
	<b>Kitchen furniture</b>					
	<b>Stainless steel worktop tables :-</b>					
38056	1500 x 750 x 850 mm high.....	2,048.30	180.90	53.20	71.00	38056
38057	2000 x 750 x 850 mm high.....	2,716.10	226.10	71.00	88.70	38057
38058	1500 x 900 x 850 mm high.....	2,180.00	180.90	53.20	71.00	38058
	<i>Per linear metre</i>					
	<b>Stainless steel worktop with undershelf</b>					
38059	600 mm (W) x 850 mm (H) with 1-tier undershelf.....	1,904.80	149.30	44.40	62.10	38059
38060	600 mm (W) x 850 mm (H) with 2-tier undershelf.....	2,210.50	180.90	53.20	71.00	38060
38061	750 mm (W) x 850 mm (H) with 1-tier undershelf.....	1,990.10	149.30	44.40	62.10	38061
38062	750 mm (W) x 850 mm (H) with 2-tier undershelf.....	2,351.90	180.90	53.20	71.00	38062
	<i>Each</i>					
	<b>Stainless steel worktop with sink</b>					
38063	1800 x 750 x 850 mm high with single sink 500 x 500 x 400 mm deep .....	3,890.00	271.40	80.60	98.50	38063
38064	1800 x 750 x 850 mm high with double sinks each 500 x 500 x 400 mm deep .....	5,072.30	316.60	89.60	107.50	38064
	<i>Per linear metre</i>					
	<b>Stainless steel chopping tables with undershelf :-</b>					
38065	600 mm (W) x 850 mm (H) with 1-tier undershelf.....	2,151.10	149.30	44.40	62.10	38065
38066	600 mm (W) x 850 mm (H) with 2-tier undershelf.....	2,504.30	180.90	53.20	71.00	38066
38067	750 mm (W) x 850 mm (H) with 1-tier undershelf.....	2,236.40	149.30	44.40	62.10	38067
38068	750 mm (W) x 850 mm (H) with 2-tier undershelf.....	2,645.70	180.90	53.20	71.00	38068
	<b>Open shelves</b>					
38069	Open shelves, 3-tiers, 500 mm (D) x 1800 mm (H).....	2,047.40	149.30	44.40	62.10	38069

Item	CATERING EQUIPMENT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per linear metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Kitchen furniture (Cont'd)</b>					
	<b>Stainless steel worktop cabinet, 600 mm (D) x 850 mm (H) :-</b>					
38070	Worktop cabinet with 1-tier intermediate adjustable shelf, hinged doors.....	3,597.70	226.10	71.00	88.70	38070
38071	Worktop cabinet with 1-tier intermediate adjustable shelf, hinged doors and 1-layer drawers .....	3,663.90	235.20	75.40	93.20	38071
38072	Worktop cabinet with stack of 3 drawers.....	4,817.80	244.20	84.30	102.00	38072
	<b>Stainless steel choptop cabinet, 600 mm (D) x 850 mm (H) :-</b>					
38073	Choptop cabinet with 1-tier intermediate adjustable shelf, hinged doors.....	3,843.90	226.10	71.00	88.70	38073
38074	Choptop cabinet with 1-tier intermediate adjustable shelf, hinged doors and 1-layer drawers .....	3,956.50	235.20	75.40	93.20	38074
	<i>Each</i>					
	<b>Stainless steel sink cabinet c/w hinged doors, sinks and grease traps :-</b>					
38075	Single sink cabinet, 600 mm (D) x 850 mm (H) x 1300 mm (L) approx.....	4,773.20	334.70	92.30	115.30	38075
38076	Twin sink cabinet, 600 mm (D) x 850 mm (H) x 2000 mm (L) approx.....	7,486.90	533.70	141.90	177.40	38076
	<b>Stainless steel grease trap</b>					
38077	Stainless steel grade 316 grease trap 300 x 300 x 500 mm (L), with moveable baffles to facilitate cleaning .....	310.60	45.20	8.90	9.80	38077
	<i>Per linear metre</i>					
	<b>Hanging cabinet</b>					
38078	Hanging cabinet with 1-tier intermediate adjustable shelf, 400 mm (D) x 700 mm (H) with hinged doors .....	2,652.70	226.10	71.00	88.70	38078
	<b>Cooking bench with 1-tier undershelf, 600 mm (D) x 600 mm (H) :-</b>					
38079	Cooking bench with splash back 400 mm high.....	1,904.80	149.30	44.40	62.10	38079
38080	Cooking bench with splash back 660 mm high.....	1,994.60	153.80	48.80	66.50	38080
	<i>Each</i>					
	<b>Stainless steel wall-mounted rack shelves :-</b>					
38081	2000 x 350 x 1200 mm high.....	1,449.30	226.10	71.00	88.70	38081

Item	CATERING EQUIPMENT (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
	<b>Kitchen furniture (Cont'd)</b>	\$	\$	\$	\$	
38082	Ordinary sink.....	2,947.80	226.10	71.00	88.70	38082
38083	Hand basin.....	3,012.40	226.10	71.00	88.70	38083
	<i>Per linear metre</i>					
38084	Enclosed base 800 x 600 mm high.....	1,716.30	226.10	71.00	88.70	38084

**Section 39**

**BURGLAR ALARM AND SECURITY**

## BURGLAR ALARM AND SECURITY

## SPECIAL CONDITIONS

- |  |  |
|--|--|
| <b>Measurement of power supply</b>                     | I. All works of electrical power supply up to power supply points (e.g. switchgear or isolator or spur unit and the like) for the equipment shall be measured separately and paid for at the appropriate rates under Sections 27 to 30 - Electrical Installation or other applicable Work Sections of this Schedule.   |
| <b>Measurement of security alarm control panel</b>     | II. The security alarm control panel shall be assumed to be located on the same floor as the security installation. When this panel is located on other floor, the interconnecting cables and the conduit facilities shall be measured separately from the control panel to the junction box on that floor for which the security alarm points of that floor are grouped for connection to the control panel. In such case, the junction box shall be assumed to be located as near as possible to the control panel.  |
| <b>Measurement of coaxial cables and shield cables</b> | III. Cables for the equipment, control panels, push buttons, door contacts, etc. have been allowed in the rates under this Section. No measurement shall be made for cables except for coaxial cables and shield cables where specifically ordered by the Maintenance Surveyor in writing.<br><br>Coaxial cables and shield cables shall be measured the net length as fixed in linear metres.   |
| <b>Rates generally</b>                                 | IV. The rates for all items shall generally include for : -<br><br>(a) Colour band and colour identification work.<br><br>(b) Lettering and engraving for identification, signs, labels in both English and Chinese.<br><br>(c) Identification plates, signs, notice plates, discs and labels in both English and Chinese.<br><br>(d) Priming or painting off site and proprietary finishes or surface treatment applied as part of the production process whether applied before or after fabrication and assembly.<br><br>(e) All protective and finishing painting work, apart from additional painting work specifically ordered by the Maintenance Surveyor in writing which shall be measured separately and paid for at the appropriate rates under Section 15 - Painting Section of this Schedule.<br><br>(f) Any kind of fixing method including drilling of the background and provision of all fixings, nails, bolts, nuts, washers, holes, screws, plugs, shotfired pins and the like.<br><br>(g) Assembling and jointing together with the component parts of composite units and providing any necessary jointing materials.<br><br>(h) All brackets and methods of supports.<br><br>(i) Provision of expansion joints in service runs wherever they coincide with structural expansion joints.<br><br>(j) Submission of catalogues, technical literature, data, calculations, test certificates and approval documentation covering the equipment and materials being supplied. |

**SPECIAL CONDITIONS (CONT'D)**

IV.	<ul style="list-style-type: none"> <li>(k) Preparing and submitting detail working drawings as required and all shop drawings for the fabrication and installation.</li> <li>(l) Attendance, as required, of the manufacturers' representative to assist in the installation and subsequent testing and commissioning.</li> <li>(m) Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Tests.</li> <li>(n) Provision of all necessary power, labour and testing instrument of approved type for testing and commissioning.</li> <li>(o) Preparing and submitting operation and maintenance manuals and as-fitted drawings for items of works as required.</li> <li>(p) Provision of schematic diagrams covered front and back with plastic sheet including fixing to wall.</li> <li>(q) Provision of manufacturer's guarantee.</li> </ul>	<b>Rates generally (cont'd)</b>
V.	<p>The rates for equipment shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) Interfacing, connecting, interconnecting cables, jointing and making all bus bar, cable, conduit, trunking and cable tray connections and the like and provision of all associated components.</li> <li>(b) Provision of all components forming part of the equipment including batteries and charger with all supply and interconnecting wiring and the like and provision of software including back-up copies (if required).</li> <li>(c) All necessary sensors, instruments, devices and the like including appropriate connection thereto.</li> <li>(d) Cables, conduits including flexible conduits and adaptors, trunkings, trays, ladders, outlet boxes, junction boxes, universal boxes including special boxes, all fixings, bending, cutting, screwing and jointing.</li> <li>(e) Earth/equipotential bonding.</li> </ul>	<b>Rates for equipment</b>
VI.	<p>The rates for push buttons, door contacts, window contacts, detectors, tamper switch, alarm siren, kick bars and keyswitches shall further include for cables, conduits, trunkings and all necessary accessories including provision of all associated fixing components for connection to security alarm control panel.</p>	<b>Rates for push buttons, door contacts, etc.</b>
VII.	<p>Control panel shall be measured on the basis of complete unit monitoring and controlling the number of zones as specified. Rates for control panels shall further include for all necessary relays, alarm, indicating lamp, buzzer, zone isolation switches, test key switches and interconnecting cable and associated conduit/trunking between the equipment and the control/indicating panel and/or for connecting to existing control/indicating panel as required.</p>	<b>Rates for control panels</b>

**SPECIAL CONDITIONS (CONT'D)**

**Rates for coaxial cables and shield cables**

- VIII. The rates for coaxial cables and shield cables shall further include for :-
- (a) Laying or fixing in different locations, such as laying or drawing into underground pipe ducts, laying or drawing into trunkings, drawing into conduits, suspending from insulators or catenaries, wrapping around equipment.
  - (b) In case of cables drawn into existing conduits, existing ducts or existing trunkings, removing and putting back existing covers, existing inspection lids and the like.
  - (c) Making cable-joints.
  - (d) All necessary fixings completed with accessories and fittings as required.
  - (e) Provision of all sleeves for casting in or building in where cables pass through slabs, walls or beams and caulking between cables and sleeve where required.

**Rates for "Take down and clear away" or "Take down and set aside for re-use"**

- IX. The rates for "Take down and clear away" or " Take down and set aside for re-use" existing items in connection with burglar alarm and security installation shall further include for :-
- (a) Take down all associated building services works.
  - (b) Plugging off remaining ends with plugs or caps as required.
  - (c) Preparing remaining ends of building services works to receive connections with new work if required.
  - (d) Making good all works disturbed.

**Particular Specification**

- X. The Particular Specification for burglar alarm and security can be found in the Contract.



Item	CENTRAL CONTROL STATION EQUIPMENT	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per set</i>					
	<b>Equipment/components c/w all necessary accessories :-</b>					
39001	Security system computer designed for multi-user, multi-tasking point monitoring and control c/w CPU and mother board, disk drives/streamer/CD ROM drives, interface connection parts, keyboard, I/O card, mouse, cables, standard application software, software programmes for burglar alarm and security installation.....	20,191.00	318.50	46.90	59.70	39001
39002	Standby computer c/w CPU and mother board, disk drives/streamer/ CD ROM drives, interface connection ports, keyboard, I/O card, mouse, cables, standard application software.....	7,718.20	273.00	46.90	59.70	39002
39003	Uninterrupted power supply for the operation of the security computer and terminal, and matrix switcher of the Closed Circuit Television System, for a minimum of 30 minutes c/w changeover switch, isolation switches, static bypass, manual bypass, microprocessor managed mimic and control panel, LCD display and keyboard .....	4,887.30	89.40	21.30	22.20	39003
	<i>Each</i>					
39004	Video display units, flat square type, active screen size 380 mm minimum diagonally measured, super high resolution colour monitor, 1024 x 768 pixels resolutions multiscanning with tilt/swivel base c/w add-on anti-glare high quality circular polarizer screen filter .....	1,325.20	21.90	8.40	9.30	39004
39005	LCD video display unit, active screen size 14 inches diagonally measured, colour display, minimum of 1024x768 pixels resolutions with tilt/swivel base.....	1,516.50	21.90	8.40	9.30	39005
39006	Ditto active screen size 15 inches .....	1,672.00	21.90	8.40	9.30	39006
39007	Ditto active screen size 17 inches .....	2,162.40	21.90	8.40	9.30	39007
39008	Ditto active screen size 19 inches .....	2,401.60	21.90	8.40	9.30	39008
39009	Report printer, dry-type laser type, monochrome, random access memory, paper tray .....	1,586.20	49.10	8.40	9.30	39009
39010	Event printer, ink jet type.....	970.70	49.10	8.40	9.30	39010
39011	Intelligent local control units, microprocessor based controller, housed in tamper-proof housing c/w tampering switches, control programme, backup battery, database file and connector plugs and all necessary accessories.....	1,858.10	91.00	21.30	25.60	39011

Item	CENTRAL CONTROL STATION EQUIPMENT	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Alarm/security control panel, stainless steel type c/w battery and chargers, ammeter, control components and all other necessary accessories :-</b>					
39012	Panel of 4 zones or less.....	3,106.30	259.40	63.90	68.20	39012
39013	Panel of 5 - 8 zones.....	4,300.10	273.00	68.20	72.40	39013
39014	Panel of 9 - 12 zones.....	5,431.80	286.70	72.40	76.70	39014
39015	Panel of 13 - 18 zones.....	6,501.30	300.30	76.70	81.00	39015
39016	Panel of 19 - 24 zones.....	7,504.40	309.40	81.00	85.20	39016
	<b>Standby battery set</b>					
39017	Standby battery set.....	1,889.70	44.30	21.30	22.20	39017
	<b>Sundries : -</b>					
39018	Interconnection point with F.S. panel c/w conduits, trunking, cables and all other accessories .....	202.00	121.60	33.80	35.40	39018
39019	Interconnection with matrix switching system of the CCTV system c/w conduits, trunking, cables and all other accessories .....	197.70	121.60	33.80	35.40	39019
39020	Security equipment console and racks, hairline stainless steel, c/w a 1500 x 700 mm deep (min) horizontal flat surface section finished with plastic laminate and 1500 mm high vertical rack sections attached together to form a continuous rack system including full height locking doors, front below counter solid doors with recessed handle and lock, a armrest swivel leather chair and all necessary accessories.....	18,262.90	303.80	119.30	127.80	39020
	<i>Per lot</i>					
39021	Provide system grounding for the burglar alarm and security system.....	1,147.10	-	-	-	39021
39022	Provide direct link to the security control centre including the first year rental charge .....	5,735.60	-	-	-	39022

Item	ACCESS CONTROL SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Proximity card system components including conduits, trunkings, cables and all other accessories, and connection to the alarm panel :-</b>					
39023	Proximity card reader c/w 12V power supply, tamper-proof housing with tampering switches.....	2,342.60	100.10	40.90	46.00	39023
39024	Interfacing module.....	862.40	100.10	40.90	46.00	39024
39025	Central card access controller.....	8,389.70	107.20	40.90	46.00	39025
39026	Emergency break glass; for card access reader.....	301.30	84.90	40.90	46.00	39026
39027	Proximity card.....	25.80	-	-	-	39027
	<b>Video door phone system component including conduits, trunkings, cables, and all other accessories, and connection to the control panel. :-</b>					
39028	Intercom video handset c/w door release button.....	1,996.50	147.40	65.60	70.70	39028
39029	Wall mounted s.s. intercom panel c/w camera & all necessary accessories .....	2,647.20	196.60	68.20	72.40	39029
	<b>Intercom door lock system component including conduits, trunkings, cables and all other accessories, and connection to the control panel :-</b>					
39030	Intercom handset c/w door release button.....	572.90	147.40	65.60	70.70	39030
39031	Wall mounted s.s. intercom panel c/w camera & all necessary accessories.....	2,647.20	196.60	68.20	72.40	39031

Item	FIELD ALARM DEVICES SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per set</i>					
	<b>Equipment/components c/w all necessary accessories :-</b>					
39032	Personal attack push button c/w necessary accessories and connection to the alarm panel .....	339.70	143.00	59.70	61.40	39032
39033	Magnetic door contact for door, concealed/surface type c/w necessary accessories and connection to the alarm panel .....	319.50	147.40	61.40	63.10	39033
39034	Magnetic door contact, heavy duty type, concealed/surface, for roller shutter/strong room c/w necessary accessories and connection to the alarm panel .....	369.10	147.40	61.40	63.10	39034
39035	Movement detector, combined infrared and ultrasonic detection type c/w necessary accessories and connection to the alarm panel .....	609.40	147.40	61.40	63.10	39035
39036	Magnetic window contact c/w necessary accessories and connection to the alarm panel .....	319.50	147.40	61.40	63.10	39036
39037	Glass break detectors, housed in tamper-proof housing with tampering switches c/w necessary accessories and connection to the alarm panel .....	568.20	147.40	61.40	63.10	39037
39038	Kick bar underneath counter, 450 mm length c/w necessary accessories and connection to the alarm panel .....	847.00	151.90	61.40	63.10	39038
39039	Duress push button, self-locking type c/w necessary accessories and connection to alarm panel .....	364.80	143.00	59.70	61.40	39039
39040	Tamper switch, plunger type c/w necessary accessories and connection to alarm panel.....	357.70	143.00	59.70	61.40	39040
39041	Alarm shunt key switch unit c/w necessary accessories and connection to the alarm panel .....	370.10	143.00	59.70	61.40	39041
39042	Alarm push button, stainless steel vandal resistant type c/w necessary accessories and connection to alarm panel .....	357.70	143.00	59.70	61.40	39042
39043	Over-ride key switch c/w necessary accessories and connection to the alarm panel .....	345.90	143.00	59.70	61.40	39043
39044	Alarm siren c/w necessary accessories and connection to the alarm panel .....	478.30	151.90	61.40	63.10	39044
39045	Alarm siren, weatherproof type c/w necessary accessories and connection to the alarm panel.....	520.70	151.90	61.40	63.10	39045

Item	EXIT CONTROL LOCK SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per set</i>					
	<b>Equipment/components c/w all necessary accessories :-</b>					
39046	'Adams Rite', fail-secure or fail-open electric lock strikes, c/w internal thumb-turn and cylinder for single door .....	1,110.40	44.30	14.50	16.20	39046
39047	'Adams Rite', fail-secure or fail-open electric lock strikes, c/w internal thumb-turn and cylinder for double door .....	1,484.30	48.70	14.50	16.20	39047
39048	Electronic digital keypad c/w stainless steel panel and box, 0-9 keyboard, suitable for outdoor mounting .....	568.30	44.70	14.50	16.20	39048
	<b>Power supply unit</b>					
39049	Power supply unit for electronic digital security c/w 6A-hr maintenance free standby-battery, 12V charge unit and metal box .....	1,421.90	44.30	21.30	22.20	39049
	<b>Door lock system</b>					
39050	Scramble door lock system including conduit trunkings, cables, electronic digital push-button c/w stainless steel panel & box, 0-9 keyboard, combination lock, suitable for outdoor mounting and all other accessories and connection to the alarm panel .....	2,698.70	169.80	71.60	73.30	39050
39051	Push button door lock system including conduit, trunkings, cables, electronic digital push-button c/w stainless steel panel & box, 0-9 keyboard, combination lock, suitable for outdoor mounting and all other accessories and connection to the alarm panel .....	2,109.60	169.80	71.60	73.30	39051
39052	Push button door lock system c/w remote door release button including conduit, trunkings, cables, electronic digital push-button c/w stainless steel panel & box, 0-9 keyboard, combination lock, suitable for outdoor mounting and all other accessories and connection to the alarm panel .....	2,340.10	232.30	85.20	88.60	39052
39053	Screening area door lock system for two access doors with interlock door locks and two remote release button, door indicator unit and associated conduits and trunkings to ensure the two doors not to be opened at one time .....	3,062.30	196.60	81.80	85.20	39053
	<b>Control panel</b>					
39054	Door release control panel connection to digital keypad locking devices and to a designated power supply point .....	1,654.10	196.60	68.20	72.40	39054
39055	Fire alarm interface control panel connection to the dry contact of fire alarm panel & door release control panel and to a designated power supply point .....	1,798.50	196.60	68.20	72.40	39055

Item	CLOSED CIRCUIT TELEVISION SURVEILLANCE SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Per set</i>					
	<b>Equipment/components c/w all necessary accessories :-</b>					
39056	Colour CCD video camera c/w lens, housing & bracket.....	1,481.50	141.20	38.30	44.30	39056
39057	Dome colour camera c/w lens.....	915.30	132.20	38.30	44.30	39057
39058	Matrix switcher c/w control keypad, 16 ways.....	39,080.20	68.30	21.30	23.00	39058
39059	Colour CCTV monitor, 390mm.....	1,113.10	44.70	18.60	20.30	39059
39060	Colour CCTV monitor, 550mm.....	2,552.50	44.70	18.60	20.30	39060
39061	Black and white CCTV monitor, 390 mm.....	991.00	44.70	18.60	20.30	39061
39062	Video multiplexer, 16 way, duplex type.....	7,747.10	80.40	27.30	29.00	39062
39063	Quad unit, 4 way.....	3,615.60	62.60	27.30	29.00	39063
39064	Video cassette recorder, 24 hours time lapse type.....	1,286.40	44.70	18.80	20.50	39064
39065	Video recorder, VCD /DVD recording operation, with built-in hard disk of minimum 160 GB storage capacity.....	1,854.70	44.70	18.80	20.50	39065
39066	Extra for each additional 160GB hard disk storage.....	586.50	-	-	-	39066
39067	CD-recordable (CD-R) computer disc of minimum 680 MB storage capacity, supports recording speed at least 24x.....	0.90	-	-	-	39067
39068	CD-rewritable (CD-RW) computer disc of minimum 680 MB storage capacity, supports rewriting speed at least 12x .....	3.60	-	-	-	39068
39069	DVD-R computer disc of minimum 4.7 GB storage capacity, support recording speed at least 8x.....	1.70	-	-	-	39069
39070	DVD+RW computer disc of minimum 4.7 GB storage capacity, support writing speed at least 4x.....	7.90	-	-	-	39070
39071	Super VHS video tapes - 180 mins.....	17.60	-	-	-	39071
39072	Video distribution amplifier.....	369.70	44.70	18.80	20.50	39072
39073	Pan/tilt driver, 360° pan, ±75° tilt (minimum).....	6,022.30	147.40	65.60	70.70	39073
39074	Pan/tilt controller.....	2,579.00	44.70	18.80	20.50	39074
39075	Video splitter.....	74.50	13.20	3.40	5.10	39075
39076	Colour CCD video camera c/w extreme wide angle auto-iris lens, housing & bracket.....	1,481.50	141.20	38.30	44.30	39076

Item	DIGITAL VIDEO MOTION DETECTION SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per set</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Equipment/components c/w all necessary accessories :-</b>					
39077	Video motion detector, able to handle 16 cameras simultaneously and independently c/w remote keyboard for set up, control and all other accessories, connection to the central control station located at the same floor .....	28,529.70	339.50	119.30	127.80	39077
	<b>WATCHMAN TOUR SYSTEM</b>					
	<i>Per set</i>					
	<b>Equipment/components c/w all necessary accessories :-</b>					
39078	Data collector, handheld intelligent type, vandal proof and weatherproof construction, LCD readout, record minimum 2000 checkpoint readings, 99 user programmable incident codes, automatic downloading capability, pass word controller.....	9,144.40	-	-	-	39078
39079	Check point, magnetic type, tamper-proof, vandal resistant.....	229.90	44.70	21.30	22.20	39079
39080	Data transfer unit; able to transmit and receives data from data collector c/w battery charge, and necessary accessories .....	7,172.90	26.80	7.70	8.50	39080

Item	<b>RADIO FREQUENCY DISTRIBUTION SYSTEM</b>	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per set</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Equipment/components c/w all necessary accessories :-</b>					
39081	Radio frequency distribution system.....	2,411.00	178.70	42.60	51.10	39081
39082	Fibre optics transmission system.....	3,041.20	187.60	42.60	51.10	39082
	<b>CALL BELL SYSTEM</b>					
	<i>Each</i>					
	<b>Call bell control/indication panel, stainless steel type c/w all necessary accessories and connection to a designated power supply point :-</b>					
39083	Panel of 4 zones or less.....	2,388.00	223.00	55.40	63.90	39083
39084	Panel of 5 - 8 zones.....	3,395.30	236.60	59.70	68.20	39084
39085	Panel of 9 - 12 zones.....	4,402.70	250.30	63.90	72.40	39085
	<b>Call push button</b>					
39086	Call push button c/w necessary accessories and connection to the call bell control/indication panel .....	265.00	143.00	59.70	61.40	39086
	<b>COAXIAL CABLES AND SHIELD CABLES</b>					
	(Note : The following five items will only be paid for if ordered by the Maintenance Surveyor in writing)					
	<i>Per linear metre</i>					
	<b>Coaxial cables</b>					
39087	Coaxial cables.....	11.30	5.00	1.70	2.10	39087
	<b>Twisted pair shield cables :-</b>					
39088	2-cores.....	9.50	5.00	1.70	2.10	39088
39089	4-cores.....	13.00	5.00	1.70	2.10	39089
39090	8-cores.....	16.10	5.80	1.90	2.30	39090
39091	16-cores and above.....	32.40	6.60	2.50	3.00	39091



**Section 40**

**PUBLIC ADDRESS SYSTEM**

## PUBLIC ADDRESS SYSTEM

## SPECIAL CONDITIONS

- |   |  |
|---|--|
| <b>Measurement of power supply</b>  | I. All works of electrical power supply up to power supply points (e.g. switchgear or isolator or spur unit and the like) for the equipment shall be measured separately and paid for at the appropriate rates under Sections 27 to 30 - Electrical Installation or other applicable Work Sections of this Schedule.   |
| <b>Measurement of excavations, ducts, chases, holes and other subsidiary work</b> | II. All trench excavation shall be measured separately and paid for at the appropriate rates under Section 01 - Excavation of this Schedule. All pipe ducts, concrete thrust blocks and anchor blocks, chases in, and holes through existing walls, ceilings and similar for pipes, etc., (but not mortices or holes for brackets) except specifically stated, shall be measured and paid for at the appropriate rates under Section 02 - Concrete Work, Section 03 - Brickwork and Blockwork or other applicable Work Sections of this Schedule.  |
| <b>Measurement of microphone cables and loudspeaker cables</b>                    | III. Cables for the equipment have been allowed in the rates under this Section. No measurement shall be made for cables except for microphone cables and loudspeaker cables where specifically ordered by the Maintenance Surveyor in writing.<br><br>Microphone cables and loudspeaker cables shall be measured the net length as fixed in linear metres.  |
| <b>Rates generally</b>  | IV. The rates for all items shall generally include for : -<br><br>(a) Colour band and colour identification work.<br><br>(b) Lettering and engraving for identification, signs, labels in both English and Chinese.<br><br>(c) Identification plates, signs, notice plates, discs and labels in both English and Chinese.<br><br>(d) Priming or painting off site and proprietary finishes or surface treatment applied as part of the production process whether applied before or after fabrication and assembly.<br><br>(e) All protective and finishing painting work, apart from additional painting work specifically ordered by the Maintenance Surveyor in writing which shall be measured separately and paid for at the appropriate rates under Section 15 - Painting of this Schedule.<br><br>(f) Any kind of fixing method including drilling of the background and provision of all fixings, nails, bolts, nuts, washers, holes, screws, plugs, shotfired pins and the like.<br><br>(g) Assembling and jointing together with the component parts of composite units and providing any necessary jointing materials.<br><br>(h) All brackets and methods of supports.<br><br>(i) Provision of expansion joints in service runs wherever they coincide with structural expansion joints.<br><br>(j) Submission of catalogues, technical literature, data, calculations, test certificates and approval documentation covering the equipment and materials being supplied. |

**SPECIAL CONDITIONS (CONT'D)**

- |     |   |  |
|-----|---|--|
| IV. | <ul style="list-style-type: none"> <li>(k) Preparing and submitting detail working drawings as required and all shop drawings for the fabrication and installation.</li> <li>(l) Attendance, as required, of the manufacturers' representative to assist in the installation and subsequent testing and commissioning.</li> <li>(m) Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Tests.</li> <li>(n) Provision of all necessary power, labour and testing instrument of approved type for testing and commissioning.</li> <li>(o) Preparing and submitting operation and maintenance manuals and as-fitted drawings for items of works as required.</li> <li>(p) Provision of schematic diagrams covered front and back with plastic sheet including fixing to wall.</li> <li>(q) Provision of manufacturer's guarantee.</li> </ul> | <b>Rates generally<br/>(cont'd)</b>                                  |
| V.  | <p>The rates for equipment shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) Connecting, interconnecting cables, jointing and making all cable, conduit, trunking and cable tray connections and the like and provision of all associated components.</li> <li>(b) Provision of all components forming part of the equipment complete with all supply and interconnecting wiring and the like.</li> <li>(c) All necessary instruments, devices and the like including appropriate connection thereto.</li> <li>(d) Cables, conduits including flexible conduits and adaptors, trunkings, trays, ladders, outlet boxes, junction boxes, universal boxes including special boxes, all fixings, bending, cutting, screwing and jointing.</li> <li>(e) Earth/equipotential bonding.</li> </ul>  | <b>Rates for equipment</b>   |
| VI. | <p>The rates for microphone cables and loudspeaker cables shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) Laying or fixing in different locations, such as laying or drawing into underground pipe ducts, laying or drawing into trunkings, drawing into conduits, suspending from insulators or catenaries, wrapping around equipment.</li> <li>(b) In case of cables drawn into existing conduits, existing ducts or existing trunkings, removing and putting back existing covers, existing inspection lids and the like.</li> <li>(c) Making cable-joints.</li> <li>(d) All necessary fixings completed with accessories and fittings as required.</li> <li>(e) Provision of all sleeves for casting in or building in where cables pass through slabs, walls or beams and caulking between cable and sleeve where required.</li> </ul>                       | <b>Rates for<br/>microphone cable<br/>and loudspeaker<br/>cables</b> |

**SPECIAL CONDITIONS (CONT'D)**

**Rates for "Take down and clear away" or "Take down and set aside for re-use"**

- VII. The rates for "Take down and clear away" or "Take down and set aside for re-use" existing items in connection with public address installation shall further include for :-
- (a) Taking down all associated building services works.
  - (b) Plugging off remaining ends with plugs or caps as required.
  - (c) Preparing remaining ends of building services works to receive connections with new work if required.
  - (d) Making good all works disturbed.

**Particular Specification**

- VIII. The Particular Specification for public address system can be found in the Contract.

Item	PUBLIC ADDRESS INSTALLATION	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Equipment/component c/w all necessary accessories :-</b>					
40001	Ceiling panel speaker, surface-mount type, 3W c/w matching transformer.....	583.40	83.30	21.10	22.80	40001
40002	Ceiling panel speaker, surface-mount type, 6W c/w matching transformer.....	628.50	83.30	21.10	22.80	40002
40003	Ceiling panel speaker, ceiling-recessed, 3W c/w matching transformer .....	493.60	86.80	21.10	22.80	40003
40004	Ceiling panel speaker, ceiling-recessed, 6W c/w matching transformer.....	552.40	86.80	21.10	22.80	40004
40005	Box speaker, 3W.....	497.80	83.30	21.10	22.80	40005
40006	Box speaker, 6W.....	566.50	83.30	21.10	22.80	40006
40007	Horn speaker, 3W.....	850.50	83.30	21.10	22.80	40007
40008	Horn speaker, 6W.....	911.20	83.30	21.10	22.80	40008
40009	Speaker column; 95 dB/W (min.); four dynamic cone speaker units (min.); wooden enclosure c/w front grille cloth, insulation, matching transformer.....	1,262.90	88.50	22.80	24.50	40009
40010	Desk top microphone c/w chime unit.....	1,313.80	12.50	3.30	4.10	40010
40011	Unidirectional microphone c/w built-in blast and pop protection, microphone holder, mike cable and connector.....	354.50	12.50	3.30	4.10	40011
40012	Paging microphone c/w desk stand, microphone holder, mike cable and connector .....	417.00	13.30	3.30	4.10	40012
40013	Miniature omnidirectional lavalier microphone c/w long-life-cable and lavalier holder.....	290.10	3.30	1.20	1.60	40013
40014	Microphone floor stand and boom arm c/w 900 to 1600 mm nominal length floor stand, 700 mm minimum length boom arm of 360° C adjustment direction, locking device and microphone and boom adaptor.....	570.00	13.30	3.30	4.10	40014
40015	Microphone desk stand and flexible gooseneck shaft c/w 100 to 200 mm adjustable support and connector.....	284.60	12.50	3.30	4.10	40015
40016	Volume control unit with wall mounting box, 30W c/w all necessary accessories .....	597.40	193.80	54.60	64.60	40016

Item	<b>PUBLIC ADDRESS INSTALLATION (CONT'D)</b>	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Equipment/component c/w all necessary accessories:- (cont'd)</b>					
40017	Mixer power amplifier, 60W r.m.s., 3 inputs.....	2,461.20	49.10	16.90	18.60	40017
40018	Mixer power amplifier, 120W r.m.s., 3 inputs.....	3,650.30	49.10	16.90	18.60	40018
40019	Mixer pre-amplifier panel with 6-channel pre-amplifier unit (4 mike inputs) .....	3,991.90	49.10	16.90	18.60	40019
40020	Cassette deck c/w tape recorder and player, microphone and headphone jacks, input/output level control and meters, 3-digital resetable tape counter, automatic shut-off and noise reduction system .....	1,231.10	49.10	16.90	18.60	40020
40021	Background music CD player.....	1,349.10	49.10	16.90	18.60	40021
40022	Remote microphone unit in sheet metal cabinet comprising of 1 no. flexible gooseneck microphone and zone selection buttons (6 zone) .....	1,615.50	17.50	8.40	9.30	40022
40023	Monitor panel; stainless steel enclosure c/w monitor speaker with volume control, system power on/off switch, VU meter, channel selector switch and line voltage selector switch.....	2,101.40	252.90	49.70	66.20	40023
	<b>Sundries :-</b>					
40024	Jack point c/w jack plug and socket, conduit and wiring and all necessary accessories.....	323.00	193.70	54.60	64.60	40024
40025	Speaker point c/w 2A - 3pin plug and socket, conduit and wiring and all necessary accessories .....	335.20	193.70	54.60	64.60	40025
	<b>Per linear metre</b>					
	<b>Equipment cabinet</b>					
40026	Equipment cabinet; well ventilated 483 mm standard high; teakwood construction c/w locking doors and 3-pin power sockets and all necessary accessories .....	1,440.10	21.30	14.10	14.90	40026
40027	Equipment cabinet; well ventilated 483mm standard high; stainless steel construction c/w locking doors and 3-pin power sockets and all necessary accessories .....	2,387.20	21.30	14.10	14.90	40027
	<b>Microphone cables and loudspeaker cables :-</b> (Note : The following six items will only be paid for if ordered by the Maintenance Surveyor in writing)					
40028	Microphone cable.....	11.30	5.00	1.70	2.50	40028
40029	Loudspeaker cable.....	10.40	5.00	1.70	2.50	40029
40030	Underground microphone cable.....	17.30	4.30	1.60	2.30	40030
40031	Underground loudspeaker cable.....	16.30	4.30	1.60	2.30	40031
40032	Waterproof type microphone cable.....	17.60	5.00	1.70	2.50	40032
40033	Waterproof type loudspeaker cable.....	16.60	5.00	1.70	2.50	40033

## **Section 41**

### **BROADCAST RECEPTION**

## BROADCAST RECEPTION

## SPECIAL CONDITIONS

- |                                      |   |
|--------------------------------------|---|
| <b>Measurement of power supply</b>   | I. All works of electrical power supply up to power supply points (e.g. switchgear or isolator or spur unit and the like) for the equipment shall be measured separately and paid for at the appropriate rates under Sections 27 to 30 Electrical Installation or other applicable Work Sections of this Schedule.  |
| <b>Measurement of coaxial cables</b> | <p>II. Cables for the equipment have been allowed in the rates under this Section. No measurement shall be made for cables except for coaxial cables where specifically ordered by the Maintenance Surveyor in writing.</p> <p>Coaxial cables shall be measured the net length as fixed in linear metres.</p>   |
| <b>Rates generally</b>               | <p>III. The rates for all items shall generally include for : -</p> <ul style="list-style-type: none"> <li>(a) Colour band and colour identification work.</li> <li>(b) Lettering and engraving for identification, signs, labels in both English and Chinese.</li> <li>(c) Identification plates, signs, notice plates, discs and labels in both English and Chinese.</li> <li>(d) Priming or painting off site and proprietary finishes or surface treatment applied as part of the production process whether applied before or after fabrication and assembly.</li> <li>(e) All protective and finishing painting work, apart from additional painting work specifically ordered by the Maintenance Surveyor in writing which shall be measured separately and paid for at the appropriate rates under Section 15 - Painting of this Schedule.</li> <li>(f) Any kind of fixing method including drilling of the background and provision of all fixings, nails, bolts, nuts, washers, holes, screws, plugs, shotfired pins and the like.</li> <li>(g) Assembling and jointing together with the component parts of composite units and providing any necessary jointing materials.</li> <li>(h) All brackets and methods of supports.</li> <li>(i) Provision of expansion joints in service runs wherever they coincide with structural expansion joints.</li> <li>(j) Submission of catalogues, technical literature, data, calculations, test certificates and approval documentation covering the equipment and materials being supplied.</li> <li>(k) Preparing and submitting detail working drawings as required and all shop drawings for the fabrication and installation.</li> </ul> |



## SPECIAL CONDITIONS (CONT'D)

III.	<ul style="list-style-type: none"> <li>(l) Attendance, as required, of the manufacturers' representative to assist in the installation and subsequent testing and commissioning.</li> <li>(m) Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Tests.</li> <li>(n) Provision of all necessary power, labour and testing instrument of approved type for testing and commissioning.</li> <li>(o) Preparing and submitting operation and maintenance manuals and as-fitted drawings for items of works as required.</li> <li>(p) Provision of schematic diagrams covered front and back with plastic sheet including fixing to wall.</li> <li>(q) Provision of manufacturer's guarantee.</li> </ul>	<b>Rates generally (cont'd)</b>
IV.	<p>The rates for equipment shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) Interfacing, connecting, interconnecting cables, jointing and making all bus bar, cable, conduit, trunking and cable tray connections and the like and provision of all associated components.</li> <li>(b) Provision of all components forming part of the equipment including batteries and charger with all supply and interconnecting wiring and the like.</li> <li>(c) All necessary sensors, instruments, devices and the like including appropriate connection thereto.</li> <li>(d) Cables, conduits including flexible conduits and adaptors, trunkings, trays, ladders, outlet boxes, junction boxes, universal boxes including special boxes, all fixings, bending, cutting, screwing and jointing.</li> <li>(e) Earth/equipotential bonding.</li> </ul>	<b>Rates for equipment</b>
V.	<p>The rates for coaxial cables shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) Laying or fixing in different locations, such as drawing into under-ground pipe ducts, laying or drawing into trunkings, drawing into conduits, suspending from insulators or catenaries, wrapping around equipment.</li> <li>(b) In case of cables drawn into existing conduits, existing ducts or existing trunkings, removing and putting back existing covers, existing inspection lids and the like.</li> <li>(c) Making cable-joints.</li> <li>(d) All necessary fixings complete with accessories and fittings as required.</li> <li>(e) Provision of all sleeves for casting in or building in where cables pass through slabs, walls or beams and caulking between cable and sleeve where required.</li> </ul>	<b>Rates for coaxial cables</b>

**SPECIAL CONDITIONS (CONT'D)**

**Rates for "Take down and clear away" or "Take down and set aside for re-use"**

- VI. The rates for "Take down and clear away" or " Take down and set aside for re-use" existing items in connection with broadcast reception installation shall further include for :-
- (a) Take down all associated building services works.
  - (b) Plugging off remaining ends with plugs or caps as required.
  - (c) Preparing remaining ends of building services works to receive connections with new work if required.
  - (d) Making good all works disturbed.

**Particular Specification**

- VII. The Particular Specification for broadcast reception can be found in the Contract.

Item	BROADCAST RECEPTION INSTALLATION	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<i>Each</i>					
	<b>Equipment/components c/w necessary accessories :-</b>					
41001	FM aerial including stainless steel aerial masts/poles.....	1,875.80	299.00	68.40	73.40	41001
41002	UHF multi-channel aerial, minimize ghost image type, including stainless steel aerial masts/poles.....	2,081.00	299.00	68.40	73.40	41002
41003	Aerial, combining-unit, FM/UHF, minimize ghost image type including stainless steel aerial masts/poles.....	2,857.30	310.40	70.00	75.10	41003
41004	Pre-amplifiers.....	807.60	43.90	16.90	17.70	41004
41005	Frequency converter.....	1,724.10	52.60	18.60	21.10	41005
41006	Wideband and channel amplifier.....	2,097.70	52.60	18.60	21.10	41006
41007	TV bandpass pre-amplifier.....	822.20	43.90	16.90	17.70	41007
41008	FM bandpass pre-amplifier.....	581.20	43.90	16.90	17.70	41008
41009	TV bandpass filter.....	584.40	43.90	16.90	17.70	41009
41010	FM bandpass filter.....	403.30	43.90	16.90	17.70	41010
	<b>Sundries :-</b>					
41011	TV/FM socket outlet c/w co-axial cables, conduits (surface or concealed type) and all necessary accessories .....	375.10	209.60	59.90	70.00	41011
41012	Splitter unit.....	41.10	6.70	1.70	1.70	41012
41013	Tee unit.....	43.60	6.70	1.70	1.70	41013
41014	Lockable well-ventilated metal enclosure to house all headend circuit components.....	859.10	148.90	41.40	45.50	41014
	<i>Per linear metre</i>					
	<b>Coaxial cable</b>					
41015	Coaxial cable..... (Note : The above item will only be paid for if ordered by the Maintenance Surveyor in writing)	11.30	5.00	1.70	2.10	41015

Item	BROADCAST RECEPTION INSTALLATION	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>The satellite master antenna TV sub-system c/w steel supporting framework, stray wires and certification by a Registered Structural Engineer under Section 3 of the Building Ordinance (Cap123)</b>					
	<b>Diameter of the antenna : -</b>					
41016	4 metres.....	31,263.00	4,343.40	1,687.70	2,531.60	41016
41017	6 metres..... (The actual rate should be : \$206,691.60 for Item 41017A)	20,669.16	6,080.70	2,109.60	3,375.40	41017
	<b>Feedhorn c/w low noise block down converter and mounting supports : -</b>					
41018	Ku-Band.....	5,656.80	43.40	16.90	25.30	41018
41019	C-Band.....	4,659.60	43.40	16.90	25.30	41019
	<b>Satellite receivers/modulators c/w racks : -</b>					
41020	Analogue type.....	5,213.60	43.40	16.90	25.30	41020
41021	Digital type.....	5,656.80	43.40	16.90	25.30	41021
41022	Satellite amplifier.....	1,989.80	52.60	18.60	21.10	41022

## **Section 42**

### **MEDICAL GASES**

**MEDICAL GASES**

**SPECIAL CONDITIONS**

<b>Measurement of excavations, chases, holes and other subsidiary work</b>	I. All trench excavation shall be measured separately and paid for at the appropriate rates under Section 01 - Excavation of this Schedule. All chases in, and holes through existing walls, ceilings, etc. for tubing and pipes, (but not mortices or holes for brackets) shall be measured and paid for at the appropriate rates under Section 02 - Concrete Work, Section 03 - Brickwork and Blockwork or other applicable Work Sections of this Schedule.
<b>Measurement of power supply</b>	II. All works of electrical power supply up to power supply points (e.g. switchgear or isolator or spur unit and the like) for the equipment shall be measured separately and paid for at the appropriate rates under Sections 27 to 30 Electrical Installation or other applicable Work Sections of this Schedule.
<b>Measurement of pipework</b>	III. Pipework shall be measured in linear metres over all in-line fittings, short running lengths and branches.
<b>Measurement of indicating/control panel</b>	IV. The indicating/control panel shall be assumed to be located on the same floor as the medical gas pipeline installation. When this panel is located on other floor, the interconnecting cables and the conduit facilities shall be measured separately from the control panel to the junction box on that floor for which the gas points of that floor are grouped for connection to the control panel. In such case, the junction box shall be assumed to be located as near as possible to the control panel.
<b>Measurement of tests on existing medical gases system</b>	V. Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Test have been allowed in the rates under this Section. No measurement will be made for testing and commissioning except for tests on existing medical gases system where specifically ordered by the Maintenance Surveyor in writing.
<b>Rates generally</b>	<p>VI. The rates for all items shall generally include for : -</p> <ul style="list-style-type: none"> <li>(a) Colour band and colour identification work.</li> <li>(b) Lettering and engraving for identification, signs, labels in both English and Chinese.</li> <li>(c) Identification plates, signs, notice plates, discs and labels in both English and Chinese.</li> <li>(d) Priming or painting off site and proprietary finishes or surface treatment applied as part of the production process whether applied before or after fabrication and assembly.</li> <li>(e) All protective and finishing painting work, apart from additional painting work specifically ordered by the Maintenance Surveyor in writing which shall be measured separately and paid for at the appropriate rates under Section 15 - Painting in this Schedule.</li> <li>(f) Any kind of fixing method including provision of screws, nuts, bolts, shims, washers, clips, brackets, hangers, supports and the like.</li> </ul>

**SPECIAL CONDITIONS (CONT'D)**

VI.	<ul style="list-style-type: none"> <li>(g) Provision of expansion joints in service runs wherever they coincide with structural expansion joints.</li> <li>(h) Submission of catalogues, technical literature, data, calculations, test certificates and approval documentation covering the equipment and materials being supplied.</li> <li>(i) Preparing and submitting detail working drawings as required and all shop drawings for the fabrication and installation.</li> <li>(j) Attendance, as required, of the manufacturers' representative to assist in the installation and subsequent testing and commissioning.</li> <li>(k) Testing and commissioning including submission of Testing and Commissioning Certificates and Record of Tests, except test on existing medical gas system. (Note : - Test on existing medical gas system shall be measured separately if ordered by the Maintenance Surveyor in writing)</li> <li>(l) Provision of all necessary power, labour and testing instrument of approved type for testing and commissioning.</li> <li>(m) Provision of mock-up work as specified.</li> <li>(n) Preparing and submitting operation and maintenance manuals and as-fitted drawings for items of works as required.</li> <li>(o) Provision of schematic diagrams covered front and back with plastic sheet including fixing to wall.</li> <li>(p) Provision of manufacturer's guarantee.</li> </ul>	<b>Rates generally (cont'd)</b>
VII.	<p>The rates for pipework shall further include for :-</p> <ul style="list-style-type: none"> <li>(a) All short lengths, cutting and waste, and joints in the running length.</li> <li>(b) All pipework brackets, supports, hangers, guides, anchors and the like and alternative method of jointing and fixing as specified (if any).</li> <li>(c) All pipework fittings (e.g. bends, elbows, branches, reducers, tees, caps and the like) including connections, cutting and jointing pipes to fittings.</li> <li>(d) Screwed sockets, tappings, bosses and welding-necks welded to pipes or flanges including perforating the pipework or flanges.</li> <li>(e) Connections between pipework of different materials and differing grades of same material.</li> <li>(f) Wall, floor and ceiling plates.</li> <li>(g) All jointing including provision of flexible connections and/or necessary adaptors and connectors, welding consumable, jointing tapes, flanges, unions, gasket, bolts and nuts and the like where required.</li> <li>(h) Expansion loops and compensators including connections, cutting and jointing to pipes and fittings.</li> </ul>	<b>Rates for pipework</b>

## SPECIAL CONDITIONS (CONT'D)

<b>Rates for pipework (cont'd)</b>	VII.	(i)	Provision of all sleeves for casting in or building in where pipes pass through slabs, walls or beams and caulking between pipe and sleeve where required.
		(j)	Fixing in any position to floors, walls and ceilings including laying in trenches and fixing in chases, ducts, false ceilings and similar positions, and wrapping with protective tape where required.
<b>Rates for in-line pipework equipment</b>	VIII.		The rates for in-line pipework equipment (e.g. valves, flow meters, gauges and the like) shall further include for :-
		(a)	Cutting and jointing to pipes and fittings.
		(b)	Stripping down repacking glands and preparing spindles, as appropriate, prior to installation.
<b>Rates for indicating/control panels</b>	IX.		Indicating/control panel shall be measured on the basis of complete unit monitoring and controlling the number of zones as specified. Rates for indicating/control panels shall further include for all necessary control wiring, electronic components, relays, contacts, indicating lamp, push button package, selector switches, interconnecting cable and associated conduit/trunking between the equipment and the indicating/control panel and/or for connecting to existing indicating/control panel as required.
<b>Rates for equipment</b>	X.		The rate for equipment shall further include for :-
		(a)	All necessary assembly, orientation, alignment, levelling and bolting down, together with the provision of shims and packing pieces, strainers, instrumentation and the like.
		(b)	Provision of all associated components.
		(c)	Final connection and terminations to gas supply including all necessary pipeworks, valves, gauges and necessary accessories required for energizing the equipment to properly operate at specified duties.
		(d)	Earth/equipotential bonding.
<b>Rates for tests on existing medical gases system</b>	XI.		The rates for tests on existing medical gases system shall include for :-
		(a)	Cleaning of pipeline by any means necessary before carrying out tests.
		(b)	All preparation work including temporary sealing ends of pipes and connections.
		(c)	Provision of all necessary testing instrument and material of approved type for the tests.
		(d)	Provision of test record.
		(e)	Making good all works disturbed.



**SPECIAL CONDITIONS (CONT'D)**

- XII. The rates for "Take down and clear away" or "Take down and set aside for re-use" existing items in connection with medical gas installation shall further include for :-
- (a) Taking down all associated pipework and building services works (if any).
  - (b) All in-line fittings including brackets, support, hangers and the like.
  - (c) Cutting into existing pipework in position.
  - (d) De-gasing of existing pipework (including associated in-line fittings and the like) as required.
  - (e) Plugging off remaining ends with plugs or caps as required.
  - (f) Preparing remaining ends of pipeworks and building services works (if any) to receive connections with new work if required.
  - (g) Making good all works disturbed.
- XIII. The rates for rental charges for gas regulators, cylinders and other accessories shall include for :-
- (a) Mobilization and demobilization of gas regulators, cylinders and other accessories.
  - (b) Maintenance and repair.
  - (c) Installation in position including all necessary connection to the system.
  - (d) Contractor's profit, establishment and overheads.
  - (e) Licence fees, patent rights and royalties where applicable.
- XIV. The rates for charges for gas filling shall include for :-
- (a) Filling up empty cylinders with gas by any means necessary.
  - (b) Disconnecting before filling of gas and reconnecting to the system after completion of gas filling.
- XV. The Particular Specification for medical gases can be found in the Contract.

**Rates for "Take down and clear away" or "Take down and set aside for re-use"**

**Rates for rental charges for gas regulators, cylinders and other accessories**

**Rates for charges for gas filling**

**Particular Specification**

Item	MEDICAL GASES INSTALLATION	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per linear metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Medical gas pipework c/w all necessary accessories</b>					
	<b>Degreased pipework of phosphorous de-oxidized non-arsenical copper to BS6017 and BS2871 Table X or Y c/w lock to suit HTM2022's requirement :-</b>					
42001	159 mm diameter.....	761.70	216.80	12.90	13.90	42001
42002	108 mm diameter.....	529.90	162.10	9.60	10.50	42002
42003	76 mm diameter.....	437.70	128.30	7.90	8.40	42003
42004	54 mm diameter.....	256.80	104.40	6.20	6.70	42004
42005	42 mm diameter.....	209.30	91.50	5.80	6.20	42005
42006	35 mm diameter.....	184.10	85.50	5.30	5.70	42006
42007	28 mm diameter.....	151.30	79.60	4.90	5.30	42007
42008	22 mm diameter.....	126.60	70.60	4.50	4.80	42008
42009	15 mm diameter.....	100.30	62.70	3.80	4.20	42009
42010	12 mm diameter.....	89.10	58.70	3.50	3.80	42010
	<b>Underground medical gas pipework c/w galvanized iron pipe of suitable size enclosing the underground medical gas pipe and all necessary accessories</b>					
	<b>Degreased pipework of phosphorous de-oxidized, non-arsenical copper to BS6017 and BS2871 Table X or Y c/w lock to suit HTM2022's requirement :-</b>					
42011	159 mm diameter.....	1,064.90	319.10	28.90	30.40	42011
42012	108 mm diameter.....	760.30	237.00	22.80	23.90	42012
42013	76 mm diameter.....	603.80	187.80	15.80	16.60	42013
42014	54 mm diameter.....	368.40	153.20	12.20	12.90	42014
42015	42 mm diameter.....	314.90	134.00	10.90	11.60	42015
42016	35 mm diameter.....	270.40	128.10	10.00	10.50	42016
42017	28 mm diameter.....	229.70	115.10	9.10	9.70	42017
42018	22 mm diameter.....	188.30	102.10	8.30	8.70	42018
42019	15 mm diameter.....	157.10	88.20	7.20	7.70	42019
42020	12 mm diameter.....	144.20	81.70	6.80	7.30	42020

Item	MEDICAL GASES INSTALLATION (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A \$	B \$	C \$	D \$	
	<b>Each</b>					
	<b>Lever operated ball type full way double seat valves c/w chained labels:-</b>					
42021	159 mm diameter.....	2,842.60	76.00	37.90	44.10	42021
42022	108 mm diameter.....	1,753.50	55.70	28.50	33.20	42022
42023	76 mm diameter.....	1,011.00	50.70	26.10	30.80	42023
42024	54 mm diameter.....	801.30	46.60	24.20	28.90	42024
42025	42 mm diameter.....	447.60	43.60	23.00	27.70	42025
42026	35 mm diameter.....	357.90	40.50	22.40	27.10	42026
42027	28 mm diameter.....	291.50	38.00	22.00	26.80	42027
42028	22 mm diameter.....	221.90	34.40	21.40	26.20	42028
42029	15 mm diameter.....	124.40	30.40	20.90	25.60	42029
42030	12 mm diameter.....	118.40	28.90	20.50	25.30	42030
	<b>Test point</b>					
42031	Test point.....	119.90	30.40	20.90	25.60	42031
	<b>Oxygen terminal unit to HTM 2022 and EN 737-1 accepting probes to BS 5682 :-</b>					
42032	Wall mounted type.....	625.50	100.30	14.20	14.80	42032
42033	Bedhead rail type.....	648.60	100.30	14.20	14.80	42033
42034	Bench top type.....	625.50	100.30	14.20	14.80	42034
	<b>Nitrous oxide terminal unit to HTM 2022 and EN 737-1 accepting probes to BS 5682 :-</b>					
42035	Wall mounted type.....	625.50	100.30	14.20	14.80	42035
42036	Bedhead rail type.....	648.60	100.30	14.20	14.80	42036
42037	Bench top type.....	625.50	100.30	14.20	14.80	42037
	<b>Medical vacuum terminal unit to HTM 2022 and EN 737-1 accepting probes to BS5682 :-</b>					
42038	Wall mounted type.....	625.50	100.30	14.20	14.80	42038
42039	Bedhead rail type.....	648.60	100.30	14.20	14.80	42039
42040	Bench top type.....	625.50	100.30	14.20	14.80	42040
42041	V-shape mounting bracket for medical vacuum pot .....	140.10	19.20	9.70	10.30	42041

Item	MEDICAL GASES INSTALLATION (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Medical air terminal unit to HTM 2022 and EN 737-1 accepting probes to BS 5682 :-</b>					
42042	Wall mounted type.....	625.50	100.30	14.20	14.80	42042
42043	Bedhead rail type.....	648.60	100.30	14.20	14.80	42043
42044	Bench top type.....	625.50	100.30	14.20	14.80	42044
	<b>Surgical air terminal unit to HTM 2022 and EN 737-1 accepting probes to BS 5682 :-</b>					
42045	Wall mounted type.....	625.50	100.30	14.20	14.80	42045
42046	Bedhead rail type.....	648.60	100.30	14.20	14.80	42046
42047	Bench top type.....	625.50	100.30	14.20	14.80	42047
	<b>Emergency valve cabinet :-</b>					
42048	Wall mounted type.....	6,023.00	609.10	111.00	145.10	42048
42049	Bedhead rail type.....	15,244.10	820.40	145.10	184.90	42049
42050	Bench top type.....	6,023.00	638.10	111.00	145.10	42050
	<b>Medical gas plug-off unit for oxygen :-</b>					
42051	Restrictor valve type.....	1,179.30	100.30	22.80	23.30	42051
42052	Air flow switch type.....	1,093.00	45.60	22.80	23.30	42052
42053	Solenoid valve type.....	797.20	86.60	22.80	23.30	42053
	<b>Medical gas plug-off unit for medical vacuum :-</b>					
42054	Restrictor valve type.....	1,179.30	100.30	22.80	23.30	42054
42055	Air flow switch type.....	1,093.00	45.60	22.80	23.30	42055
42056	Solenoid valve type.....	797.20	86.60	22.80	23.30	42056
	<b>Medical gas plug-off unit for nitrous oxide :-</b>					
42057	Restrictor valve type.....	1,179.30	100.30	22.80	23.30	42057
42058	Air flow switch type.....	1,093.00	45.60	22.80	23.30	42058
42059	Solenoid valve type.....	797.20	86.60	22.80	23.30	42059

Item	MEDICAL GASES INSTALLATION (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Medical gas plug-off unit for medical air :-</b>					
42060	Restrictor valve type.....	1,179.30	100.30	22.80	23.30	42060
42061	Air flow switch type.....	1,093.00	45.60	22.80	23.30	42061
42062	Solenoid valve type.....	797.20	86.60	22.80	23.30	42062
	<b>Medical gas plug-off unit for surgical air :-</b>					
42063	Restrictor valve type.....	1,179.30	100.30	22.80	23.30	42063
42064	Air flow switch type.....	1,093.00	45.60	22.80	23.30	42064
42065	Solenoid valve type.....	797.20	86.60	22.80	23.30	42065
	<b>Complete manifold control system comprising monitoring panel, pressure control assembly and relief valve assembly, indicator panel, high pressure and discharge pressure gauges, warning, control wirings and alarm pressure switches, signs and notices, automatic changeover control to provide a continuous supply of gas from two banks of cylinders :-</b>					
42066	Oxygen.....	47,696.50	2,187.80	256.10	313.00	42066
42067	Nitrous oxide.....	47,696.50	2,187.80	256.10	313.00	42067
42068	Medical air.....	47,696.50	2,187.80	256.10	313.00	42068
42069	Surgical air.....	47,696.50	2,187.80	256.10	313.00	42069
	<b>Pipework header with copper pig tails for connections to cylinders at manifold :-</b>					
42070	Medical oxygen.....	5,768.80	364.60	62.60	68.30	42070
42071	Medical nitrous oxide.....	5,768.80	364.60	62.60	68.30	42071
42072	Medical compressed air.....	5,768.80	364.60	62.60	68.30	42072
42073	Surgical air.....	5,768.80	364.60	62.60	68.30	42073
	<b>Sundries :-</b>					
42074	Mild steel contoured brackets for cylinders with retaining brass chains .....	1,759.20	105.40	14.20	15.90	42074
42075	Area alarm panel constantly monitoring local gas pressure for medical oxygen, nitrous oxide, medical vacuum, medical air, surgical air, c/w all necessary accessories.....	8,162.20	447.50	62.60	71.10	42075
42076	Central alarm panel constantly monitoring the complete medical gas services installed via fully integrated multiplexed system and capable to be linked with repeated panels, c/w all necessary accessories.....	22,737.50	850.30	113.80	142.30	42076
42077	Repeated panel linked to central alarm panel, c/w all necessary accessories.....	19,411.20	581.80	88.20	113.80	42077
42078	Glass panel for emergency valve cabinet.....	224.80	66.10	11.00	12.10	42078

Item	MEDICAL GASES INSTALLATION (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Pressure relief valve c/w chained labels :-</b>					
42079	76 mm diameter.....	3,475.20	50.70	26.10	30.80	42079
42080	54 mm diameter.....	2,477.40	46.60	24.20	28.90	42080
42081	42 mm diameter.....	1,640.40	43.60	23.00	27.70	42081
42082	35 mm diameter.....	1,146.30	40.50	22.40	27.10	42082
42083	28 mm diameter.....	835.40	38.00	22.00	26.80	42083
42084	22 mm diameter.....	660.70	34.40	21.40	26.20	42084
42085	15 mm diameter.....	519.80	30.40	20.90	25.60	42085
42086	12 mm diameter.....	381.30	28.90	20.50	25.30	42086
	<b>Three way valves c/w chained labels :-</b>					
42087	76 mm diameter.....	2,481.20	50.70	26.10	30.80	42087
42088	54 mm diameter.....	1,643.30	46.60	24.20	28.90	42088
42089	42 mm diameter.....	1,149.10	43.60	23.00	27.70	42089
42090	35 mm diameter.....	814.90	40.50	22.40	27.10	42090
42091	28 mm diameter.....	652.60	38.00	22.00	26.80	42091
42092	22 mm diameter.....	477.90	34.40	21.40	26.20	42092
42093	15 mm diameter.....	359.80	30.40	20.90	25.60	42093
42094	12 mm diameter.....	232.70	28.90	20.50	25.30	42094
	<b>Bacterial filter c/w differential pressure gauge with penetration n.e. 0.05% to BS 3928</b>					
	<b>Connecting pipe diameter :-</b>					
42095	159 mm.....	15,635.90	103.00	47.20	47.80	42095
42096	108 mm.....	12,823.20	76.60	34.10	34.70	42096
42097	76 mm.....	11,070.20	59.30	25.60	26.20	42097
42098	54 mm.....	9,643.10	48.30	20.50	21.10	42098
42099	42 mm.....	8,643.10	41.90	18.20	18.80	42099
42100	35 mm.....	7,680.70	39.20	17.10	17.60	42100
42101	28 mm.....	6,854.60	35.60	14.80	15.40	42101

Item	MEDICAL GASES INSTALLATION (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
		A	B	C	D	
		\$	\$	\$	\$	
	<b>Each</b>					
	<b>Non-return valve c/w chained labels:-</b>					
42102	159 mm diameter.....	1,842.20	76.00	37.90	44.10	42102
42103	108 mm diameter.....	1,149.10	55.70	28.50	33.20	42103
42104	76 mm diameter.....	670.10	50.70	26.10	30.80	42104
42105	54 mm diameter.....	535.00	46.60	24.20	28.90	42105
42106	42 mm diameter.....	383.60	43.60	23.00	27.70	42106
42107	35 mm diameter.....	300.70	40.50	22.40	27.10	42107
42108	28 mm diameter.....	252.70	38.00	22.00	26.80	42108
42109	22 mm diameter.....	192.20	34.40	21.40	26.20	42109
42110	15 mm diameter.....	119.90	30.40	20.90	25.60	42110
42111	12 mm diameter.....	100.20	28.90	20.50	25.30	42111
	<b>Valve, terminal unit, pressure gauge and vacuum gauge</b>					
42112	Tee-piece and isolation valve for pressure switch c/w chained labels.....	329.30	46.60	24.20	28.90	42112
42113	Pendent type terminal unit.....	1,087.00	100.30	14.20	14.80	42113
42114	Pressure gauge c/w isolating ball valve & pipe fittings.....	390.60	112.10	21.60	25.60	42114
42115	Vacuum gauge c/w isolating ball valve & pipe fittings.....	390.60	112.10	21.60	25.60	42115
	<b>Per linear metre</b>					
	<b>Flexible hose</b>					
42116	Flexible hose for O.T. pendent terminal unit.....	949.50	64.70	11.10	13.90	42116
	<b>Each</b>					
	<b>Pressure transducer</b>					
42117	Pressure transducer c/w pressure switch.....	813.70	39.20	20.50	21.10	42117
	<b>Per item</b>					
	<b>Earthing system</b>					
42118	Earthing system for medical gases pipeline.....	1,770.10	-	-	-	42118

Item	MEDICAL GASES INSTALLATION (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Pressure regulating valve (O<sub>2</sub>) c/w chained labels :-</b>					
42119	42 mm diameter.....	3,213.30	63.80	35.30	36.40	42119
42120	35 mm diameter.....	3,048.30	58.30	33.00	34.10	42120
42121	28 mm diameter.....	2,458.70	51.10	28.50	29.60	42121
42122	22 mm diameter.....	2,145.10	45.60	25.00	26.20	42122
42123	15 mm diameter.....	1,612.70	38.30	20.50	21.60	42123
	<b>Pressure regulating valve (N<sub>2</sub>O) c/w chained labels :-</b>					
42124	35 mm diameter.....	3,048.30	58.30	33.00	34.10	42124
42125	28 mm diameter.....	2,458.70	51.10	28.50	29.60	42125
42126	22 mm diameter.....	2,145.10	45.60	25.00	26.20	42126
42127	15 mm diameter.....	1,612.70	38.30	20.50	21.60	42127
	<b>Pressure regulating valve (medical air, surgical air) c/w chained labels :-</b>					
42128	42 mm diameter.....	3,213.30	63.80	35.30	36.40	42128
42129	35 mm diameter.....	3,048.30	58.30	33.00	34.10	42129
42130	28 mm diameter.....	2,458.70	51.10	28.50	29.60	42130
42131	22 mm diameter.....	2,145.10	45.60	25.00	26.20	42131
42132	15 mm diameter.....	1,612.70	38.30	20.50	21.60	42132
	<b>Pressure reducing valve</b>					
42133	Duplex medical gas pressure reducing valve set.....	6,096.50	116.70	66.00	68.30	42133
	<i>Per item</i>					
	<b>Oxygen concentration monitoring system</b>					
42134	Oxygen concentration monitoring system c/w monitoring alarm panel, built-in integral pump with minimum oxygen flow rate at 0.05 l/min., facilities for DDC/CCMS and continuous digital reading of oxygen concentration (0.1% - 99%) to unit HTM 2022.....	66,868.50	638.10	113.80	142.30	42134



Item	MEDICAL VACUUM SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Packaged duplex medical vacuum set, F.A. aspired at 500 mm Hg c/w air-cooled rotary sliding/low speed reciprocating vacuum pump and vibration isolators, plant capacity : -</b>					
42135	Up to 150 litres/min.....	41,897.80	547.00	113.80	142.30	42135
42136	150 - 300 litres/min.....	60,482.80	565.20	116.70	145.10	42136
42137	300 - 500 litres/min.....	85,039.30	592.50	119.50	148.00	42137
42138	500 - 750 litres/min..... (The actual rate should be : \$115,983.20 for Item 42138A)	11,598.32	638.10	125.20	153.60	42138
42139	750 - 1000 litres/min..... (The actual rate should be : \$147,085.40 for Item 42139A)	14,708.54	683.70	130.90	159.30	42139
42140	1000 - 1250 litres/min..... (The actual rate should be : \$168,354.80 for Item 42140A)	16,835.48	729.30	136.60	165.00	42140
42141	1250 - 1500 litres/min..... (The actual rate should be : \$191,095.10 for Item 42141A)	19,109.51	774.90	142.30	170.70	42141
42142	1500 - 1750 litres/min..... (The actual rate should be : \$212,862.40 for Item 42142A)	21,286.24	820.40	148.00	176.40	42142
42143	1750 - 2000 litres/min..... (The actual rate should be : \$235,104.90 for Item 42143A)	23,510.49	866.00	153.60	182.10	42143
	<b>Vacuum discharge system</b>					
42144	Vacuum discharge system with exhaust pipe and silencer assembly for each pump, design to meet noise criteria better than 76 NC.....	4,212.50	227.90	51.20	56.90	42144
	<b>Sanitary trap</b>					
42145	Sanitary trap assembly with transparent bowl fitted with sight level tube for each pump.....	2,582.00	71.60	16.90	19.70	42145

Item	MEDICAL VACUUM SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Horizontal vacuum reservoir to BS 5169 c/w vacuum gauge with petcock, drainage trap, inlet isolating and non-return valve, water capacity :-</b>					
42146	Up to 1500 litres.....	22,872.10	1,139.50	227.60	256.10	42146
42147	1500 - 2000 litres.....	29,315.80	1,230.70	256.10	284.50	42147
42148	2000 - 2500 litres.....	35,861.20	1,321.80	284.50	341.40	42148
42149	2500 - 3000 litres.....	42,406.70	1,413.00	313.00	369.90	42149
42150	3000 - 3500 litres.....	48,624.00	1,504.10	341.40	398.30	42150
42151	3500 - 4000 litres.....	54,815.30	1,595.30	369.90	426.80	42151
42152	4000 - 4500 litres.....	61,033.70	1,686.50	398.30	455.30	42152
42153	4500 - 5000 litres.....	67,253.30	1,777.60	426.80	483.70	42153
42154	5000 - 5500 litres.....	73,391.40	1,868.80	455.30	512.20	42154
42155	5500 - 6000 litres.....	79,665.30	1,959.90	483.70	540.60	42155
	<b>Duplex medical vacuum set c/w the following :-</b>					
42156	Vacuum drain tanks; including all associated accessories.....	1,852.70	310.40	67.60	73.30	42156
42157	Pipeline vacuum gauges including isolating valves.....	488.30	44.30	20.50	24.50	42157
42158	Vacuum pressure switches including isolating valves.....	488.30	44.30	20.50	24.50	42158
42159	Medical vacuum plant control panel; c/w all associated accessories and power cables and conduits connections to adjacent isolating switch.....	19,670.30	1,432.00	142.30	187.80	42159

Item	MEDICAL AIR SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
	<b>Triplex medical compressed air plant c/w the following :-</b>					
42160	Air intake filters (3 sets).....	8,423.30	134.30	54.60	56.30	42160
42161	Air intake silencers (3 sets).....	6,915.10	134.30	54.60	56.30	42161
42162	Air compressors; up to 250 litres/min. (3 sets).....	31,139.80	1,342.50	285.10	355.10	42162
42163	Ditto; 250 to 500 litres/min. (3 sets).....	40,852.90	1,455.30	298.80	370.50	42163
42164	Ditto; 500 - 750 litres/min. (3 sets).....	51,143.00	1,568.10	312.40	385.80	42164
42165	Ditto; 750 - 1000 litres/min. (3 sets).....	62,010.10	1,680.90	326.10	401.20	42165
42166	Ditto; 1000 - 1250 litres/min. (3 sets).....	73,420.40	1,793.60	339.70	416.60	42166
42167	Ditto; 1250 - 1500 litres/min. (3 sets).....	85,407.80	1,906.40	353.40	431.90	42167
42168	Air-cooled after coolers (3 sets).....	14,438.70	1,342.50	285.10	355.10	42168
42169	Air receiver; c/w all associated accessories; up to 250 litres/min. (2 sets).....	23,747.10	895.00	190.10	236.70	42169
42170	Ditto; 250 to 500 litres/min. (2 sets).....	31,399.20	970.20	199.20	247.00	42170
42171	Ditto; 500 - 750 litres/min. (2 sets).....	39,390.80	1,045.40	208.30	257.20	42171
42172	Ditto; 750 - 1000 litres/min. (2 sets).....	47,721.80	1,120.60	217.40	267.50	42172
42173	Ditto; 1000 - 1250 litres/min. (2 sets).....	56,392.30	1,195.80	226.50	277.70	42173
42174	Ditto; 1250 - 1500 litres/min. (2 sets).....	65,402.20	1,270.90	235.60	288.00	42174
42175	Water separators (2 sets).....	4,632.90	89.50	36.40	37.60	42175
42176	Oil filter (2 sets).....	8,312.10	89.50	36.40	37.60	42176
42177	Twin column desiccant air dryers; heatless reactivated including all associated accessories (2 Sets).....	72,243.60	895.00	190.10	236.70	42177
42178	Dust filter (2 sets).....	8,312.10	89.50	36.40	37.60	42178
42179	Header c/w dew point alarm probe.....	6,096.00	346.40	85.40	99.60	42179
42180	Duplex regulating stations.....	3,673.20	346.40	85.40	99.60	42180
42181	Active carbon filter (2 sets).....	8,312.10	89.50	36.40	37.60	42181
42182	Bacteria filter c/w sterilizable glass trap and stop valves (2 sets).....	16,076.00	109.40	45.50	48.40	42182
42183	Pressure switch.....	170.70	23.70	13.10	13.70	42183
42184	Emergency compressed air manifold; including all associated accessories.....	6,067.60	665.10	68.30	85.40	42184
42185	Medical compressed air plant control panel; c/w all associated accessories, and power cables and conduits connections to adjacent isolating switch (isolating switch measured separately).....	23,989.30	1,432.00	142.30	187.80	42185

Item	SURGICAL AIR SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Duplex surgical compressed air plant c/w the following :-</b>					
42186	Air intake filters (2 sets).....	5,615.60	89.50	36.40	37.60	42186
42187	Air intake silencers (2 sets).....	4,610.10	89.50	36.40	37.60	42187
42188	Air compressors; up to 250 litres/min. (2 sets).....	20,759.90	895.00	190.10	236.70	42188
42189	Ditto; 250 - 500 litres/min. (2 sets).....	27,235.20	970.20	199.20	247.00	42189
42190	Ditto; 500 - 750 litres/min. (2 sets).....	34,095.30	1,045.40	208.30	257.20	42190
42191	Ditto; 750 - 1000 litres/min. (2 sets).....	41,340.10	1,120.60	217.40	267.50	42191
42192	Ditto; 1000 - 1250 litres/min. (2 sets).....	48,947.00	1,195.80	226.50	277.70	42192
42193	Ditto; 1250 - 1500 litres/min. (2 sets).....	56,938.50	1,270.90	235.60	288.00	42193
42194	Air-cooled after coolers.....	4,812.90	447.50	95.00	118.40	42194
42195	Air receiver; c/w all associated accessories; up to 250 litres/min. (2 sets).....	23,747.10	895.00	190.10	236.70	42195
42196	Ditto; 250 - 500 litres/min. (2 sets).....	31,399.20	970.20	199.20	247.00	42196
42197	Ditto; 500 - 750 litres/min. (2 sets).....	39,390.80	1,045.40	208.30	257.20	42197
42198	Ditto; 750 - 1000 litres/min. (2 sets).....	47,721.80	1,120.60	217.40	267.50	42198
42199	Ditto; 1000 - 1250 litres/min. (2 sets).....	56,392.30	1,195.80	226.50	277.70	42199
42200	Ditto; 1250 - 1500 litres/min. (2 sets).....	65,402.20	1,270.90	235.60	288.00	42200
42201	Water separators.....	2,316.50	44.80	18.20	18.80	42201
42202	Oil filter.....	4,156.10	44.80	18.20	18.80	42202
42203	Twin column desiccant air dryers; heatless reactivated including all associated accessories (2 Sets) .....	72,243.60	895.00	190.10	236.70	42203
42204	Dust filter.....	4,156.10	44.80	18.20	18.80	42204
42205	Header c/w dew point alarm probe.....	6,096.00	346.40	85.40	99.60	42205
42206	Duplex regulating stations.....	3,673.20	346.40	85.40	99.60	42206
42207	Active carbon filter.....	4,156.10	44.80	18.20	18.80	42207
42208	Bacteria filter c/w sterilizable glass trap and stop valves.....	8,038.00	54.70	22.80	24.20	42208
42209	Pressure switch.....	170.70	23.70	13.10	13.70	42209
42210	Emergency surgical air manifold; including all associated accessories.....	6,067.60	665.10	68.30	85.40	42210
42211	Surgical air plant control panel; c/w all associated accessories, and power cables and conduits connections to adjacent isolating switch (isolating switch measured separately) .....	23,989.30	1,432.00	142.30	187.80	42211

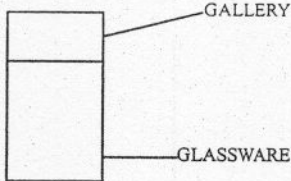
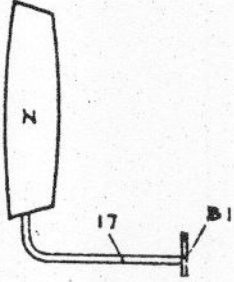
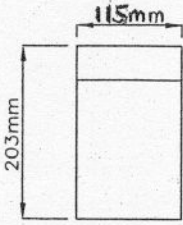
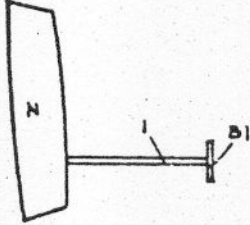
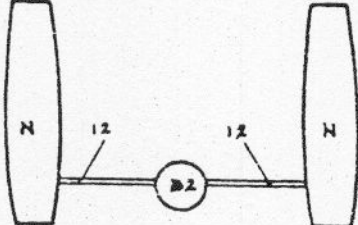
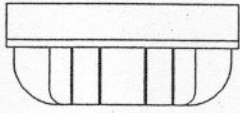
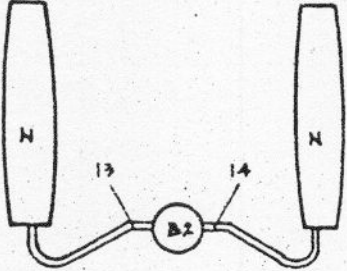
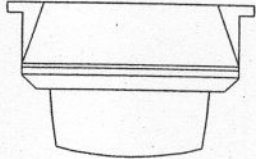
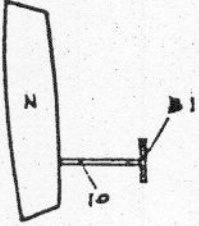
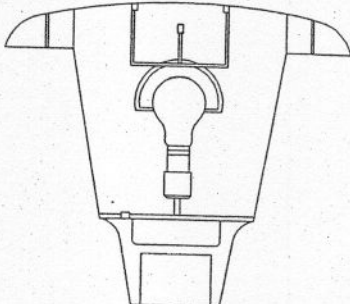
Item	ACTIVE ANAESTHETIC GAS SCAVENGING SYSTEM	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per linear metre</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Solid drawn seamless, phosphorous de-oxidized, non-arsenical half- hard copper pipes and fitting to BS 6017 : 1981 in straight random lengths, best quality to BS 2871 Part 1 Table X, in addition to the requirements of HTM 2022 :-</b>					
42212	28 mm diameter (SP).....	151.30	79.60	4.90	5.30	42212
42213	32 mm diameter (SP).....	167.40	82.50	5.30	5.70	42213
	<i>Each</i>					
	<b>Supply and installation of the following Active Anaesthetic Gas Scavenging System, c/w all associated accessories to form on operable systems to EN 737-2, EN 737-4 and Clause 111 of EN 740 :-</b>					
	<b>Approved Active Anaesthetic Gas Scavenging System completed with the followings :-</b>					
42214	AGSS terminal outlets .....	1,087.00	100.30	14.20	14.80	42214
42215	Duplex exhaustor units (power device) (1350 litres/min.).....	34,104.20	1,294.50	235.60	288.00	42215
42216	Plant isolator and control panel.....	8,705.70	1,276.20	142.30	187.80	42216
42217	Remote on-off flow failure starter unit.....	5,493.30	319.10	68.30	74.00	42217
42218	Flow failure switching unit.....	4,008.10	273.50	51.20	56.90	42218
42219	Excess vacuum relief regulating valve assembly .....	3,013.50	136.70	34.10	35.30	42219
42220	Receiver with air break device and connecting hoses.....	8,737.60	455.80	190.10	236.70	42220

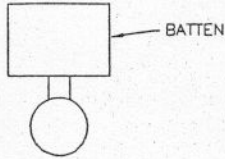
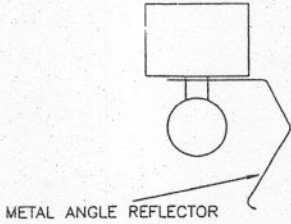
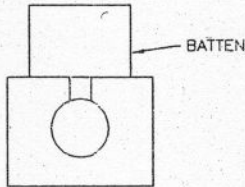
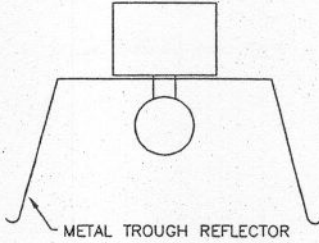
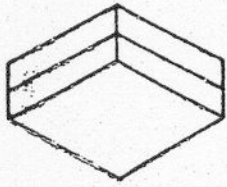
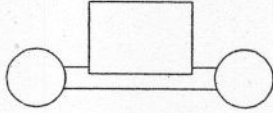
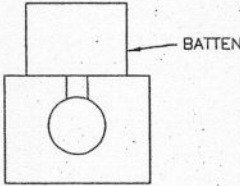
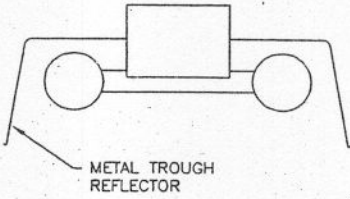
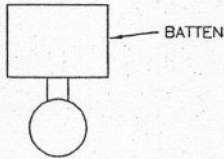
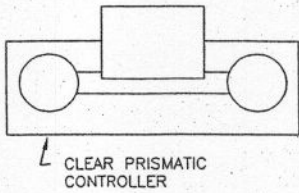
Item	TESTS ON EXISTING MEDICAL GASES SYSTEM (Note : The following Items 42221 to 42249 inclusive will only be paid for if ordered by the Maintenance Surveyor in writing)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A \$	B \$	C \$	D \$	
<b>Test on existing Active Anaesthetic Gas Scavenging System :-</b>						
42221	Power device and warning system test.....	837.90	-	-	-	42221
42222	Receiving system test.....	837.90	-	-	-	42222
42223	Performance test.....	1,929.70	-	-	-	42223
<b>On-site functional test of existing terminal units and nist connector :-</b>						
42224	Oxygen gas terminal unit.....	1,929.70	-	-	-	42224
42225	Medical air terminal unit.....	1,929.70	-	-	-	42225
42226	Nitrous oxide terminal unit.....	1,929.70	-	-	-	42226
42227	Surgical air terminal unit.....	1,929.70	-	-	-	42227
<b>On-site identification tests on existing piped medical gas samples :-</b>						
42228	Oxygen gas sample.....	2,031.30	-	-	-	42228
42229	Medical air gas sample.....	2,031.30	-	-	-	42229
42230	Nitrous oxide gas sample.....	2,031.30	-	-	-	42230
42231	Surgical air gas sample.....	2,031.30	-	-	-	42231
<b>On-site purity/quality tests on existing piped medical gas samples :-</b>						
42232	Oxygen gas sample : Dragger tube tests on contents of O <sub>2</sub> , H <sub>2</sub> O (moisture), CO, CO <sub>2</sub> , oil.....	2,031.30	-	-	-	42232
42233	Medical air gas sample : Dragger tube tests on contents of O <sub>2</sub> , H <sub>2</sub> O (moisture), CO, CO <sub>2</sub> , oil.....	2,031.30	-	-	-	42233
42234	Nitrous oxide gas sample : Dragger tube tests on contents of O <sub>2</sub> , H <sub>2</sub> O (moisture), CO, CO <sub>2</sub> , oil, N <sub>2</sub> O.....	2,031.30	-	-	-	42234
42235	Surgical air gas sample : Dragger tube tests on contents of O <sub>2</sub> , H <sub>2</sub> O (moisture), CO, CO <sub>2</sub> , oil.....	2,031.30	-	-	-	42235

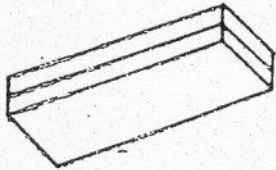
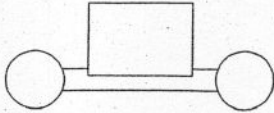
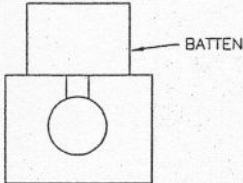
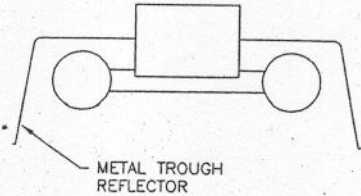
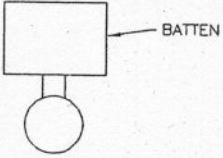
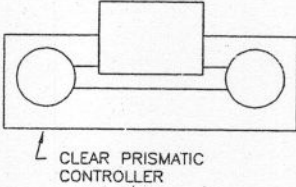
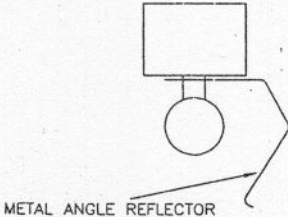
Item	TESTS ON EXISTING MEDICAL GASES SYSTEM (CONT'D)	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Each</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>On-site particulate tests on existing piped medical gas samples :-</b>					
42236	Oxygen gas sample.....	2,031.30	-	-	-	42236
42237	Medical air gas sample.....	2,031.30	-	-	-	42237
42238	Nitrous oxide gas sample.....	2,031.30	-	-	-	42238
42239	Surgical air gas sample.....	2,031.30	-	-	-	42239
	<i>Per lot</i>					
	<b>On-site cross connection tests on existing piped medical gas pipelines systems :-</b>					
42240	Oxygen gas system.....	1,929.70	-	-	-	42240
42241	Medical air system.....	1,929.70	-	-	-	42241
42242	Nitrous oxide system.....	1,929.70	-	-	-	42242
42243	Surgical air system.....	1,929.70	-	-	-	42243
42244	Vacuum system.....	1,929.70	-	-	-	42244
	<b>On-site performance tests on existing piped medical gas pipelines systems :-</b>					
42245	Oxygen gas system.....	1,929.70	-	-	-	42245
42246	Medical air system.....	1,929.70	-	-	-	42246
42247	Nitrous oxide system.....	1,929.70	-	-	-	42247
42248	Surgical air system.....	1,929.70	-	-	-	42248
42249	Vacuum system.....	1,929.70	-	-	-	42249

Item	MISCELLANEOUS	Supply and fix	Fix only	Take down and clear away	Take down and set aside for re-use	Item
	<i>Per month</i>	A	B	C	D	
		\$	\$	\$	\$	
	<b>Provision of medical gas regulators, medical cylinders and other accessories in anticipation of Medical Gas Interruption</b>					
	<b>Rental charges for gas regulators, cylinders and other accessories for :-</b>					
42250	Oxygen.....	1,131.50	-	-	-	42250
42251	Nitrous oxide.....	1,131.50	-	-	-	42251
42252	Medical air.....	1,131.50	-	-	-	42252
42253	Surgical air.....	1,131.50	-	-	-	42253
	<i>Each</i>					
	<b>Charges for gas filling for R-size cylinder supply in :-</b>					
42254	Oxygen.....	502.90	-	-	-	42254
42255	Nitrous oxide.....	4,274.60	-	-	-	42255
42256	Medical compressed air.....	402.30	-	-	-	42256
42257	Surgical air.....	4,274.60	-	-	-	42257
	<b>Sundries</b>					
42258	Portable suction unit and accessories for backing up type piped medical vacuum.....	18,481.30	-	-	-	42258
42259	Baseplate for mounting terminal unit on bedhead trunking.....	51.40	17.40	8.50	9.00	42259



SFA No.	SHAPE	SFA No.	SHAPE
6		18	
7		19	
15		33	
16		35	
17		46	

SFA No.	SHAPE	SFA No.	SHAPE
50	 <p>BATTEN</p>	56	 <p>METAL ANGLE REFLECTOR</p>
51	 <p>BATTEN</p>	58	 <p>METAL TROUGH REFLECTOR</p>
52		69	
54	 <p>BATTEN</p>	72	 <p>METAL TROUGH REFLECTOR</p>
55	 <p>BATTEN</p>	74	 <p>CLEAR PRISMATIC CONTROLLER</p>

SFA No.	SHAPE	SFA No.	SHAPE
75		98	
83		101	
84		103	
85			
87	