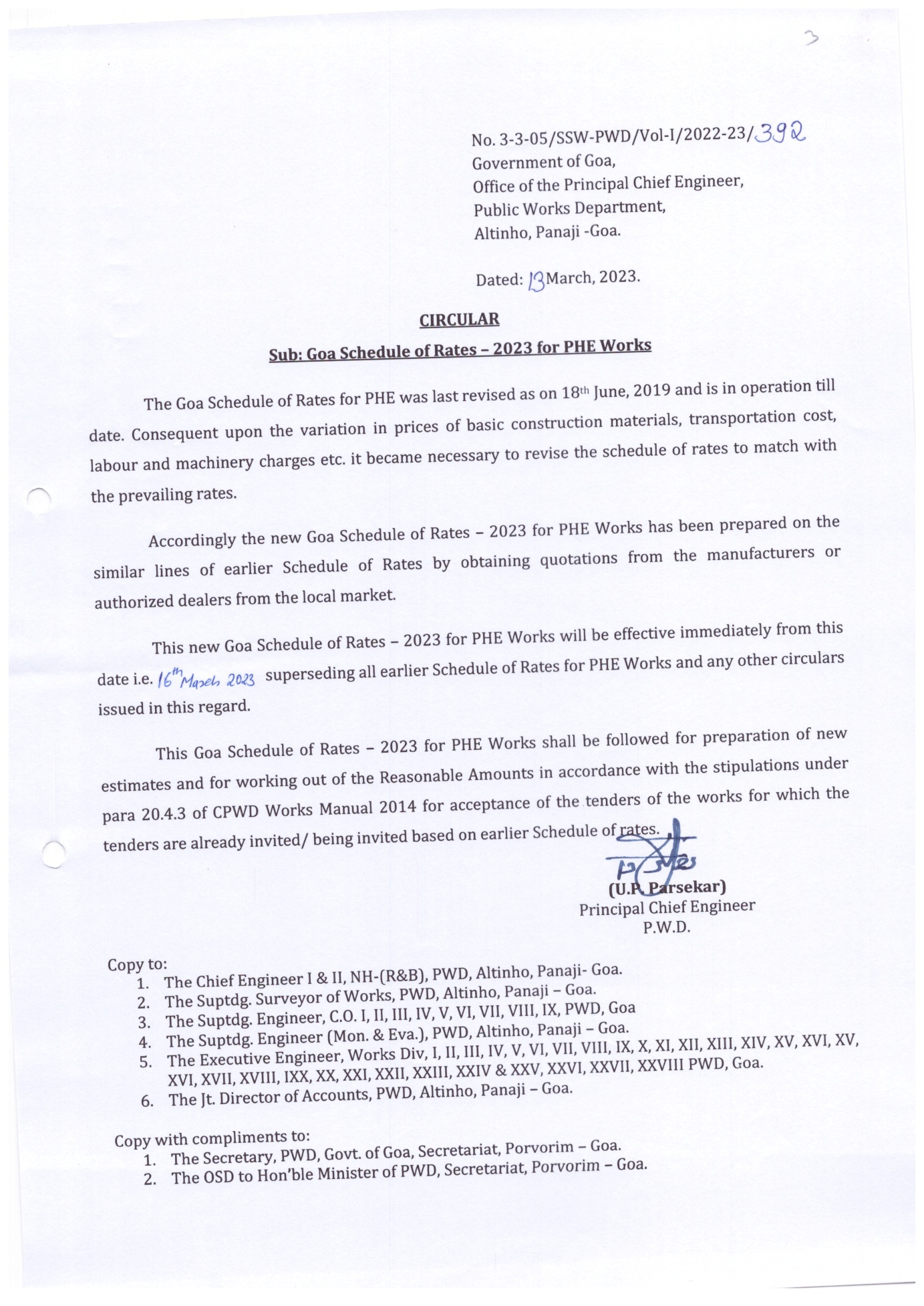
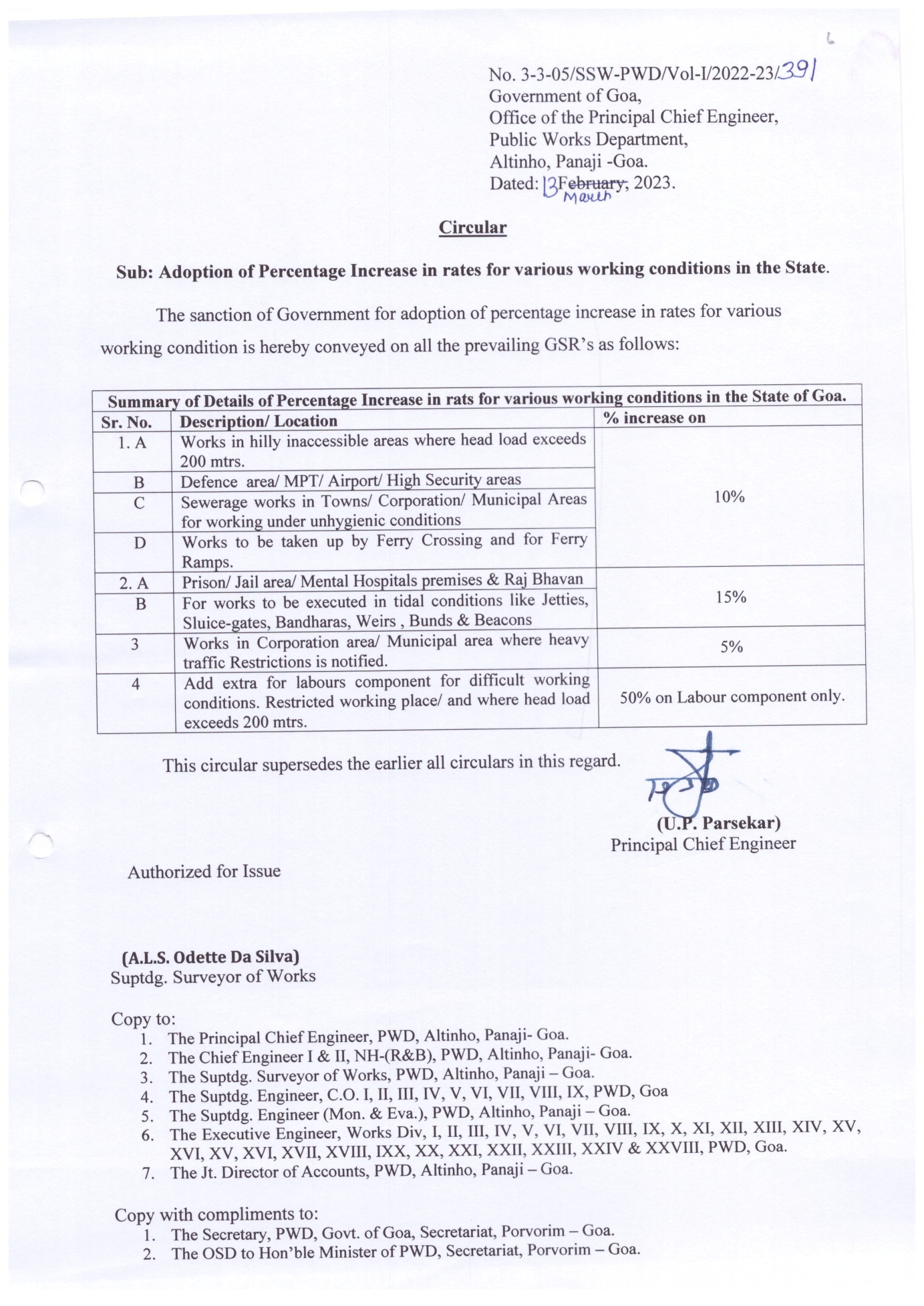
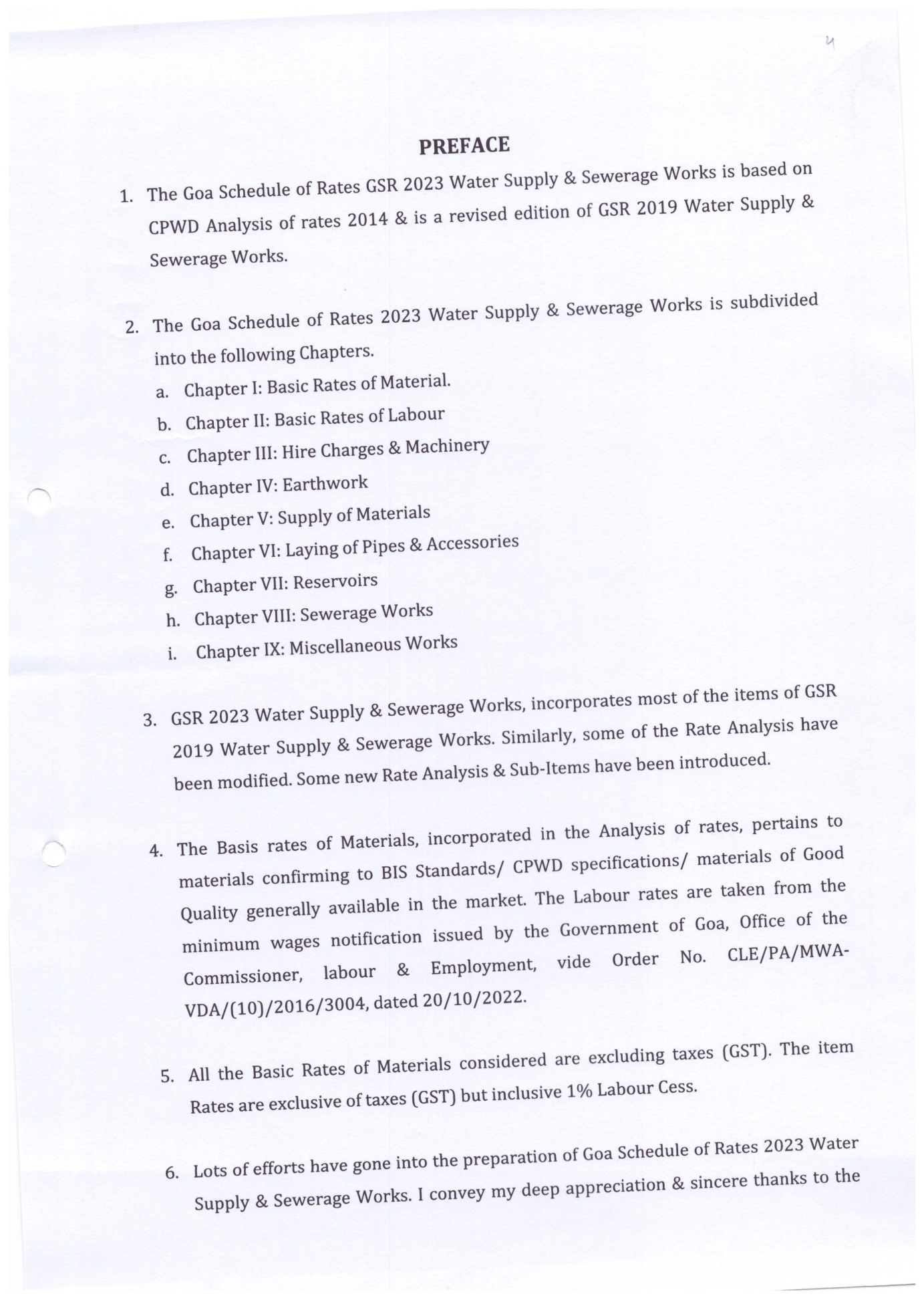
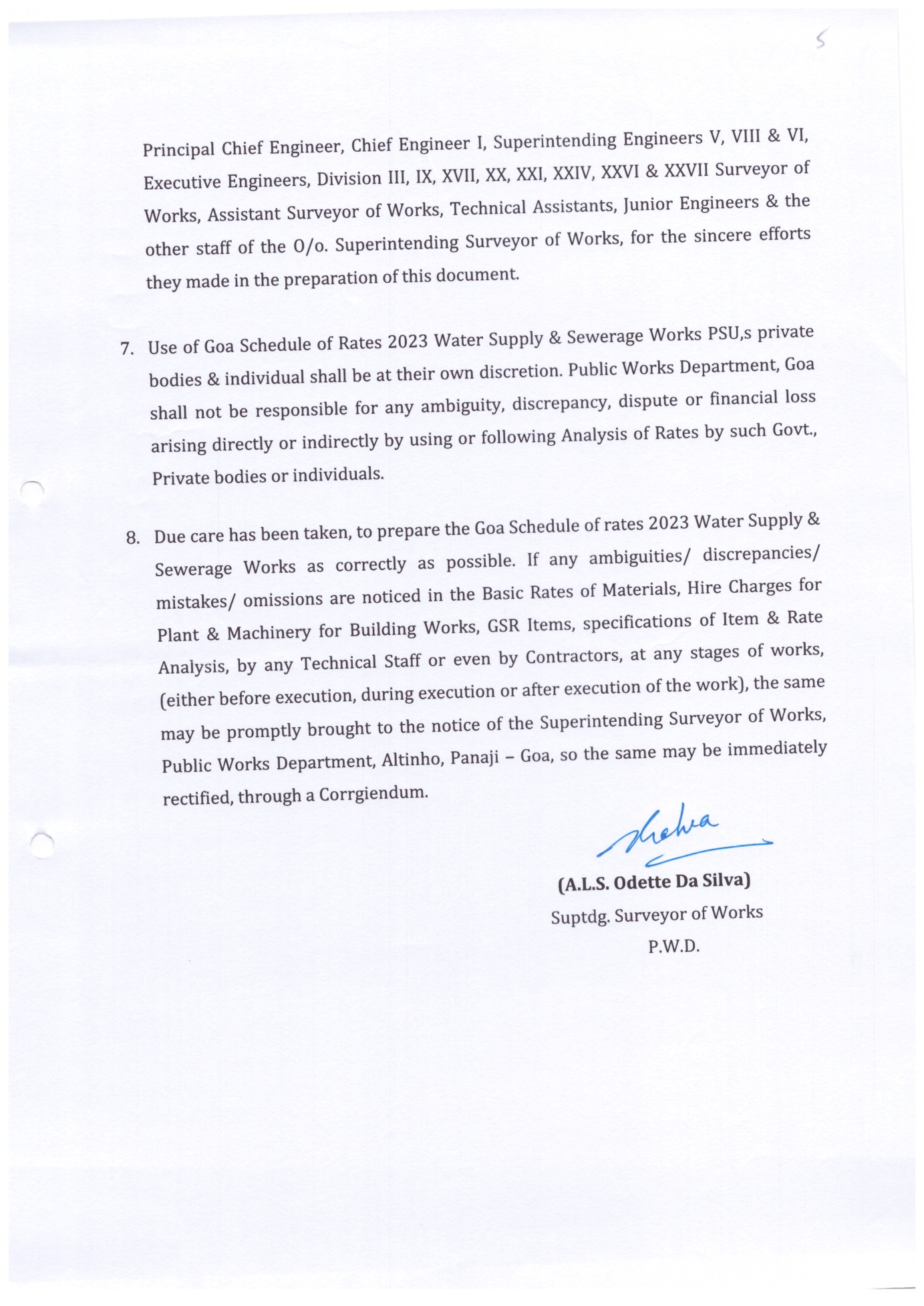
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**GOVERNMENT OF GOA**

**PUBLIC WORKS DEPARTMENT**

**GOA SCHEDULE OF RATES**

**WATER SUPPY & SEWERAGE WORKS**

**VOLUME V – 2023**

GENERAL NOTES

The rates for water supply and drainage works are based on latest CPWD specifications. Wherever there is a variation in the notes given in present GSR and CPWD specifications, CPWD specifications shall be followed. Wherever there is a variation between CPWD and IS specifications, IS specifications shall take preference. However, in all such cases the matter shall be referred to the Superintending Engineer concerned whose decision in this regards shall be final and binding.

Wherever required, the rates which are not available in this GSR, shall be taken from Schedule of Rates for Buildings/Roads and specific mention of this shall be made in the estimate/ NIT. The rates include for the provisions as outlined in notes for respective sections. However, wherever, the carriage of materials is to be done by head load due to site restrictions and or by for such specific contingency shall be noted in the estimate and a 10% increase for head load for distance over 200m, from nearest accessible position, irrespective of elevation, and 10% increase for ferry crossing can be made in the estimate. In all such cases the estimate shall be duly supported with a site plan showing the nearest accessible point and a certificate to the correctness of the distance from the Executive engineer. This provision is for only estimating purpose and not for contractor payments.

The theoretical consumption of cement for items of works shall be as per Delhi schedule of rates 2007 with amendments issued from time to time.

The Goa Schedule of Rates (PHE) 2019 is prepared for the use of PWD. However, this may be used by other Govt. departments, PSUs, private bodies & individuals also at their own descretion.PWD shall not be responsible for any ambiguity, discrepancy, dispute or financial loss, arising directly or indirectly by using or following items of Goa Schedule of Rates (PHE) 2019 by such Govt./Private bodies or individuals.

Incase any discrepancies, ambiguities are noticed by any of the authorities may bring to notice of PWD for necessary action.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | **GOA SCHEDULE OF RATES 2023** | | | | |  |  |  |  | | **WATER SUPPLY & SEWERAGE** | | | | |  |  |  |  | | **Item Identification Index** | | | | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Sr. No.** | **Chapter** | **Content** | **Item Identification** | **Page Nos.** | | 1 | I | BASIC RATE OF MATERIAL | 1 – 46 | 3 - 4 | | 2 | II | BASIC RATE OF LABOURS | A-T | 5 – 7 | | 3 | III | HIRE CHARGES OF MACHINERIES | 1 – 20 | 8 | | 4 | IV | EARTHWORK | 4005-4012 4035--4037 | 9 – 12 | | 5 | V | SUPPLY OF MATERIAL | 15001-- 15164 | 13 – 159 | | 6 | VI | LAYING OF PIPES AND ACCESSORIES | 15201 - 15259(A) | 150 – 193 | | 7 | VII | RESERVOIRS | 15301 – 15342 | 194 – 211 | | 8 | VIII | SEWERAGE WORKS | 4005 (A) – 4010  15401 - 15452 | 212 – 232 | | 9 | IX | MISCELLANEOUS WORKS | 15501 - 15525 | 233 – 241 |   **CHAPTER - I** | | | |
| **BASIC RATES OF MATERIALS** | | | |
| Sr. No. | Description | Unit | Rate |

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | Aggregate Granite/Basalt |  |  |
| a) | 10mm | Cu.m. | 1100.00 |
| b) | 12.5mm | Cu.m. | 1300.00 |
| c) | 20mm | Cu.m. | 1100.00 |
| d) | 32mm | Cu.m. | 1200.00 |
| e) | 40mm | Cu.m. | 1212.00 |
| f) | 50mm | Cu.m. | 1150.00 |
| 2 | Cement - Portland | Tonne | 6250.00 |
| 3 | Cement - White | Tonne | 17000.00 |
| 4 | Sand coarse | Cu.m. | 1300.00 |
| 5 | Sand fine | Cu.m. | 1300.00 |
| 6 | Jungle wood planks - upto 3m length | Cu.m. | 26486.00 |
| 7 | Jungle wood planks more than 3m length | Cum | 26486.00 |
| 8 | Water proofing compound | Kg. | 44.00 |
| 9 | Ballies -100 mm diameter 3.66 mts long | Each | 150.00 |
| 10 | Ballies -125 mm diameter 3.66 mtrs long | Each | 252.00 |
| 11 | Bamboo -4m long 75mm diameter | Each | 180.00 |
| 12 | Rafters | cum | 56000.00 |
| 13 | Coir rope | Metre | 7.00 |
| 14 | Nails | Kg. | 80.00 |
| 15 | Kerosene | Litre | 55.00 |
| 16 | Diesel | Litre | 77.00 |
| 17 | Engine oil | Litre | 186.00 |
| 18 | Bricks class designation - 40 kgs/cm² | 1000 numbers | 7000.00 |
| 19 | Bricks class designation - 75 kgs/cm² (wire cut bricks) | 1000 numbers | 9000.00 |
| 20 | Bricks class designation - 100 kgs/cm² (wire cut bricks) | 1000 numbers | 16000.00 |
| 21 | Mild steel reinforcement(SAIL,TATA,VIZAG,JSW Steel Ltd) | Tonne | 74000.00 |
| 22 | HYSD steel reinforcement bar(TMT steel reinforcement from secondary producers) | Tonne | 60000.00 |
| 23 | CRS steel-50 reinforcement (SAIL,TATA,VIZAG,JSWSteel Ltd.) | Tonne | 77000.00 |
| 24 | TMT steel reinforcement (SAIL,TATA,VIZAG, JSW, Steel Ltd.) | Tonne | 75000.00 |
| 25 | MS steel structural | Tonne | 77000.00 |
| 26 | Flats upto 10mm thickness | Tonne | 65000.00 |
| 27 | MS plates 10mm thickness | Tonne | 65000.00 |
| 28 | MS plates 25 mm thickness | Tonne | 65000.00 |
| 29 | Welding electric | Cms. | 15.00 |
| 30 | Welding Gas | Cms. | 35.00 |
| 31 | Spun Yarn | Kg. | 152.00 |
| 32 | White Zinc | Kg. | 175.00 |
| 33 | White Lead | Kg. | 400.00 |
| 34 | C.I. Surface box - 100x160x160 - Weight 15 kgs. | Each | 1799.00 |
| 35 | C.I. Surface box - 200x300x300 - Weight 32kgs. | Each | 3839.00 |
| 36 | C.I. Grating - 100x100 | Each | 40.00 |
| 37 | C.I. Grating - 150x100 | Each | 46.00 |
| 38 | C.I. cleaning eye with lid | Each | 58.00 |
| 39 | Sand C.I. bend plain - 100mm | Each | 352.00 |
| 40 | C.I. Tee | Each | 367.00 |
| 41 | C.I. cover with frame heavy duty |  |  |
| a | 500 mm diameter weighing 230 kgs. | Each | 16348.00 |
| b | 600mm dia with weight not less than 290 kg | Each | 20696.00 |
| c | C.I. cover & Frame 300x300 (weighing10Kgs) | Each | 952.00 |
| d | C.I. cover & Frame1200x900 weighing 970 kgs. | Each | 88476.00 |
| e | C.I. cover & Frame 600x600 weighing 250 kgs. | Each | 17724.00 |
| 42 | D.I. rectangular cover & Frame 450x600 with hinges as per EN-124 weighing 100 kgs. | Each | 11732.00 |
| 42 a | SFRC cover 540mm size heavy duty frame & cover weighing 100 kgs. | Each | 8000.00 |
| b | SFRC cover 500mm size heavy duty frame & cover weighing 100 kgs. | Each | 6362.00 |
| 43 | C.I. steps weighing 5.4 kgs. | Each | 750.00 |
| 44 | Orange colour MS safety foot rest encapsulated with plastic | Each | 220.00 |
| 45 | SW Gully trap - 100x100 | Each | 399.00 |
| 46 | SW Gully trap - 100x150 | Each | 297.00 |
|  |  |  |  |
| NOTE: | Above rates are basic rates exclusive of contractor's profits and overheads, and carriage GST | | |

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| --- |
| **CHAPTER II** |
| **BASIC RATES OF LABOURS** |

|  |  |  |  |
| --- | --- | --- | --- |
| Sr. No | **Description** | **Unit** | **Rate** |
|  | **Labours** |  |  |
| A | 1) (Semi-skilled) Bandhani, Mazdoor | Per day | **460.00** |
|  | 2) (Unskilled) Chowkidar, Hedge cutter, Mali, | Per day | **399.00** |
|  | 3) Mate Coolie (ord.),Bhisti, Sweeper, Helper, | Per day | **399.00** |
|  | 4) Hardrock rock or stone cutting | Per day | **515.00** |
|  | 5) Stone cutter 1st class (skilled) | Per day | **515.00** |
|  | 6) Stone cutter 2nd class (semi-skilled),Chiseller, Hole Driller, breaker, Excavator | Per day | **460.00** |
|  |  |  |  |
| B | **Driver** |  |  |
|  | 1) For road rollers and heavy machinery | Per day | **515.00** |
|  | 2) For truck | Per day | **515.00** |
|  | 3) For light vehicles, jeep etc. | Per day | **515.00** |
|  |  |  |  |
| C | **Cleaner**: For truck, road roller etc. | Per day | **399.00** |
|  |  |  |  |
| D | **Operator** |  |  |
|  | 1) Pheumatic drill hammer | Per day | **557.00** |
|  | 2) Concrete mixer, Asphalt boiler | Per day | **515.00** |
|  | 3) Pump attendant, Bitumen sprayer | Per day | **460.00** |
|  | 4) Laboratory attendant, specialised machine | Per day | **460.00** |
|  |  |  |  |
| E | **Marines** |  |  |
|  | 1) Driver | Per day | **515.00** |
|  | 2) Oarsman, Tandel, Sarang | Per day | **460.00** |
|  |  |  |  |
| F | **Mason** |  |  |
|  | 1) Stone Ornamental work (highly skilled) | Per day | **557.00** |
|  | 2) 1st class (skilled) | Per day | **515.00** |
|  | 3) 2nd class brick layer, stone layer for plaster of Paris work | Per day | **460.00** |
|  | 4) Assistant | Per day | **399.00** |
|  |  |  |  |
| G | **Carpenter** |  |  |
|  | 1) Furniture (highly skilled) | Per day | **557.00** |
|  | 2) 1st class (skilled) | Per day | **515.00** |
|  | 3) 2nd class (semi-skilled) | Per day | **460.00** |
|  | 4) Assistant | Per day | **399.00** |

|  |  |  |  |
| --- | --- | --- | --- |
| H | **Blacksmith:** |  |  |
|  | 1) 1st class (skilled) | Per day | **515.00** |
|  | 2) 2nd class (semi-skilled) | Per day | **460.00** |
|  | 3) Assistant | Per day | **399.00** |
|  |  |  |  |
| I | **Fitter** |  |  |
|  | 1) 1st class (skilled) | Per day | **515.00** |
|  | 2) 2nd class (semi-skilled) | Per day | **460.00** |
|  | 3) Assistant | Per day | **399.00** |
|  |  |  |  |
| J | **Welder** (Highly skilled) | Per day | **557.00** |
|  |  |  |  |
| K | **Mechanic** |  |  |
|  | 1) 1st class | Per day | **515.00** |
|  | 2) 2nd class | Per day | **460.00** |
|  | 3) Assistant | Per day | **399.00** |
|  |  |  |  |
| L | **Painter** |  |  |
|  | 1) Artist painter (Highly skilled) | Per day | **557.00** |
|  | 2) Painter (skilled) | Per day | **515.00** |
|  | 3) 2nd class (semi-skilled) | Per day | **460.00** |
|  | 4) White washer | Per day | **460.00** |
|  |  |  |  |
| M | **Plumber, Electrician** |  |  |
|  | 1) Highly skilled | Per day | **557.00** |
|  | 2) 1st class (skilled) | Per day | **515.00** |
|  | 3) 2nd class | Per day | **460.00** |
|  |  |  |  |
| N | Meter reader, gauge reader | Per day | **515.00** |
|  |  |  |  |
| O | 1) Supervisor | Per day | **557.00** |
|  | 2) Mistri | Per day | **557.00** |
|  | 3) Typist | Per day | **515.00** |
|  | 4) Works assistant, draughtsman | Per day | **515.00** |
|  | 5) Head Surveyor | Per day | **460.00** |
| P | Dozer operator / dumper/poclain operator/ motor grander / crane operator | Per day | **515.00** |
|  |  |  |  |
| Q | Compressor operator | Per day | **515.00** |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| R | **Tin smith** |  |  |
|  | 1) 1st class | Per day | **515.00** |
|  | 2) 2nd class | Per day | **460.00** |
|  | 3) Assistant | Per day | **399.00** |
|  |  |  |  |
| S | **Auto Electrician** |  |  |
|  | 1) 1st class (skilled) | Per day | **515.00** |
|  | 2) 2nd class (semi-skilled) | Per day | **460.00** |
|  | 3) Assistant | Per day | **399.00** |
|  |  |  |  |
| T | **Rig Operator** |  |  |
|  | 1) 1st class (skilled) | Per day | **515.00** |
|  | 2) 2nd class (semi-skilled) | Per day | **460.00** |
|  | 3) Assistant | Per day | **399.00** |
| NOTE: | These rates are exclusive of contractor's profit and overheads and are inclusive of the wages for weekly day of rest. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **CHAPTER - III** | | | |
| **HIRE CHARGES OF MACHINERIES** | | | |
| Sr. No. | **Machine** | **Rate per Hour** | **Rate per shift of 8 hours** |
| 1 | Hydraulic excavator of one cum bucket capacity | **1800.00** | **14400.00** |
| 2 | Front end loader one cum bucket capacity | **800.00** | **6400.00** |
| 3 | Tipper - 5cum / 7cum | **600.00** | **4800.00** |
| 4 | Air compressor 170 cfm | **500.00** | **4000.00** |
| 5 | Concrete pump of 45 & 30 cum capacity | **250.00** | **2000.00** |
| 6 | Cranes - 15 to 20 MT capacity | **1985.00** | **15880.00** |
| 7 | Cranes - 103MT capacity | **1655.00** | **13240.00** |
| 8 | Cranes - 5 MT capacity | **1103.00** | **8824.00** |
| 9 | Generator 250 KVA | **738.00** | **5904.00** |
| 10 | Generator 100 KVA | **585.00** | **4680.00** |
| 11 | Generator 33 KVA | **315.00** | **2520.00** |
| 12 | Water tanker - 10cum | **750.00** | **6000.00** |
| 13 | Needle vibrator | **75.00** | **600.00** |
| 14 | Concrete mixer 0.40/0.28 cum | **221.00** | **1768.00** |
| 15 | JCB Excavator | **1655.00** | **13240.00** |
| 16 | JCB with breaker of laterite rock | **2206.00** | **17648.00** |
| 17 | Reciprocating pump | **150.00** | **1200.00** |
| 18 | Elevator for lifting materials in overhead reservoir construction | **-** | **465.00** |
| 19 | Pump for pumping water continuously from trenches | **-** | **400.00** |
| 20 | Welding Generator | **1655.00** | **13240.00** |

|  |
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| **CHAPTER-IV** |
| **EARTH WORK** |

The work shall be measured as per latest CPWD Specification (1996). The work shall be classified judiciously based on the trial pits bore hole date available,while estimating. All excavation shall be measured in successive stages of 1.5-meter depth or as otherwise specified starting from the datum level.

The rates for excavation in laterite rock is for all types of such and for by any means as per site conditions and as directed by engineer in charge. No extra shall be considered for any change in mode of excavation for any type of laterite rock.

The hard rock means rock of granite or basalt type and all other rocks except laterite and the rate is for excavation of this type of rock by any means as warranted by site conditions or as directed by the engineer in charge. No extra rate shall be considered for any change in mode of excavation or for any type of rock in the estimate.

The rates for respective estimate items generally for:

1. Excavation either straight or curved in plan.
2. Excavation and depositing earth as specified.
3. Setting our works and all profiles, cross heads, boring rods, etc. as well as for all tools and plants.
4. Site clearance.
5. Forming (or leaving) Deadman or tell in borrow pits and their removal after measurements.
6. Protection and supporting of existing services met within the course of excavation.
7. Forming steps, in sides, of deep excavation and their removal or covering up.
8. Protection and supporting of existing services met within course of excavation.
9. Unless otherwise specified, removing steps or rails in excavation.
10. All materials and labour required for barricading and protecting against risk of accidents and for providing gang ways with hand rails across open trenches wherever necessary during the progress of work.
11. Leads and lifts will be as specified in respective items.
12. Royalties/rentals payable to Government of private parties

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| --- |
| **EARTHWORK** |

|  |  |  |  |
| --- | --- | --- | --- |
| Item No. | **Description** | **Unit** | **Rate** |
| **4005** | Earthwork in excavation by mechanical means (hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sq.m on plan) including disposal of excavated earth lead upto 50 m and lift upto 1.5m disposed earth to be levelled and neatly dressed including providing barricading, danger lighting guarding as directed in : |  |  |
| a | All kinds of soil | Cu.m. | **286.00** |
| b | All types of Ordinary rock including all types of laterite rock, blasting prohibited | Cu.m. | **639.00** |
| c | Hard rock where blasting prohibited | Cu.m. | **1145.00** |
|  |  |  |  |
| **4006** | Earthwork in excavation by mechanical means (hydraulic excavator) in foundation pipeline trenches drain (not exceeding 1.5m in width or 10 sq. m. on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 50m. |  |  |
| a | All kinds of soil | Cu.m. | **291.00** |
| b | All types of Ordinary rock including all types of laterite rock, blasting prohibited | Cu.m. | **672.00** |
| c | Hard rock where blasting prohibited | Cu.m. | **1169.00** |
|  |  |  |  |
| **4007** | Earthwork in excavation in over areas in saturated soil upto a depth of 0.6m including pumping and bailing out water and disposing of excavated soil lead upto 20 m and lift upto 1.5 m. Disposed soil to be neatly dressed and levelled. | Cu.m. | **752.00** |
|  |  |  |  |
| **4008** | Earthwork in excavation in foundation pipeline trenches, drain in saturated soil upto a depth of 0.6m lift upto 1.5 m including shoring strutting, pumping/ bailing out water ,stacking the excavated soil not more than 5m clear from the edge of the excavation and returning the stacked soil in 0.15 m layers when required into plinth sides of foundation, etc. consolidating each deposited layer by ramming and watering and disposing of all surplus excavated soil within a lead upto 20 m. | Cu.m. | **822.00** |
| **4009** | Extra for earthwork in excavation in saturated soil for every 0.3m or part thereof over .60 m depth including pumping or bailing out water. | Cu.m. | **121.00** |
|  | | | |
| **4010** | Extra for additional depth of 1.5 m or part thereof in |  |  |
| a | All types of soil | Cu.m. | **38.00** |
| b | Saturated soil | Cu.m. | **62.00** |
| c | All types of laterite rocks and hard rocks | Cu.m. | **50.00** |
|  |  |  |  |
| **4012** | Refilling the pipeline/foundation trenches plinth sides, foundation etc. with available excavated earth in layers not exceeding 20 cm depth consolidating each layer ramming and watering lead upto 50 M and all lifts and disposal of surplus earth as directed by Engineer in Charge. | Cu.m. | **245.00** |
|  |  |  |  |
| **4035** | Cutting the bituminous road for laying the pipeline in trenches for a width of 0.6m including labour, tools, etc. and disposing the excavated excess material from the trench to a distance of 1000 metres, including making level the trench surface by utilising the serviceable material to the level of the top surface of road, by compacting, watering ramming with rolling with road roller after completion of laying of pipe and refilling the trenches etc. complete as per the direction of engineer in charge. |  |  |
| a | By Manual Means : |  |  |
| 1 | Rural Roads | Sq.m | **410.00** |
| 2 | District Road, State highways, National highway and roads of similar standards | Sq.m | **506.00** |
| b | By Mechanical Means: |  |  |
| 1 | Rural Roads | Sq.m | **397.00** |
| 2 | District Road, State highway, National highway | Sq.m | **490.00** |
|  |  |  |  |
| **4036** | Repairs and reinstatement to the road for trenches made by laying water supply pipeline, by removing the refilled material in the trench for the total depth of 0.40m and making good the road surface by providing laying rolling by road roller compacting for laterite soling 30cm thick, two layer of full grout of 50mm thick each as per specifications mentioned in item no 14086 of road GSR, complete as per the direction of the engineer in charge. |  |  |
| a | Rural road. | Sq.m | **1823.00** |
| **4037** | Repairs and reinstatement to the road for trenches made by laying water supply pipeline, by removing the refilled material in the trench for the total depth of 0.42m and making good the road surface by providing laying rollling by road roller compacting for laterite soling 30cm thick, two layer of full grout of 50mm thick each, tack coat and open graded premix carpet of 20mm thickness as per specifications mentioned in item nos 14086, 14093, 14051 & 14068 of road GSR respectively, complete as per the direction of the engineer incharge. |  |  |
| a | District Road, State highway, National highway and roads of similar standards | Sq.m | **2050.00** |

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| **CHAPTER V** |
| **SUPPLY OF MATERIALS** |

**NOTES:-**

1. The rate shown against items is inclusive of freight, loading, unloading, handling and packing charges, freight, overheads and cost profits.
2. Test certificate for all materials wherever applicable shall be submitted.
3. The diameter mentioned in the schedule refers to theInternal diameter for G.I /A.C/ C.I/D.I. Pipes,Outside diameter for PVC, HDPE pipes.
4. All supplies under this section include the freight loading and unloading of materials either to the departmental store or to the site of works as per the direction of the department.
   1. **SLUICE VALVES: -**
5. Rate is exclusive of one pair of tail piece which shall be provided as specials and paid accordingly.
6. Add extra 10% for spur gear arrangement for diameter more than 250 mm.
7. Add extra 5% for bypass arrangement and 5% for indicator arrangement.
8. For 600, 700 and 750 mm diameter valves, extra 10% for brass lined carpet C.I. channel and LGM shoe to be added.
9. Add 5% for thrust bearing arrangements for 600-75 mm when provided.
10. Wherever BST is mentioned, it shall be deemed to refer to corresponding IS specifications.
11. All flanges of valves shall be machined and drilled as per IS 1538-1976.
12. Rate for R.C.C. pressure and non-pressure pipes are as per rate contract with GHSSIDC.
13. Sluice valve size should be equivalent to pipe diameter up to 300 mm of pipe. Beyond 300 mm diameter sluice valve size shall be 2/3 of pipe diameter.
14. Standard fittings having two and more flanges shall be considered under flanged fittings and less than two under socket/spigot fittings.
15. **SCOUR VALVES:-**
16. Scour valve Tee shall be used for connecting scour valve to the main line.
17. Pipe line from the Scour valve to the nearest drain shall be laid to drain the water during scouring of the pipeline.
18. Scour valve size in millimetres should be (d/2 + 25) where‘d’ is Nominal diameter of pipe in millimetre.
19. **AIR VALVES:-**

Table – 2

|  |  |  |  |
| --- | --- | --- | --- |
| **SUPPLY OF PIPES, SPECIALS, VALVES AND ACCESSORIES** | | | |
| **AC PIPES** | | | |
| tem No. | **Description** | **Unit** | **Rate** | |
| **15001** | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking, transit insurance etc., A. C. pressure pipes conforming to IS: 1592 - 1980 with up to date amendments in standard lengths Class10. |  |  | |
|  | Nominal Dia in mm |  |  | |
| a | 80 | Metre | **637.00** | |
| b | 100 | Metre | **840.00** | |
| c | 150 | Metre | **1573.00** | |
| d | 200 | Metre | **2683.00** | |
| e | 250 | Metre | **3397.00** | |
| f | 300 | Metre | **4778.00** | |
| g | 350 | Metre | **5999.00** | |
| h | 400 | Metre | **7794.00** | |
| I | 450 | Metre | **9184.00** | |
| j | 500 | Metre | **11408.00** | |
| k | 600 | Metre | **16118.00** | |
|  |  |  |  | |
| **15003** | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking, transit insurance etc., A. C. pressure pipes conforming to IS: 1592 - 1980 with up to date amendments in standard lengths Class 15. |  |  | |
|  | Nominal Dia in mm |  |  | |
| a | 80 | Metre | **666.00** | |
| b | 100 | Metre | **925.00** | |
| c | 150 | Metre | **1641.00** | |
| d | 200 | Metre | **2230.00** | |
| e | 250 | Metre | **3513.00** | |
| f | 300 | Metre | **4906.00** | |
| g | 350 | Metre | **6206.00** | |
| h | 400 | Metre | **8232.00** | |
| I | 450 | Metre | **10048.00** | |
| j | 500 | Metre | **12702.00** | |
| k | 600 | Metre | **14960.00** | |
|  |  |  |  | |
| **15005** | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking, transit insurance etc. A. C. pressure pipes conforming to IS: 1592 - 1980 with up to date amendments in standard lengths Class 20. |  |  | |
|  | Nominal Dia in mm |  |  | |
| a | 80 | Metre | **705.00** | |
| b | 100 | Metre | **1062.00** | |
| c | 150 | Metre | **1958.00** | |
| d | 200 | Metre | **3417.00** | |
| e | 250 | Metre | **4392.00** | |
| f | 300 | Metre | **6158.00** | |
| g | 350 | Metre | **7789.00** | |
| h | 400 | Metre | **10158.00** | |
| i | 450 | Metre | **12152.00** | |
|  |  |  |  | |
| **15007** | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking, transit insurance etc., cast iron detachable joints conforming to IS: 8794-1978 suitable for AC pressure pipes including cost of rubber rings, nuts, bolts etc. Class 10. |  |  | |
|  | Nominal Dia in mm |  |  | |
| a | 80 | Set | **449.00** | |
| b | 100 | Set | **566.00** | |
| c | 125 | Set | **713.00** | |
| d | 150 | Set | **923.00** | |
| e | 200 | Set | **1358.00** | |
| f | 250 | Set | **1755.00** | |
| g | 300 | Set | **2187.00** | |
| h | 350 | Set | **3555.00** | |
| i | 400 | Set | **4251.00** | |
|  |  |  |  | |
| **15008** | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking, transit insurance etc., cast iron detachable joints conforming to IS: 8794-1978 suitable for PVC pipes including cost of rubber rings, nuts, bolts etc.Class 6. |  |  | |
|  | Dia in mm |  |  | |
| a | 63 | Set | **238.11** | |
| b | 75 | Set | **267.15** | |
| c | 90 | Set | **299.67** | |
| d | 110 | Set | **378.65** | |
| e | 140 | Set | **516.87** | |
| f | 160 | Set | **614.43** | |
| g | 180 | Set | **691.09** | |
| h | 200 | Set | **860.67** | |
| i | 250 | Set | **1314.82** | |
| j | 280 | Set | **1440.26** | |
| k | 315 | Set | **1744.57** | |
| l | 355 | Set | **1958.29** | |
|  |  |  |  | |
| 15009 | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking, transit insurance etc., cast iron detachable joints conforming to IS: 8794-1978 suitable for AC pressure pipes including cost of rubber rings, nuts, bolts etc. Class 15. |  |  | |
|  | Nominal Dia in mm |  |  | |
| a | 80 | Set | **449.00** | |
| b | 100 | Set | **566.00** | |
| c | 125 | Set | **713.00** | |
| d | 150 | Set | **923.00** | |
| f | 200 | Set | **1358.00** | |
| g | 250 | Set | **1804.00** | |
| h | 300 | Set | **2233.00** | |
| i | 350 | Set | **3787.00** | |
| j | 400 | Set | **4468.00** | |
|  |  |  |  | |
| **15010** | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking, transit insurance etc., cast iron detachable joints conforming to IS: 8794-1978 suitable for AC pressure pipes including cost of rubber rings, nuts, bolts etc. Class 20. |  |  | |
|  | Nominal Dia in mm |  |  | |
| a | 80 | Set | **461.00** | |
| b | 100 | Set | **578.00** | |
| c | 125 | Set | **790.00** | |
| d | 150 | Set | **939.00** | |
| f | 200 | Set | **1448.00** | |
| g | 250 | Set | **1968.00** | |
| h | 300 | Set | **2501.00** | |
| i | 350 | Set | **4130.00** | |
| j | 400 | Set | **4941.00** | |
|  |  |  |  | |
| **15011** | Supplying hydrotite coupling conforming to BIS specifications suitable for AC pressure pipes with rubber rings supply at the site of work including testing etc. complete. Class 10/15. |  |  | |
|  | Nominal Dia in mm |  |  | |
| a | 80 | Each | **566.00** | |
| b | 100 | Each | **706.00** | |
| d | 150 | Each | **1320.00** | |
| e | 200 | Each | **2212.00** | |
| f | 250 | Each | **2607.00** | |
| g | 300 | Each | **3265.00** | |
| h | 350 | Each | **5114.00** | |
| I | 400 | Each | **6064.00** | |
| j | 450 | Each | **6902.00** | |
| k | 500 | Each | **11378.00** | |
| l | 600 | Each | **15680.00** | |
|  |  |  |  | |
| **15012** | Supplying hydrotite coupling conforming to BIS specification suitable for AC pressure pipes with rubber rings supply at the site of work including testing etc. complete. Class 20. |  |  | |
|  | Nominal Dia in mm |  |  | |
| a | 80 | Each | **578.00** | |
| b | 100 | Each | **717.00** | |
| c | 150 | Each | **1147.00** | |
| d | 200 | Each | **1359.00** | |
| e | 250 | Each | **2192.00** | |
| f | 300 | Each | **2862.00** | |
| g | 350 | Each | **3968.00** | |
| h | 400 | Each | **5496.00** | |
| I | 450 | Each | **6447.00** | |
| j | 500 | Each | **8550.00** | |
| k | 600 | Each | **11634.00** | |
|  |  |  |  | |
| **PVC PIPES** | | | | |
| 15013 | Supplying at store or site of work including loading, unloading and stacking at site PVC (RING FIT) pipes conformingto IS: 4985-2000 with elastomeric sealing ring (one per pipe) and with rubber ring socket conforming to ISO 4411 (latest edition) Class 4kg/sq.cm. |  |  | |
|  | Outer Dia in mm |  |  | |
| a | 63 | Metre | **85.00** | |
| b | 90 | Metre | **172.00** | |
| c | 110 | Metre | **249.00** | |
| d | 140 | Metre | **412.00** | |
| e | 160 | Metre | **545.00** | |
| f | 180 | Metre | **699.00** | |
| g | 200 | Metre | **861.00** | |
| h | 225 | Metre | **1098.00** | |
| i | 250 | Metre | **1341.00** | |
| j | 280 | Metre | **1774.00** | |
| k | 315 | Metre | **2248.00** | |
| l | 400 | Metre | **3082.00** | |
|  |  |  |  | |
| 15015 | Supplying at store or site of work including loading, unloading and stacking at site PVC (RING FIT) pipes with elastomeric sealing ring (one per pipe) and with rubber ring socket, conforming to to IS:4985-2000,and bearing ISI mark Class 6kg/sq.cm. |  |  | |
|  | Outer Dia in mm |  |  | |
| a | 63 | Metre | **124.00** | |
| b | 75 | Metre | **174.00** | |
| c | 90 | Metre | **250.00** | |
| d | 110 | Metre | **364.00** | |
| e | 125 | Metre | **491.00** | |
| f | 140 | Metre | **603.00** | |
| g | 160 | Metre | **777.00** | |
| h | 180 | Metre | **976.00** | |
| i | 200 | Metre | **1243.00** | |
| j | 225 | Metre | **1567.00** | |
| k | 250 | Metre | **1951.00** | |
| l | 280 | Metre | **2569.00** | |
| m | 315 | Metre | **3260.00** | |
| n | 355 | Metre | **4518.00** | |
| o | 400 | Metre | **5641.00** | |
|  |  |  |  | |
| 15017 | Supplying at store or site of work including loading, unloading and stacking at site PVC (RING FIT) pipes with elastomeric sealing ring (one per pipe) and with rubber ring socket, conforming to to IS:4985-2000,and bearing ISI mark Class 10 kg/sq.cm. |  |  | |
|  | Outer Dia in mm |  |  | |
| a | 90 | Metre | **414.00** | |
| b | 110 | Metre | **619.00** | |
| c | 140 | Metre | **998.00** | |
| d | 160 | Metre | **1305.00** | |
| e | 200 | Metre | **2089.00** | |
| f | 225 | Metre | **2659.00** | |
| g | 250 | Metre | **3357.00** | |
| h | 280 | Metre | **4207.00** | |
| i | 315 | Metre | **5324.00** | |
|  |  |  |  | |
| 15019 | Supplying at store or site of work Rigid PVC (SEL FIT) pipes for public water supply including Railway freight, carting, loading and unloading, stacking, transit insurance etc. complete. Conforming to IS: 4985-2000, and bearing ISI mark Class 4 kg/cm2. |  |  | |
|  | Outer Dia in mm |  |  | |
| a | 63 | Metre | **77.00** | |
| b | 75 | Metre | **108.00** | |
| c | 90 | Metre | **151.00** | |
| d | 110 | Metre | **218.00** | |
| e | 140 | Metre | **361.00** | |
| f | 160 | Metre | **478.00** | |
| g | 180 | Metre | **613.00** | |
| h | 200 | Metre | **754.00** | |
| i | 225 | Metre | **962.00** | |
| j | 250 | Metre | **1175.00** | |
| k | 280 | Metre | **1555.00** | |
| l | 315 | Metre | **1970.00** | |
| m | 355 | Metre | **2737.00** | |
| n | 400 | Metre | **3493.00** | |
|  |  |  |  | |
| 15021 | Supplying at store or site of work Rigid PVC (SEL FIT) pipes for public water supply including Railway freight, carting, loading and unloading, stacking, transit insurance etc. complete, Conforming to IS: 4985-2000, and bearing ISI mark, Class 6 kg/cm2. |  |  | |
|  | Outer Dia in mm |  |  | |
| a | 63 | Metre | **112.00** | |
| b | 75 | Metre | **155.00** | |
| c | 90 | Metre | **222.00** | |
| d | 110 | Metre | **324.00** | |
| e | 125 | Metre | **436.00** | |
| f | 140 | Metre | **536.00** | |
| g | 160 | Metre | **690.00** | |
| h | 180 | Metre | **867.00** | |
| i | 200 | Metre | **1104.00** | |
| j | 225 | Metre | **1392.00** | |
| k | 250 | Metre | **1733.00** | |
| l | 280 | Metre | **2282.00** | |
| m | 315 | Metre | **2896.00** | |
| n | 355 | Metre | **4014.00** | |
| o | 400 | Metre | **5128.00** | |
|  |  |  |  | |
| 15023 | Supplying at store or site of work Rigid PVC (SEL FIT) pipes for public water supply including Railway freight, carting, loading and unloading, stacking, transit insurance etc. complete, conforming to IS: 4985-2000, and bearing ISI mark, Class 10 kg/cm2. |  |  | |
|  | Outer Dia in mm |  |  | |
| a | 63 | Metre | **184.00** | |
| b | 75 | Metre | **264.00** | |
| c | 90 | Metre | **377.00** | |
| d | 110 | Metre | **563.00** | |
| e | 140 | Metre | **738.00** | |
| f | 160 | Metre | **908.00** | |
| h | 200 | Metre | **1187.00** | |
| i | 250 | Metre | **1538.00** | |
| j | 280 | Metre | **1899.00** | |
| k | 315 | Metre | **2417.00** | |
| l | 400 | Metre | **3052.00** | |
|  |  |  |  | |
|  | **O-PVC PIPES** |  |  | |
| 15024 (a) | Supplying at store or site of work including freight, loading, unloading and stacking at site Oriented PVC (PVC-O) ring fit type pipes having orientation class 500, conforming to ISO 16422-2014, and IS 16647-2017, with integral homogeneous spigot having elastomeric sealing ring made of EPDM rubber (one per pipe). PN 16 |  |  | |
|  | Size in mm -OD |  |  | |
| a | 110 | Metre | **1184.00** | |
| b | 160 | Metre | **1647.00** | |
| c | 200 | Metre | **2216.00** | |
| d | 250 | Metre | **3058.00** | |
| e | 315 | Metre | **4112.00** | |
| f | 400 | Metre | **5870.00** | |
|  |  |  |  | |
| 15024 (C) | Supplying at store or site of work including freight, loading, unloading and stacking at site Oriented PVC (PVC-O) ring fit type pipes having orientation class 500, conforming to ISO 16422-2014, and IS 16647-2017, with integral homogeneous spigot having elastomeric sealing ring made of EPDM rubber (one per pipe). PN 25 |  |  | |
|  | Size in mm -OD |  |  | |
| a | 110 | Metre | **1362.00** | |
| b | 160 | Metre | **1979.00** | |
| c | 200 | Metre | **2692.00** | |
| d | 250 | Metre | **3767.00** | |
| e | 315 | Metre | **5875.00** | |
| f | 400 | Metre | **8910.00** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **RIGID PVC FITTINGS** | | | |
| 15025 | Supply of rigid PVC fittings conforming to IS: 7834-1975 designed for precision and accuracy so as to join PVC pipes and other specials including railway freight, carting, loading and unloading and stacking etc. complete**.** |  |  |
| **I** | **Elbow** |  |  |
|  | Outer Dia in mm |  |  |
|  | PN 10 (10kg/cm2) |  |  |
| a | 20 | Each | **7.00** |
| b | 25 | Each | **10.00** |
| c | 32 | Each | **14.00** |
| a | 63 | Each | **75.00** |
| b | 75 | Each | **120.00** |
| c | 90 | Each | **204.00** |
| d | 110 | Each | **361.00** |
|  |  |  |  |
|  | PN 6 (6 kg/cm2) |  |  |
| d | 40 | Each | **23.00** |
| e | 50 | Each | **41.00** |
| f | 63 | Each | **55.00** |
| g | 75 | Each | **73.00** |
| h | 90 | Each | **132.00** |
| I | 110 | Each | **190.00** |
| j | 140 | Each | **369.00** |
| k | 160 | Each | **556.00** |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **II** | **END CAP ( Plain )** |  |  |
|  | Dia in mm |  |  |
|  | PN 10 (10kg/cm2) |  |  |
| a | 20 | Each | **3.00** |
| b | 25 | Each | **5.00** |
| c | 32 | Each | **7.00** |
|  | PN 6 (6 kg/cm2) |  |  |
| d | 40 | Each | **14.00** |
| e | 50 | Each | **19.00** |
| f | 63 | Each | **35.00** |
| g | 75 | Each | **47.00** |
| h | 90 | Each | **70.00** |
| I | 110 | Each | **112.00** |
| j | 140 | Each | **160.00** |
| k | 160 | Each | **193.00** |
| l | 180 | Each | **305.00** |
| m | 200 | Each | **408.00** |
|  |  |  |  |
| **III** | **Threaded End Cap** |  |  |
|  | Outer Dia in mm |  |  |
| a | 40 | Each | **14.00** |
| b | 50 | Each | **19.00** |
| c | 63 | Each | **35.00** |
| d | 75 | Each | **37.00** |
| e | 90 | Each | **46.00** |
| f | 110 | Each | **69.00** |
|  |  |  |  |
| **IV** | **Tee** |  |  |
|  | Dia in mm |  |  |
|  | PN 10 (10kg/cm2) |  |  |
| a | 20 | Each | **10.00** |
| b | 25 | Each | **13.00** |
| c | 32 | Each | **18.00** |
| a | 63 | Each | **100.00** |
| b | 75 | Each | **165.00** |
| c | 90 | Each | **275.00** |
| d | 110 | Each | **486.00** |
|  | PN 6 (6 kg/cm2) |  |  |
|  |  |  |  |
| d | 40 | Each | **30.00** |
| e | 50 | Each | **54.00** |
| f | 63 | Each | **64.00** |
| g | 75 | Each | **95.00** |
| h | 90 | Each | **153.00** |
| I | 110 | Each | **257.00** |
| j | 140 | Each | **495.00** |
| k | 160 | Each | **814.00** |
|  |  |  |  |
| **V** | **Tail Piece** |  |  |
|  | Outer Dia in mm |  |  |
| a | 63 | Each | **30.00** |
| b | 75 | Each | **38.00** |
| c | 90 | Each | **60.00** |
| d | 110 | Each | **93.00** |
| e | 140 | Each | **16.13** |
| f | 160 | Each | **23.75** |
| g | 200 | Each | **41.51** |
|  |  |  |  |
| **VI** | **Coupler (moulded)** |  |  |
|  | Outer Dia in mm |  |  |
| a | 20 | Each | **6.00** |
| b | 25 | Each | **7.00** |
| c | 32 | Each | **9.00** |
| d | 40 | Each | **13.00** |
| e | 50 | Each | **19.00** |
| f | 63 | Each | **77.00** |
| g | 75 | Each | **38.00** |
| h | 90 | Each | **65.00** |
| i | 110 | Each | **105.00** |
| j | 160 | Each | **276.00** |
| k | 200 | Each | **397.00** |
|  |  |  |  |
| **VI A** | **Coupler (Plain)** |  |  |
|  | Dia in mm |  |  |
|  | PN 10 (10kg/cm2) |  |  |
| a | 20 | Each | **6.00** |
| b | 25 | Each | **7.00** |
| c | 32 | Each | **9.00** |
|  |  |  |  |
|  | PN 6 (6 kg/cm2) |  |  |
| d | 40 | Each | **13.00** |
| e | 50 | Each | **19.00** |
| f | 63 | Each | **24.00** |
| g | 75 | Each | **41.00** |
| h | 90 | Each | **76.00** |
| i | 110 | Each | **128.00** |
| J | 160 | Each | **350.00** |
|  |  |  |  |
| **VII** | **Female Threaded Adaptor** |  |  |
|  | Outer Dia in mm |  |  |
| a | 20 | Each | **6.00** |
| b | 25 | Each | **8.00** |
| c | 32 | Each | **9.00** |
| d | 40 | Each | **18.00** |
| e | 50 | Each | **23.00** |
| f | 63 | Each | **91.00** |
| g | 75 | Each | **151.00** |
| h | 90 | Each | **213.00** |
| I | 110 | Each | **449.00** |
|  |  |  |  |
| **VIII** | **Male Threaded Adaptor** |  |  |
|  | Outer Dia in mm |  |  |
| a | 20 | Each | **5.00** |
| b | 25 | Each | **6.00** |
| c | 32 | Each | **9.00** |
| d | 40 | Each | **13.00** |
| e | 50 | Each | **22.00** |
| f | 63 | Each | **78.00** |
| g | 75 | Each | **135.00** |
| h | 90 | Each | **227.00** |
| I | 110 | Each | **398.00** |
|  |  |  |  |
| **IX** | **Service Saddle** |  |  |
|  | Dia in mm |  |  |
| a | 63x20 | Each | **125.00** |
| b | 63x25 | Each | **125.00** |
| c | 63x32 | Each | **125.00** |
| d | 75x20 | Each | **142.00** |
| e | 75x25 | Each | **142.00** |
| f | 75x32 | Each | **142.00** |
| g | 90x20 | Each | **161.00** |
| h | 90x25 | Each | **161.00** |
| i | 90x32 | Each | **161.00** |
| j | 110x20 | Each | **184.00** |
| k | 110x25 | Each | **184.00** |
| l | 110x32 | Each | **184.00** |
| m | 160x20 | Each | **273.00** |
| n | 160x25 | Each | **277.00** |
| o | 160x32 | Each | **277.00** |
|  |  |  |  |
| **X** | **Reducer (Multi Stage)** |  |  |
|  | Outer Dia in mm |  |  |
| a | 25x20 | Each | **6.00** |
| b | 32x20 | Each | **10.00** |
| c | 40x32 | Each | **15.00** |
| d | 50x40 | Each | **28.00** |
| e | 63x40 | Each | **26.00** |
| f | 63x50 | Each | **35.00** |
| g | 75x63 | Each | **44.00** |
| h | 90x63 | Each | **58.00** |
| i | 90x75 | Each | **59.00** |
| j | 110x75 | Each | **93.00** |
| k | 110x90 | Each | **98.00** |
| l | 160x110 | Each | **234.00** |
| m | 160x140 | Each | **276.00** |
|  |  |  |  |
| **XI** | **Long Bend 90 degree 6kg/cm2** |  |  |
|  | Outer Dia in mm |  |  |
| a | 63 | Each | **153.00** |
| b | 75 | Each | **250.00** |
| c | 90 | Each | **414.00** |
| d | 110 | Each | **764.00** |
| e | 160 | Each | **2181.00** |
| f | 200 | Each | **4543.00** |
|  |  |  |  |
| 15026 | **Supply of PVC cement solvent suitable for jointing of PVC pipes** | Litre | **372.00** |
|  |  |  |  |
| **UNPLASTICIZED PVC PIPES** | | | |
| 15027 | Supplying of ASTM UPVC pipe conforming to ASTM 1785 with ISO 14001 etc. complete. |  |  |
| I | SCH-40 (blue)/(white) |  |  |
|  | Dia in mm |  |  |
| a | 20 | Metre | **113.00** |
| b | 25 | Metre | **165.00** |
| c | 32 | Metre | **222.00** |
| d | 40 | Metre | **264.00** |
| e | 50 | Metre | **355.00** |
| f | 63 | Metre | **545.00** |
| g | 75 | Metre | **671.00** |
| h | 90 | Metre | **734.00** |
| i | 110 | Metre | **1044.00** |
|  |  |  |  |
| II | SCH-80(Blue)/(white) |  |  |
|  | Outer Dia in mm |  |  |
| a | 20 | Metre | **143.00** |
| b | 25 | Metre | **210.00** |
| c | 32 | Metre | **289.00** |
| d | 40 | Metre | **349.00** |
| e | 50 | Metre | **485.00** |
| f | 63 | Metre | **739.00** |
| g | 75 | Metre | **908.00** |
| h | 90 | Metre | **1170.00** |
| i | 110 | Metre | **1446.00** |

|  |  |  |  |
| --- | --- | --- | --- |
| **UNPLASTICIZED PVC FITTINGS** | | | |
| 15028 | Supplying at store or site of work of ASTM UPVC white fittings conforming to ASTM 2467 with ISO 14001 etc. Complete . |  |  |
| I | Coupler |  |  |
|  | Outer Dia in mm |  |  |
| a | 20 | Each | **16.00** |
| b | 25 | Each | **26.00** |
| c | 32 | Each | **37.00** |
| d | 40 | Each | **49.00** |
| e | 50 | Each | **71.00** |
| f | 63 | Each | **149.00** |
| g | 75 | Each | **171.00** |
| h | 90 | Each | **257.00** |
| i | 110 | Each | **345.00** |
|  |  |  |  |
| II | Elbow 90 Degree |  |  |
|  | Outer Dia in mm |  |  |
| a | 20 | Each | **23.00** |
| b | 25 | Each | **39.00** |
| c | 32 | Each | **59.00** |
| d | 40 | Each | **78.00** |
| e | 50 | Each | **117.00** |
| f | 63 | Each | **183.00** |
| g | 75 | Each | **243.00** |
| h | 90 | Each | **363.00** |
| i | 110 | Each | **455.00** |
|  |  |  |  |
| III | Elbow 45 Degree |  |  |
|  | Outer Dia in mm |  |  |
| a | 20 | Each | **21.00** |
| b | 25 | Each | **32.00** |
| c | 32 | Each | **49.00** |
| d | 40 | Each | **64.00** |
| e | 50 | Each | **102.00** |
| f | 63 | Each | **208.00** |
| g | 75 | Each | **269.00** |
| h | 90 | Each | **407.00** |
| i | 110 | Each | **513.00** |
|  |  |  |  |
| IV | Tee |  |  |
|  | Outer Dia in mm |  |  |
| a | 20 | Each | **30.00** |
| b | 25 | Each | **53.00** |
| c | 32 | Each | **77.00** |
| d | 40 | Each | **103.00** |
| e | 50 | Each | **166.00** |
| f | 63 | Each | **329.00** |
| g | 75 | Each | **430.00** |
| h | 90 | Each | **665.00** |
| i | 110 | Each | **849.00** |
|  |  |  |  |
| **V** | **Cross Tee** |  |  |
|  | Outer Dia in mm |  |  |
| a | 20 | Each | **37.00** |
| b | 25 | Each | **59.00** |
| c | 32 | Each | **90.00** |
|  |  |  |  |
| VI | End cap |  |  |
|  | Outer Dia in mm |  |  |
| a | 20 | Each | **12.00** |
| b | 25 | Each | **17.00** |
| c | 32 | Each | **28.00** |
| d | 40 | Each | **37.00** |
| e | 50 | Each | **56.00** |
| f | 63 | Each | **95.00** |
| VII | Male Threaded Adapter |  |  |
|  | Outer Dia in mm |  |  |
| a | 20 | Each | **12.00** |
| b | 25 | Each | **20.00** |
| c | 32 | Each | **30.00** |
| d | 40 | Each | **39.00** |
| e | 50 | Each | **58.00** |
| f | 63 | Each | **125.00** |
|  |  |  |  |
| VIII | Female Threaded Adapter |  |  |
|  | Outer Dia in mm |  |  |
| a | 20 | Each | **16.00** |
| b | 25 | Each | **25.00** |
| c | 32 | Each | **37.00** |
| d | 40 | Each | **46.00** |
| e | 50 | Each | **70.00** |
| f | 63 | Each | **128.00** |
| g | 75 | Each | **133.00** |
| h | 90 | Each | **214.00** |
| i | 110 | Each | **283.00** |
|  |  |  |  |
| **IX** | **Reducer Bush** |  |  |
|  | Sizes in inches |  |  |
| a | 25x20 | Each | **9.00** |
| b | 32x20 | Each | **24.00** |
| c | 32x25 | Each | **15.00** |
| d | 40x20 | Each | **33.00** |
| e | 40x25 | Each | **28.00** |
| f | 40x32 | Each | **15.00** |
| g | 50x20 | Each | **102.00** |
| h | 50x25 | Each | **57.00** |
| i | 50x32 | Each | **53.00** |
| j | 50x40 | Each | **42.00** |
| k | 63x20 | Each | **72.00** |
|  |  |  |  |
| X | Reducer |  |  |
|  | Sizes in inches |  |  |
| a | 25x20 | Each | **23.00** |
| b | 32x20 | Each | **42.00** |
| c | 32x25 | Each | **36.00** |
| d | 40x20 | Each | **48.00** |
| e | 40x25 | Each | **55.00** |
| f | 40x32 | Each | **48.00** |
| g | 50x20 | Each | **68.00** |
| h | 50x25 | Each | **80.00** |
| i | 50x32 | Each | **82.00** |
| j | 50x40 | Each | **83.00** |
| k | 65x20 | Each | **106.00** |
| l | 65x25 | Each | **105.00** |
| m | 65x32 | Each | **126.00** |
| n | 65x40 | Each | **130.00** |
| o | 65x50 | Each | **133.00** |
|  |  |  |  |
| 15029 | Supplying at store or site of work of "O" Rubber Rings suitable for C.I.D. joints conforming to IS: 5382/1985,SBR type etc. complete. |  |  |
|  | Sizes in mm |  |  |
| a | 80 | Each | **71.00** |
| b | 100 | Each | **84.00** |
| c | 150 | Each | **116.00** |
| d | 200 | Each | **147.00** |
| e | 250 | Each | **178.00** |
| f | 300 | Each | **211.00** |
| g | 350 | Each | **323.00** |
| h | 400 | Each | **366.00** |
| i | 450 | Each | **517.00** |
| j | 500 | Each | **709.00** |
| k | 600 | Each | **846.00** |
|  |  |  |  |
| 15029(A) | Supplying at store or site of work of "O" Rubber Rings suitable for C. I. D. joints. |  |  |
|  | **EPDM confirming to IS:5382/1985** |  |  |
|  | Sizes in mm |  |  |
| a | 80 | Each | **69.00** |
| b | 100 | Each | **84.00** |
| c | 150 | Each | **112.00** |
| d | 200 | Each | **142.00** |
| e | 250 | Each | **170.00** |
| f | 300 | Each | **200.00** |
| g | 350 | Each | **311.00** |
| h | 400 | Each | **350.00** |
| i | 450 | Each | **496.00** |
| j | 500 | Each | **681.00** |
| k | 600 | Each | **813.00** |
|  |  |  |  |
| 15030 | Supplying at store or site of work of "Square" Rubber Rings suitable for C.I.D. joints conforming to IS: 5382/1985 etc. complete. |  |  |
|  | Sizes in mm |  |  |
| a | 80 | Each | **68.00** |
| b | 100 | Each | **87.00** |
| c | 150 | Each | **168.00** |
| d | 200 | Each | **195.00** |
| e | 250 | Each | **290.00** |
|  |  |  |  |
| 15031 | Supplying at store or site of work of heavy duty adhesive cement for joining of UPVC white fittings. | Litre | **719.00** |
|  |  |  |  |
| **HDPE PIPES** | | | |
| 15032 | Supplying, of HDPE pipes at store or site of work including loading, unloading, stacking, transit insurance etc. complete bearing ISI mark &conforming to IS: 4984-1995 & made from PE 100 resin Class IV (6 kg/cm2). |  |  |
|  | Outer dia. in mm |  |  |
| a | 50 | Metre | **67.00** |
| b | 63 | Metre | **126.00** |
| c | 75 | Metre | **181.00** |
| d | 90 | Metre | **257.00** |
| e | 110 | Metre | **390.00** |
| f | 125 | Metre | **485.00** |
| g | 140 | Metre | **607.00** |
| h | 160 | Metre | **796.00** |
| I | 180 | Metre | **1001.00** |
| j | 200 | Metre | **1240.00** |
| k | 225 | Metre | **1567.00** |
| l | 250 | Metre | **1932.00** |
| m | 280 | Metre | **2412.00** |
| n | 315 | Metre | **3042.00** |
| o | 355 | Metre | **3862.00** |
| p | 400 | Metre | **4913.00** |
| q | 450 | Metre | **6208.00** |
| r | 500 | Metre | **7660.00** |
| s | 560 | Metre | **9586.00** |
| t | 630 | Metre | **12437.00** |
| u | 710 | Metre | **15836.00** |
| v | 800 | Metre | **20049.00** |
| 15034 | Supplying, of HDPE pipes at store or site of work including loading, unloading, stacking, transit insurance etc. complete bearing ISI mark &conforming to IS: 4984-1995 & made from PE 100 resin Class IV (10 kg/cm2). |  |  |
|  | Outer dia. in mm |  |  |
| a | 50 | Metre | **106.00** |
| b | 63 | Metre | **192.00** |
| c | 75 | Metre | **272.00** |
| d | 90 | Metre | **389.00** |
| e | 110 | Metre | **573.00** |
| f | 125 | Metre | **720.00** |
| g | 140 | Metre | **902.00** |
| h | 160 | Metre | **1182.00** |
| I | 180 | Metre | **1496.00** |
| j | 200 | Metre | **1840.00** |
| k | 225 | Metre | **2337.00** |
| l | 250 | Metre | **2872.00** |
| m | 280 | Metre | **3607.00** |
| n | 315 | Metre | **4563.00** |
| o | 355 | Metre | **5786.00** |
| p | 400 | Metre | **7372.00** |
| q | 450 | Metre | **9267.00** |
| r | 500 | Metre | **11450.00** |
| s | 560 | Metre | **14350.00** |
| t | 630 | Metre | **18666.00** |
| u | 710 | Metre | **23671.00** |
| v | 800 | Metre | **30096.00** |
|  |  |  |  |
| 15036 | Supplying, of HDPE pipes at store or site of work including loading & unloading stacking, transit insurance etc. Complete conforming to IS: 4984 - 1995 and made from PE 100 resin Class IV (16kg/cm2). |  |  |
|  | Outer dia. in mm |  |  |
| a | 63 | Metre | **272.00** |
| b | 75 | Metre | **387.00** |
| c | 90 | Metre | **554.00** |
| d | 110 | Metre | **831.00** |
| e | 125 | Metre | **1041.00** |
| f | 140 | Metre | **1308.00** |
| g | 160 | Metre | **1705.00** |
| h | 180 | Metre | **2154.00** |
| I | 200 | Metre | **2664.00** |
| j | 225 | Metre | **3363.00** |
| k | 250 | Metre | **4156.00** |
| l | 280 | Metre | **5218.00** |
| m | 315 | Metre | **6589.00** |
| n | 355 | Metre | **8383.00** |
| o | 400 | Metre | **10638.00** |
| p | 450 | Metre | **13396.00** |
| q | 500 | Metre | **16553.00** |
| r | 560 | Metre | **20761.00** |
|  |  |  |  |
| **15036(A)** | Supplying, of fabricated /moulded HDPE pipe fittings/specials as per required Pressure class of HDPE Pipes, conforming to IS:8360 (Part I & III) and IS:8008(Part I to IX).The HDPE pipe fittings/specials shall be manufactured from virgin resin PE100 . |  |  |
|  | **HDPE Pipe fittings/specials (fabricated/moulded)** |  |  |
| I | Fabricated Equal Tee of HDPE PE 100 for Butt jointing. |  |  |
|  | Outer diameter in mm |  |  |
| a | 140 | Each | **1603.00** |
| b | 160 | Each | **2321.00** |
| c | 180 | Each | **3557.00** |
| d | 200 | Each | **4452.00** |
| e | 225 | Each | **5192.00** |
| f | 250 | Each | **7019.00** |
| g | 280 | Each | **10802.00** |
| h | 315 | Each | **13624.00** |
|  |  |  |  |
| II | Fabricated 90 deg.bend of HDPE PE 100 for Butt jointing. |  |  |
|  | Outer diameter in mm |  |  |
| a | 140 | Each | **1365.00** |
| b | 160 | Each | **1618.00** |
| c | 180 | Each | **2817.00** |
| d | 200 | Each | **3587.00** |
| e | 225 | Each | **3961.00** |
| f | 250 | Each | **5926.00** |
| g | 280 | Each | **8870.00** |
| h | 315 | Each | **11375.00** |
| III | Moulded Stub End ,Long Neck Pipe end (LNPE) OF HDPE PE 100 for Butt joining. |  |  |
|  | Outer diameter in mm |  |  |
| a | 140 | Each | **1603.00** |
| b | 160 | Each | **2294.00** |
| c | 180 | Each | **3093.00** |
| d | 200 | Each | **3635.00** |
| e | 225 | Each | **4361.00** |
| f | 250 | Each | **5010.00** |
| g | 280 | Each | **5608.00** |
| h | 315 | Each | **7288.00** |
|  |  |  |  |
| IV | Moulded End Cap of HDPE PE 100 for Butt jointing. |  |  |
|  | Outer diameter in mm |  |  |
| a | 140 | Each | **542.00** |
| b | 160 | Each | **822.00** |
| c | 180 | Each | **1332.00** |
| d | 200 | Each | **1461.00** |
| e | 225 | Each | **1497.00** |
| f | 250 | Each | **2116.00** |
| g | 280 | Each | **2294.00** |
| h | 315 | Each | **3172.00** |
|  |  |  |  |
| V | Moulded Reducers of HDPE PE 100 for Butt jointing. |  |  |
|  | Outer diameter in mm |  |  |
| a | 140x110 | Each | **1049.00** |
| b | 140x125 | Each | **1162.00** |
| c | 160x110 | Each | **1303.00** |
| d | 160x125 | Each | **1401.00** |
| e | 160x140 | Each | **1455.00** |
| f | 180x160 | Each | **1936.00** |
| g | 200x160 | Each | **2742.00** |
| h | 200x180 | Each | **2904.00** |
| i | 225x180 | Each | **3356.00** |
| j | 225x200 | Each | **3452.00** |
| k | 250x160 | Each | **3704.00** |
| l | 250x200 | Each | **3807.00** |
| m | 250x225 | Each | **3953.00** |
| n | 280x225 | Each | **5808.00** |
| o | 280x250 | Each | **6130.00** |
| p | 315x250 | Each | **8640.00** |
| q | 315x280 | Each | **9014.00** |
|  |  |  |  |
| **CAST IRON PIPES** | | | |
| **15038** | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking etc. centrifugally cast, (spun) iron pressure pipes with plain spigot and socket joints, conforming to IS:1536-1976 with up to date amendments in standard lengths suitable for jointing with lead and rubber gasket known as TYTON joints Class LA . |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Metre | **2044.00** |
| b | 100 | Metre | **2532.00** |
| c | 125 | Metre | **3299.00** |
| d | 150 | Metre | **4112.00** |
| e | 200 | Metre | **6017.00** |
| f | 250 | Metre | **8107.00** |
| g | 300 | Metre | **10454.00** |
| h | 350 | Metre | **13175.00** |
| I | 400 | Metre | **16011.00** |
| j | 450 | Metre | **16636.00** |
| k | 500 | Metre | **19475.00** |
| l | 600 | Metre | **25954.00** |
| m | 700 | Metre | **33491.00** |
| n | 750 | Metre | **37508.00** |
| o | 800 | Metre | **41989.00** |
| p | 900 | Metre | **51144.00** |
| q | 1000 | Metre | **61442.00** |
|  |  |  |  |
| **15039** | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking etc. centrifugally cast, (spun) iron pressure pipes with plain spigot and socket joints, conforming to IS : 1536 with up to date amendments in standard lengths suitable for jointing with lead and rubber gasket known as TYTON joints Class A . |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Metre | **2221.00** |
| b | 100 | Metre | **2788.00** |
| c | 125 | Metre | **3601.00** |
| d | 150 | Metre | **4507.00** |
| e | 200 | Metre | **6017.00** |
| f | 250 | Metre | **8827.00** |
| g | 300 | Metre | **11429.00** |
| h | 350 | Metre | **14286.00** |

|  |  |  |  |
| --- | --- | --- | --- |
| I | 400 | Metre | **17519.00** |
| j | 450 | Metre | **18275.00** |
| k | 500 | Metre | **21215.00** |
| l | 600 | Metre | **28332.00** |
| m | 700 | Metre | **36588.00** |
| n | 750 | Metre | **41008.00** |
| o | 800 | Metre | **45748.00** |
| p | 900 | Metre | **55803.00** |
| q | 1000 | Metre | **67118.00** |
|  |  |  |  |
| **15040** | Supplying at store or site of work including railway freight, carting, loading and unloading stacking etc. centrifugally cast (spun) iron pressure pipes with plain spigot and socket joints, conforming to IS: 1536-1979 with up to date amendments in standard lengths suitable for jointing with lead and rubber gasket known as TYTON joints Class B. |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Metre | **2381.00** |
| b | 100 | Metre | **2973.00** |
| c | 125 | Metre | **3879.00** |
| d | 150 | Metre | **4855.00** |
| e | 200 | Metre | **7062.00** |
| f | 250 | Metre | **9548.00** |
| g | 300 | Metre | **12382.00** |
| h | 350 | Metre | **15500.00** |
| I | 400 | Metre | **18898.00** |
| j | 450 | Metre | **22897.00** |
| k | 500 | Metre | **26660.00** |
| l | 600 | Metre | **35646.00** |
| m | 700 | Metre | **45912.00** |
| n | 750 | Metre | **51674.00** |
| o | 800 | Metre | **57479.00** |
| p | 900 | Metre | **70227.00** |
| q | 1000 | Metre | **84254.00** |
|  |  |  |  |
| **15044** | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking etc. C. I. double flanged pipes-PN10 horizontally cast conforming to IS: 7181-1986 bearing ISI mark as per the length mentioned below . |  |  |
| **I** | **Barrel Length of 0.50 metres** |  |  |
|  | Nominal Dia in mm |  |  |
| a | 100 | Each | **925.00** |
| b | 150 | Each | **1438.00** |
| c | 200 | Each | **1880.00** |
| d | 250 | Each | **2375.00** |
| e | 300 | Each | **2870.00** |
| f | 350 | Each | **3494.00** |
| g | 400 | Each | **4008.00** |
| h | 450 | Each | **4633.00** |
| I | 500 | Each | **5160.00** |
| j | 600 | Each | **6213.00** |
| k | 700 | Each | **7353.00** |
| l | 800 | Each | **8419.00** |
| m | 900 | Each | **9485.00** |
| n | 1000 | Each | **10550.00** |
|  |  |  |  |
| **II** | **Barrel Length of 1.0 metres** |  |  |
|  | Nominal Dia in mm |  |  |
| a | 100 | Each | **1850.00** |
| b | 150 | Each | **2878.00** |
| c | 200 | Each | **3760.00** |
| d | 250 | Each | **4750.00** |
| e | 300 | Each | **5739.00** |
| f | 350 | Each | **6988.00** |
| g | 400 | Each | **8016.00** |
| h | 450 | Each | **9267.00** |
| I | 500 | Each | **10319.00** |
| j | 600 | Each | **12425.00** |
| k | 700 | Each | **14707.00** |
| l | 800 | Each | **16838.00** |
| m | 900 | Each | **18969.00** |
| n | 1000 | Each | **21101.00** |
|  |  |  |  |
| **III** | **Barrel Length of 1.5 metres** |  |  |
| a | 100 | Each | **2775.00** |
| b | 150 | Each | **4316.00** |
| c | 200 | Each | **5640.00** |
| d | 250 | Each | **7125.00** |
| e | 300 | Each | **8609.00** |
| f | 350 | Each | **10482.00** |
| g | 400 | Each | **12023.00** |
| h | 450 | Each | **13899.00** |
| I | 500 | Each | **15479.00** |
| j | 600 | Each | **18638.00** |
| k | 700 | Each | **22060.00** |
| l | 800 | Each | **25257.00** |
| m | 900 | Each | **28454.00** |
| n | 1000 | Each | **31651.00** |
|  |  |  |  |
| **IV** | **Barrel Length of 2.0 metres** |  |  |
| a | 100 | Each | **3562.00** |
| b | 150 | Each | **5329.00** |
| c | 200 | Each | **7231.00** |
| d | 250 | Each | **9135.00** |
| e | 300 | Each | **11037.00** |
| f | 350 | Each | **13458.00** |
| g | 400 | Each | **15437.00** |
| h | 450 | Each | **17863.00** |
| I | 500 | Each | **19892.00** |
| j | 600 | Each | **23953.00** |
| k | 700 | Each | **28363.00** |
| l | 800 | Each | **32473.00** |
| m | 900 | Each | **36583.00** |
| n | 1000 | Each | **40694.00** |
|  |  |  |  |
| **V** | **Barrel Length of 2.75 metres** |  |  |
|  | Dia in mm |  |  |
| a | 100 | Each | **4899.00** |
| b | 150 | Each | **7327.00** |
| c | 200 | Each | **9944.00** |
| d | 250 | Each | **12560.00** |
| e | 300 | Each | **15177.00** |
| f | 350 | Each | **18505.00** |
| g | 400 | Each | **21226.00** |
| h | 450 | Each | **24562.00** |
| I | 500 | Each | **27353.00** |
| j | 600 | Each | **34170.00** |
| k | 700 | Each | **38999.00** |
| l | 800 | Each | **44650.00** |
| m | 900 | Each | **50302.00** |
| n | 1000 | Each | **55954.00** |
|  |  |  |  |
| **VI** | **Barrel Length of 3.0 metres** |  |  |
|  | Dia in mm |  |  |
| a | 100 | Each | **5344.00** |
| b | 150 | Each | **8313.00** |
| c | 200 | Each | **10847.00** |
| d | 250 | Each | **13702.00** |
| e | 300 | Each | **16556.00** |
| f | 350 | Each | **20187.00** |
| g | 400 | Each | **23156.00** |
| h | 450 | Each | **26794.00** |
| I | 500 | Each | **29839.00** |
| j | 600 | Each | **37276.00** |
| k | 700 | Each | **42544.00** |
| l | 800 | Each | **48709.00** |
| m | 900 | Each | **54875.00** |
| n | 1000 | Each | **61040.00** |
|  |  |  |  |
| **VII** | **Barrel Length of 3.5 metres** |  |  |
|  | Dia in mm |  |  |
| a | 100 | Each | **6234.00** |
| b | 150 | Each | **9697.00** |
| c | 200 | Each | **13161.00** |
| d | 250 | Each | **16625.00** |
| e | 300 | Each | **20088.00** |
| f | 350 | Each | **24457.00** |
| g | 400 | Each | **28054.00** |
| h | 450 | Each | **32433.00** |
| I | 500 | Each | **34812.00** |
| j | 600 | Each | **42441.00** |
| k | 700 | Each | **49634.00** |
| l | 800 | Each | **56827.00** |
| m | 900 | Each | **64021.00** |
| n | 1000 | Each | **71214.00** |
|  |  |  |  |
| **VIII** | **Barrel Length of 4.0 metres** |  |  |
|  | Dia in mm |  |  |
| a | 100 | Each | **7125.00** |
| b | 150 | Each | **11083.00** |
| c | 200 | Each | **15041.00** |
| d | 250 | Each | **19000.00** |
| e | 300 | Each | **22958.00** |
| f | 350 | Each | **27951.00** |
| g | 400 | Each | **32062.00** |
| h | 450 | Each | **37065.00** |
| I | 500 | Each | **39785.00** |
| j | 600 | Each | **48504.00** |
| k | 700 | Each | **56724.00** |
| l | 800 | Each | **64946.00** |
| m | 900 | Each | **73167.00** |
| n | 1000 | Each | **81387.00** |
|  |  |  |  |
| **IX** | **Barrel Length of 4.5metres** |  |  |
|  | Dia in mm |  |  |
| a | 100 | Each | **8016.00** |
| b | 150 | Each | **12469.00** |
| c | 200 | Each | **16922.00** |
| d | 250 | Each | **21374.00** |
| e | 300 | Each | **25827.00** |
| f | 350 | Each | **31445.00** |
| g | 400 | Each | **36070.00** |
| h | 450 | Each | **41698.00** |
| I | 500 | Each | **44759.00** |
| j | 600 | Each | **54566.00** |
| k | 700 | Each | **63815.00** |
| l | 800 | Each | **73064.00** |
| m | 900 | Each | **82312.00** |
| n | 1000 | Each | **91561.00** |
|  |  |  |  |
| **X** | **Barrel Length of 5.0metres** |  |  |
|  | Dia in mm |  |  |
| a | 100 | Each | **8906.00** |
| b | 150 | Each | **13854.00** |
| c | 200 | Each | **18801.00** |
| d | 250 | Each | **23749.00** |
| e | 300 | Each | **28697.00** |
| f | 350 | Each | **34939.00** |
| g | 400 | Each | **40078.00** |
| h | 450 | Each | **46332.00** |
| I | 500 | Each | **49732.00** |
| j | 600 | Each | **60630.00** |
| k | 700 | Each | **70906.00** |
| l | 800 | Each | **81182.00** |
| m | 900 | Each | **91458.00** |
| n | 1000 | Each | **101735.00** |
| **CAST IRON FITTINGS** | | | |
| **15046** | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking etc. cast iron standard flanged socket/plain ended fittings for pressure pipes conforming to IS:1538-1976 suitable for conventional lead joints/ rubber gasket joints. HEAVY Class. | Kg | **81.00** |
|  |  |  |  |
| **15047** | Supplying cast iron saddle pieces of the following sizes including bolts, nuts, rubber packing suitable for giving service connection for AC / PVC pipeline of various classes. |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **168.00** |
| b | 80 | Each | **181.00** |
| c | 100 | Each | **224.00** |
| d | 125 | Each | **315.00** |
| e | 150 | Each | **349.00** |
| f | 200 | Each | **777.00** |
| g | 250 | Each | **908.00** |
| h | 300 | Each | **1146.00** |
|  |  |  |  |
| **15048** | Supplying at store or at site of work cast iron specials for mechanical and push on flexible joints as per IS:13382 - 1992 including Sealing rubber gaskets (NR), CI compression glands and coated MS Nuts bolts. |  |  |
| **I** | Double socket 90 degree Bends. |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Each | **4553.00** |
| b | 100 | Each | **5701.00** |
| c | 125 | Each | **7952.00** |
| d | 150 | Each | **10383.00** |
| e | 200 | Each | **16138.00** |
| f | 250 | Each | **25297.00** |
| g | 300 | Each | **36406.00** |
| h | 350 | Each | **72799.00** |
| I | 400 | Each | **93878.00** |
| j | 450 | Each | **121592.00** |
| k | 500 | Each | **146826.00** |
| l | 600 | Each | **216592.00** |
| m | 700 | Each | **315895.00** |
| n | 750 | Each | **375792.00** |
| o | 800 | Each | **550417.00** |
| p | 900 | Each | **685885.00** |
| q | 1000 | Each | **978297.00** |
|  |  |  |  |
| **II** | Double socket 45 degree Bends. |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Each | **3971.00** |
| b | 100 | Each | **4833.00** |
| c | 125 | Each | **6557.00** |
| d | 150 | Each | **8235.00** |
| e | 200 | Each | **12292.00** |
| f | 250 | Each | **18785.00** |
| g | 300 | Each | **26632.00** |
| h | 350 | Each | **54204.00** |
| I | 400 | Each | **72054.00** |
| j | 450 | Each | **92324.00** |
| k | 500 | Each | **108026.00** |
| l | 600 | Each | **154795.00** |
| m | 700 | Each | **221194.00** |
| n | 750 | Each | **260533.00** |
| q | 1000 | Each | **309108.00** |
|  |  |  |  |
| **III** | Double socket 22.5 degree Bends. |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Each | **3648.00** |
| b | 100 | Each | **4313.00** |
| c | 125 | Each | **5747.00** |
| d | 150 | Each | **7127.00** |
| e | 200 | Each | **10271.00** |
| f | 250 | Each | **15397.00** |
| g | 300 | Each | **21402.00** |
| h | 350 | Each | **45861.00** |
| I | 400 | Each | **59830.00** |
| j | 450 | Each | **76122.00** |
| k | 500 | Each | **88014.00** |
| l | 600 | Each | **121984.00** |
| m | 700 | Each | **174194.00** |
| n | 750 | Each | **198592.00** |
| 0 | 800 | Each | **222991.00** |
| p | 900 | Each | **271788.00** |
|  |  |  |  |
| **IV** | Double socket 11.25 degree Bends. |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Each | **3433.00** |
| b | 100 | Each | **3987.00** |
| c | 125 | Each | **5224.00** |
| d | 150 | Each | **6348.00** |
| e | 200 | Each | **8681.00** |
| f | 250 | Each | **12756.00** |
| g | 300 | Each | **17350.00** |
| h | 350 | Each | **39603.00** |
| I | 400 | Each | **51283.00** |
| j | 450 | Each | **64625.00** |
| k | 500 | Each | **73790.00** |
| l | 600 | Each | **97648.00** |
| m | 700 | Each | **137365.00** |
| n | 750 | Each | **154880.00** |
| 0 | 800 | Each | **172396.00** |
| p | 900 | Each | **207426.00** |
|  |  |  |  |
| **V** | **All Socket Tee** |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80x80x80 | Each | **6276.00** |
| b | 100x100x80 | Each | **7012.00** |
| c | 100x100x100 | Each | **7633.00** |
| d | 150x150x80 | Each | **10077.00** |
| e | 150x150x100 | Each | **10729.00** |
| f | 150x150x150 | Each | **13410.00** |
| g | 200x200x80 | Each | **13522.00** |
| h | 200x200x100 | Each | **14322.00** |
| I | 200x200x150 | Each | **16915.00** |
| j | 200x200x200 | Each | **20094.00** |
| k | 250x250x80 | Each | **18154.00** |
| l | 250x250x100 | Each | **19142.00** |
| m | 250x250x150 | Each | **22160.00** |
| n | 250x250x200 | Each | **25647.00** |
| o | 250x250x250 | Each | **30460.00** |
| p | 300x300x80 | Each | **23979.00** |
| q | 300x300x100 | Each | **25144.00** |
| r | 300x300x150 | Each | **28682.00** |
| s | 300x300x200 | Each | **32443.00** |
| t | 300x300x250 | Each | **36945.00** |
| u | 300x300x300 | Each | **44187.00** |
| v | 350x350x80 | Each | **48101.00** |
| w | 350x350x100 | Each | **48908.00** |
| x | 350x350x150 | Each | **53198.00** |
| y | 350x350x200 | Each | **61993.00** |
| z | 350x350x250 | Each | **72936.00** |
| a1 | 350x350x300 | Each | **78404.00** |
| b1 | 350x350x350 | Each | **81328.00** |
| c1 | 400x400x80 | Each | **59528.00** |
| d1 | 400x400x100 | Each | **61291.00** |
| e1 | 400x400x150 | Each | **65123.00** |
| f1 | 400x400x200 | Each | **68952.00** |
| g1 | 400x400x250 | Each | **81084.00** |
| h1 | 400x400x300 | Each | **88745.00** |
| i1 | 400x400x400 | Each | **94574.00** |
| j1 | 450x450x100 | Each | **71272.00** |
| k1 | 450x450x150 | Each | **73741.00** |
| l1 | 450x450x200 | Each | **75974.00** |
| m1 | 450x450x250 | Each | **94489.00** |
| n1 | 450x450x300 | Each | **99599.00** |
| o1 | 450x450x400 | Each | **104930.00** |
| p1 | 450x450x450 | Each | **107606.00** |
| q1 | 500x500x100 | Each | **98677.00** |
| r1 | 500x500x150 | Each | **101035.00** |
| s1 | 500x500x200 | Each | **102631.00** |
| t1 | 500x500x250 | Each | **109493.00** |
| u1 | 500x500x300 | Each | **133373.00** |
| v1 | 500x500x400 | Each | **136629.00** |
| w1 | 500x500x450 | Each | **142533.00** |
| x1 | 500x500x500 | Each | **151599.00** |
| y1 | 600x600x150 | Each | **150698.00** |
| z1 | 600x600x200 | Each | **156101.00** |
| a2 | 600x600x250 | Each | **163443.00** |
| b2 | 600x600x300 | Each | **171105.00** |
| c2 | 600x600x400 | Each | **178064.00** |
| d2 | 600x600x450 | Each | **188023.00** |
| e2 | 600x600x500 | Each | **195366.00** |
| f2 | 600x600x600 | Each | **213242.00** |
|  |  |  |  |
| **VI** | **Double Socket Branch Flange Tee** |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80x80x80 | Each | **6464.00** |
| b | 100x100x80 | Each | **7189.00** |
| c | 100x100x100 | Each | **8018.00** |
| d | 150x150x80 | Each | **10639.00** |
| e | 150x150x100 | Each | **11213.00** |
| f | 150x150x150 | Each | **14310.00** |
| g | 200x200x80 | Each | **13881.00** |
| h | 200x200x100 | Each | **14475.00** |
| I | 200x200x150 | Each | **17701.00** |
| j | 200x200x200 | Each | **21626.00** |
| k | 250x250x80 | Each | **18563.00** |
| l | 250x250x100 | Each | **19211.00** |
| m | 250x250x150 | Each | **23141.00** |
| n | 250x250x200 | Each | **27049.00** |
| o | 250x250x250 | Each | **32385.00** |
| p | 300x300x80 | Each | **24235.00** |
| q | 300x300x100 | Each | **24892.00** |
| r | 300x300x150 | Each | **29338.00** |
| s | 300x300x200 | Each | **34012.00** |
| t | 300x300x250 | Each | **39330.00** |
| u | 300x300x300 | Each | **46128.00** |
| v | 350x350x80 | Each | **58553.00** |
| w | 350x350x100 | Each | **58593.00** |
| x | 350x350x150 | Each | **64786.00** |
| y | 350x350x200 | Each | **74600.00** |
| a1 | 350x350x300 | Each | **94944.00** |
| b1 | 350x350x350 | Each | **96541.00** |
|  |  |  |  |
| **VII** | **Double Socket Branch Flanged Tee** |  |  |
|  | Nominal Dia in mm |  |  |
| a | 400x400x80 | Each | **59847.00** |
| b | 400x400x100 | Each | **61942.00** |
| c | 400x400x150 | Each | **73408.00** |
| d | 400x400x200 | Each | **76142.00** |
| e | 400x400x250 | Each | **82460.00** |
| f | 400x400x300 | Each | **91821.00** |
| g | 400x400x400 | Each | **113599.00** |
| h | 450x450x100 | Each | **76437.00** |
| I | 450x450x150 | Each | **83485.00** |
| j | 450x450x200 | Each | **92208.00** |
| k | 450x450x250 | Each | **99365.00** |
| l | 450x450x300 | Each | **120261.00** |
| m | 450x450x350 | Each | **117485.00** |
| n | 450x450x400 | Each | **127657.00** |
| o | 450x450x450 | Each | **144935.00** |
| p | 500x500x100 | Each | **85190.00** |
| q | 500x500x150 | Each | **93583.00** |
| r | 500x500x250 | Each | **110413.00** |
| s | 500x500x300 | Each | **122724.00** |
| t | 500x500x400 | Each | **145660.00** |
| u | 500x500x450 | Each | **154308.00** |
| v | 500x500x500 | Each | **174766.00** |
| w | 600x600x100 | Each | **111503.00** |
| x | 600x600x300 | Each | **156899.00** |
| y | 600x600x400 | Each | **185558.00** |
| a1 | 600x600x450 | Each | **195539.00** |
| b1 | 600x600x500 | Each | **215141.00** |
| c1 | 600x600x600 | Each | **255142.00** |
| d1 | 700x700x100 | Each | **153964.00** |
| e1 | 700x700x200 | Each | **179049.00** |
| f1 | 700x700x350 | Each | **219098.00** |
| g1 | 700x700x400 | Each | **236514.00** |
| h1 | 750x750x150 | Each | **186840.00** |
| i1 | 750x750x250 | Each | **215128.00** |
| j | 750x750x750 | Each | **425430.00** |
|  |  |  |  |
| **VIII** | **Double Socket Reducer** |  |  |
|  | Nominal Dia in mm |  |  |
| a | 100x80 | Each | **4183.00** |
| b | 150x80 | Each | **6683.00** |
| c | 150x100 | Each | **6630.00** |
| d | 200x100 | Each | **9739.00** |
| e | 200x150 | Each | **9653.00** |
| f | 250x150 | Each | **14195.00** |
| g | 250x200 | Each | **13488.00** |
| h | 300x150 | Each | **22027.00** |
| I | 300x200 | Each | **20241.00** |
| j | 300x250 | Each | **19240.00** |
| k | 350x200 | Each | **18373.00** |
| l | 350x250 | Each | **41197.00** |
| m | 350x300 | Each | **40418.00** |
| n | 400x150 | Each | **40037.00** |
| o | 400x200 | Each | **37302.00** |
| p | 400x250 | Each | **54700.00** |
| q | 400x300 | Each | **53229.00** |
| r | 400x350 | Each | **49656.00** |
| s | 450x200 | Each | **50025.00** |
| t | 450x250 | Each | **67677.00** |
| u | 450x300 | Each | **68677.00** |
| v | 450x350 | Each | **64152.00** |
| w | 450x400 | Each | **62355.00** |
| x | 500x250 | Each | **64703.00** |
| y | 500x300 | Each | **78294.00** |
| a1 | 500x350 | Each | **77959.00** |
| b1 | 500x400 | Each | **75734.00** |
| c1 | 500x450 | Each | **72810.00** |
| d1 | 600x200 | Each | **85169.00** |
| e1 | 600x250 | Each | **86097.00** |
| f1 | 600x300 | Each | **87036.00** |
| g1 | 600x400 | Each | **87986.00** |
| h1 | 600x450 | Each | **88945.00** |
| i1 | 600x500 | Each | **89915.00** |
| j1 | 700x500 | Each | **143026.00** |
| k1 | 700x600 | Each | **144585.00** |
| l1 | 750x600 | Each | **143026.00** |
| m1 | 750x700 | Each | **154582.00** |
| n1 | 800x450 | Each | **213300.00** |
| o1 | 800x700 | Each | **217976.00** |
|  |  |  |  |
| **15049** | Supplying cast iron fittings as per IS : 1538 -1993 including sealing rubber gasket (NR) CI Compression glands and coated MS Nuts bolts. |  |  |
| **I** | **Mechanical Compression Collar Coupling** |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Each | **2833.00** |
| b | 100 | Each | **3273.00** |
| c | 125 | Each | **4013.00** |
| d | 150 | Each | **4868.00** |
| e | 200 | Each | **6266.00** |
| f | 250 | Each | **9783.00** |
| g | 300 | Each | **13167.00** |
| h | 350 | Each | **17954.00** |
| I | 400 | Each | **21526.00** |
| j | 450 | Each | **26394.00** |
| k | 500 | Each | **35574.00** |
| l | 600 | Each | **44931.00** |
| m | 700 | Each | **71440.00** |
| n | 750 | Each | **79508.00** |
| o | 800 | Each | **96057.00** |
| p | 900 | Each | **116992.00** |
| q | 1000 | Each | **146126.00** |
|  |  |  |  |
| **II** | **Flanged Socket Tail piece ( Flanged Adaptors)** |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Each | **3399.00** |
| b | 100 | Each | **3925.00** |
| c | 125 | Each | **4918.00** |
| d | 150 | Each | **6341.00** |
| e | 200 | Each | **8400.00** |
| f | 250 | Each | **11472.00** |
| g | 300 | Each | **14922.00** |
| h | 350 | Each | **19309.00** |
| I | 400 | Each | **23310.00** |
| j | 450 | Each | **29407.00** |
| k | 500 | Each | **34350.00** |
| l | 600 | Each | **43799.00** |
| m | 700 | Each | **66367.00** |
| n | 750 | Each | **88150.00** |
| o | 900 | Each | **160133.00** |
| p | 1000 | Each | **208807.00** |
|  |  |  |  |
| **III** | **Transition Collar Coupling** |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Each | **1707.00** |
| b | 100 | Each | **1832.00** |
| c | 125 | Each | **2464.00** |
| d | 150 | Each | **3080.00** |
| e | 200 | Each | **3727.00** |
| f | 250 | Each | **5584.00** |
| g | 300 | Each | **7413.00** |
| h | 350 | Each | **11259.00** |
| I | 400 | Each | **13876.00** |
| j | 450 | Each | **16578.00** |
| k | 500 | Each | **23474.00** |
| l | 600 | Each | **31571.00** |
| m | 700 | Each | **41536.00** |
| n | 750 | Each | **48301.00** |
| o | 800 | Each | **61725.00** |
| p | 900 | Each | **73512.00** |
| q | 1000 | Each | **89324.00** |
|  |  |  |  |
| **IV** | **Long Sleeve Collar Coupling (Cut & Repair Coupling)** |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Each | **4510.00** |
| b | 100 | Each | **5346.00** |
| c | 125 | Each | **6579.00** |
| d | 150 | Each | **7983.00** |
| e | 200 | Each | **10591.00** |
| f | 250 | Each | **14631.00** |
| g | 300 | Each | **20090.00** |
| h | 350 | Each | **33847.00** |
| I | 400 | Each | **40483.00** |
| j | 450 | Each | **49078.00** |
| k | 500 | Each | **56582.00** |
| l | 600 | Each | **73591.00** |
| m | 700 | Each | **101736.00** |
| n | 750 | Each | **113454.00** |
| o | 900 | Each | **156674.00** |
| q | 1000 | Each | **184164.00** |
|  |  |  |  |
| **V** | **Split Collar Coupling** |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Each | **10073.00** |
| b | 100 | Each | **11128.00** |
| d | 150 | Each | **16709.00** |
| e | 200 | Each | **23661.00** |
| f | 250 | Each | **28010.00** |
| g | 300 | Each | **33091.00** |
| h | 350 | Each | **56914.00** |
| I | 400 | Each | **69901.00** |
| j | 450 | Each | **85448.00** |
| k | 500 | Each | **95014.00** |
| l | 600 | Each | **129809.00** |
| m | 700 | Each | **173006.00** |
| n | 750 | Each | **195071.00** |
|  |  |  |  |
| **VI** | **Dismantling Joint** |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Each | **5583.00** |
| b | 100 | Each | **6607.00** |
| c | 125 | Each | **8401.00** |
| d | 150 | Each | **10929.00** |
| e | 200 | Each | **14932.00** |
| f | 250 | Each | **20013.00** |
| g | 300 | Each | **25836.00** |
| h | 350 | Each | **36624.00** |
| I | 400 | Each | **45247.00** |
| j | 450 | Each | **55630.00** |
| k | 500 | Each | **65123.00** |
| l | 600 | Each | **85754.00** |
| m | 700 | Each | **121575.00** |
| n | 750 | Each | **144401.00** |
|  |  |  |  |
| **VII** | **Leak Repair Clamp** |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Each | **3865.00** |
| b | 100 | Each | **4164.00** |
| d | 150 | Each | **7400.00** |
| e | 200 | Each | **8477.00** |
| f | 250 | Each | **11272.00** |
| g | 300 | Each | **13853.00** |
| h | 350 | Each | **15271.00** |
| I | 400 | Each | **21138.00** |
| j | 450 | Each | **22899.00** |
| k | 500 | Each | **31255.00** |
| l | 600 | Each | **35968.00** |
| m | 700 | Each | **46486.00** |
| n | 750 | Each | **50813.00** |
| o | 800 | Each | **45969.00** |
| p | 900 | Each | **61731.00** |
| q | 1000 | Each | **64743.00** |
|  |  |  |  |
| **VII** | **Joint End Cap** |  |  |
|  | Nominal Dia in mm |  |  |
| a | 80 | Each | **1867.00** |
| b | 100 | Each | **2295.00** |
| c | 125 | Each | **3130.00** |
| d | 150 | Each | **4055.00** |
| e | 200 | Each | **6024.00** |
| f | 250 | Each | **9009.00** |
| g | 300 | Each | **12707.00** |
| h | 350 | Each | **29187.00** |
| I | 400 | Each | **38379.00** |
| j | 450 | Each | **48856.00** |
| k | 500 | Each | **57869.00** |
| l | 600 | Each | **82396.00** |
| m | 700 | Each | **120632.00** |
| n | 750 | Each | **140092.00** |
| o | 800 | Each | **168138.00** |
| p | 900 | Each | **209840.00** |
| **DUCTILE IRON PIPES** | | | |
| 15051 | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking etc. Centrifugally cast, (spun) ductile iron pressure pipes (with socket/spigot ends) conforming to IS: 8329-2000 with cement mortar lining inside the pipe and outside zinc coat as per IS: 8329-2000 with up to date amendments suitable for jointing with rubber gasket known as TYTON joints. Class K-9 . |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100 | Metre | **1696.00** |
| b | 150 | Metre | **2411.00** |
| c | 200 | Metre | **3240.00** |
| d | 250 | Metre | **4349.00** |
| e | 300 | Metre | **5524.00** |
| f | 350 | Metre | **6787.00** |
| g | 400 | Metre | **8234.00** |
| h | 450 | Metre | **9822.00** |
| I | 500 | Metre | **11492.00** |
| j | 600 | Metre | **15055.00** |
| k | 700 | Metre | **19121.00** |
| l | 750 | Metre | **21241.00** |
| m | 800 | Metre | **23453.00** |
| n | 900 | Metre | **28597.00** |
| o | 1000 | Metre | **34606.00** |
| p | 1100 | Metre | **41782.00** |
| q | 1200 | Metre | **48386.00** |
|  |  |  |  |
| 15053 | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking etc. welded Ductile Iron double flanged pipes - PN16 horizontally cast conforming to IS: 1537-1960 in Class K-9. |  |  |
| **I** | **Barrel Length of 0.5 metres** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100 | Each | **4644.00** |
| b | 150 | Each | **6245.00** |
| c | 200 | Each | **8298.00** |
| d | 250 | Each | **11880.00** |
| e | 300 | Each | **15090.00** |
| f | 350 | Each | **20588.00** |
| g | 400 | Each | **25599.00** |
| h | 450 | Each | **33809.00** |
| I | 500 | Each | **42072.00** |
| j | 600 | Each | **56232.00** |
| k | 700 | Each | **66314.00** |
| l | 800 | Each | **80408.00** |
| m | 900 | Each | **95604.00** |
| n | 1000 | Each | **134228.00** |
|  |  |  |  |
| **II** | **Barrel Length of 1.0 metres** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100 | Each | **5596.00** |
| b | 150 | Each | **7569.00** |
| c | 200 | Each | **10060.00** |
| d | 250 | Each | **14188.00** |
| e | 300 | Each | **17941.00** |
| f | 350 | Each | **24177.00** |
| g | 400 | Each | **29763.00** |
| h | 450 | Each | **38462.00** |
| I | 500 | Each | **47497.00** |
| j | 600 | Each | **63436.00** |
| k | 700 | Each | **76047.00** |
| l | 800 | Each | **92482.00** |
| m | 900 | Each | **111681.00** |
| n | 1000 | Each | **143110.00** |
|  |  |  |  |
| **III** | **Barrel Length of 2.0 metres** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100 | Each | **7423.00** |
| b | 150 | Each | **10091.00** |
| c | 200 | Each | **13442.00** |
| d | 250 | Each | **18599.00** |
| e | 300 | Each | **23379.00** |
| f | 350 | Each | **30995.00** |
| g | 400 | Each | **37648.00** |
| h | 450 | Each | **47188.00** |
| I | 500 | Each | **57623.00** |
| j | 600 | Each | **76883.00** |
| k | 700 | Each | **94351.00** |
| l | 800 | Each | **118162.00** |
| m | 900 | Each | **145859.00** |
| n | 1000 | Each | **180292.00** |
|  |  |  |  |
| **IV** | **Barrel Length of 2.5 metres** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100 | Each | **8336.00** |
| b | 150 | Each | **11353.00** |
| c | 200 | Each | **15132.00** |
| d | 250 | Each | **20805.00** |
| e | 300 | Each | **26098.00** |
| f | 350 | Each | **34404.00** |
| g | 400 | Each | **41591.00** |
| h | 450 | Each | **51552.00** |
| I | 500 | Each | **62691.00** |
| j | 600 | Each | **83605.00** |
| k | 700 | Each | **103506.00** |
| l | 800 | Each | **125313.00** |
| m | 900 | Each | **155850.00** |
| n | 1000 | Each | **191880.00** |
|  |  |  |  |
| **V** | **Barrel Length of 3.0 metres** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100 | Each | **9248.00** |
| b | 150 | Each | **12612.00** |
| c | 200 | Each | **16822.00** |
| d | 250 | Each | **23010.00** |
| e | 300 | Each | **28817.00** |
| f | 350 | Each | **37814.00** |
| g | 400 | Each | **45533.00** |
| h | 450 | Each | **55915.00** |
| I | 500 | Each | **67756.00** |
| j | 600 | Each | **90319.00** |
| k | 700 | Each | **112660.00** |
| l | 800 | Each | **137590.00** |
| m | 900 | Each | **172188.00** |
| n | 1000 | Each | **211299.00** |
|  |  |  |  |
| **VI** | **Barrel Length of 3.5 metres** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100 | Each | **10161.00** |
| b | 150 | Each | **13872.00** |
| c | 200 | Each | **18513.00** |
| d | 250 | Each | **25215.00** |
| e | 300 | Each | **31536.00** |
| f | 350 | Each | **41224.00** |
| g | 400 | Each | **49475.00** |
| h | 450 | Each | **60280.00** |
| I | 500 | Each | **72819.00** |
| j | 600 | Each | **97044.00** |
| k | 700 | Each | **121810.00** |
| l | 800 | Each | **149881.00** |
| m | 900 | Each | **188538.00** |
| n | 1000 | Each | **230716.00** |
|  |  |  |  |
| **VII** | **Barrel Length of 4.0 metres** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100 | Each | **11074.00** |
| b | 150 | Each | **15133.00** |
| c | 200 | Each | **20204.00** |
| d | 250 | Each | **27421.00** |
| e | 300 | Each | **34256.00** |
| f | 350 | Each | **44632.00** |
| g | 400 | Each | **53417.00** |
| h | 450 | Each | **64637.00** |
| I | 500 | Each | **77884.00** |
| j | 600 | Each | **103766.00** |
| k | 700 | Each | **130968.00** |
| l | 800 | Each | **162172.00** |
| m | 900 | Each | **204875.00** |
| n | 1000 | Each | **250152.00** |
|  |  |  |  |
| **VIII** | **Barrel Length of 4.5 metres** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100 | Each | **11987.00** |
| b | 150 | Each | **16393.00** |
| c | 200 | Each | **21894.00** |
| d | 250 | Each | **29626.00** |
| e | 300 | Each | **36975.00** |
| f | 350 | Each | **48042.00** |
| g | 400 | Each | **57360.00** |
| h | 450 | Each | **70894.00** |
| I | 500 | Each | **85354.00** |
| j | 600 | Each | **113976.00** |
| k | 700 | Each | **132987.00** |
| l | 800 | Each | **168917.00** |
| m | 900 | Each | **212258.00** |
| n | 1000 | Each | **261146.00** |
|  |  |  |  |
| **IX** | **Barrel Length of 5.0 metres** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100 | Each | **12898.00** |
| b | 150 | Each | **17655.00** |
| c | 200 | Each | **23585.00** |
| d | 250 | Each | **31832.00** |
| e | 300 | Each | **39695.00** |
| f | 350 | Each | **51452.00** |
| g | 400 | Each | **61302.00** |
| h | 450 | Each | **75833.00** |
| I | 500 | Each | **91088.00** |
| j | 600 | Each | **121635.00** |
| k | 700 | Each | **142502.00** |
| l | 800 | Each | **180750.00** |
| m | 900 | Each | **228015.00** |
| n | 1000 | Each | **279874.00** |
|  |  |  |  |
| **DUCTILE IRON PIPES** | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| 15053A | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking etc. Centrifugally cast, (spun) ductile iron pressure pipes (with socket/spigot ends) conforming to IS: 8329-2000 with cement mortar lining inside the pipe and outside zinc coat as per IS: 8329-2000 with up to date amendments suitable for jointing with rubber gasket known as TYTON joints. Class K-7 . |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100 | Metre | **1554.00** |
| b | 150 | Metre | **2225.00** |
| c | 200 | Metre | **2953.00** |
| d | 250 | Metre | **3966.00** |
| e | 300 | Metre | **5036.00** |
| f | 350 | Metre | **6212.00** |
| g | 400 | Metre | **7539.00** |
| h | 450 | Metre | **8991.00** |
| I | 500 | Metre | **10566.00** |
| j | 600 | Metre | **13844.00** |
| k | 700 | Metre | **17667.00** |
| l | 750 | Metre | **19621.00** |
| m | 800 | Metre | **21408.00** |
| n | 900 | Metre | **26104.00** |
| o | 1000 | Metre | **31588.00** |
| p | 1100 | Metre | **38312.00** |
| q | 1200 | Metre | **44367.00** |
|  |  |  |  |
| 15054 | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking etc. rubber gasket conforming to IS: 5382 -1985 for TYTON joints. SBR type rubber gasket |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 80 | Each | **58.00** |
| b | 100 | Each | **58.00** |
| c | 125 | Each | **75.00** |
| d | 150 | Each | **93.00** |
| e | 200 | Each | **139.00** |
| f | 250 | Each | **197.00** |
| g | 300 | Each | **256.00** |
| h | 350 | Each | **314.00** |
| I | 400 | Each | **383.00** |
| j | 450 | Each | **441.00** |
| k | 500 | Each | **558.00** |
| l | 600 | Each | **790.00** |
| m | 700 | Each | **1185.00** |
| n | 750 | Each | **1312.00** |
| o | 800 | Each | **1394.00** |
| p | 900 | Each | **1661.00** |
| q | 1000 | Each | **2358.00** |
|  |  |  |  |
| **15055** | Supplying at store or site of work including railway freight, carting, loading and unloading, stacking etc. rubber gasket conforming to IS:5382 -1985 for TYTON joints. EPDM type rubber gasket . |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 80 | Each | **85.00** |
| b | 100 | Each | **102.00** |
| c | 125 | Each | **118.00** |
| d | 150 | Each | **135.00** |
| e | 200 | Each | **233.00** |
| f | 250 | Each | **303.00** |
| g | 300 | Each | **420.00** |
| h | 350 | Each | **477.00** |
| I | 400 | Each | **654.00** |
| j | 450 | Each | **749.00** |
| k | 500 | Each | **1022.00** |
| l | 600 | Each | **1353.00** |
| m | 700 | Each | **2706.00** |
| n | 750 | Each | **3066.00** |
| o | 800 | Each | **3487.00** |
| p | 900 | Each | **4407.00** |
| q | 1000 | Each | **5263.00** |
|  |  |  |  |
| **DUCTILE IRON PIPE SPECIALS** | | | |
| **15056** | Supply at store or site of work including railway freight, carting, loading, unloading, stacking etc. Ductile Iron pipe specials including rubber ring fitting push on joints conforming to IS : 9523 with inside cement mortar lining & externally coated with zinc with finishing layer of bituminous paint complete. |  |  |
| **I** | **All Socket Tee** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 80x80 | Each | **2398.00** |
| b | 100x80 | Each | **2791.00** |
| c | 100x100 | Each | **2987.00** |
| d | 150x80 | Each | **3447.00** |
| e | 150x100 | Each | **3781.00** |
| f | 150x150 | Each | **4760.00** |
| g | 200x80 | Each | **5582.00** |
| h | 200x100 | Each | **5971.00** |
| I | 200x150 | Each | **6753.00** |
| j | 200X200 | Each | **7942.00** |
| k | 250x80 | Each | **7162.00** |
| l | 250x100 | Each | **7550.00** |
| m | 250x150 | Each | **8524.00** |
| n | 250x200 | Each | **9714.00** |
| o | 250x250 | Each | **10887.00** |
| p | 300x80 | Each | **9556.00** |
| q | 300x100 | Each | **9752.00** |
| r | 300x150 | Each | **10918.00** |
| s | 300x200 | Each | **12299.00** |
| t | 300x250 | Each | **13472.00** |
| u | 300x300 | Each | **15245.00** |
| v | 350x80 | Each | **12758.00** |
| w | 350x100 | Each | **12976.00** |
| x | 350x150 | Each | **14270.00** |
| y | 350x200 | Each | **16226.00** |
| z | 350x250 | Each | **18592.00** |
| a1 | 350x300 | Each | **20770.00** |
| b1 | 350x350 | Each | **21859.00** |
| c1 | 400x80 | Each | **16104.00** |
| d1 | 400x100 | Each | **19807.00** |
| e1 | 400x150 | Each | **19747.00** |
| f1 | 400x200 | Each | **19145.00** |
| g1 | 400x250 | Each | **22152.00** |
| h1 | 400x300 | Each | **24116.00** |
| i1 | 400X350 | Each | **28402.00** |
| j1 | 400x400 | Each | **28476.00** |
| k1 | 450x80 | Each | **19590.00** |
| l1 | 450x100 | Each | **19807.00** |
| m1 | 450x150 | Each | **23020.00** |
| n1 | 450x200 | Each | **24976.00** |
| o1 | 450x250 | Each | **25424.00** |
| p1 | 450x300 | Each | **28028.00** |
| q1 | 450X350 | Each | **33805.00** |
| r1 | 450x400 | Each | **34520.00** |
| s1 | 450x450 | Each | **36049.00** |
| t1 | 500x80 | Each | **24058.00** |
| u1 | 500x100 | Each | **24287.00** |
| v1 | 500x150 | Each | **29226.00** |
| w1 | 500x200 | Each | **29935.00** |
| x1 | 500x250 | Each | **36297.00** |
| y1 | 500x300 | Each | **38283.00** |
| z1 | 500x350 | Each | **38978.00** |
| a2 | 500x400 | Each | **42410.00** |
| b2 | 500X450 | Each | **46922.00** |
| c2 | 500x500 | Each | **47452.00** |
| d2 | 600x80 | Each | **38248.00** |
| e2 | 600x100 | Each | **38700.00** |
| f2 | 600x150 | Each | **39163.00** |
| g2 | 600x200 | Each | **39872.00** |
| h2 | 600X250 | Each | **50413.00** |
| i2 | 600x300 | Each | **51129.00** |
| j2 | 600X350 | Each | **54958.00** |
| k2 | 600x400 | Each | **55032.00** |
| l2 | 600X450 | Each | **66259.00** |
| m2 | 600x500 | Each | **66340.00** |
| n2 | 600x600 | Each | **70302.00** |
| o2 | 700x100 | Each | **57317.00** |
| p2 | 700x150 | Each | **60842.00** |
| q2 | 700x200 | Each | **64119.00** |
| r2 | 700X250 | Each | **74941.00** |
| s2 | 700x300 | Each | **77687.00** |
| t2 | 700x400 | Each | **88584.00** |
| u2 | 700X450 | Each | **115620.00** |
| v2 | 700x500 | Each | **115702.00** |
| w2 | 700x600 | Each | **129359.00** |
| x2 | 700x700 | Each | **137890.00** |
| y2 | 750x100 | Each | **86398.00** |
| z2 | 750x150 | Each | **90545.00** |
| a3 | 750x200 | Each | **98609.00** |
| b3 | 750x300 | Each | **106903.00** |
| c3 | 750x400 | Each | **117962.00** |
| d3 | 750X450 | Each | **131556.00** |
| e3 | 750x500 | Each | **131556.00** |
| f3 | 750x600 | Each | **142615.00** |
| g3 | 750x700 | Each | **156208.00** |
| h3 | 750x750 | Each | **161737.00** |
| i3 | 800x100 | Each | **72609.00** |
| j3 | 800x150 | Each | **78045.00** |
| k3 | 800x200 | Each | **83482.00** |
| l3 | 800x300 | Each | **102449.00** |
| m3 | 800x400 | Each | **116047.00** |
| n3 | 800X450 | Each | **134984.00** |
| o3 | 800x500 | Each | **135065.00** |
| p3 | 800x600 | Each | **146021.00** |
| q3 | 800x700 | Each | **151853.00** |
| r3 | 800x800 | Each | **168285.00** |
| s3 | 900x100 | Each | **138980.00** |
| t3 | 900x150 | Each | **109676.00** |
| u3 | 900x200 | Each | **118346.00** |
| v3 | 900x400 | Each | **147289.00** |
| w3 | 900x500 | Each | **199203.00** |
| x3 | 900x600 | Each | **199361.00** |
| y3 | 900X700 | Each | **206110.00** |
| z3 | 900x800 | Each | **212859.00** |
| a4 | 900x900 | Each | **220547.00** |
| b4 | 1000x150 | Each | **130702.00** |
| c4 | 1000x200 | Each | **136496.00** |
| d4 | 1000x400 | Each | **162560.00** |
| e4 | 1000x600 | Each | **263550.00** |
| f4 | 1000X700 | Each | **275493.00** |
| g4 | 1000x800 | Each | **275725.00** |
| h4 | 1000X900 | Each | **284768.00** |
| i4 | 1000x1000 | Each | **293811.00** |
|  |  |  |  |
| **II** | **Double Socket Reducer** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100x80 | Each | **1604.00** |
| b | 150x80 | Each | **2577.00** |
| c | 150x100 | Each | **2775.00** |
| d | 200x80 | Each | **3958.00** |
| e | 200x100 | Each | **5904.00** |
| f | 200x150 | Each | **4363.00** |
| g | 250x80 | Each | **5899.00** |
| h | 250x100 | Each | **5904.00** |
| I | 250x150 | Each | **5919.00** |
| j | 250x200 | Each | **5573.00** |
| k | 300x100 | Each | **8060.00** |
| l | 300x150 | Each | **7883.00** |
| m | 300x200 | Each | **7729.00** |
| n | 300x250 | Each | **7176.00** |
| o | 350x150 | Each | **11530.00** |
| p | 350x200 | Each | **11355.00** |
| q | 350x250 | Each | **11164.00** |
| r | 350x300 | Each | **10997.00** |
| s | 400x200 | Each | **14839.00** |
| t | 400x250 | Each | **13583.00** |
| u | 400x300 | Each | **12990.00** |
| v | 400x350 | Each | **12161.00** |
| w | 450x200 | Each | **17434.00** |
| x | 450x250 | Each | **17244.00** |
| y | 450x300 | Each | **16864.00** |
| z | 450x350 | Each | **16036.00** |
| a1 | 450x400 | Each | **15257.00** |
| b1 | 500x200 | Each | **23516.00** |
| c1 | 500x250 | Each | **22868.00** |
| d1 | 500x300 | Each | **22690.00** |
| e1 | 500x350 | Each | **21595.00** |
| f1 | 500x400 | Each | **20550.00** |
| g1 | 500x450 | Each | **20812.00** |
| h1 | 600x200 | Each | **36205.00** |
| i1 | 600x250 | Each | **34437.00** |
| j1 | 600x300 | Each | **32917.00** |
| k1 | 600x350 | Each | **33388.00** |
| l1 | 600x400 | Each | **31897.00** |
| m1 | 600x450 | Each | **32158.00** |
| n1 | 600x500 | Each | **29779.00** |
| o1 | 700x250 | Each | **51296.00** |
| p1 | 700x300 | Each | **51072.00** |
| q1 | 700x400 | Each | **50900.00** |
| r1 | 700x450 | Each | **54448.00** |
| s1 | 700x500 | Each | **53180.00** |
| t1 | 700x600 | Each | **49018.00** |
| u1 | 750x300 | Each | **58003.00** |
| v1 | 750x400 | Each | **58003.00** |
| w1 | 750x450 | Each | **58003.00** |
| x1 | 750x500 | Each | **59395.00** |
| y1 | 750x600 | Each | **55219.00** |
| z1 | 750x700 | Each | **51043.00** |
| a2 | 800x300 | Each | **66693.00** |
| b2 | 800x400 | Each | **67871.00** |
| c2 | 800x450 | Each | **67909.00** |
| d2 | 800x500 | Each | **70151.00** |
| e2 | 800x600 | Each | **70309.00** |
| f2 | 800x700 | Each | **63992.00** |
| g2 | 900x400 | Each | **91613.00** |
| h2 | 900x500 | Each | **91733.00** |
| i2 | 900x600 | Each | **92754.00** |
| j2 | 900x700 | Each | **94913.00** |
| k2 | 900x800 | Each | **87376.00** |
| l2 | 1000x400 | Each | **111622.00** |
| m2 | 1000x600 | Each | **111900.00** |
| n2 | 1000x700 | Each | **113771.00** |
| o2 | 1000x800 | Each | **118608.00** |
| p2 | 1000x900 | Each | **108340.00** |
|  |  |  |  |
| **III** | **Double Socket Tee with Branch Flange** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 80x80 | Each | **2651.00** |
| b | 100x80 | Each | **3027.00** |
| c | 100x100 | Each | **3421.00** |
| d | 150x80 | Each | **4239.00** |
| e | 150x100 | Each | **4633.00** |
| f | 150x150 | Each | **5618.00** |
| g | 200x80 | Each | **5889.00** |
| h | 200x100 | Each | **6284.00** |
| I | 200x150 | Each | **7465.00** |
| j | 200X200 | Each | **8844.00** |
| k | 250x80 | Each | **7510.00** |
| l | 250x100 | Each | **7904.00** |
| m | 250x150 | Each | **9282.00** |
| n | 250x200 | Each | **10857.00** |
| o | 250x250 | Each | **12433.00** |
| p | 300x80 | Each | **9767.00** |
| q | 300x100 | Each | **13549.00** |
| r | 300x150 | Each | **11540.00** |
| s | 300x200 | Each | **13115.00** |
| t | 300x250 | Each | **15281.00** |
| u | 300x300 | Each | **17841.00** |
| v | 350x80 | Each | **13110.00** |
| w | 350x100 | Each | **13549.00** |
| x | 350x150 | Each | **15968.00** |
| y | 350x200 | Each | **17287.00** |
| z | 350x250 | Each | **20584.00** |
| a1 | 350x300 | Each | **25199.00** |
| b1 | 350x350 | Each | **25639.00** |
| c1 | 400x80 | Each | **15895.00** |
| d1 | 400x100 | Each | **20147.00** |
| e1 | 400x150 | Each | **22125.00** |
| f1 | 400x200 | Each | **24763.00** |
| g1 | 400x250 | Each | **27400.00** |
| h1 | 400x300 | Each | **30477.00** |
| i1 | 400x350 | Each | **36632.00** |
| j1 | 400x400 | Each | **36632.00** |
| k1 | 450x80 | Each | **19708.00** |
| l1 | 450x100 | Each | **20147.00** |
| m1 | 450x150 | Each | **22125.00** |
| n1 | 450x200 | Each | **24763.00** |
| o1 | 450x250 | Each | **27400.00** |
| p1 | 450x300 | Each | **30477.00** |
| q1 | 450x350 | Each | **36632.00** |
| r1 | 450x400 | Each | **36632.00** |
| s1 | 450x450 | Each | **40368.00** |
| t1 | 500x80 | Each | **25960.00** |
| u1 | 500x100 | Each | **25960.00** |
| v1 | 500x150 | Each | **30437.00** |
| w1 | 500x200 | Each | **31143.00** |
| x1 | 500x250 | Each | **40333.00** |
| y1 | 500x300 | Each | **38684.00** |
| z1 | 500x350 | Each | **42925.00** |
| a2 | 500x400 | Each | **44575.00** |
| b2 | 500x450 | Each | **54236.00** |
| c2 | 500x500 | Each | **54236.00** |
| d2 | 600x80 | Each | **36639.00** |
| e2 | 600x100 | Each | **40881.00** |
| f2 | 600x150 | Each | **41352.00** |
| g2 | 600x200 | Each | **43002.00** |
| h2 | 600x250 | Each | **53369.00** |
| i2 | 600x300 | Each | **55490.00** |
| j2 | 600x350 | Each | **58789.00** |
| k2 | 600x400 | Each | **58789.00** |
| l2 | 600x450 | Each | **72692.00** |
| m2 | 600x500 | Each | **72692.00** |
| n2 | 600x600 | Each | **80939.00** |
| o2 | 700x100 | Each | **65079.00** |
| p2 | 700x150 | Each | **65656.00** |
| q2 | 700x200 | Each | **67098.00** |
| r2 | 700x250 | Each | **77481.00** |
| s2 | 700x300 | Each | **85268.00** |
| t2 | 700x400 | Each | **86999.00** |
| u2 | 700x450 | Each | **96949.00** |
| v2 | 700x500 | Each | **106899.00** |
| w2 | 700x600 | Each | **117283.00** |
| x2 | 700x700 | Each | **127955.00** |
| y2 | 750x100 | Each | **68897.00** |
| z2 | 750x150 | Each | **73189.00** |
| a3 | 750x200 | Each | **77481.00** |
| b3 | 750x300 | Each | **87421.00** |
| c3 | 750x400 | Each | **97586.00** |
| d3 | 750x450 | Each | **109558.00** |
| e3 | 750x500 | Each | **109558.00** |
| f3 | 750x600 | Each | **121079.00** |
| g3 | 750x700 | Each | **133503.00** |
| h3 | 750x750 | Each | **140505.00** |
| i3 | 800x100 | Each | **77364.00** |
| j3 | 800x150 | Each | **81690.00** |
| k3 | 800x200 | Each | **86017.00** |
| l3 | 800x300 | Each | **100438.00** |
| m3 | 800x400 | Each | **109090.00** |
| n3 | 800x450 | Each | **150622.00** |
| o3 | 800x500 | Each | **150622.00** |
| p3 | 800x600 | Each | **163890.00** |
| q3 | 800x700 | Each | **169658.00** |
| r3 | 800x800 | Each | **175138.00** |
| s3 | 900x100 | Each | **107910.00** |
| t3 | 900x150 | Each | **107910.00** |
| u3 | 900x200 | Each | **118041.00** |
| v3 | 900x400 | Each | **150331.00** |
| w3 | 900x500 | Each | **239289.00** |
| x3 | 900x600 | Each | **227892.00** |
| y3 | 900x700 | Each | **246253.00** |
| z3 | 900x800 | Each | **248627.00** |
| a4 | 900x900 | Each | **251001.00** |
| b4 | 1000x150 | Each | **140126.00** |
| c4 | 1000x200 | Each | **147091.00** |
| d4 | 1000x400 | Each | **182864.00** |
| e4 | 1000x600 | Each | **302211.00** |
| f4 | 1000x700 | Each | **311075.00** |
| g4 | 1000x800 | Each | **311075.00** |
| h4 | 1000x900 | Each | **318989.00** |
| i4 | 1000x1000 | Each | **326904.00** |
|  |  |  |  |
| **IV** | **Flanged Socket** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 80 | Each | **1624.00** |
| b | 100 | Each | **1827.00** |
| c | 150 | Each | **2838.00** |
| d | 200 | Each | **4267.00** |
| e | 250 | Each | **5682.00** |
| f | 300 | Each | **7518.00** |
| g | 350 | Each | **10839.00** |
| h | 400 | Each | **13800.00** |
| I | 450 | Each | **17167.00** |
| j | 500 | Each | **23224.00** |
| k | 600 | Each | **31949.00** |
| l | 700 | Each | **49906.00** |
| m | 750 | Each | **57742.00** |
| n | 800 | Each | **65578.00** |
| o | 900 | Each | **89506.00** |
| p | 1000 | Each | **117126.00** |
|  |  |  |  |
| **V** | **M.J.Collar** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 80 | Each | **2857.00** |
| b | 100 | Each | **3666.00** |
| c | 150 | Each | **5688.00** |
| d | 200 | Each | **7334.00** |
| e | 250 | Each | **9581.00** |
| f | 300 | Each | **12434.00** |
| g | 350 | Each | **18166.00** |
| h | 400 | Each | **23815.00** |
| I | 450 | Each | **26803.00** |
| j | 500 | Each | **34739.00** |
| k | 600 | Each | **42850.00** |
| l | 700 | Each | **77555.00** |
| m | 750 | Each | **89897.00** |
| n | 800 | Each | **102240.00** |
| o | 900 | Each | **137252.00** |
| p | 1000 | Each | **168103.00** |
|  |  |  |  |
| **VI** | **Double socket branch flange Invert tee (Scour valve)** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 80x80 | Each | **4717.00** |
| b | 100x80 | Each | **5245.00** |
| c | 100x100 | Each | **5432.00** |
| d | 150x80 | Each | **5873.00** |
| e | 150x100 | Each | **5873.00** |
| f | 150x150 | Each | **6963.00** |
| g | 200x80 | Each | **8136.00** |
| h | 200x100 | Each | **8932.00** |
| I | 200x150 | Each | **9728.00** |
| j | 200X200 | Each | **11012.00** |
| k | 250x80 | Each | **10170.00** |
| l | 250x100 | Each | **11164.00** |
| m | 250x150 | Each | **13551.00** |
| n | 250x200 | Each | **14710.00** |
| o | 250x250 | Each | **16356.00** |
| p | 300x80 | Each | **12450.00** |
| q | 300x100 | Each | **12450.00** |
| r | 300x150 | Each | **13644.00** |
| s | 300x200 | Each | **16428.00** |
| t | 300x250 | Each | **18263.00** |
| u | 300x300 | Each | **19351.00** |
| v | 350x80 | Each | **18791.00** |
| w | 350x100 | Each | **18791.00** |
| x | 350x150 | Each | **20567.00** |
| y | 350x200 | Each | **21800.00** |
| z | 350x250 | Each | **24977.00** |
| a1 | 350x300 | Each | **29327.00** |
| b1 | 350x350 | Each | **30208.00** |
| c1 | 400x80 | Each | **22714.00** |
| d1 | 400x100 | Each | **22714.00** |
| e1 | 400x150 | Each | **24934.00** |
| f1 | 400x200 | Each | **27377.00** |
| g1 | 400x250 | Each | **30040.00** |
| h1 | 400x300 | Each | **32435.00** |
| i1 | 400x350 | Each | **38821.00** |
| j1 | 400x400 | Each | **38821.00** |
| k1 | 450x80 | Each | **26676.00** |
| l1 | 450x100 | Each | **26120.00** |
| m1 | 450x150 | Each | **28227.00** |
| n1 | 450x200 | Each | **36332.00** |
| o1 | 450x250 | Each | **47169.00** |
| p1 | 450x300 | Each | **44324.00** |
| q1 | 450x350 | Each | **49351.00** |
| r1 | 450x400 | Each | **49351.00** |
| s1 | 450x450 | Each | **52170.00** |
| t1 | 500x80 | Each | **32645.00** |
| u1 | 500x100 | Each | **32645.00** |
| v1 | 500x150 | Each | **39309.00** |
| w1 | 500x200 | Each | **47401.00** |
| x1 | 500x250 | Each | **52161.00** |
| y1 | 500x300 | Each | **57396.00** |
| z1 | 500x350 | Each | **62632.00** |
| a2 | 500x400 | Each | **64435.00** |
| b2 | 500x450 | Each | **70996.00** |
| c2 | 500x500 | Each | **70996.00** |
| d2 | 600x80 | Each | **38498.00** |
| e2 | 600x100 | Each | **42241.00** |
| f2 | 600x150 | Each | **46288.00** |
| g2 | 600x200 | Each | **56045.00** |
| h2 | 600x250 | Each | **66041.00** |
| i2 | 600x300 | Each | **76036.00** |
| j2 | 600x350 | Each | **91506.00** |
| k2 | 600x400 | Each | **91506.00** |
| l2 | 600x450 | Each | **103951.00** |
| m2 | 600x500 | Each | **103951.00** |
| n2 | 600x600 | Each | **110345.00** |
| o2 | 700x100 | Each | **84302.00** |
| p2 | 700x150 | Each | **85830.00** |
| q2 | 700x200 | Each | **94278.00** |
| r2 | 700x250 | Each | **108551.00** |
| s2 | 700x300 | Each | **114086.00** |
| t2 | 700x400 | Each | **122000.00** |
| u2 | 700x450 | Each | **137131.00** |
| v2 | 700x500 | Each | **137131.00** |
| w2 | 700x600 | Each | **146095.00** |
| x2 | 700x700 | Each | **156221.00** |
| y2 | 750x100 | Each | **109081.00** |
| z2 | 750x150 | Each | **61942.00** |
| a3 | 750x200 | Each | **64975.00** |
| b3 | 750x300 | Each | **72481.00** |
| c3 | 750x400 | Each | **80085.00** |
| d3 | 750x450 | Each | **89269.00** |
| e3 | 750x500 | Each | **89269.00** |
| f3 | 750x600 | Each | **97961.00** |
| g3 | 750x700 | Each | **107144.00** |
| h3 | 750x750 | Each | **147167.00** |
| i3 | 800x100 | Each | **95616.00** |
| j3 | 800x150 | Each | **95616.00** |
| k3 | 800x200 | Each | **104938.00** |
| l3 | 800x300 | Each | **115850.00** |
| m3 | 800x400 | Each | **123981.00** |
| n3 | 800x450 | Each | **156077.00** |
| o3 | 800x500 | Each | **156077.00** |
| p3 | 800x600 | Each | **164314.00** |
| q3 | 800x700 | Each | **167952.00** |
| r3 | 800x800 | Each | **175014.00** |
| s3 | 900x100 | Each | **133944.00** |
| t3 | 900x150 | Each | **137034.00** |
| u3 | 900x200 | Each | **142435.00** |
| v3 | 900x400 | Each | **167342.00** |
| w3 | 900x500 | Each | **287083.00** |
| x3 | 900x600 | Each | **287083.00** |
| y3 | 900x700 | Each | **293449.00** |
| z3 | 900x800 | Each | **293449.00** |
| a4 | 900x900 | Each | **304507.00** |
| b4 | 1000x150 | Each | **166517.00** |
| c4 | 1000x200 | Each | **168386.00** |
| d4 | 1000x400 | Each | **193869.00** |
| e4 | 1000x600 | Each | **270358.00** |
| f4 | 1000x700 | Each | **283333.00** |
| g4 | 1000x800 | Each | **283333.00** |
| h4 | 1000x900 | Each | **293900.00** |
| i4 | 1000x1000 | Each | **293900.00** |
|  |  |  |  |
| **VII** | **Double Socket Bend 90 Degree** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 80 | Each | **1599.00** |
| b | 100 | Each | **1992.00** |
| c | 150 | Each | **3557.00** |
| d | 200 | Each | **5742.00** |
| e | 250 | Each | **8665.00** |
| f | 300 | Each | **11825.00** |
| g | 350 | Each | **18479.00** |
| h | 400 | Each | **23957.00** |
| I | 450 | Each | **32131.00** |
| j | 500 | Each | **41033.00** |
| k | 600 | Each | **63726.00** |
| l | 700 | Each | **111275.00** |
| m | 750 | Each | **131081.00** |
| n | 800 | Each | **150887.00** |
| o | 900 | Each | **210337.00** |
| p | 1000 | Each | **280280.00** |
|  |  |  |  |
| **VIII** | **Double Socket Bend 45 Degree** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 80 | Each | **1599.00** |
| b | 100 | Each | **1992.00** |
| c | 150 | Each | **3173.00** |
| d | 200 | Each | **5168.00** |
| e | 250 | Each | **7130.00** |
| f | 300 | Each | **9716.00** |
| g | 350 | Each | **12340.00** |
| h | 400 | Each | **17990.00** |
| I | 450 | Each | **23394.00** |
| j | 500 | Each | **30963.00** |
| k | 600 | Each | **46719.00** |
| l | 700 | Each | **77528.00** |
| m | 750 | Each | **91799.00** |
| n | 800 | Each | **106071.00** |
| o | 900 | Each | **149046.00** |
| p | 1000 | Each | **191365.00** |
|  |  |  |  |
| **IX** | **Double Socket Bend 22.5 Degree** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 80 | Each | **1407.00** |
| b | 100 | Each | **1800.00** |
| c | 150 | Each | **2790.00** |
| d | 200 | Each | **4400.00** |
| e | 250 | Each | **6171.00** |
| f | 300 | Each | **8182.00** |
| g | 350 | Each | **11448.00** |
| h | 400 | Each | **14793.00** |
| I | 450 | Each | **18705.00** |
| j | 500 | Each | **24698.00** |
| k | 600 | Each | **36202.00** |
| l | 700 | Each | **59709.00** |
| m | 750 | Each | **70336.00** |
| n | 800 | Each | **80962.00** |
| o | 900 | Each | **111639.00** |
| p | 1000 | Each | **135830.00** |
|  |  |  |  |
| **X** | **Double Socket Bend 11.25 Degree** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 80 | Each | **1407.00** |
| b | 100 | Each | **1800.00** |
| c | 150 | Each | **2598.00** |
| d | 200 | Each | **4208.00** |
| e | 250 | Each | **5596.00** |
| f | 300 | Each | **7414.00** |
| g | 350 | Each | **10169.00** |
| h | 400 | Each | **12663.00** |
| I | 450 | Each | **16147.00** |
| j | 500 | Each | **21117.00** |
| k | 600 | Each | **30831.00** |
| l | 700 | Each | **49451.00** |
| m | 750 | Each | **58592.00** |
| n | 800 | Each | **67733.00** |
| o | 900 | Each | **92071.00** |
| p | 1000 | Each | **114537.00** |
|  |  |  |  |
| XI | **All Socket Cross** |  |  |
| a | 80 | Each | **3187.00** |
| b | 100 | Each | **3979.00** |
| c | 150 | Each | **6769.00** |
| d | 200 | Each | **10336.00** |
| e | 250 | Each | **15305.00** |
| f | 300 | Each | **20930.00** |
| g | 350 | Each | **29849.00** |
| h | 400 | Each | **37730.00** |
| I | 450 | Each | **49163.00** |
| j | 500 | Each | **64027.00** |
| k | 600 | Each | **94212.00** |
| l | 700 | Each | **158240.00** |
| m | 750 | Each | **188881.00** |
| n | 800 | Each | **225925.00** |
| o | 900 | Each | **315564.00** |
| p | 1000 | Each | **412748.00** |
|  |  |  |  |
| XII | **Collar Tyton** |  |  |
| a | 80 | Each | **1752.00** |
| b | 100 | Each | **2131.00** |
| c | 150 | Each | **3294.00** |
| d | 200 | Each | **4246.00** |
| e | 250 | Each | **5651.00** |
| f | 300 | Each | **7419.00** |
| g | 350 | Each | **10773.00** |
| h | 400 | Each | **14173.00** |
| I | 450 | Each | **15533.00** |
| j | 500 | Each | **20398.00** |
| k | 600 | Each | **26064.00** |
| l | 700 | Each | **47143.00** |
| m | 750 | Each | **49409.00** |
| n | 800 | Each | **61874.00** |
| o | 900 | Each | **78872.00** |
| p | 1000 | Each | **96551.00** |
|  |  |  |  |
| XIII | **Branch Flange** |  |  |
| a | 80 | Each | **839.00** |
| b | 100 | Each | **1049.00** |
| c | 150 | Each | **1677.00** |
| d | 200 | Each | **2306.00** |
| e | 250 | Each | **3563.00** |
| f | 300 | Each | **5030.00** |
| g | 350 | Each | **8938.00** |
| h | 400 | Each | **11837.00** |
| I | 450 | Each | **15460.00** |
| j | 500 | Each | **22081.00** |
| k | 600 | Each | **34174.00** |
| l | 700 | Each | **55237.00** |
| m | 750 | Each | **46437.00** |
| n | 800 | Each | **76809.00** |
| o | 900 | Each | **106889.00** |
| p | 1000 | Each | **144492.00** |
|  |  |  |  |
| XIV | **Caps** |  |  |
| a | 80 | Each | **800.00** |
| b | 100 | Each | **997.00** |
| c | 150 | Each | **1778.00** |
| d | 200 | Each | **3159.00** |
| e | 250 | Each | **3757.00** |
| f | 300 | Each | **5913.00** |
| g | 350 | Each | **9987.00** |
| h | 400 | Each | **13684.00** |
| I | 450 | Each | **17557.00** |
| j | 500 | Each | **22979.00** |
| k | 600 | Each | **35667.00** |
| l | 700 | Each | **49009.00** |
| m | 750 | Each | **56549.00** |
| n | 800 | Each | **65267.00** |
| o | 900 | Each | **88357.00** |
| p | 1000 | Each | **115219.00** |
|  |  |  |  |
| XV | **Plug** |  |  |
| a | 80 | Each | **576.00** |
| b | 100 | Each | **959.00** |
| c | 150 | Each | **1727.00** |
| d | 200 | Each | **2877.00** |
| e | 250 | Each | **4028.00** |
| f | 300 | Each | **6137.00** |
| g | 350 | Each | **9378.00** |
| h | 400 | Each | **11427.00** |
| I | 450 | Each | **14426.00** |
| j | 500 | Each | **18916.00** |
| k | 600 | Each | **27683.00** |
| l | 700 | Each | **49368.00** |
| m | 750 | Each | **60442.00** |
| n | 800 | Each | **67593.00** |
| o | 900 | Each | **90894.00** |
| p | 1000 | Each | **116038.00** |
|  |  |  |  |
| XVI | **All Flange Tee** |  |  |
|  | Nominal Diameter in mm |  |  |
| 1 | 80x80 | Each | **3353.00** |
| 2 | 100x80 | Each | **3773.00** |
| 3 | 100x100 | Each | **3982.00** |
| 4 | 150x80 | Each | **5868.00** |
| 5 | 150x100 | Each | **6078.00** |
| 6 | 150x150 | Each | **6707.00** |
| 7 | 200x80 | Each | **8593.00** |
| 8 | 200x100 | Each | **8802.00** |
| 9 | 200x150 | Each | **9430.00** |
| 10 | 200X200 | Each | **10269.00** |
| 11 | 250x80 | Each | **14041.00** |
| 12 | 250x100 | Each | **14460.00** |
| 13 | 250x150 | Each | **14879.00** |
| 14 | 250x200 | Each | **15717.00** |
| 15 | 250x250 | Each | **16975.00** |
| 16 | 300x80 | Each | **18441.00** |
| 17 | 300x100 | Each | **18860.00** |
| 18 | 300x150 | Each | **19908.00** |
| 19 | 300x200 | Each | **20956.00** |
| 20 | 300x250 | Each | **22633.00** |
| 21 | 300x300 | Each | **24100.00** |
| 22 | 350x80 | Each | **27778.00** |
| 23 | 350x100 | Each | **28503.00** |
| 24 | 350x150 | Each | **29470.00** |
| 25 | 350x200 | Each | **30193.00** |
| 26 | 350x250 | Each | **33334.00** |
| 27 | 350x300 | Each | **34783.00** |
| 28 | 350x350 | Each | **36232.00** |
| 29 | 400x80 | Each | **35025.00** |
| 30 | 400x100 | Each | **36232.00** |
| 31 | 400x150 | Each | **38165.00** |
| 32 | 400x200 | Each | **37440.00** |
| 33 | 400x250 | Each | **39373.00** |
| 34 | 400x300 | Each | **41064.00** |
| 35 | 400x350 | Each | **44686.00** |
| 36 | 400x400 | Each | **44686.00** |
| 37 | 450x80 | Each | **43478.00** |
| 38 | 450x100 | Each | **44686.00** |
| 39 | 450x150 | Each | **45411.00** |
| 40 | 450x200 | Each | **45894.00** |
| 41 | 450x250 | Each | **47585.00** |
| 42 | 450x300 | Each | **49275.00** |
| 43 | 450x350 | Each | **52175.00** |
| 44 | 450x400 | Each | **52175.00** |
| 45 | 450x450 | Each | **55556.00** |
| 46 | 500x80 | Each | **62564.00** |
| 47 | 500x100 | Each | **63089.00** |
| 48 | 500x150 | Each | **63878.00** |
| 49 | 500x200 | Each | **63878.00** |
| 50 | 500x250 | Each | **65718.00** |
| 51 | 500x300 | Each | **68347.00** |
| 52 | 500x350 | Each | **70976.00** |
| 53 | 500x400 | Each | **73604.00** |
| 54 | 500x450 | Each | **76233.00** |
| 55 | 500x500 | Each | **78861.00** |
| 56 | 600x80 | Each | **89376.00** |
| 57 | 600x100 | Each | **89902.00** |
| 58 | 600x150 | Each | **90691.00** |
| 59 | 600x200 | Each | **93320.00** |
| 60 | 600X250 | Each | **97263.00** |
| 61 | 600x300 | Each | **97263.00** |
| 62 | 600X350 | Each | **99891.00** |
| 63 | 600x400 | Each | **102520.00** |
| 64 | 600X450 | Each | **106463.00** |
| 65 | 600x500 | Each | **110406.00** |
| 66 | 600x600 | Each | **115663.00** |
| 67 | 700x100 | Each | **88248.00** |
| 68 | 700x150 | Each | **94785.00** |
| 69 | 700x200 | Each | **99688.00** |
| 70 | 700X250 | Each | **111128.00** |
| 71 | 700x300 | Each | **111128.00** |
| 72 | 700x400 | Each | **122567.00** |
| 73 | 700X450 | Each | **142178.00** |
| 74 | 700x500 | Each | **142178.00** |
| 75 | 700x600 | Each | **161200.00** |
| 76 | 700x700 | Each | **169294.00** |
| 77 | 750x100 | Each | **105550.00** |
| 78 | 750x150 | Each | **108181.00** |
| 79 | 750x200 | Each | **110205.00** |
| 80 | 750x300 | Each | **127001.00** |
| 81 | 750x400 | Each | **129632.00** |
| 82 | 750X450 | Each | **163831.00** |
| 83 | 750x500 | Each | **163831.00** |
| 84 | 750x600 | Each | **167879.00** |
| 85 | 750x700 | Each | **171925.00** |
| 86 | 750x750 | Each | **174758.00** |
| 87 | 800x100 | Each | **122567.00** |
| 88 | 800x150 | Each | **124202.00** |
| 89 | 800x200 | Each | **125836.00** |
| 90 | 800x300 | Each | **144794.00** |
| 91 | 800x400 | Each | **156886.00** |
| 92 | 800X450 | Each | **174863.00** |
| 93 | 800x500 | Each | **192839.00** |
| 94 | 800x600 | Each | **212450.00** |
| 95 | 800x700 | Each | **220621.00** |
| 96 | 800x800 | Each | **228792.00** |
| 97 | 900x100 | Each | **149714.00** |
| 98 | 900x150 | Each | **149714.00** |
| 99 | 900x200 | Each | **153544.00** |
| 100 | 900x400 | Each | **194976.00** |
| 101 | 900x500 | Each | **272966.00** |
| 102 | 900x600 | Each | **278537.00** |
| 103 | 900X700 | Each | **310319.00** |
| 104 | 900x800 | Each | **310319.00** |
| 105 | 900x900 | Each | **313354.00** |
| 106 | 1000x150 | Each | **196717.00** |
| 107 | 1000x200 | Each | **200547.00** |
| 108 | 1000x400 | Each | **254165.00** |
| 109 | 1000x600 | Each | **365580.00** |
| 110 | 1000X700 | Each | **393434.00** |
| 111 | 1000x800 | Each | **393434.00** |
| 112 | 1000X900 | Each | **405620.00** |
| 113 | 1000x1000 | Each | **417805.00** |
|  |  |  |  |
| XVII | **Double Flange Reducer** |  |  |
|  | Nominal Diameter in mm |  |  |
| 1 | 100x80 | Each | **2516.00** |
| 2 | 150x80 | Each | **4192.00** |
| 3 | 150x100 | Each | **4611.00** |
| 4 | 200x80 | Each | **4401.00** |
| 5 | 200x100 | Each | **4401.00** |
| 6 | 200x150 | Each | **4820.00** |
| 7 | 250x80 | Each | **6497.00** |
| 8 | 250x100 | Each | **6497.00** |
| 9 | 250x150 | Each | **6672.00** |
| 10 | 250x200 | Each | **6916.00** |
| 11 | 300x100 | Each | **7963.00** |
| 12 | 300x150 | Each | **7963.00** |
| 13 | 300x200 | Each | **8383.00** |
| 14 | 300x250 | Each | **8802.00** |
| 15 | 350x150 | Each | **7963.00** |
| 16 | 350x200 | Each | **8383.00** |
| 17 | 350x250 | Each | **12560.00** |
| 18 | 350x300 | Each | **12802.00** |
| 19 | 400x200 | Each | **16184.00** |
| 20 | 400x250 | Each | **19082.00** |
| 21 | 400x300 | Each | **16909.00** |
| 22 | 400x350 | Each | **16426.00** |
| 23 | 450x200 | Each | **19324.00** |
| 24 | 450x250 | Each | **23431.00** |
| 25 | 450x300 | Each | **23673.00** |
| 26 | 450x350 | Each | **24155.00** |
| 27 | 450x400 | Each | **24396.00** |
| 28 | 500x200 | Each | **32596.00** |
| 29 | 500x250 | Each | **33122.00** |
| 30 | 500x300 | Each | **33647.00** |
| 31 | 500x350 | Each | **34174.00** |
| 32 | 500x400 | Each | **34962.00** |
| 33 | 500x450 | Each | **37854.00** |
| 34 | 600x200 | Each | **47843.00** |
| 35 | 600x250 | Each | **47843.00** |
| 36 | 600x300 | Each | **47843.00** |
| 37 | 600x350 | Each | **47843.00** |
| 38 | 600x400 | Each | **48632.00** |
| 39 | 600x450 | Each | **49946.00** |
| 40 | 600x500 | Each | **50734.00** |
| 41 | 700x300 | Each | **71253.00** |
| 42 | 700x400 | Each | **73868.00** |
| 43 | 700x450 | Each | **75338.00** |
| 44 | 700x500 | Each | **76809.00** |
| 45 | 700x600 | Each | **78771.00** |
| 46 | 750x450 | Each | **76918.00** |
| 47 | 750x500 | Each | **77525.00** |
| 48 | 750x600 | Each | **78941.00** |
| 49 | 750x700 | Each | **80357.00** |
| 50 | 800x300 | Each | **88248.00** |
| 51 | 800x400 | Each | **91517.00** |
| 52 | 800x450 | Each | **92171.00** |
| 53 | 800x500 | Each | **92825.00** |
| 54 | 800x600 | Each | **94785.00** |
| 55 | 800x700 | Each | **95439.00** |
| 56 | 900x500 | Each | **119075.00** |
| 57 | 900x600 | Each | **121860.00** |
| 58 | 900x700 | Each | **122557.00** |
| 59 | 900x800 | Each | **125342.00** |
| 60 | 1000x600 | Each | **146233.00** |
| 61 | 1000x700 | Each | **147973.00** |
| 62 | 1000x800 | Each | **181746.00** |
| 63 | 1000x900 | Each | **155981.00** |
|  |  |  |  |
| **15057** | Supply of flanged flat Rubber gasket moulded out of SBR rubber confirming to IS 5382/1985 The gasket should have dual thickness 3/6 mm with a 6mm thickness at the sealing cross section. ( Rubber insertions 3mm thick conforming to IS:6638-1995) |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 50 | Each | **70.00** |
| b | 65 | Each | **91.00** |
| c | 80 | Each | **91.00** |
| d | 100 | Each | **122.00** |
| e | 125 | Each | **145.00** |
| f | 150 | Each | **195.00** |
| g | 200 | Each | **242.00** |
| h | 250 | Each | **332.00** |
| I | 300 | Each | **364.00** |
| j | 350 | Each | **442.00** |
| k | 400 | Each | **547.00** |
| l | 450 | Each | **559.00** |
| m | 500 | Each | **700.00** |
| n | 600 | Each | **941.00** |
| o | 700 | Each | **1032.00** |
| p | 750 | Each | **1083.00** |
| q | 800 | Each | **1137.00** |
| r | 900 | Each | **2216.00** |
| s | 1000 | Each | **2306.00** |
|  |  |  |  |
| 15057(A) | Supply of flanged flat Rubber gasket moulded out of **EPDM**rubber confirming to IS 5382/1985 The gasket should have dual thickness 3/6 mm with a 6mm thickness at the sealing cross section. ( Rubber insertions 3mm thick conforming to IS:6638-1995). |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 50 | Each | **107.00** |
| b | 65 | Each | **137.00** |
| c | 80 | Each | **142.00** |
| d | 100 | Each | **180.00** |
| e | 125 | Each | **210.00** |
| f | 150 | Each | **292.00** |
| g | 200 | Each | **360.00** |
| h | 250 | Each | **496.00** |
| I | 300 | Each | **545.00** |
| j | 350 | Each | **650.00** |
| k | 400 | Each | **813.00** |
| l | 450 | Each | **826.00** |
| m | 500 | Each | **1030.00** |
| n | 600 | Each | **1395.00** |
| o | 700 | Each | **1527.00** |
| p | 900 | Each | **2155.00** |
| q | 1000 | Each | **2388.00** |

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| **MILD STEEL PIPES** | | | |
| 15058 | Manufacturing and supplying at the site of work spirally submerged arch welded MS pipes including procurement of plates, gas cutting to required size, rolling, tack welding, assembling in suitable length to form pipe, welding on automatic machine and forming 'v' edge on both ends of pipes, including hydraulic pressure test conforming to IS : 3589-2001 grade Fe 410 in double random length of 10 to 12.2 metres in bevelled ends including freight,Loading and unloading by mechanical crane and stacking at site etc. complete. |  |  |
|  | Size in ( OD ) in MM for 10 mm thickness |  |  |
| a | 457 | Metre | **7181.00** |
| b | 508 | Metre | **7983.00** |
| c | 610 | Metre | **9585.00** |
| d | 711 | Metre | **11172.00** |
| e | 813 | Metre | **12775.00** |
| f | 914 | Metre | **14362.00** |
| g | 1016 | Metre | **15965.00** |
| h | 1067 | Metre | **16767.00** |
| I | 1118 | Metre | **17568.00** |
| j | 1219 | Metre | **19155.00** |
| k | 1422 | Metre | **22345.00** |
| l | 1626 | Metre | **25551.00** |
| m | 1829 | Metre | **28740.00** |
| n | 2032 | Metre | **31930.00** |
| o | 2235 | Metre | **35120.00** |
| p | 2540 | Metre | **39913.00** |
|  | Size in ( OD ) in MM for 12 mm thickness |  |  |
| q | 457 | Metre | **9028.00** |
| r | 508 | Metre | **10035.00** |
| s | 610 | Metre | **12050.00** |
| t | 711 | Metre | **14045.00** |
| u | 813 | Metre | **16060.00** |
| v | 914 | Metre | **18056.00** |
| w | 1016 | Metre | **20071.00** |
| x | 1067 | Metre | **21078.00** |
| y | 1118 | Metre | **22085.00** |
| z | 1219 | Metre | **24081.00** |
| a1 | 1422 | Metre | **28091.00** |
| b1 | 1626 | Metre | **32121.00** |
| c1 | 1829 | Metre | **36131.00** |
| d1 | 2032 | Metre | **40141.00** |
| e1 | 2235 | Metre | **44151.00** |
| f1 | 2540 | Metre | **50176.00** |
|  |  |  |  |
| 15060 | Manufacturing and supplying at the site of work ER welded MS pipes including procurement of plates, gas cutting to required size, rolling, tack welding, assembling in suitable length to form pipe, welding on automatic machine and forming v edge on both ends of pipes, including hydraulic pressure test conforming to IS : 3589- 2001 grade Fe 410 in double random length of 10 to 12.2 metres in bevelled ends including ,freight loading & unloading mechanical crane & stacking at site etc. complete. |  |  |
|  | **Size in ( OD ) in MM for 10mm thickness** |  |  |
| a | 219.1 | Metre | **6349.00** |
| b | 273 | Metre | **7985.00** |
| c | 323.9 | Metre | **9800.00** |
| d | 355.6 | Metre | **10790.00** |
| e | 406.4 | Metre | **12376.00** |
|  | **Size in ( OD ) in MM for 12mm thickness** |  |  |
| a | 219.1 | Metre | **7545.00** |
| b | 273 | Metre | **9509.00** |
| c | 323.9 | Metre | **11685.00** |
| d | 355.6 | Metre | **12873.00** |
| e | 406.4 | Metre | **14766.00** |
|  |  |  |  |
| 15062 (A) | Manufacturing and supplying at site of work welded MS pipes of finished ID of suitable lengths made out of fabricating, welding forming 'V' edge to both ends of the pipes sides including providing and fixing welding etc. of suitable MS hinges conforming to relevant IS codes, stresses induced due to trench conditions, backfilling class 'A' traffic loading, handling temperature variation etc. testing the pipeline to a field test pressure of 25 kg /cm2 as directed by Engineer-in-charge. (the finished internal dia. is to be considered without cement mortar lining /Epoxy painting). |  |  |
| **A** | **10 mm thick (plate welded)** |  |  |
|  | Dia in mm |  |  |
| a | 400 | Metre | **13153.00** |
| b | 500 | Metre | **16361.00** |
| c | 600 | Metre | **19569.00** |
| d | 700 | Metre | **22777.00** |
| e | 800 | Metre | **25985.00** |
| f | 900 | Metre | **29193.00** |
| g | 1000 | Metre | **32400.00** |
| h | 1100 | Metre | **35608.00** |
| I | 1200 | Metre | **38816.00** |
| j | 1300 | Metre | **42024.00** |
| k | 1400 | Metre | **45232.00** |
|  |  |  |  |
| **B** | **12 mm thick (plate welded)** |  |  |
|  | Dia in mm |  |  |
| a | 400 | Metre | **15599.00** |
| b | 500 | Metre | **19420.00** |
| c | 600 | Metre | **23125.00** |
| d | 700 | Metre | **26958.00** |
| e | 800 | Metre | **30791.00** |
| f | 900 | Metre | **34659.00** |
| g | 1000 | Metre | **38330.00** |
| h | 1100 | Metre | **42035.00** |
| I | 1200 | Metre | **42418.00** |
| j | 1300 | Metre | **42801.00** |
| k | 1400 | Metre | **53406.00** |
|  |  |  |  |

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| **MILD STEEL SPECIALS** | | | |
| **15063** | Supplying stacking at site and conveying hoisting, laying in position to correct line and level and linking joints of MS specials. fabricated from MS plate including cutting, bending, welding, procurement of plates, gas cutting to required size, rolling, tack welding, assembling in suitable length to form special, welding on automatic machine and forming V edge on both ends of special as required, hydraulic pressure test at factory to the required test pressure conforming to IS : 3589-1991 including freight etc. complete |  |  |
| **I** | **With 10 mm -12 mm thick plate** |  |  |
| a | Tees, bends, reducers, | Kg | **192.00** |
| b | M.S.spigot tail piece suitable for connecting M.S pipeline with C.I./D.I pipeline | Kg | **192.00** |
| c | M.S.socketed tail piece suitable for connecting M.S pipeline with C.I./D.I pipeline | Kg | **307.00** |
| **II** | **With 25 mm thick Plate** |  |  |
| a | Flanges | Kg | **174.00** |
|  |  |  |  |
| **15064** | Welding in all position with minimum 3 Nos. of runs for MS pipes and specials and flanges, internally and externally including gauging wherever necessary, fixing appurtances and other accessories, cost of water pumping arrangement and hydraulic testing etc. complete for 12mm/10mm thick M.S.plate. |  |  |
|  | Dia in mm |  |  |
| a | 300 | Each | **8131.00** |
| b | 400 | Each | **9873.00** |
| c | 450 | Each | **10454.00** |
| d | 500 | Each | **10454.00** |
| e | 600 | Each | **10454.00** |
| f | 700 | Each | **12196.00** |
| g | 800 | Each | **12777.00** |
| h | 900 | Each | **14519.00** |
| I | 1000 | Each | **16029.00** |
| j | 1100 | Each | **16029.00** |
| k | 1200 | Each | **16842.00** |
| l | 1300 | Each | **17423.00** |
| m | 1400 | Each | **18119.00** |
|  |  |  |  |
| **15065** | Providing and applying primer coat or of fibres, coal tar and solvent based rubber modified bituminous primer of density 0.92 gm/cu. cm. and viscosity of 1000-2000 cps @ 150 gms/Sqm followed by seven layers ( 4 mm thick ) of polythene polymerised bitumen ester of local 7 layers pipe coat 4 mm should conform to requirement of IS :10221 and AWWA C-203 for prefabricated tapes including Cost of material for coating and wrapping handling charges preparation of pipe surface all labour machinery etc. complete. | Sq. m. | **813.00** |
|  |  |  |  |
| **15066** | Providing and applying with mechanical arrangement 50 mm thick gunniting of CM 1 : 3.5 ( 1 cement : 3.5 fine sand) on the external surface under 2.1 to 2.8 kg. per sq. cms. on the MS pipeline including curing, handling and preparation of pipe surface, cleaning by compressed air and providing and fixing BRC fabric No.14 as reinforcement, labour, machinery including cost of water and pumping arrangement etc. complete. |  |  |
| a | At site of work | Sq. m. | **1212.00** |
|  |  |  |  |
| **15067** | Providing and applying 12 mm cement mortar 1:1 (1cement : 1 fine sand) on the internal surface of the MS pipeline including curing, handling and preparation of pipe surface, labour, machinery including cost of water and pumping arrangement etc. complete at factory stacking at site as per direction of Engineer -In-charge | Sq. m. | **1616.00** |
|  |  |  |  |
| **15068** | Providing and laying three coat of anticorrosive and anti-toxic surface coating for MS pipeline. The paint shall be applied after removing the scales and rust over the pipe by wire brush. Paint shall be applied uniformly to achieve uniform coating of average DFT of 60 microns per coat with the brush. 2nd coat shall be applied over the 1st coat after 8 hrs. the process shall be repeated for the 3rd coat. DFT for the final coat shall be 35 microns. Final surface shall be uniform and shall have total thickness of about 150 microns. The rate is inclusive of material, transportation up to the site of work including, labour, machinery as required etc. complete. All three coats shall be of distinctive colour as approved be Engineer-in- charge. | Sq. m. | **707.00** |

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| **MILD STEEL CONTINUOUS GALVANIZED WELDEDTUBES** | | | |
| **15069** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. galvanized mild steel continuous weld tubes conforming to IS:1239 (part-I) 1975, with latest amendments, screwed at both the ends as per IS: 554 - pipe threads, one end fitted with socket, other end with plastic protection ring at random lengths 4-7 meters. |  |  |
|  | **Class A** |  |  |
|  | Dia in mm |  |  |
| a | 15 | Metre | **228.00** |
| b | 20 | Metre | **307.00** |
| c | 25 | Metre | **402.00** |
| d | 32 | Metre | **420.00** |
| e | 40 | Metre | **657.00** |
| f | 50 | Metre | **856.00** |
| g | 65 | Metre | **1139.00** |
| h | 80 | Metre | **1357.00** |
| I | 100 | Metre | **1904.00** |
|  |  |  |  |
| **15070** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. galvanized mild steel continuous weld tubes conforming to IS:1239 (part II) 1975, with latest amendments, screwed at both the ends as per IS: 554-pipe threads, one end fitted with socket other end with plastic protection ring at random length 4-7 metres. |  |  |
|  | **Class B** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 15 | Metre | **228.00** |
| b | 20 | Metre | **289.00** |
| c | 25 | Metre | **416.00** |
| d | 32 | Metre | **525.00** |
| e | 40 | Metre | **616.00** |
| f | 50 | Metre | **739.00** |
| g | 65 | Metre | **1090.00** |
| h | 80 | Metre | **1390.00** |
| I | 100 | Metre | **2099.00** |
| j | 125 | Metre | **2834.00** |
| k | 150 | Metre | **3348.00** |
|  |  |  |  |
| **15071** | Supplying at store/ site of work including railway freight, carting, loading, unloading, stacking etc. galvanized mild steel continuous weld tubes conforming to IS 1239 (part I) 1975, with latest amendments screwed at both the ends as per IS : 554 - pipe threads, one and fitted with socket other end with plastic protection ring at random lengths 4 - 7 meters |  |  |
|  | **Class C** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 15 | Metre | **236.00** |
| b | 20 | Metre | **337.00** |
| c | 25 | Metre | **470.00** |
| d | 32 | Metre | **614.00** |
| e | 40 | Metre | **734.00** |
| f | 50 | Metre | **955.00** |
| g | 65 | Metre | **1274.00** |
| h | 80 | Metre | **1626.00** |
| I | 100 | Metre | **1838.00** |
| j | 125 | Metre | **2390.00** |
| k | 150 | Metre | **3578.00** |
|  |  |  |  |

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| --- | --- | --- | --- |
| **MDPE PIPES & FITINGS** | | | |
| **15072** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc Blue MDPE pipes confirming to ISO 4427:1996 manufactured from Virgin Resin PE 80 food grade compounded raw material having Blue colour only with quality assurance certificate from quality agencies like WRC /CIPET (India)/ DVGM/ KIWA/ SPGN etc. |  |  |
| **I** | **PN10 (SDR 13.60)** |  |  |
|  | Outer Diameter in mm |  |  |
| a | 63 | Metre | **218.00** |
| b | 75 | Metre | **310.00** |
| c | 90 | Metre | **444.00** |
| d | 110 | Metre | **657.00** |
| e | 125 | Metre | **848.00** |
| f | 140 | Metre | **1062.00** |
| g | 160 | Metre | **1386.00** |
| h | 180 | Metre | **1759.00** |
| I | 200 | Metre | **2157.00** |
| j | 225 | Metre | **2739.00** |
| k | 250 | Metre | **3374.00** |
| l | 280 | Metre | **4228.00** |
| m | 315 | Metre | **5358.00** |
|  |  |  |  |
| **II** | **PN12.5 (SDR 11)** |  |  |
|  | Outer Diameter in mm |  |  |
| a | 25 | Metre | **43.00** |
| b | 32 | Metre | **70.00** |
| c | 40 | Metre | **108.00** |
| d | 50 | Metre | **167.00** |
| e | 63 | Metre | **264.00** |
| f | 75 | Metre | **368.00** |
| g | 90 | Metre | **534.00** |
| h | 110 | Metre | **791.00** |
| I | 125 | Metre | **1027.00** |
| j | 140 | Metre | **1280.00** |
| k | 160 | Metre | **1680.00** |
| l | 180 | Metre | **2123.00** |
| m | 200 | Metre | **2618.00** |
| n | 225 | Metre | **3314.00** |
| o | 250 | Metre | **4076.00** |
| p | 280 | Metre | **5109.00** |
| q | 315 | Metre | **6468.00** |
|  |  |  |  |
| **III** | **PN16 (SDR 9)** |  |  |
|  | Outer Diameter in mm |  |  |
| a | 20 | Metre | **33.00** |
| b | 25 | Metre | **52.00** |
| c | 32 | Metre | **82.00** |
| d | 40 | Metre | **128.00** |
| e | 50 | Metre | **197.00** |
| f | 63 | Metre | **316.00** |
| g | 75 | Metre | **444.00** |
| h | 90 | Metre | **640.00** |
| I | 110 | Metre | **705.00** |
| j | 125 | Metre | **1230.00** |
| k | 140 | Metre | **1541.00** |
| l | 160 | Metre | **2007.00** |
| m | 180 | Metre | **2539.00** |
| n | 200 | Metre | **3141.00** |
| o | 225 | Metre | **3975.00** |
| p | 250 | Metre | **4885.00** |
| q | 280 | Metre | **6140.00** |
| r | 315 | Metre | **7768.00** |
|  |  |  |  |
| IV | **PN 8 (SDR 17)** |  |  |
|  | Outer Diameter in mm |  |  |
| a | 75 | Metre | **254.00** |
| b | 90 | Metre | **366.00** |
| c | 110 | Metre | **545.00** |
| d | 125 | Metre | **693.00** |
| e | 140 | Metre | **871.00** |
| f | 160 | Metre | **1137.00** |
| g | 180 | Metre | **1438.00** |
| h | 200 | Metre | **1775.00** |
| I | 225 | Metre | **2251.00** |
| j | 250 | Metre | **2759.00** |
| k | 280 | Metre | **3465.00** |
| l | 315 | Metre | **4388.00** |
|  |  |  |  |
| **V** | **PN6 (SDR 21)** |  |  |
| a | 90 | Metre | **296.00** |
| b | 110 | Metre | **445.00** |
| c | 125 | Metre | **569.00** |
| d | 140 | Metre | **712.00** |
| e | 160 | Metre | **934.00** |
| f | 180 | Metre | **1173.00** |
| g | 200 | Metre | **1454.00** |
| h | 225 | Metre | **1837.00** |
| I | 250 | Metre | **2248.00** |
| j | 280 | Metre | **2838.00** |
| k | 315 | Metre | **3566.00** |
|  |  |  |  |
| **15073** | Supply at store or site of work including railway freight, carting, loading, unloading, stacking etc. compression fittings Pn 16 rated in confirmation to ISO 14236-2000 and shall be tested as per ISO 3459, ISO -3501 and ISO 3503. |  |  |
| **I** | **Male Adapter** |  |  |
|  | Diameter -Main pipe outer diameter in mm & tapping size in inches |  |  |
| a | 20x1/2" | Each | **221.00** |
| b | 25x3/4'' | Each | **285.00** |
| c | 32x1" | Each | **377.00** |
| d | 40x11/4" | Each | **1034.00** |
| e | 50x11/2" | Each | **1336.00** |
| f | 63x2" | Each | **2509.00** |
|  |  |  |  |
| **II** | **Female Adapter** |  |  |
|  | Diameter -Main pipe outer diameter in mm & tapping size in inches |  |  |
| a | 20x1/2" | Each | **221.00** |
| b | 25x3/4''- 64x20 | Each | **285.00** |
| c | 32x1" - 81x25 | Each | **377.00** |
| d | 40x11/4"-102x32 | Each | **1034.00** |
| e | 50x11/2"-127x40 | Each | **1336.00** |
| f | 63x2" - 160x50 | Each | **2509.00** |
|  |  |  |  |
| **III** | **Coupling** |  |  |
| a | Outer Diameter in mm |  |  |
| b | 20x20 | Each | **187.00** |
| c | 25x25 | Each | **216.00** |
| d | 32x32 | Each | **285.00** |
| e | 40x40 | Each | **453.00** |
| f | 50x50 | Each | **494.00** |
| g | 63x63 | Each | **607.00** |
|  |  |  |  |
| **IV** | **Reducing Coupling** |  |  |
|  | Outer Diameter in mm |  |  |
| a | 25x20 | Each | **192.00** |
| b | 32x20 | Each | **244.00** |
| c | 32x25 | Each | **250.00** |
| d | 40x25 | Each | **377.00** |
| e | 40x32 | Each | **389.00** |
| f | 50x32 | Each | **495.00** |
| g | 50x40 | Each | **510.00** |
| h | 63x50 | Each | **789.00** |
|  |  |  |  |
| **V** | **Elbow 90 Degree** |  |  |
|  | Outer Diameter in mm |  |  |
| a | 20 | Each | **197.00** |
| b | 25 | Each | **221.00** |
| c | 32 | Each | **261.00** |
| d | 40 | Each | **401.00** |
| e | 50 | Each | **569.00** |
| f | 63 | Each | **762.00** |
|  |  |  |  |
| **VI** | **90 Degree Elbow -Male threaded offtake** |  |  |
|  | Diameter -Main pipe outer diameter in mm & tapping size in inches |  |  |
| a | 20x1/2"- 50x12 | Each | **131.00** |
| b | 25x3/4''-64x20 | Each | **159.00** |
| c | 32x1" -81x25 | Each | **210.00** |
| d | 40x11/4"-102x32 | Each | **330.00** |
| e | 50x11/2"-127x40 | Each | **452.00** |
| f | 63x2" -160x50 | Each | **627.00** |
|  |  |  |  |
| **VII** | **90 Degree Elbow -Female threaded offtake** |  |  |
|  | Diameter -Main pipe outer diameter in mm & tapping size in inches |  |  |
| a | 20x1/2"- 50x12 | Each | **150.00** |
| b | 25x3/4''-64x20 | Each | **185.00** |
| c | 32x1" -81x25 | Each | **222.00** |
| d | 40x11/4"-102x32 | Each | **432.00** |
| e | 50x11/2"-127x40 | Each | **578.00** |
| f | 63x2" -160x50 | Each | **782.00** |
|  |  |  |  |
| VIII | **90 Degree Elbow threaded male/Female offtake in metal** |  |  |
|  | Diameter -Main pipe outer diameter in mm & tapping size in inches |  |  |
| a | 20x1/2"- 50x12 | Each | **244.00** |
| b | 25x3/4''-64x20 | Each | **331.00** |
| c | 32x1" -81x25 | Each | **436.00** |
| d | 40x11/4"-102x32 | Each | **1336.00** |
| e | 50x11/2"-127x40 | Each | **2091.00** |
| f | 63x2" -160x50 | Each | **3426.00** |
|  |  |  |  |
| IX | **Equal Tee** |  |  |
|  | Sizes in mm |  |  |
| a | 20x20x20 | Each | **250.00** |
| b | 25x25x25 | Each | **319.00** |
| c | 32x32x32 | Each | **413.00** |
| d | 40x40x40 | Each | **674.00** |
| e | 50x50x50 | Each | **918.00** |
| f | 63x63x63 | Each | **1394.00** |
|  |  |  |  |
| **X** | **End cap** |  |  |
|  | Sizes in mm |  |  |
| a | 20 | Each | **110.00** |
| b | 25 | Each | **145.00** |
| c | 32 | Each | **180.00** |
| d | 40 | Each | **308.00** |
| e | 50 | Each | **452.00** |
| f | 63 | Each | **598.00** |
|  |  |  |  |
|  | **Valve with quick joint** |  |  |
| **15074** | Supply at store or site of work including railway freight, carting, loading, unloading, stacking etc.PVC ball valves in PN 16 rating with one end compression using Blue colour compression nut in polypropylene material 7 other end with female threads confirming to ISO:4422-4 . |  |  |
|  | Diameter -Main pipe outer diameter in mm & tapping size in inches |  |  |
| a | 20x1/2'' | Each | **221.00** |
| b | 25x3/4'' | Each | **285.00** |
| c | 32x1'' | Each | **337.00** |
| d | 40x11/4 | Each | **685.00** |
| e | 50x1/2 | Each | **918.00** |
| f | 63x2'' | Each | **1452.00** |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **RCC PIPES** | | | |
| 15075 | Providing at store or site work non-pressure RCC pipes of with collar joints conforming to IS:458-2003 revised as per amendment No.11 , including freight, carting, loading, unloading, stacking etc. complete. |  |  |
| I | NP2 Class |  |  |
|  | Dia in mm |  |  |
| a | 80 | Metre | **873.00** |
| b | 100 | Metre | **956.00** |
| c | 150 | Metre | **1163.00** |
| d | 200 | Metre | **1378.00** |
| e | 225 | Metre | **1485.00** |
| f | 250 | Metre | **1596.00** |
| g | 300 | Metre | **1934.00** |
| h | 350 | Metre | **2666.00** |
| I | 400 | Metre | **2912.00** |
| j | 450 | Metre | **3251.00** |
| k | 500 | Metre | **3515.00** |
| l | 600 | Metre | **4387.00** |
| m | 700 | Metre | **6310.00** |
| n | 800 | Metre | **6994.00** |
| o | 900 | Metre | **7951.00** |
| p | 1000 | Metre | **10613.00** |
| q | 1100 | Metre | **11616.00** |
| r | 1200 | Metre | **12722.00** |
| s | 1400 | Metre | **14746.00** |
| t | 1600 | Metre | **16828.00** |
| u | 1800 | Metre | **19584.00** |
|  |  |  |  |
| II | **NP3 Class** |  |  |
|  | Dia in mm |  |  |
| a | 80 | Metre | **1285.00** |
| b | 100 | Metre | **1385.00** |
| c | 150 | Metre | **1639.00** |
| d | 200 | Metre | **1971.00** |
| e | 225 | Metre | **2109.00** |
| f | 250 | Metre | **2237.00** |
| g | 300 | Metre | **2793.00** |
| h | 350 | Metre | **4927.00** |
| I | 400 | Metre | **5273.00** |
| j | 450 | Metre | **5706.00** |
| k | 500 | Metre | **6079.00** |
| l | 600 | Metre | **7306.00** |
| m | 700 | Metre | **10394.00** |
| n | 800 | Metre | **11992.00** |
| o | 900 | Metre | **13499.00** |
| p | 1000 | Metre | **18878.00** |
| q | 1100 | Metre | **20271.00** |
| r | 1200 | Metre | **22026.00** |
| s | 1400 | Metre | **27021.00** |
| t | 1600 | Metre | **31206.00** |
| u | 1800 | Metre | **36752.00** |
|  |  |  |  |
| **15080** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. unplasticised non-pressure PVC pipes for using underground drainage and sewerage system confirming to IS : 15328 - 2003 stiffness class SN-4 (4 KN/m2,SDR -41) |  |  |
|  | Dia in mm |  |  |
| a | 125 | Metre | **441.00** |
| b | 160 | Metre | **709.00** |
| c | 200 | Metre | **1084.00** |
| **15081** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. unplasticised non-pressure PVC pipes for using underground drainage and sewerage system confirming to IS : 15328 - 2003 stifness class SN-8 (8 KN/m2,SDR -34) |  |  |
|  | Dia in mm |  |  |
| a | 110 | Metre | **387.00** |
| b | 125 | Metre | **511.00** |
| c | 160 | Metre | **825.00** |
| d | 200 | Metre | **1297.00** |
|  |  |  |  |
| **15082** | Supply of UPVC SWR Cut piece /Accessories |  |  |
| **I** | Class -A Double Socket) 6 feet length |  |  |
| a | Dia in mm | Each | **179.00** |
| b | 75 | Each | **336.00** |
| c | 110 |  |  |
|  |  |  |  |
| **II** | Class -B (Double Socket) 6 feet length |  |  |
|  | Dia in mm |  |  |
| a | 75 | Each | **322.00** |
| b | 110 | Each | **493.00** |
| c | 160 | Each | **851.00** |
|  |  |  |  |
| **III** | Class -A (Single Socket) 6 feet length |  |  |
|  | Dia in mm |  |  |
| a | 75 | Each | **176.00** |
| b | 110 | Each | **308.00** |
|  |  |  |  |
| **IV** | Class -B (Single Socket) 6 feet length |  |  |
|  | Dia in mm |  |  |
| a | 75 | Each | **304.00** |
| b | 110 | Each | **473.00** |
|  |  |  |  |
|  |  |  |  |
| **VALVES** | | | |
|  |  |  |  |
| **CAST IRON SLUICE VALVES** | | | |
| **15083** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. C. I. Sluice valve conforming to IS : 14846-2000 and bearing ISI mark double flanged with cap. TYPE P.N. 1.0 (Class B ) |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 50 | Each | **9311.00** |
| b | 80 | Each | **11496.00** |
| c | 100 | Each | **15590.00** |
| d | 150 | Each | **23079.00** |
| e | 200 | Each | **46509.00** |
| f | 250 | Each | **64687.00** |
| g | 300 | Each | **85204.00** |
| h | 350 | Each | **128496.00** |
| I | 400 | Each | **181775.00** |
| j | 450 | Each | **222518.00** |
| k | 500 | Each | **248217.00** |
| l | 600 | Each | **361043.00** |
| m | 700 | Each | **690118.00** |
| n | 750 | Each | **856222.00** |
| o | 800 | Each | **987853.00** |
| p | 900 | Each | **1279319.00** |
| q | 1000 | Each | **1655405.00** |
| r | 1200 | Each | **2454588.00** |
|  |  |  |  |
| 15084 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast iron double flanged manually operated Sluice Valve generally conforming to IS: 14846 - 2000 having body, door, dome, gland in graded cast iron to IS:210 Gr. FG 200Min., four faces and spindle nut of leaded tin bronze to IS:318 Gr. LTB 2, inside screw of non-rising stainless steel AISI410, spindle, Flanges drilled to IS:1538 Table 4 & 6. Valves tested by closed end method only (350mm and above will be fitted with BTB and Spur gear box. and back seat bush) TYPE P.N. 1.0 (Class A) |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 50 | Each | **10591.00** |
| b | 65 | Each | **12919.00** |
| c | 80 | Each | **15463.00** |
| d | 100 | Each | **20708.00** |
| e | 125 | Each | **25660.00** |
| f | 150 | Each | **34076.00** |
| g | 200 | Each | **59626.00** |
| h | 250 | Each | **83089.00** |
| I | 300 | Each | **110574.00** |
| j | 350 | Each | **210784.00** |
| k | 400 | Each | **238626.00** |
| l | 450 | Each | **280357.00** |
| m | 500 | Each | **352738.00** |
| n | 600 | Each | **460949.00** |
| o | 700 | Each | **1121695.00** |
| p | 750 | Each | **1116578.00** |
| q | 800 | Each | **1385153.00** |
| r | 900 | Each | **1729778.00** |
| S | 1000 | Each | **2132425.00** |
| t | 1100 | Each | **2452366.00** |
| u | 1200 | Each | **2672307.00** |
|  |  |  |  |
| 15084 (a) | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Ductile iron sewage double flanged manually operated Sluice Valve generally conforming to IS: 14846 - 2000 having body, door, dome, gland in graded ductile iron to IS:1865 Gr. FG 400/15 or 500/7, four faces and spindle nut of leaded gun metal of IS:318 Gr. LTB 2/Al-bronze, inside screw of non-rising stainless steel AISI 410, spindle, Flanges drilled to IS:1538 Table 4 & 6. Valves tested by closed end method only (400mm and above will be fitted with BTB and gear box. and air plug) TYPE P.N. 1.0 (Class A ) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **11207.00** |
| b | 80 | Each | **16525.00** |
| c | 100 | Each | **22461.00** |
| d | 150 | Each | **36038.00** |
| e | 200 | Each | **61404.00** |
| f | 250 | Each | **84750.00** |
| g | 300 | Each | **116123.00** |
| h | 350 | Each | **184232.00** |
| i | 400 | Each | **255110.00** |
| j | 450 | Each | **301409.00** |
| k | 500 | Each | **373241.00** |
| l | 600 | Each | **490144.00** |
| m | 700 | Each | **1181589.00** |
| n | 750 | Each | **1175264.00** |
| o | 800 | Each | **1454429.00** |
| p | 900 | Each | **1816298.00** |
| q | 1000 | Each | **2240868.00** |
| r | 1100 | Each | **2600192.00** |
| s | 1200 | Each | **2835982.00** |
|  |  |  |  |
| 15084 (b) | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Ductile iron Sewage double flanged manually operated Sluice Valve generally conforming to IS: 14846 - 2000 having body, door, dome, gland in graded cast iron to IS:210 Gr. FG 260, four faces and spindle nut of leaded tin bronze to IS:318 Gr. LTB 2, inside screw of non-rising stainless steel AISI 410 IS 6603 GR 12 CR 12 spindle, Flanges drilled to IS:1538 Table 4 & 6. Valves tested by closed end method only (350mm and above will be fitted with BTB and gear box. and back seat bush.) TYPE P.N. 1.6 (Class A ) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **12176.00** |
| b | 80 | Each | **17684.00** |
| c | 100 | Each | **23810.00** |
| d | 150 | Each | **38921.00** |
| e | 200 | Each | **64145.00** |
| f | 250 | Each | **88809.00** |
| g | 300 | Each | **123412.00** |
| h | 350 | Each | **216245.00** |
| i | 400 | Each | **260574.00** |
| j | 450 | Each | **319033.00** |
| k | 500 | Each | **424177.00** |
| l | 600 | Each | **568715.00** |
| m | 700 | Each | **1330350.00** |
| n | 750 | Each | **1252619.00** |
| o | 800 | Each | **1661131.00** |
| p | 900 | Each | **1937320.00** |
| q | 1000 | Each | **2536167.00** |
| r | 1100 | Each | **3017914.00** |
| s | 1200 | Each | **3118918.00** |
|  |  |  |  |
| **15085** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. C. I. Sluice valve conforming to IS:14846-2000 and bearing ISI mark double flanged/plain ended with cap. TYPE P.N. 1.6 (Class B ) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **7597.00** |
| b | 65 | Each | **8238.00** |
| c | 80 | Each | **8879.00** |
| d | 100 | Each | **11836.00** |
| e | 150 | Each | **17749.00** |
| f | 200 | Each | **32109.00** |
| g | 250 | Each | **46333.00** |
| h | 300 | Each | **61415.00** |
| i | 350 | Each | **95183.00** |
| j | 400 | Each | **120362.00** |
| k | 450 | Each | **161529.00** |
| l | 500 | Each | **191305.00** |
| m | 600 | Each | **299123.00** |
|  |  |  |  |
| **15086** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast iron double flanged manually operated Sluice Valve, generally conforming to IS:14846 - 2000, having body, door, dome, wedge in graded cast iron to IS:210 Gr. FG 200 min., four faces and spindle nut of leaded tin bronze to IS:318 Gr. LTB 2, inside screw of non-rising stainless steel AISI410, spindle, flanges drilled to IS:1538 Table 4 & 6. Valves tested by closed end method only (350mm and above will be fitted with BTB and Spur gear box and back seat bush.) etc. complete TYPE P.N. 1.6 (Class A ) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **8890.00** |
| b | 65 | Each | **10726.00** |
| c | 80 | Each | **12156.00** |
| d | 100 | Each | **16994.00** |
| e | 125 | Each | **20960.00** |
| f | 150 | Each | **25059.00** |
| g | 200 | Each | **44153.00** |
| h | 250 | Each | **57540.00** |
| i | 300 | Each | **82824.00** |
| j | 350 | Each | **123765.00** |
| k | 400 | Each | **154079.00** |
| l | 450 | Each | **186238.00** |
| m | 500 | Each | **239887.00** |
| n | 600 | Each | **454153.00** |
| o | 700 | Each | **839084.00** |
| p | 750 | Each | **892380.00** |
| q | 800 | Each | **1082424.00** |
| r | 900 | Each | **1332670.00** |
| s | 1000 | Each | **1648862.00** |
| t | 1100 | Each | **2154648.00** |
| u | 1200 | Each | **2222700.00** |

|  |  |  |  |
| --- | --- | --- | --- |
| **BUTTERFLY VALVES** | | | |
| **15088** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. C. I. Butterfly (tight shut off) valve with cast iron body conforming IS:210 FIG. 260 and disc shafts seal rings, clamping ring, nitrite rubber seal leaded bronze bearings manually operated complete conforming to BS:5155/IS:13095 etc. complete. TYPE P.N. 1.0 (Class B ) |  |  |
|  | Dia in mm |  |  |
| a | 80 | Each | **11929.00** |
| b | 100 | Each | **15246.00** |
| c | 150 | Each | **37458.00** |
| d | 200 | Each | **50706.00** |
| e | 250 | Each | **52340.00** |
| f | 300 | Each | **77402.00** |
| g | 350 | Each | **118217.00** |
| h | 400 | Each | **144172.00** |
| I | 450 | Each | **171935.00** |
| j | 500 | Each | **188786.00** |
| k | 600 | Each | **233132.00** |
| l | 700 | Each | **377306.00** |
| m | 750 | Each | **465650.00** |
| n | 800 | Each | **508793.00** |
| o | 900 | Each | **641894.00** |
| p | 1000 | Each | **887395.00** |
| q | 1200 | Each | **1176832.00** |
| r | 1400 | Each | **1816442.00** |
| s | 1600 | Each | **2211245.00** |
|  |  |  |  |
| **15089** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Wafer type centric design C.I.Butterfly (Tight Shut off) valve with cast iron body confirming IS: 210 FIG. 260 and discIN SG IRON IS 1865, shafts IS SS AISI 410 BODY seat ring in SS304/ASTM A 351 CF8, MS, clamping ring, nitrite rubber seal ON BODY leaded bronze bearings manually operated complete confirming to BS: 5155/IS: 13095.TYPE P.N. 1.0 GEAR OPERATED FOR SIZE 150 MM AND ABOVE. (Class A ) |  |  |
|  | Dia in mm |  |  |
| a | 100 | Each | **5138.00** |
| b | 150 | Each | **7002.00** |
| c | 200 | Each | **12533.00** |
| d | 250 | Each | **21458.00** |
| e | 300 | Each | **26660.00** |
| f | 350 | Each | **55881.00** |
| g | 400 | Each | **74086.00** |
| h | 450 | Each | **92960.00** |
| i | 500 | Each | **120778.00** |
| j | 600 | Each | **195418.00** |
|  |  |  |  |
| 15089 (a) | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Wafer type centric design C.I.Butterfly (tight Shut off ) valve with cast iron body confirming IS : 210 FIG. 260 and disc IN SG IRON IS 1865, shafts IS SS AISI 410 BODY seat ring in SS304/ASTM A 351 CF8, MS, clamping ring, nitrite rubber seal ON BODY leaded bronze bearings manually operated complete confirming to BS: 5155/IS:13095.TYPE P.N. 1.6 GEAR OPERATED FOR SIZE 150 MM AND ABOVE (Class A ). |  |  |
|  | Dia in mm |  |  |
| a | 100 | Each | **5294.00** |
| b | 150 | Each | **7221.00** |
| c | 200 | Each | **16669.00** |
| d | 250 | Each | **21967.00** |
| e | 300 | Each | **28263.00** |
| f | 350 | Each | **67144.00** |
| g | 400 | Each | **89018.00** |
| h | 450 | Each | **111697.00** |
| i | 500 | Each | **145121.00** |
| j | 600 | Each | **234805.00** |
|  |  |  |  |
| **15090** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. generally conforming to BS EN 593, cone sphere eccentric design, double flanged butterfly valve having body, disc and end cover in graded cast iron to IS:210 Gr. FG 260, synthetic rubber face ring secured on disc by a SS retaining ring with stainless steel screws, the rubber ring seating on a corresponding integral Model 60 / SS 316 seat in body, stub shaft of AISI 431 riding in Teflon bearings, flanges drilled to IS:1538 Table 4 & 6. TYPE P.N. 1.0 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 80 | Each | **8938.00** |
| b | 100 | Each | **11107.00** |
| c | 150 | Each | **15237.00** |
| d | 200 | Each | **30524.00** |
| e | 250 | Each | **107551.00** |
| f | 300 | Each | **123639.00** |
| g | 350 | Each | **156163.00** |
| h | 400 | Each | **192162.00** |
| I | 450 | Each | **243305.00** |
| j | 500 | Each | **268159.00** |
| k | 600 | Each | **377450.00** |
| l | 700 | Each | **488696.00** |
| m | 750 | Each | **643936.00** |
| n | 800 | Each | **787862.00** |
| o | 900 | Each | **880318.00** |
| p | 1000 | Each | **1063244.00** |
| q | 1100 | Each | **1330678.00** |
| r | 1200 | Each | **1464248.00** |
|  |  |  |  |
| **15091** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. C. I. Butterfly (tight shut off) valve with cast iron body conforming to IS:210 FIG. 260 and disc shafts seal rings, clamping ring, nitrite rubber seal leaded bronze bearings manually operated complete conforming to BS:5155/ IS:13095. TYPE P.N. 1.6 (Class B) |  |  |
|  | Dia in mm |  |  |
| a | 80 | Each | **13717.00** |
| b | 100 | Each | **17532.00** |
| c | 150 | Each | **39475.00** |
| d | 200 | Each | **51884.00** |
| e | 250 | Each | **54460.00** |
| f | 300 | Each | **83412.00** |
| g | 350 | Each | **136207.00** |
| h | 400 | Each | **146091.00** |
| I | 450 | Each | **194672.00** |
| j | 500 | Each | **218362.00** |
| k | 600 | Each | **260887.00** |
| l | 700 | Each | **392582.00** |
| m | 750 | Each | **468340.00** |
| n | 800 | Each | **515283.00** |
| o | 900 | Each | **69355.00** |
| p | 1000 | Each | **913764.00** |
| q | 1200 | Each | **1343277.00** |
| r | 1400 | Each | **2084711.00** |
| s | 1600 | Each | **2444646.00** |
|  |  |  |  |
| **15092** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. generally conforming to BS EN 593, cone sphere eccentric design, double flanged butterfly valve having body, disc and end cover in graded cast iron to IS:210 Gr. FG 260, synthetic rubber face ring secured on disc by a SS retaining ring with stainless steel screws, the rubber ring seating on a corresponding integral Model 60 / SS316 seat in body, stub shaft of AISI 431 riding in Teflon bearings, flanges drilled to IS:1538 Table 4 & 6. TYPE P.N. 1.6 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 80 | Each | **9383.00** |
| b | 100 | Each | **11682.00** |
| c | 150 | Each | **32040.00** |
| d | 200 | Each | **65047.00** |
| e | 250 | Each | **109984.00** |
| f | 300 | Each | **138536.00** |
| g | 350 | Each | **159390.00** |
| h | 400 | Each | **199610.00** |
| I | 450 | Each | **248271.00** |
| j | 500 | Each | **292986.00** |
| k | 600 | Each | **394699.00** |
| l | 700 | Each | **501011.00** |
| m | 750 | Each | **656428.00** |
| n | 800 | Each | **822769.00** |
| o | 900 | Each | **907677.00** |
| p | 1000 | Each | **1107287.00** |
| q | 1100 | Each | **1412065.00** |
| r | 1200 | Each | **1513092.00** |
|  |  |  |  |
| **15093** | Supplying at store or site of work including railway freight, carting,loading, unloading,stacking etc.IVC/Kirloskar/Fouress brand generally conforming to BS EN 593,Cone sphere eccentric design,double flanged butterfly valve having body,disc and end cover in graded ductile iron to I.S :1865 gr. 400/15 or 500/7 ,synthetic rubber face ring secured on disc by a SS retaining ring with stainless steel screws,the rubber ring seating on a corresponding integral Monel 60 seat in body,stub shaft of AISI 431 RIDING IN TEFLON BEARINGS,FLANGES DRILLED TO IS:1538 Table 4&6.TYPE P.N.1.0 (Class A). |  |  |
|  | DUCTILE IRON CONSTRUCTION |  |  |
|  | Dia in mm |  |  |
| a | 200 | Each | **57116.00** |
| b | 250 | Each | **74006.00** |
| c | 300 | Each | **89437.00** |
| d | 350 | Each | **110150.00** |
| e | 400 | Each | **133092.00** |
| f | 450 | Each | **162351.00** |
| g | 500 | Each | **191471.00** |
| h | 600 | Each | **275953.00** |
| i | 700 | Each | **380132.00** |
| j | 750 | Each | **472648.00** |
| k | 800 | Each | **539528.00** |
| l | 900 | Each | **661101.00** |
| m | 1000 | Each | **925935.00** |
| n | 1100 | Each | **1031629.00** |
| o | 1200 | Each | **1313457.00** |
|  |  |  |  |
| **15093(a)** | Supplying at store or site of work including railway freight, carting,loading, unloading,stacking,etc. generally conforming to BS EN 593,Cone sphere eccentric design,double flanged butterfly valve having body,disc and end cover in graded ductile iron to I.S :1865 gr. 400/15 or 500/7 ,synthetic rubber face ring secured on disc by a SS retaining ring with stainless steel screws,the rubber ring seating on a corresponding integral Monel 60 seat in body,stub shaftofAISI 431 RIDING IN TEFLON BEARINGS,FLANGES DRILLED TO IS:1538 Table 4&6.TYPE P.N.1.6 (Class A). |  |  |
|  | DUCTILE IRON CONSTRUCTION |  |  |
|  | Dia in mm |  |  |
| a | 200 | Each | **58666.00** |
| b | 250 | Each | **76036.00** |
| c | 300 | Each | **91869.00** |
| d | 350 | Each | **110650.00** |
| e | 400 | Each | **139539.00** |
| f | 450 | Each | **177475.00** |
| g | 500 | Each | **205910.00** |
| h | 600 | Each | **310939.00** |
| i | 700 | Each | **430101.00** |
| j | 750 | Each | **498476.00** |
| k | 800 | Each | **651749.00** |
| l | 900 | Each | **711987.00** |
| m | 1000 | Each | **960346.00** |
| n | 1100 | Each | **1155617.00** |
| o | 1200 | Each | **1422454.00** |

|  |  |  |  |
| --- | --- | --- | --- |
| **AIR VALVES** | | | |
| **15094** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. C. I. single large orifice air valve(fig S2confirming to IS 14848/2000 with suitable connections as directed by Engineer -In- Charge for working pressure of 10kg/sq.cm. (Class B) |  |  |
|  | Dia in mm |  |  |
| a | 25 | Each | **1278.00** |
| b | 40 | Each | **1684.00** |
| c | 50 | Each | **3485.00** |
|  |  |  |  |
| **15094 (a)** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. C. I. single large orifice air valve(fig S2)confirming to IS 14848/2000 with suitable connections as directed by Engineer -In- Charge for working pressure of 16kg/sq.cm. (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 25 | Each | **2402.00** |
| b | 40 | Each | **5952.00** |
| c | 50 | Each | **8698.00** |
|  |  |  |  |
| **15095** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. cast iron single orifice type Air( fig S2confirming to IS 14848/2000 with suitable connections as directed by Engineer -In- Charge for working pressure of 10Kg/sq cm (TYPEP.N. 1.0) (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 25 | Each | **9078.00** |
| b | 40 | Each | **9532.00** |
|  |  |  |  |
| **15096 (a)** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. C. I. Double orifice type air valveas per fig DS1 withinbuilt isolating valve smallwith SS spindle and CI protective cap confirming to IS1 4845/2000 (with latest amendments).Low pressure large orifice chamber with vulcanite coated timber ball resting on moulded rubber seating and chamber having CI cowl protection.High pressure chamber shall have rubber coated timber ball as float having Float guides; and LTB or SS orifice nipple The body seat ring shall be of LTB as per IS 318 LTB2 or of SS. All nuts /bolts shall be of carbon steel of SS. The flange shall be drilled and faced ,as per IS1538(part 4 &6) suitable to working pressure of 10 kg /cm2 TYPE P.N. 1.0 (Class B) |  |  |
|  | Dia in mm |  |  |
| a | 40 | Each | **11031.00** |
| b | 50 | Each | **11937.00** |
| d | 80 | Each | **15986.00** |
| e | 100 | Each | **23833.00** |
| f | 150 | Each | **57166.00** |
| g | 200 | Each | **93978.00** |
|  |  |  |  |
| **15096 (b)** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. C. I. Double orifice type air valve confirming to IS1 4845/2000 with inbuilt isolating valve smallwith SS spindle and CI protective cap.Low pressure large orifice chamber with vulcanite coated timber ball resting on moulded rubber seating and chamber having CI cowl protection.High pressure chamber shall have rubber coated timber ball as float,having Float guides; and LTB or SS orifice nipple The body seat ring shall be of LTB as per IS 318 LTB2 or of SS. All nuts /bolts shall be of carbon steel of SS. The flange shall be drilled and faced ,as per IS1538(part 4 &6) suitable to working pressure of 16 kg /cm2 TYPE P.N. 1.6 (Class B) |  |  |
|  | Dia in mm |  |  |
| a | 40 | Each | **12886.00** |
| b | 50 | Each | **14373.00** |
| c | 80 | Each | **20816.00** |
| d | 100 | Each | **27259.00** |
| e | 150 | Each | **69387.00** |
| f | 200 | Each | **104080.00** |
|  |  |  |  |
| **15097** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. cast iron Air valve kinetic double orifice type asper fig DK without isolating valve generally, confirming to IS1 4845/2000 (with latest amendments).Low pressure large orifice chamber with vulcanite coated timber ball resting on moulded rubber seating and chamber having C.I. cowl protection High pressure chamber shall have rubber coated timber ball as float, having Float guides; and LTB or SS orifice nipple. All nuts /bolts shall be of carbon steel of SS. The flange shall be drilled and faced ,as per IS1538(part 4 &6) TYPE P.N. 1.0 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **15142.00** |
| b | 80 | Each | **21067.00** |
| c | 100 | Each | **28555.00** |
| d | 150 | Each | **36002.00** |
| e | 200 | Each | **40603.00** |
|  |  |  |  |
| 15098 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. cast iron Air valve kinetic double orifice type as per fig DK without isolating valve generally, confirming to IS1 4845/2000 (with latest amendments).Low pressure large orifice chamber with vulcanite coated timber ball resting on moulded rubber seating and chamber having C.I. cowl protection High pressure chamber shall have rubber coated timber ball as float, having Float guides; and LTB or SS orifice nipple. All nuts /bolts shall be of carbon steel of SS. The flange shall be drilled and faced, as per IS1538(part 4 and 6). TYPE P.N. 1.6 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **23314.00** |
| b | 80 | Each | **25534.00** |
| c | 100 | Each | **39967.00** |
| d | 150 | Each | **74938.00** |
| e | 200 | Each | **94366.00** |
|  |  |  |  |
|  |  |  |  |
| 15100 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. cast iron Air valve kinetic double orifice type as per fig DK without isolating valve generally , confirming to IS1 4845/2000 (with latest amendments).Low pressure large orifice chamber with vulcanite coated timber ball resting on moulded rubber seating and chamber having C.I. cowl protection High pressure chamber shall have rubber coated timber ball as float, having Float guides ;and LTB or SS orifice nipple. The valve shall be with built in kinetic features isolating sluice valve confirming to IS:14846 mounted in a horizontal position and operated by meter wheel gearing, inlet faced and drilled to IS:1538 Table 4 & 6 . TYPE P.N. 1.0 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **36227.00** |
| b | 80 | Each | **43138.00** |
| c | 100 | Each | **55169.00** |
| d | 150 | Each | **92274.00** |
| e | 200 | Each | **163070.00** |
|  |  |  |  |
| 15100 (a) | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. cast iron kinetic double orifice air release valve, generally conforming to IS:14845/2000, having small orifice elastic ball resting on a gunmetal orifice nipple and large orifice vulcanite ball seating in a moulded seat ring, with built in kinetic features, isolating sluice valve confirming to IS:14846 mounted in a horizontal position and operated by meter wheel gearing. All nuts /bolts shall be of carbon steel of SS. The flange shall be drilled and faced, as per IS1538(part 4 and 6). TYPE P.N. 1.6 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **37303.00** |
| b | 80 | Each | **44419.00** |
| c | 100 | Each | **56796.00** |
| d | 150 | Each | **94991.00** |
| e | 200 | Each | **167906.00** |
|  |  |  |  |
| 15101 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Tamper proof double acting air valve conforming to AWWA C-512, with tamper proof air vents and SS:304 floats with isolating sluice valve confirming to IS:14846 flanges drilled as per IS:1538, PN 1.0.(Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **23899.00** |
| b | 80 | Each | **34310.00** |
| c | 100 | Each | **45750.00** |
| d | 150 | Each | **70238.00** |
| e | 200 | Each | **100342.00** |
| f | 250 | Each | **114117.00** |
|  |  |  |  |
| 15101(a) | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Tamper proof double acting air valve conforming to AWWA C-512, with tamper proof air vents and SS:304 floats with isolating sluice valve confirming to IS:14846 flanges drilled as per IS:1538,PN 1.6,(Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **26288.00** |
| b | 80 | Each | **37741.00** |
| c | 100 | Each | **50325.00** |
| d | 150 | Each | **77263.00** |
| e | 200 | Each | **110376.00** |
| f | 250 | Each | **125529.00** |
|  |  |  |  |
| 15102 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. C.I. Kinetic type air release valve, generally confirming to IS: 14845 having small orifice elastic ball resting on gunmetal orifice nipple and large orifice vulcanite ball seating on moulded seat ring, with built in Kinetic features of isolating sluice valve mounted in horizontal position operated by meter wheel gearing, inlet faced and drilled to IS: 1538 Table 4&6. TYPE P.N. 1.0 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 80 | Each | **28156.00** |
| b | 100 | Each | **37557.00** |
| c | 150 | Each | **68420.00** |
| d | 200 | Each | **112159.00** |
|  |  |  |  |
| 15103 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. cast iron kinetic double orifice air release valve, generally conforming to IS:14845, having small orifice elastic ball resting on a gunmetal orifice nipple and large orifice vulcanite ball seating in a moulded seat ring, with built in kinetic features, isolating sluice valve mounted in a horizontal position and operated by meter wheel gearing, inlet faced and drilled to IS:1538 Table 4 & 6 . TYPE P.N. 1.6 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 80 | Each | **24914.00** |
| b | 100 | Each | **33858.00** |
| c | 150 | Each | **63691.00** |
| d | 200 | Each | **90777.00** |
|  |  |  |  |
| 15104 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. cast iron total Tamper Proof Kinetic Air release valve, generally confirming to: 14845. WITH TAMPER PROOF DESIGN OF COWL, TAMPER PROOF BOLTING, TAMPER PROOF HIGH PREESSURE ORIFICE COVER AND NIPPLE. TYPE P.N, 1.0 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **21695.00** |
| b | 80 | Each | **22485.00** |
| c | 100 | Each | **27177.00** |
| d | 150 | Each | **60340.00** |
| e | 200 | Each | **77656.00** |
|  |  |  |  |
| 15105 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking,etc. cast iron Tamper Proof Kinetic Air release valve, generally conforming to IS:14845, with TAMPER PROOF DESIGN OF COWL, TAMPER PROOF BOLTING, TAMPER PROOF HIGH PRESSURE ORIFICE COVER AND NIPPLE. TYPE P.N. 1.6 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **22375.00** |
| b | 80 | Each | **23159.00** |
| c | 100 | Each | **27992.00** |
| d | 150 | Each | **62151.00** |
| e | 200 | Each | **79986.00** |

|  |  |  |  |
| --- | --- | --- | --- |
| **REFLUX VALVES** | | | |
|  |  |  |  |
| 15106 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. C.I. Reflux valve conforming to IS:5312 part-I. Valve double flanged ends without bypass arrangements and drilled to IS:1538 part IV & VI bearing ISI Certificate mark TYPE P.N. 1.0 (Class B) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **8710.00** |
| b | 80 | Each | **10016.00** |
| c | 100 | Each | **11322.00** |
| d | 150 | Each | **15439.00** |
| e | 200 | Each | **22702.00** |
| f | 250 | Each | **50070.00** |
| g | 300 | Each | **74018.00** |
| h | 350 | Each | **113212.00** |
| i | 400 | Each | **145876.00** |
| j | 450 | Each | **195536.00** |
| k | 500 | Each | **273130.00** |
| l | 600 | Each | **325894.00** |
|  |  |  |  |
| **15107** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast Iron double flanged single door swing non-return valve generally conforming to IS:5312 part-I, having body, door, cover in graded cast iron to IS:210 Gr. FG 260 and door in CS ASTM A216Gr. WCB for 350mm & above body Ring in leaded tin bronze IS 318 GR LTB2 and door ring in natural rubber & bearing block of leaded tin bronze to IS:318 Gr. LTB 2 ( 350 mm & above ), hinge pin of stainless steel AISI 410, Flanges drilled to IS:1538 Table 4 & 6 TYPE P.N. 1.0 (Class A) |  |  |
|  | **Dia in mm** |  |  |
| a | 50 | Each | **6007.00** |
| b | 65 | Each | **6848.00** |
| c | 80 | Each | **8003.00** |
| d | 100 | Each | **11937.00** |
| e | 125 | Each | **18438.00** |
| f | 150 | Each | **22934.00** |
| g | 200 | Each | **41469.00** |
| h | 250 | Each | **52639.00** |
| i | 300 | Each | **74799.00** |
| j | 350 | Each | **127679.00** |
| k | 400 | Each | **164231.00** |
| l | 450 | Each | **247986.00** |
| m | 500 | Each | **324408.00** |
| n | 600 | Each | **456701.00** |
|  |  |  |  |
| 15108 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. C.I. Reflux valve conforming to IS:5312 part-I. Valve double flanged ends without bypass arrangements and drilled to IS:1538 part IV & VI bearing ISI Certificate mark TYPE P.N. 1.6 (Class B) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **7061.00** |
| b | 80 | Each | **9802.00** |
| c | 100 | Each | **13147.00** |
| d | 150 | Each | **20877.00** |
| e | 200 | Each | **43671.00** |
| f | 250 | Each | **70947.00** |
| g | 300 | Each | **107633.00** |
| h | 350 | Each | **187409.00** |
| I | 400 | Each | **210043.00** |
| j | 450 | Each | **337748.00** |
| k | 500 | Each | **396413.00** |
| l | 600 | Each | **578303.00** |
|  |  |  |  |
| 15109 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast Iron double flanged single door swing non-return valve generally conforming to IS:5312 part-I, having body, door, cover in graded cast iron to IS:210 Gr. FG 200, body Ring in leaded tin bronze IS 318 GR LTB2 and door ring in natural rubber & bearing block of leaded tin bronze to IS:318 Gr. LTB 2 ( 350 mm & above ), hinge pin of stainless steel AISI 410, Flanges drilled to IS:1538 Table 4 & 6 TYPE P.N. 1.6 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **6309.00** |
| b | 65 | Each | **7186.00** |
| c | 80 | Each | **8399.00** |
| d | 100 | Each | **12526.00** |
| e | 125 | Each | **19349.00** |
| f | 150 | Each | **24062.00** |
| g | 200 | Each | **43512.00** |
| h | 250 | Each | **55232.00** |
| i | 300 | Each | **78479.00** |
| j | 350 | Each | **133900.00** |
| k | 400 | Each | **172220.00** |
| l | 450 | Each | **260101.00** |
| m | 500 | Each | **340274.00** |
| n | 600 | Each | **479129.00** |
|  |  |  |  |
| 15110 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. cast iron double flanged multi door swing check valve generally conforming to IS:5312 Part II, having body comprising of inlet & outlet shell in SG Iron to IS:1865 Gr. 500/7 diaphragm fitted with gunmetal faces, diaphragm & door of graded SG Iron to IS: 1865 Gr. 500/7, stainless steel AISI 410 stub pins, Flanges drilled to IS:1538 Table 4 &6. TYPE P.N. 1.6 (Class B) |  |  |
|  | Dia in mm |  |  |
| a | 600 | Each | **529189.00** |
| b | 700 | Each | **1205528.00** |
| c | 750 | Each | **1293817.00** |
| d | 800 | Each | **1380058.00** |
| e | 900 | Each | **1730961.00** |
| f | 1000 | Each | **2124678.00** |
| g | 1100 | Each | **2618634.00** |
| h | 1200 | Each | **2990364.00** |
|  |  |  |  |
| **CAST STEEL REFLUX VALVES** | | | |
|  |  |  |  |
| 15111 | Supplying Cast Steel Reflux valves conforming IS:5312 part-I. Valves double flanged ends without bypass arrangement bearing ISI Certificate mark Class-150 (20/30 kg/cm2) (Class B) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **13066.00** |
| b | 80 | Each | **16984.00** |
| c | 100 | Each | **23159.00** |
| d | 150 | Each | **34053.00** |
| e | 200 | Each | **75105.00** |
| f | 250 | Each | **111027.00** |
| g | 300 | Each | **169819.00** |
|  | | | |
| 15112 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast Steel Reflux valves conforming IS:5312 part-I. Valves double flanged ends without bypass arrangement bearing ISI Certificate mark Class - 300 (52/78 kg/cm2) (Class B) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **14191.00** |
| b | 80 | Each | **16981.00** |
| c | 100 | Each | **25983.00** |
| d | 150 | Each | **49027.00** |
| e | 200 | Each | **81174.00** |
| f | 250 | Each | **109407.00** |
| g | 300 | Each | **157458.00** |
|  |  |  |  |
| 15112 (a) | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast Steel Reflux valves conforming IS:5312 part-I. Valves double flanged ends without bypass arrangement bearing ISI Certificate mark Class - 150 (20/30 kg/cm2) (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **14749.00** |
| b | 80 | Each | **22124.00** |
| c | 100 | Each | **30341.00** |
| d | 150 | Each | **41718.00** |
| e | 200 | Each | **63208.00** |
| f | 250 | Each | **101555.00** |
| g | 300 | Each | **126418.00** |
|  | | | |
| 15113 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast Steel Reflux valves conforming IS:5312 part-I. Valves double flanged ends without bypass arrangement bearing ISI Certificate mark Class - 300 (52/78 kg/cm2) (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **29497.00** |
| b | 80 | Each | **44245.00** |
| c | 100 | Each | **58994.00** |
| d | 150 | Each | **83434.00** |
| e | 200 | Each | **151699.00** |
| f | 250 | Each | **252832.00** |
| g | 300 | Each | **252832.00** |
|  |  |  |  |
| 15114 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast steel double flanged dual plate check valve having body, plate in cast carbon steel ASTM A-216 Gr. WCB, hinge pin & stub pin in stainless AISI 304, Spring in stainless steel AISI 304, body & seat ring in AISI 304. Valve conform to API 594. Class 150 (Class B) |  |  |
|  | Size in mm |  |  |
| a | 100 | Each | **10847.00** |
| b | 150 | Each | **19686.00** |
| c | 200 | Each | **33952.00** |
| d | 250 | Each | **57500.00** |
| e | 300 | Each | **77552.00** |
| f | 350 | Each | **122574.00** |
| g | 400 | Each | **157084.00** |
| h | 450 | Each | **176466.00** |
| I | 500 | Each | **184773.00** |
| j | 600 | Each | **256349.00** |
| k | 700 | Each | **335861.00** |
| l | 750 | Each | **402489.00** |
| m | 800 | Each | **443246.00** |
| n | 900 | Each | **562721.00** |
| o | 1000 | Each | **722297.00** |
| p | 1200 | Each | **1742194.00** |
| 15115 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast steel double flanged dual plate check valve having body, plate in cast carbon steel ASTM A-216 Gr. WCB, hinge pin & stub pin in stainless AISI 304, Spring in stainless steel AISI 304, body & seat ring in AISI 304. Valve conform to API 594. Class 150 (Class A) |  |  |
|  | Size in mm |  |  |
| a | 100 | Each | **16410.00** |
| b | 150 | Each | **26850.00** |
| c | 200 | Each | **36547.00** |
| d | 250 | Each | **48480.00** |
| e | 300 | Each | **96215.00** |
| g | 400 | Each | **179005.00** |
| h | 450 | Each | **275964.00** |
| I | 500 | Each | **313257.00** |
| j | 600 | Each | **358009.00** |
| k | 700 | Each | **991984.00** |
| l | 750 | Each | **1081485.00** |
| m | 800 | Each | **1193363.00** |
| n | 900 | Each | **1790046.00** |
| o | 1000 | Each | **3169873.00** |
| p | 1200 | Each | **4549700.00** |
|  |  |  |  |
| 15116 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast steel double flanged dual plate check valve having body, plate in cast carbon steel ASTM A-216 Gr. WCB, hinge pin & stub pin in stainless AISI 304, Spring in stainless steel AISI 304, body & seat ring in AISI 304. Valve conform to API 594. Class 300 (Class B) |  |  |
|  | Size in mm |  |  |
| a | 100 | Each | **13761.00** |
| b | 150 | Each | **19203.00** |
| c | 200 | Each | **34036.00** |
| d | 250 | Each | **62889.00** |
| e | 300 | Each | **87081.00** |
| f | 350 | Each | **112805.00** |
| g | 400 | Each | **160832.00** |
| h | 450 | Each | **190016.00** |
| I | 500 | Each | **213342.00** |
| j | 600 | Each | **248591.00** |
| 15117 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast Steel single door swing check type Reflux (non-return) valve having body bonnet in HINGE IN GRADED Cast steel i.e. ASTM A 216 Gr WCB faced with 13% CR steel. Spindle, gland sleeve SG iron, body studs. ASTM A 193 Gr. B7, body bolts ASTM A 194 Gr 2H, Gasket in metallic spiral wound AISI 304 with graphite in the construction and testing of the valves will be as per BS 1868 & BS 6755 part I respectively. Flanged ends without bypass arrangements flanges drilled to IS 1538 table 4&6 or ANSI B 16.50 as per the requirement. Class 150 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **13241.00** |
| b | 80 | Each | **19561.00** |
| c | 100 | Each | **34087.00** |
| d | 150 | Each | **49732.00** |
| e | 200 | Each | **91520.00** |
| f | 250 | Each | **135667.00** |
| g | 300 | Each | **215563.00** |
| h | 350 | Each | **276590.00** |
| i | 400 | Each | **330990.00** |
| j | 450 | Each | **377166.00** |
| k | 500 | Each | **558765.00** |
| l | 600 | Each | **1143312.00** |
|  |  |  |  |
| 15118 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast Steel single door swing check type Reflux (non-return) valve having body bonnet in graded cast steel i.e. ASTM A 216 Gr WCB faced with 13% CR steel. Hinge pin in stainless steel ASTM A 479 type 410, cover stud in alloy steel ASTMA 193 Gr B 7, Gasket in metallic spiral wound AISI 304 with graphite in the construction and testing of the valves will be as per BS 1868 & BS 6755 part I respectively. Flanged ends without bypass arrangements flanges drilled to IS 1538 table 4&6 or ANSI B 16.50 as per the requirement. Class 300 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **15044.00** |
| b | 80 | Each | **34087.00** |
| c | 100 | Each | **43586.00** |
| d | 150 | Each | **73758.00** |
| e | 200 | Each | **110636.00** |
| f | 250 | Each | **164277.00** |
| g | 300 | Each | **245857.00** |
| h | 350 | Each | **388900.00** |
| i | 400 | Each | **463773.00** |
| j | 450 | Each | **655901.00** |
| k | 500 | Each | **791294.00** |
| l | 600 | Each | **1720986.00** |

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| **CAST STEEL AIR VALVES** | | | |
| **15119** | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast steel Kinetic double acting Air Valves having body, small & large orifice covers as per ASTM A- 216 Gr. WCB. Valve conforming to IS :14845/2000. Isolating sluice valve as per IS: 14846. Low pressure chamber (Large orifice) contains vulcanite covered aluminium ball seats on moulded synthetic rubber ring, high pressure chamber with rubber covered aluminium ball seats on small orifice plug of H.T. Brass. Flanges drilled to IS: 1538 PART 4 & 6. Valves are to be tested in different test pressure rating: Body : 30 Kg/cm2, Seat :20 Kg/cm2, Class 150 (class B) |  |  |
|  | Size in mm |  |  |
| a | 50 | Each | **38260.00** |
| b | 80 | Each | **46555.00** |
| c | 100 | Each | **70677.00** |
| d | 150 | Each | **150684.00** |
| e | 200 | Each | **242606.00** |
|  |  |  |  |
| 15119 (a) | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc.Cast steel Kinetic double acting Air Valves having body, small & large orifice covers as per ASTM A- 216 Gr. WCB. Valve conforming to IS :14845/2000. Isolating sluice valve as per IS: 14846. Low pressure chamber (Large orifice) contains vulcanite covered aluminium ball seats on moulded synthetic rubber ring, high pressure chamber with rubber covered aluminium ball seats on small orifice plug of H.T. Brass. Flanges drilled to IS: 1538 PART 4 & 6. Valves are to be tested in different test pressure rating: Body : 70 Kg/cm2, Seat :52 Kg/cm2, Class300 (**class B)** |  |  |
|  | Size in mm |  |  |
| a | 50 | Each | **43920.00** |
| b | 80 | Each | **53443.00** |
| c | 100 | Each | **81133.00** |
| d | 150 | Each | **172976.00** |
| e | 200 | Each | **278498.00** |

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| **CAST STEEL SLUICE VALVES** | | | |
| 15120 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast steel double flanged manually operated sluice valves having body, door, bonnet stuffing box, hand wheel etc. in graded cast iron i.e. ASTM A-216 Gr WCB. inside screw non rising type stainless steel AISI 410 spindle. Spindle Nut and four faces of gun metal as IS:318 Gr. 2 LTB. Valve conform to IS:14846 - 2000 and flanges faced and drilled to IS:1538 part 4 & 6. Valve sizes 400 mm and above will be provided with ball thrust bearing and gear box. Valves are to be tested in different test pressure rating: Class 150 (Class A) |  |  |
|  | Size in mm |  |  |
| a | 50 | Each | **17347.00** |
| b | 80 | Each | **26021.00** |
| c | 100 | Each | **34694.00** |
| d | 150 | Each | **52042.00** |
| e | 200 | Each | **84916.00** |
| f | 250 | Each | **118316.00** |
| g | 300 | Each | **149454.00** |
| h | 350 | Each | **199268.00** |
| i | 400 | Each | **404765.00** |
| j | 450 | Each | **453694.00** |
| k | 500 | Each | **533756.00** |
| l | 600 | Each | **609372.00** |
|  |  |  |  |
| 15121 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast steel double flanged manually operated sluice valve/ gate valve having body, bonnet in cast steel ASTM A 216 Gr WCB, wedge and steel ring in cast steel ASTM A-216 Gr. WCB with 13% CRsteel, inside screw rising stem in stainless AISI 410 spindle, bonnet brush and gland brush in stainless steel ASTM A 479 Gr 410, bonnet stud in alloy steel ASTM A 193 Gr B 7, and gasket of metallic spiral wound inAISI 304 with graphite filled in. The construction and testing of valve will be as per applicable requirements of API 600 & 589 respectively. Flanges drilled to IS 1568, table 4&6 or ANSI 16.50 as per requirements. Class 150 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **13241.00** |
| b | 80 | Each | **21064.00** |
| c | 100 | Each | **30090.00** |
| d | 150 | Each | **52744.00** |
| e | 200 | Each | **86833.00** |
| f | 250 | Each | **124141.00** |
| g | 300 | Each | **177097.00** |
| h | 350 | Each | **255322.00** |
| i | 400 | Each | **329700.00** |
| j | 450 | Each | **355030.00** |
| k | 500 | Each | **445290.00** |
| l | 600 | Each | **692005.00** |
|  |  |  |  |
| 15122 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast steel double flanged manually operated sluice valves having body, door, bonnet stuffing box, hand wheel etc. in graded cast iron i.e. ASTM A- 216 Gr WCB. inside screw non rising type stainless steel AISI 410 spindle. Spindle Nut and four faces of gun metal as IS:318 Gr. 2 LTB. Valve conform to IS:14846-2000 and flanges faced and drilled to IS:1538 part 4 & 6. Valve sizes 400 mm and above will be provided with ball thrust bearing and gear box. Valves are to be tested in different test pressure rating : Class 300 (Class A) |  |  |
|  | Size in mm |  |  |
| a | 50 | Each | **34694.00** |
| b | 80 | Each | **52042.00** |
| c | 100 | Each | **69388.00** |
| d | 150 | Each | **104082.00** |
| e | 200 | Each | **187926.00** |
| f | 250 | Each | **295789.00** |
| g | 300 | Each | **373630.00** |
| h | 350 | Each | **498171.00** |
| i | 400 | Each | **919920.00** |
| j | 450 | Each | **1010902.00** |
| k | 500 | Each | **1213081.00** |
| l | 600 | Each | **1382913.00** |
|  |  |  |  |
| 15123 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. Cast steel double flanged manually operated sluice valve/ gate valve having body, bonnet in cast steel ASTM A 216 Gr WCB, wedge and steel ring in cast steel ASTM A-216 Gr. WCB with 13% CRSteel, inside screw rising stem in stainless AISI 410 spindle, bonnet brush and gland brush in stainless steel ASTM A 479 Gr 410, bonnet stud in alloy steel ASTM A 193 Gr B 7, and gasket of metallic spiral wound inAISI 304 with graphite filled in. The construction and testing of valve will be as per applicable requirements of API 600 & 589 respectively. Flanges drilled to IS 1568, table 4&6 or ANSI 16.50 as per requirements. Class 300 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **18052.00** |
| b | 80 | Each | **36108.00** |
| c | 100 | Each | **48142.00** |
| d | 150 | Each | **90262.00** |
| e | 200 | Each | **140207.00** |
| f | 250 | Each | **199180.00** |
| g | 300 | Each | **279811.00** |
| h | 350 | Each | **427238.00** |
| i | 400 | Each | **565639.00** |
| j | 450 | Each | **726445.00** |
| k | 500 | Each | **859290.00** |
| l | 600 | Each | **1484303.00** |

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| **MISCELLENEOUS VALVES** | | | |
| 15124 | Supplying C.I. Equilibrium float valve including lever arm and copper float to close against a working pressure of 7 kg/sq.cm and test pressure of 14kg/sq.cm (Class B) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **25446.00** |
| b | 80 | Each | **31050.00** |
| c | 100 | Each | **36559.00** |
| d | 150 | Each | **56159.00** |
| e | 200 | Each | **94501.00** |
|  |  |  |  |
| 15125 | Supplying C.I. Foot valve with metal valve and seat full bore type having total area through strainer perforations three times that of pipe size suitable for working pressure of 2 kg/sq. cm. as per IS:4038 (lift type) (Class B) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **3931.00** |
| b | 80 | Each | **5493.00** |
| c | 100 | Each | **5848.00** |
| d | 150 | Each | **10823.00** |
| e | 200 | Each | **25750.00** |
| f | 250 | Each | **36384.00** |
| g | 300 | Each | **50089.00** |
| h | 350 | Each | **76189.00** |
| i | 400 | Each | **107009.00** |
| j | 450 | Each | **115698.00** |
|  |  |  |  |
| 15126 | Providing and laying C.I. Right angled type spring loaded single seat pressure relief valve similar to Glenfield H 19 having valve and seat gun metal bushes in cover stay rods of forged mild steel spring of best quality square section cast iron bend, wheel for adjustment with necessary pointer and index. (Class B) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **31865.00** |
| b | 80 | Each | **34789.00** |
| c | 100 | Each | **48683.00** |
| d | 150 | Each | **88176.00** |
| e | 200 | Each | **143822.00** |
| f | 300 | Each | **216202.00** |
|  |  |  |  |
| 15127 | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking etc. cast iron spring loaded right angle type pressure relief valve having body, cover & crosshead of cast iron, valve & seat of gunmetal, spindle of brass working in gunmetal bushes in cover, stay rods of mild steel with spring of best quality spring steel, cast iron hand wheel for adjustment with necessary pointer and index, flanges drilled to IS:1538 Table 4 & 6. Valves suitable for a maximum blow off pressure of 10 kg/cm2 at the site of work. TYPE P.N. 1.0 (Class A) |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **42219.00** |
| b | 65 | Each | **64799.00** |
| c | 80 | Each | **87378.00** |
| d | 100 | Each | **117485.00** |
| e | 150 | Each | **178167.00** |
| f | 200 | Each | **278247.00** |
| New item |  |  |  |
| 15127A | Supplying at store or site of work including railway freight, carting, loading, unloading, stacking, etc.Flow control valve with flow rate 5 LPM (Litres per minute) 10 LPM,15LPM &20LPMin whatever outlet required from 1/2 inch to 1" inches suitable as per specification. flow control valves are made from extrudedrods of SS316, SS304, SS202 or brass. Flow control valve fits properly in saddle and there will be no gaps and voids between pipes and saddle. Flow - 5 LPM ,15LPM etc. |  |  |
| a | Size = 1/2"x1/2",3/4"x3/4" etc. | Each | **465.00** |

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| **G. I. FITTINGS / SPECIALS** | | | |
|  |  |  |  |
| **15128** | Supply of malleable G.I fittings conforming to IS:1879-1987 with amendments no.1 to 7 galvanized with 610 gm/m2 as per IS:4759-1996 with latest amendments. |  |  |
| **I** | **Elbow** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 15 | Each | **18.00** |
| b | 20 | Each | **27.00** |
| c | 25 | Each | **46.00** |
| d | 32 | Each | **73.00** |
| e | 40 | Each | **105.00** |
| f | 50 | Each | **147.00** |
| g | 65 | Each | **283.00** |
| **II** | **Reducing Elbow** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 20x15 | Each | **28.00** |
| b | 25x15 | Each | **51.00** |
| c | 25x20 | Each | **76.00** |
| d | 32x15 | Each | **79.00** |
| e | 32x20 | Each | **81.00** |
| f | 32x25 | Each | **91.00** |
|  |  |  |  |
| **III** | **Tees** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 15 | Each | **27.00** |
| b | 20 | Each | **40.00** |
| c | 25 | Each | **72.00** |
| d | 32 | Each | **94.00** |
| e | 40 | Each | **124.00** |
| f | 50 | Each | **194.00** |
| g | 65 | Each | **411.00** |
|  |  |  |  |
| **IV** | **Reducing Tees** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 20x15x20 | Each | **43.00** |
| b | 25x15x25 | Each | **76.00** |
| c | 25x20x25 | Each | **81.00** |
|  |  |  |  |
| **V** | **Socket** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 15 | Each | **25.00** |
| b | 20 | Each | **28.00** |
| c | 25 | Each | **35.00** |
| d | 32 | Each | **60.00** |
| e | 40 | Each | **76.00** |
| f | 50 | Each | **121.00** |
| g | 65 | Each | **177.00** |
|  |  |  |  |
| **VI** | **Reducing Socket** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 20x15 | Each | **29.00** |
| b | 25x15 | Each | **35.00** |
| c | 25x20 | Each | **37.00** |
| d | 32x15 | Each | **60.00** |
| e | 32x20 | Each | **63.00** |
| f | 32x25 | Each | **66.00** |
| g | 50x32 | Each | **124.00** |
| h | 65x50 | Each | **177.00** |
| i | 100x80 | Each | **500.00** |
|  |  |  |  |
| **VII** | **Hexagonal Nipples** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 15 | Each | **19.00** |
| b | 20 | Each | **32.00** |
| c | 25 | Each | **49.00** |
| d | 32 | Each | **86.00** |
| e | 40 | Each | **109.00** |
| f | 50 | Each | **174.00** |
| g | 65 | Each | **280.00** |
|  |  |  |  |
| **VIII** | **Plugs** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 15 | Each | **5.00** |
| b | 20 | Each | **7.00** |
| c | 25 | Each | **11.00** |
| d | 32 | Each | **19.00** |
| e | 40 | Each | **22.00** |
| f | 50 | Each | **30.00** |
|  |  |  |  |
| **IX** | **Union** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 15 | Each | **47.00** |
| b | 20 | Each | **73.00** |
| c | 25 | Each | **98.00** |
| d | 32 | Each | **162.00** |
| e | 40 | Each | **189.00** |
| f | 50 | Each | **278.00** |
| g | 65 | Each | **545.00** |
|  |  |  |  |

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| M A N H O L E C O V E R S | | | |
| **15129** | Supply of low density solid manhole cover and frame at domestic places or other places where they are subjected to traffic loads as per IS:1726 part-VII-1994 having size - |  |  |
| a | 450mm x 450mm with weight not less than 50kg | Each | **6766.00** |
| b | 450mm x 600mm with weight not less than 75kg | Each | **9791.00** |
| c | 610mm x 455mm with weight not less than 38kg | Each | **5122.00** |
| d | 450mm dia with weight not less than 50kg | Each | **6766.00** |
| e | 450mm x 450mm with weight not less than 60kg | Each | **4385.00** |
| f | 480mm dia with weight not less than 75kg | Each | **5262.00** |
| g | 450mm dia with weight not less than 70kg | Each | **5093.00** |
|  |  |  |  |
|  |  |  |  |
| **15130** | Supplying of medium duty solid type manhole cover and frame where light traffic conditions such as footpath and cycle tracks as per IS:1726 Part V-1974 having size - |  |  |
| a | **560** mm dia with weight not less than128kg | Each | 17213.00 |
| b | 600 mm x 450mm with weight not less than 144kg | Each | 20245.00 |
| c | 525 mm dia with weight not less than 175 kg | Each | 23520.00 |
| c | 500 mm dia with weight not less than 160kg | Each | 21604.00 |
|  |  |  |  |
| **15131** | Supplying of heavy duty solid type circular type manhole cover and frame for use under heavy traffic conditions as per IS:1726 Part V-1974 having size - |  |  |
| a | 500mm dia with weight not less than 230 kg | Each | 30954.00 |
| b | 560mm with weight not less than 250kg | Each | 34468.00 |
| c | 600mm dia with weight not less than 250kg | Each | 34468.00 |
| d | 600mm dia with weight not less than 290kg | Each | 39183.00 |
| e | 560mm dia with weight not less than 208kg | Each | 28137.00 |
|  |  |  |  |
| **15132** | Supply of heavy duty solid type manhole cover and frame for use under heavy traffic conditions per IS:1726 Part V-1974 having size- |  |  |
| a | 560mm x 560mm with weight not less than 225kg | Each | **30350.00** |
| b | 560mm x 560mm with weight not less than 260 kg | Each | **21502.00** |
| c | 600mm x 600mm with weight not less than 250kg | Each | **33556.00** |
| d | 600mm x 900mm with weight not less than 250kg | Each | **34235.00** |
| e | 600mm x 900mm with weight not less than 375kg | Each | **30933.00** |
| f | 1200mm x 900mm with weight not less than 970kg | Each | **102765.00** |
| g | 1200mm x 900mm with weight not less than 1128kg | Each | **119504.00** |
|  |  |  |  |
| **15133** | Supply of D.I manhole cover and frame as per EN-124 standards at the site of work. |  |  |
| I | SQUARE COVER WITH FRAME (HINGED) |  |  |
| a | Size - 450mm x 450mm |  |  |
|  | Class B -125 |  |  |
|  | Grade - MD |  |  |
|  | Weight - 45Kg | Each | **8264.00** |
|  |  |  |  |
| b | Size - 600mm x 600mm |  |  |
|  | Class C - 250 |  |  |
|  | Grade - HD |  |  |
|  | Weight - 90Kg | Each | **12387.00** |
|  |  |  |  |
| II | **RECTANGULAR COVER WITH FRAME (HINGED)** |  |  |
| a | Size - 450mm x 600mm |  |  |
|  | Class B - 125 |  |  |
|  | Grade - MD |  |  |
|  | Weight - 70Kg | Each | **12852.00** |
|  |  |  |  |
| b | Size - 450mm x 600mm |  |  |
|  | Class C - 250 |  |  |
|  | Grade - HD |  |  |
|  | Weight (Kg ) - 100 kgs | Each | **18363.00** |
|  |  |  |  |
| c | Size - 450mm x 900mm |  |  |
|  | Class A -15 |  |  |
|  | Grade - LD |  |  |
|  | Weight - 50Kg | Each | **9182.00** |
|  |  |  |  |
| d | Size - 450mm x 900mm |  |  |
|  | Class B -125 |  |  |
|  | Grade - MD |  |  |
|  | Weight - 75Kg | Each | **9791.00** |
|  |  |  |  |
| e | Size - 600mm x 900mm |  |  |
|  | Class B - 125 |  |  |
|  | Grade - MD |  |  |
|  | Weight - 105Kg | Each | **14310.00** |
|  |  |  |  |
| III | **CIRCULAR COVER WITH SQUARE FRAME (HINGED)** |  |  |
| a | Size - 500mm |  |  |
|  | Class B - 125 |  |  |
|  | Grade - MD |  |  |
|  | Weight - 45Kg | Each | **8264.00** |
|  |  |  |  |
| b | Size - 500mm |  |  |
|  | Class C - 250 |  |  |
|  | Grade - HD |  |  |
|  | Weight - 65Kg | Each | **11946.00** |
|  |  |  |  |
| c | Size - 525mm |  |  |
|  | Class B -125 |  |  |
|  | Grade - MD |  |  |
|  | Weight - 50Kg | Each | **9182.00** |
|  |  |  |  |
| d | Size - 525mm |  |  |
|  | Class C - 250 |  |  |
|  | Grade - HD |  |  |
|  | Weight - 75Kg | Each | **13781.00** |
|  |  |  |  |
| IV | GRATING WITH FRAME (HINGED) |  |  |
| a | Size - 450mm x 450mm |  |  |
|  | Class A-15 |  |  |
|  | Grade - LD |  |  |
|  | Weight - 32Kg | Each | **5883.00** |
|  |  |  |  |
| b | Size - 450mm x 600mm |  |  |
|  | Class A - 15 |  |  |
|  | Grade - LD |  |  |
|  | Weight - 38Kg | Each | **6981.00** |
|  |  |  |  |
| c | Size - 600mm x 600mm |  |  |
|  | Class B -125 |  |  |
|  | Grade - MD |  |  |
|  | Weight - 58Kg | Each | **11580.00** |
|  |  |  |  |
| d | Size - 600mm x 600mm |  |  |
|  | Class C - 250 |  |  |
|  | Grade - HD |  |  |
|  | Weight - 65Kg | Each | **12980.00** |
| 15133 A | **Composite Manhole Covers / Inspection Chambers with Frame** |  |  |
| a | Supplying 600 x 900 mm Rectangle Composite Resin Manhole Cover of Approved Brand, LightDuty Confirming to relevant grade designation: A 15 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight-5 T |  |  |
|  | Size - 600 x 900 mm Rectangle | Each | **9379.00** |
|  |  |  |  |
| b | Supplying 600 x 900 mm Rectangle Composite Resin Manhole Cover of Approved Brand, MediumDuty Confirming to relevant grade designation: B125 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 600 x 900 mm Rectangle | Each | **12391.00** |
|  |  |  |  |
| c | Supplying 600 x 900 mm Rectangle Composite Resin Manhole Cover of Approved Brand, HeavyDuty Confirming to relevant grade designation: C 250 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 600 x 900 mm Rectangle | Each | **18477.00** |
|  |  |  |  |
| d | Supplying 600 x 900 mm Rectangle Composite Resin Manhole Cover of Approved Brand, Extra Heavy Duty Confirming to relevant grade designation: D 400 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 40 T |  |  |
|  | Size - 600 x 900 mm Rectangle | Each | **22684.00** |
|  |  |  |  |
| e | Supplying 450 x 900 mm Rectangle Composite Resin Manhole Cover of Approved Brand Light Duty Confirming to relevant grade designation: A 15 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 5 T |  |  |
|  | Size - 450 x 900 mm Rectangle | Each | **7312.00** |
|  |  |  |  |
| f | Supplying 450 x 900 mm Rectangle Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation: B 125 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 450 x 900 mm Rectangle | Each | **9879.00** |
|  |  |  |  |
| g | Supplying 450 X 900 mm Rectangle Composite Resin Manhole Cover of Approved Brand, HeavyDuty Confirming to relevant grade designation: C 250 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 450 X 900 mm Rectangle | Each | **11220.00** |
|  |  |  |  |
| h | Supplying 450 X 900 mm Rectangle Composite Resin Manhole Cover of Approved Brand, Extra Heavy Duty Confirming to relevant grade designation: D 400 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 40 T |  |  |
|  | Size - 450 X 900 mm Rectangle | Each | **17391.00** |
|  |  |  |  |
| i | Supplying 450 x 600 mm Rectangle Composite Resin Manhole Cover of Approved Brand Light Duty Confirming to relevant grade designation: A 15 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 5 T |  |  |
|  | Size - 450 X 600 mm Rectangle | Each | **6537.00** |
|  |  |  |  |
| j | Supplying 450 x 600 mm Rectangle Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation: B 125 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 450 X 600 mm Rectangle | Each | **8837.00** |
|  |  |  |  |
| k | Supplying 450 X 600 mm Rectangle Composite Resin Manhole Cover of Approved Brand, HeavyDuty Confirming to relevant grade designation: C 250 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 450 X 600 mm Rectangle | Each | **9049.00** |
|  |  |  |  |
| l | Supplying 450 X 600 mm Rectangle Composite Resin Manhole Cover of Approved Brand, Extra Heavy Duty Confirming to relevant grade designation: D 400 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 40 T |  |  |
|  | Size - 450 X 600 mm Rectangle | Each | **13721.00** |
|  |  |  |  |
| m | Supplying 900 x 1200 mm Rectangle Composite Resin Manhole Cover of Approved Brand Light Duty Confirming to relevant grade designation: A 15 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 5 T |  |  |
|  | Size - 900 X 1200 mm Rectangle | Each | **37743.00** |
|  |  |  |  |
| n | Supplying 900 x 1200 mm Rectangle Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation: B 125 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 900 X 1200 mm Rectangle | Each | **44787.00** |
|  |  |  |  |
| o | Supplying 900 x 1200 mm Rectangle Composite Resin Manhole Cover of Approved Brand, HeavyDuty Confirming to relevant grade designation: C 250 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 900 X 1200 mm Rectangle | Each | **48051.00** |
|  |  |  |  |
| p | Supplying 900 x 1200 mm Rectangle Composite Resin Manhole Cover of Approved Brand, Extra Heavy Duty Confirming to relevant grade designation: D 400 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 40 T |  |  |
|  | Size - 900 X 1200 mm Rectangle | Each | **59207.00** |
|  |  |  |  |
| q | Supplying 450 x 450 mm Square Composite Resin Manhole Cover of Approved Brand Light Duty Confirming to relevant grade designation: A 15 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 5 T |  |  |
|  | Size - 450 x 450 mm Square | Each | **4634.00** |
|  |  |  |  |
| r | Supplying 450 x 450 mm Square Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation: B 125 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 450 x 450 mm Square | Each | **8574.00** |
|  |  |  |  |
| s | Supplying 450 X 450 mm Square Composite Resin Manhole Cover of Approved Brand, HeavyDuty Confirming to relevant grade designation: C 250 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 450 x 450 mm Square | Each | **9318.00** |
|  |  |  |  |
| t | Supplying 450 X 450 mm Square Composite Resin Manhole Cover of Approved Brand, Extra Heavy Duty Confirming to relevant grade designation: D 400 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | weight - 40 T |  |  |
|  | Size - 450 x 450 mm Square | Each | **10769.00** |
|  |  |  |  |
| u | Supplying 600 x 600 mm Square Composite Resin Manhole Cover of Approved Brand Light Duty Confirming to relevant grade designation: A 15 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 5 T |  |  |
|  | Size - 600 x 600 mm Square | Each | **6946.00** |
|  |  |  |  |
| v | Supplying 600 x 600 mm Square Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation: B 125 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 600 x 600 mm Square | Each | **10293.00** |
|  |  |  |  |
| w | Supplying 600 x 600 mm Square Composite Resin Manhole Cover of Approved Brand, HeavyDuty Confirming to relevant grade designation: C 250 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 600 x 600 mm Square | Each | **12001.00** |
|  |  |  |  |
| x | Supplying 600 x 600 mm Square Composite Resin Manhole Cover of Approved Brand, Extra Heavy Duty Confirming to relevant grade designation: D 400 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 40 T |  |  |
|  | Size - 600 x 600 mm Square | Each | **16331.00** |
|  |  |  |  |
| y | Supplying 900 x 900 mm Square Composite Resin Manhole Cover of Approved Brand Light Duty Confirming to relevant grade designation: A 15 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 5 T |  |  |
|  | Size - 900 x 900 mm Square | Each | **21343.00** |
|  |  |  |  |
| z | Supplying 900 x 900 mm Square Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation: B 125 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 900 x 900 mm Square | Each | **24635.00** |
|  |  |  |  |
| a1 | Supplying 900 x 900 mm Square Composite Resin Manhole Cover of Approved Brand, HeavyDuty Confirming to relevant grade designation: C 250 as per En – 124: 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 900 x 900 mm Square | Each | **27318.00** |
|  |  |  |  |
| b1 | Supplying 900 x 900 mm Square Composite Resin Manhole Cover of Approved Brand , Extra Heavy Duty Confirming to relevant grade designation : D 400 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 40 T |  |  |
|  | Size - 900 x 900 mm Square | Each | **40002.00** |
|  |  |  |  |
| c1 | Supplying 1200 x 1200 mm Square Composite Resin Manhole Cover of Approved Brand Light Duty Confirming to relevant grade designation: A 15 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 5 T |  |  |
|  | Size - 1200 x 1200 mm Square | Each | **37197.00** |
|  |  |  |  |
| d1 | Supplying 1200 x 1200 mm Square Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation : B 125 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 1200 x 1200 mm Square | Each | **48893.00** |
|  |  |  |  |
| e1 | Supplying 1200 x 1200 mm Square Composite Resin Manhole Cover of Approved Brand , Heavy Duty Confirming to relevant grade designation : C 250 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 1200 x 1200 mm Square | Each | **54930.00** |
|  |  |  |  |
| f1 | Supplying 1200 x 1200 mm Square Composite Resin Manhole Cover of Approved Brand , Extra Heavy Duty Confirming to relevant grade designation : D 400 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 40 T |  |  |
|  | Size - 1200 x 1200 mm Square | Each | **79272.00** |
|  |  |  |  |
| g1 | Supplying 530mm Circular Composite Resin Manhole Cover of Approved Brand Light Duty Confirming to relevant grade designation : A 15 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 5 T |  |  |
|  | Size - 530mm Circular | Each | **5198.00** |
|  |  |  |  |
| h1 | Supplying 530mm Circular Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation : B 125 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 530mm Circular | Each | **7596.00** |
|  |  |  |  |
| i1 | Supplying 530mm Circular Composite Resin Manhole Cover of Approved Brand , Heavy Duty Confirming to relevant grade designation : C 250 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 530mm Circular | Each | **9594.00** |
|  |  |  |  |
| j1 | Supplying 530mm Circular Composite Resin Manhole Cover of Approved Brand , Extra Heavy Duty Confirming to relevant grade designation : D 400 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 40 T |  |  |
|  | Size - 530mm Circular | Each | **11284.00** |
|  |  |  |  |
| k1 | Supplying 560mm Circular Composite Resin Manhole Cover of Approved Brand Light Duty Confirming to relevant grade designation : A 15 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 5 T |  |  |
|  | Size - 560mm Circular | Each | **6621.00** |
|  |  |  |  |
| l1 | Supplying 560mm Circular Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation : B 125 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 560mm Circular | Each | **8537.00** |
|  |  |  |  |
| m1 | Supplying 560mm Circular Composite Resin Manhole Cover of Approved Brand , Heavy Duty Confirming to relevant grade designation : C 250 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 560mm Circular | Each | **10117.00** |
|  |  |  |  |
| n1 | Supplying 560mm Circular Composite Resin Manhole Cover of Approved Brand , Extra Heavy Duty Confirming to relevant grade designation : D 400 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 40 T |  |  |
|  | Size - 560mm Circular | Each | **12416.00** |
|  |  |  |  |
| o1 | Supplying 600mm Circular Composite Resin Manhole Cover of Approved Brand Light Duty Confirming to relevant grade designation : A 15 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 5 T |  |  |
|  | Size - 600mm Circular | Each | **6830.00** |
|  |  |  |  |
| p1 | Supplying 600mm Circular Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation : B 125 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 600mm Circular | Each | **8781.00** |
|  |  |  |  |
| q1 | Supplying 600mm Circular Composite Resin Manhole Cover of Approved Brand , Heavy Duty Confirming to relevant grade designation : C 250 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 600mm Circular | Each | **10623.00** |
|  |  |  |  |
| r1 | Supplying 600mm Circular Composite Resin Manhole Cover of Approved Brand , Extra Heavy Duty Confirming to relevant grade designation : D 400 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 40 T |  |  |
|  | Size - 600mm Circular | Each | **14147.00** |
|  |  |  |  |
| s1 | Supplying 450mm Circular Composite Resin Manhole Cover of Approved Brand Light Duty Confirming to relevant grade designation : A 15 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 5 T |  |  |
|  | Size - 450mm Circular | Each | **4936.00** |
|  |  |  |  |
| t1 | Supplying 450mm Circular Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation : B 125 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 450mm Circular | Each | **7213.00** |
|  |  |  |  |
| u1 | Supplying 450mm Circular Composite Resin Manhole Cover of Approved Brand , Heavy Duty Confirming to relevant grade designation : C 250 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 450mm Circular | Each | **9114.00** |
|  |  |  |  |
| v1 | Supplying 450mm Circular Composite Resin Manhole Cover of Approved Brand , Extra Heavy Duty Confirming to relevant grade designation : D 400 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 40 T |  |  |
|  | Size - 450mm Circular | Each | **10721.00** |
|  |  |  |  |
| 15133B | CIRCULAR COVERS WITH SQUARE FRAME ( HINGED ) |  |  |
| a | Supplying 600mm Circular Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation : B 125 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 600mm Circular | Each | **9757.00** |
|  |  |  |  |
| b | Supplying 600mm Circular Composite Resin Manhole Cover of Approved Brand Heavy Duty Confirming to relevant grade designation : C 250 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 600mm Circular | Each | **11342.00** |
|  |  |  |  |
| c | Supplying 530mm Circular Composite Resin Manhole Cover of Approved Brand , Medium Duty Confirming to relevant grade designation : B 125 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 530mm Circular | Each | **7596.00** |
|  |  |  |  |
| d | Supplying 530mm Circular Composite Resin Manhole Cover of Approved Brand , Heavy Duty Confirming to relevant grade designation : C 250 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 530mm Circular | Each | **9594.00** |
|  |  |  |  |
|  | SQUARE COVER WITH FRAME ( HINGED ) |  |  |
| e | Supplying 450 X 450 Square Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation : B 125 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 450 X 450 mm Square | Each | **8574.00** |
|  |  |  |  |
| f | Supplying 600 X 600 mm Square Composite Resin Manhole Cover of Approved Brand Heavy Duty Confirming to relevant grade designation : C 250 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 600 X 600 mm Square | Each | **12001.00** |
|  |  |  |  |
|  | RECTANGULAR COVER WITH FRAME (HINGED ) |  |  |
| g | Supplying 450 X 600 Rectangular Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation : B 125 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 450 X 600 mm Rectangular | Each | **8837.00** |
|  |  |  |  |
| h | Supplying 450 X 600 mm Rectangular Composite Resin Manhole Cover of Approved Brand Heavy Duty Confirming to relevant grade designation : C 250 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 450 X 600 mm Rectangular | Each | **9049.00** |
|  |  |  |  |
| i | Supplying 450 X 900 mm rectangle Composite Resin Manhole Cover of Approved Brand Heavy Duty Confirming to relevant grade designation : A 15 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 5 T |  |  |
|  | Size - 450 X 900 mm Rectangle | Each | **7312.00** |
|  |  |  |  |
| j | Supplying 450 X 900 mm Rectangular Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation : B 125 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 450 X 900 mm Rectangular | Each | **9879.00** |
|  |  |  |  |
| k | Supplying 600 X 900 mm Rectangular Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation : B 125 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 600 X 900 mm Rectangular | Each | **12391.00** |
|  |  |  |  |
|  | GRATING WITH FRAME ( HINGED ) |  |  |
| l | Supplying 450 X 450 mm Square Composite Resin Manhole Cover of Approved Brand Light Duty Confirming to relevant grade designation : A 15 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 5 T |  |  |
|  | Size - 450 X 450 mm Square | Each | **5086.00** |
|  |  |  |  |
| m | Supplying 450 X 600 mm Rectangular Composite Resin Manhole Cover of Approved Brand Light Duty Confirming to relevant grade designation : A 15 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 5 T |  |  |
|  | Size - 450 X 600 mm Rectangular | Each | **7201.00** |
|  |  |  |  |
| n | Supplying 600 X 600 mm Square Composite Resin Manhole Cover of Approved Brand Medium Duty Confirming to relevant grade designation : B 125 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 12.5 T |  |  |
|  | Size - 600 X 600 mm Square | Each | **10775.00** |
|  |  |  |  |
| o | Supplying 600 X 600 mm Square Composite Resin Manhole Cover of Approved Brand Heavy Duty Confirming to relevant grade designation : C 250 as per En – 124 : 1994 Complete. ( Inspection Shall be done as per guidelines of EN -124 : 1994) |  |  |
|  | Weight - 25 T |  |  |
|  | Size - 600 X 600 mm Square | Each | **13171.00** |
|  |  |  |  |
| **15134** | Supplying and fixing at the site of work of Steel Fibre Reinforced Concrete (SFRC) manhole covers with frames made as per IS :12592 (part I and II )- 1991 in concrete M45grade. The covers and lapped in 2mm thick. steel plate and this plate & lifting hooks are duly painted in corrosion resistant epoxy paint etc. complete. | Existing GSR2019 rates adopted | |
| **I** | Light Duty ( 2.50 Metric Tonne Capacity) |  |  |
|  | Size in mm |  |  |
| a | 300x300 | Each | **521.00** |
| b | 450x450 | Each | **1149.00** |
| c | 450x600 | Each | **1314.00** |
| d | 450x900 | Each | **1460.00** |
|  |  |  |  |
| **II** | Medium Duty ( 10.00 Metric Tonne Capacity) |  |  |
|  | Size in mm |  |  |
| a | 450x450 | Each | **1500.00** |
| b | 450x600 | Each | **1606.00** |
| c | 450x900 | Each | **2225.00** |
| d | 600x600 | Each | **2025.00** |
| e | 600x900 | Each | **2629.00** |
| f | 500 mm Diameter | Each | **1947.00** |
|  |  |  |  |
| **III** | Supply of HEAVY DUTY composite cast iron & SFRC manhole cover with frame as per IS:12952 Part I &Part II, the cover of outer ring C.I. of 12mm thickness with 4 prizing slots, internal portion SFRC, frame of inner ring C.I. 12mm thick encased in SFRC with clear opening as mentioned below. |  |  |
| a | 500 mm diameter | Each | **7575.00** |
| b | 540 mm diameter | Each | **8080.00** |
| c | 600 mm diameter | Each | **9218.00** |
|  |  |  |  |
| **15135** | Supply of C.I. Surface box with chain and lid complete |  |  |
| a | 175mm dia at bottom and 100mm dia at top with 300mm height weight 15kg | Each | **971.00** |
| b | 100mm top dia 160mm bottom dia with 160mm hight weight 15kg | Each | **1508.00** |
| c | 200mm dia top 300mm dia bottom with 300mm height weight 32kg | Each | **3218.00** |
|  |  |  |  |
| **15136** | Supplying of C. I.. Foot rests for manhole conforming to IS:5455-1969 weighing 5.4 kgs | Each | **871.00** |

|  |  |  |  |
| --- | --- | --- | --- |
| **WATER METERS** | | | |
| **Mechanical Type Meters** | | | |
| **Domestic Meters.** | | | |
| **15137** | Supply of Domestic Water Meter, horizontal inferential, Single Jet type with magnetic drive and dry dial suitable for ambient 50 degree C temperature duly sealed against tampering complete with couplings at both ends and conforming to Class A as per IS 779/1994 (Reaffirmed:2004) with amendments 1 to5 with ISI mark along with manufacturer's test certificate and guarantee certificate, including cost of all materials and labours with ISI mark. |  |  |
|  | Dia in mm |  |  |
| a | 15 | Each | **847.00** |
|  |  |  |  |
| **15138** | Supply of Domestic Water Meter, horizontal inferential, Single Jet type with magnetic drive and dry dial suitable for ambient 50 degree C temperature duly sealed against tampering complete with couplings at both ends and conforming to Class B as per IS 779/1994 (Reaffirmed:2004) with amendments 1 to5 with ISI mark along with manufacturer's test certificate and guarantee certificate, including cost of all materials and labours with ISI mark. |  |  |
|  | Dia in mm |  |  |
| a | 15 | Each | **1122.00** |
| b | 20 | Each | **1772.00** |
| 15139 | Supply of Domestic Water Meter, horizontal inferential, Multi Jet type with magnetic drive and dry dial suitable for ambient 50 degree C temperature duly sealed against tampering complete with couplings at both ends and conforming to Class B as per IS 779/1994,(Reaffirmed:2004)with amendments 1 to 5 with ISI mark along with manufacturer's test certificate and guarantee certificate, including cost of all materials and labours with ISI mark with Plastic Cover & Brass Body. |  |  |
|  | Dia in mm |  |  |
| a | 15 | Each | **1365.00** |
| b | 20 | Each | **2323.00** |
| c | 25 | Each | **4206.00** |
|  |  |  |  |
| 15140 | Supply of inferential, dry dial, type Domestic Water Meter, suitable for horizontal installation, duly, sealed against tampering with couplings at both ends having pulse output facility compatible for automatic reading system ,conforming to IS:779-1974 and ISO 4064-2005 standards pre equipped for AMR IP-68 with copper can register and bearing MID/OIML mark,(with latest Amendments) along with valid life test /type test certificate from FCRI or Test certificate from as NABL desired by the department |  |  |
| **A** | Class B-single Jet Water meters |  |  |
|  | Dia in mm |  |  |
| a | 15 | Each | **1772.00** |
| b | 20 | Each | **2363.00** |
|  |  |  |  |
| 15141 | Supply of inferential, dry dial, type Domestic Water Meter, suitable for horizontal installation, duly, sealed against tampering with couplings at both ends having pulse output facility compatible for automatic reading system ,conforming to IS:779-1974 and ISO 4064-2005 standards -pre equipped for AMR IP-68 with copper can register bearing MID /OIML mark (with latest Amendments) along with valid life test /type test certificate from FCRI or Test certificate from as NABL desired by the department |  |  |
| A | Class B-Multi Jet Water meters |  |  |
|  | Dia in mm |  |  |
| a | 15 | Each | **2440.00** |
| b | 20 | Each | **3621.00** |
| c | 25 | Each | **7985.00** |
| d | 32 | Each | **8856.00** |
| e | 40 | Each | **16987.00** |
| f | 50 | Each | **25117.00** |
|  |  |  |  |
| **15142** | Supply of AMR ready bulk water meter of class B Cast Iron Body confirming to IS 2373 dry dial hermetically sealed conforming to ISO 4064-2005 standards, marked to read in metric system bearing MID/OIML mark (with latest Amendments) along with valid life test /type test certificate from FCRI or Test certificate from as NABL desired by the department |  |  |
| **I** | **Removable mechanism type (EEC/MID/OIML mark)** |  |  |
|  | Dia in mm |  |  |
| a | 50 | Each | **17279.00** |
| b | 65 | Each | **18313.00** |
| c | 80 | Each | **20676.00** |
| d | 100 | Each | **23925.00** |
| e | 150 | Each | **40171.00** |
| f | 200 | Each | **53463.00** |
| g | 250 | Each | **99984.00** |
| h | 300 | Each | **170136.00** |
| i | 400 | Each | **171303.00** |
| j | 500 | Each | **172469.00** |

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| **STRAINERS (FILTERS OR DIRT BOX)** | | | |
| **15143** | Providing and fixing C.I. Strainers for Water Meters including cost of all materials and labour. |  |  |
| **I** | C.I. Strainer 'Y' type with screwed ends. |  |  |
|  | Sizes in mm |  |  |
| a | 15 | Each | **600.00** |
| b | 20 | Each | **825.00** |
| c | 25 | Each | **1353.00** |
| d | 40 | Each | **2403.00** |
|  |  |  |  |
| **15144** | C.I. Stainer 'T' (Basket) type with flanged ends and with stainless steel or Brass mesh with opening of 2.5mm to 3mm and suitable for operating pressure of 16 kg/cm² and test pressure of 24 kg/cm² |  |  |
| **II** | C.I. Stainer 'T' (Basket) type with flanged ends |  |  |
|  | Sizes in mm |  |  |
| a | 50 | Each | **2954.00** |
| b | 80 | Each | **4180.00** |
| c | 100 | Each | **6380.00** |
| d | 150 | Each | **11933.00** |
| e | 200 | Each | **25993.00** |
| f | 250 | Each | **42534.00** |
| g | 300 | Each | **44897.00** |
| h | 400 | Each | **49623.00** |
| i | 500 | Each | **54349.00** |
|  |  |  |  |
| **15145** | Supply of Strainer/Dirt Box with M.S. body and SS mesh suitable for flanged connections in installation of Bulk water meters |  |  |
|  | Sizes in mm |  |  |
| a | 50 | Each | **3194.00** |
| b | 80 | Each | **4970.00** |
| c | 100 | Each | **7168.00** |
| d | 150 | Each | **14719.00** |
| e | 200 | Each | **20966.00** |
| f | 250 | Each | **36796.00** |
| g | 300 | Each | **48184.00** |
| h | 400 | Each | **82792.00** |
| i | 500 | Each | **114350.00** |

|  |  |  |  |
| --- | --- | --- | --- |
| **ULTRASONIC FLOW METERS** | | | |
|  |  |  |  |
| **15146** | **Ultrasonic Clamp-on portable type Flow Meter (Single Channel)** |  |  |
|  | Providing, installing and giving satisfactory test & trial of ultrasonic clamp on portable type flow meter confirming to ISO standard working on following conditions & specifications, calibration, inspection, testing, training along with accredited flow ring certificate of compliance with guarantee period of 12 months, suitable for maximum working pressure of 16 kg /sq.cm. |  |  |
| a) | **Mandatory Accessories :** |  |  |
|  | 1) Integrated single converted transmitter enclosed in anticorrosive ABS die cast aluminium case confirming to IP-67 or better - 1 No. |  |  |
|  | 2) Pair of transducers (Sensors) confirming to IP-67 or better - 1 No. |  |  |
|  | 3) Stainless straps for mounting transducers - 1 pair |  |  |
|  | 4) Grease/sonic couplant, 100 ml - 1 Bottle |  |  |
|  | 5) Coaxial signal & power cables for each transducer - 5 mtrs.length/each |  |  |
|  | 6) Built in Portable battery backup for 12 hours continuous operation and separate battery charger working on 230 V AC, 50 Hz, A.C. power supply for charging battery -01 No. |  |  |
|  | 7) Data storage capacity with built in or separate for date, time, actual flow rate, totalizer& error messages if any with storage capacity of 120 days at 5 minutes interval data logging - 1 No. |  |  |
|  | 8) Dot matrix printer of EPSON, WIPRO or Hewlett Packard make printer interface unit for printing of stored data - 1 No. |  |  |
|  | 9) Suitable surge suppressor (arrestor) for protection from lighting or incoming signal cable from transducer and power supply cable of meter - 1 set. |  |  |
|  | 10) Measuring steel tape 5 meters in length - 1 No. |  |  |
|  | 11) Ultrasonic thickness gauge - 1 No. |  |  |
|  | 12) suitable carrying case - 1 No. |  |  |
|  | 13) Velocity range 0.50 m/sec to 12m/sec |  |  |
| b) | **Working condition & Specifications :** |  |  |
|  | a) Water Temp. : 10 Deg. to 50 Deg. |  |  |
|  | b) Water Quality: Raw water, turbid in nature, potable chlorinated water. Homogenous liquid not containing heavy suspended particles. |  |  |
|  | c) Operating pressure : 10-16 kg/cm2 |  |  |
|  | d) Pipeline MOC : CI, DI, MS with/without mortar lined, Non-metallic pipes |  |  |
|  | e) Pipe diameter : > 50mm - 4000 mm |  |  |
|  | f) Flow - Up to 300 MLD |  |  |
|  | g) Pipe condition : Pipe shall be running full. |  |  |
|  | h) Ultrasonic flow meters shall be designed, manufactured to international standard with accuracy of +/-2% of actual flow. The supplier should have full ISO-9000 series. The supplier should have flow calibration laboratory accredited to ISO 17025 |  |  |
|  | i) Functional details : Freely programmable |  |  |
|  | j) Measurement - Volumetric flow rate, totalized flow |  |  |
|  | k) Flow Direction - Forward & Reverse. |  |  |
|  | l) Display - Graphic 128 x 64 / 16 x 2 LCD display with suitable lines, digits, segments, markers, for identification of current output. The digit shall be clear, bold and can be read from 1 mtrs. distance |  |  |
|  | m) Out put - RS232/ RS485 |  |  |
|  | n) Meter shall be suitable for remote facility. |  |  |
|  | o) Power supply - 85 - 260 V AC (45-65 Hz)/16-62V DC |  |  |
|  | p) Galvanic isolation - Input & output Galvanically isolated from power supply from the senor and from each other | Each | **270689.00** |
| **15147** | Providing, installing and giving satisfactory test & trial of ultrasonic clamp on, fixed type flow meter confirming to ISO standard working on following conditions & specifications, calibration, inspection, testing, training with accredited flow ring certificate of compliance along with guarantee period of 12 months, suitable for maximum working pressure of 16 kg /sq.cm., |  |  |
| a) | **Mandatory Accessories :** |  |  |
|  | 1) Integrated single converted transmitter enclosed in Anticorrosive ABS die cast aluminium case confirming to IP-67 or better - 1 No. |  |  |
|  | 2) Pair of transducers (Sensors) confirming to IP-67 or better - 1 No. for Single Channel |  |  |
|  | Pair of transducers (Sensors) confirming to IP-67 or better - 2 Nos. for Dual Channel |  |  |
|  | 3) Stainless straps for mounting transducers - 1 Pair |  |  |
|  | 4) Grease couplant, 100 ml - 1 Bottle |  |  |
|  | 5) Coaxial signal & power cables for each transducer - 15 mtrs. length/each |  |  |
|  | 6) UPS working on 230 V AC,50 Hz power supply suitable for 12 hrs continuous operation-1No. |  |  |
|  | 7) Data storage capacity with built in or separate for date,time,actual flow rate,Totalizer& error messages if any with storage capacity of 120 days at 5 minutes interval data logging - 1 No. |  |  |
|  | 8) Dot matrix printer of EPSON, WIPRO or Hewlett Packard make with printer interface unit for printing of stored data - 1 No. |  |  |
|  | 9) Suitable surge suppressor (arrestor) for protection from lighting or incoming signal cable from transducer and power supply cable of meter - 1 set. |  |  |
| b) | **Working Condition & Specifications :** |  |  |
|  | a) Water Temp. : 10 Deg. to 50 Deg. |  |  |
|  | b) Water Quality : Raw water, turbid in natrue, potable chlorinated water |  |  |
|  | c) Operating pressure : 10-16 kg/cm2 |  |  |
|  | d) Pipeline MOC : CI, DI, MS with/without morter lined, Non-metallic pipes |  |  |
|  | e) Pipe diameter : >80mm - 4000 mm |  |  |
|  | f) Flow - Up to 300 MLD |  |  |
|  | g) Pipe condition : Pipe shall be running full. |  |  |
|  | h) Ultrasonic flow meters shall be designed, manufactured to international standard with accuracy of +/-2% of actual flow. The supplier should have full ISO-9000 series. The supplier should have flow calibration laboratory accredited to ISO-17025 |  |  |
|  | i) Functional details : Freely programmable |  |  |
|  | j) Measurement - Volumetric flow rate, totalised flow |  |  |
|  | k) Flow Direction - Forward & Reverse. |  |  |
|  | l) Display - Graphic 128 x 64 / 16 x 2 LCD display with suitable lines, digits, segments, markers, for identification of current output. The digit shall be clear, bold and can be read from 1 mtrs. distance |  |  |
|  | m) Output - for current - 4mA - 20 mA hart for measuring flow in pipeline. Frequency output shall be 1 Khz, Open collector, passive. |  |  |
|  | n) Meter shall be suitable for remote facility. |  |  |
|  | o) Power supply - 85 - 260 V AC (45-65 Hz)/16-62V DC |  |  |
|  | p) Galvanic isolation - Input & output Galvanically isolated from power supply from the senor and from each other |  |  |
| **I** | Ultrasonic Clamp-on, Fixed type Flow Meter (Single Channel/Path) | Each | **259207.00** |
| **II** | Ultrasonic Clamp-on, Fixed type Flow Meter (Dual Channel/Path) | Each | **492752.00** |
|  |  |  |  |
| **15148** | **Ultrasonic insertion type Flow Meter (Single Channel)** |  |  |
|  | Providing, installing and giving satisfactory test & trial of Single channel insertion type Ultrasonic Flow meter confirming to ISO working on 85-260 V AC, 50 Hz/24V DC electric power supply of following type working on time of flight principles suitable for satisfactory continuous operation in all seasons & with following accessories, working conditions specifications with accredited flow ring certificate of compliance along with guarantee period of 12 months, suitable for maximum working pressure of 16 kg /sq.cm. |  |  |
| a) | **Mandatory Accessories :** |  |  |
|  | 1) Integrated single converted transmitter enclosed in Anticorrosive ABS die cast aluminium confirming to IP-67 or better - 1 No. |  |  |
|  | 2) Pair of transducers (Sensors) confirming to IP-67 or better - 1 No. |  |  |
|  | 3) Coaxial signal & power cables for each transducer - 30 mtrs. length/each |  |  |
|  | 4) UPS working on 230 V AC,50 Hz power supply suitable for 12 hrs continuous operation-1No. |  |  |
|  | 5) Data storage capacity with built in or separate for date, time, actual flow rate,Totaliser& error messages if any with storage capacity of 120 days at 5 minutes interval data logging - 1 No. |  |  |
|  | 6) Dot matrix printer of EPSON, WIPRO or Hewlett Packard make with printer interface unit for printing of stored data - 1 No. |  |  |
|  | 7) Suitable surge suppressor (arrestor) for protection from lighting or incoming signal cable from transducer and power supply cable of meter - 1 set. |  |  |
| b) | **Working Condition & Specifications :** |  |  |
|  | a) Water Temp. : 10 Deg. to 50 Deg. |  |  |
|  | b) Water Quality : Raw water, turbid in nature, potable chlorinated water |  |  |
|  | c) Operating pressure : 10-16 kg/cm2 |  |  |
|  | d) Pipeline MOC : CI, DI, MS with/without mortar lined, Non-metallic pipes |  |  |
|  | e) Pipe diameter : >80mm - 4000 mm |  |  |
|  | 80mm- 600mm: Single Path/track/channel |  |  |
|  | 600mm- 800mm: Single Path/track/channel |  |  |
|  | 800mm and above: Single Path/track/channel |  |  |
|  | f) Flow - Up to 300 MLD |  |  |
|  | g) Pipe condition : Pipe shall be running full. |  |  |
|  | h) Ultrasonic flow meters shall be designed, manufactured to international standard with accuracy of +/-1% of actual flow. The supplier should have flow calibration laboratory accredited to International Standard |  |  |
|  | i) Functional details : Freely programmable |  |  |
|  | j) Measurement - Volumetric flow rate, totalized flow |  |  |
|  | k) Flow Direction - Forward & Reverse. |  |  |
|  | l) Display - Graphic 128 x 64 / 16 x 2 LCD display with suitable lines, digits, segments, markers, for identification of current output. The digit shall be clear, bold nad can be read from 1 mtrs. distance |  |  |
|  | m) Output - for current - 4mA - 20 mA HART for measuring flow in pipeline. Frequency output shall be 1 Khz, Open collector, passive. |  |  |
|  | n) Meter shall be suitable for remote facility. |  |  |
|  | o) Power supply - 85 - 260 V AC (45-65 Hz)/ 16-62 V DC |  |  |
|  | p) Galvanic isolation - Input & output Galvanically isolated from power supply from the senor and from each other |  |  |
| **I** | Ultrasonic insertion type Flow Meter (Single Channel/path) | Each | **22116.00** |
| **II** | Ultrasonic insertion type Flow Meter (Two Channel/path) | Each | **786769.00** |
| **III** | Ultrasonic insertion type Flow Meter (Four Channel/path) | Each | **1393800.00** |
|  |  |  |  |
| **15149** | Battery powered, inline Ultrasonic Flow Meter |  |  |
|  | Supply and Commission installation & successful testing of Battery powered, inline ultrasonic flow meter confirming to ISO - 17025 working on following conditions & specifications, calibration, inspection, testing, training along with accredited flow ring certificate of compliance with guarantee period of 12 months, suitable for maximum working pressure of 16 kg /sq.cm. |  |  |
| b) | **Working Condition & Specifications :** |  |  |
|  | 1) Fluid suitability :- Raw, turbid and muddy water with aquatic lives like fish and floating material/clear, cold chlorinated water. |  |  |
|  | 2) Operating pressure :- 0 to 16 kg/cm2 |  |  |
|  | 3) Pipe line diameter (D.I/C.I/M.S with or without cement mortar lining,&non-metallic pipes):- 50 mm to 500 mm |  |  |
|  | 4) Water temperature :- 10 to 50 deg. C |  |  |
|  | 5) Accuracy :- +1% of reading |  |  |
|  | 6) Display :- Alphanumeric LCD display for flow rate &totalizer |  |  |
|  | 7) Logger capacity :- Hourly record for 1 year/Daily record for 5 years |  |  |
|  | 8) communication :- RS 232 |  |  |
|  | 9) Ingress protection : IP 67 |  |  |
|  | 10) Material of sensor : Stainless steel/Epoxy |  |  |
|  | 11) Battery Type :- Li-SOCL2 |  |  |
|  | 12) Battery life : Two years minimum, five years maximum |  |  |
|  | 13) Ingress Protection : IP-67 |  |  |
|  | 14) Connectivity :- Facility for GSM connectivity should be available inbuilt |  |  |
|  | Remote Monitoring System for data acquisition/date transfer & alert SMS/Warning based on GSM technology with complete hardware like wireless communication device, HART cables, necessary software system |  |  |
|  | 1) GSM/GPRS modem shall be installed in conjunction with ultrasonic flowmeter Picosonic at various location at NMC |  |  |
|  | 2) Successful contractor has to study the serial protocol of Picosonic flowmeter for feasibility |  |  |
|  | 3) while executing contract performance of present system shall not be hampered |  |  |
|  | 4) Successful contractor has to arrange demonstration of his system within 8 days from notice |  |  |
|  | 5) GSM/GPRS modem shall be installed in conjunction with ultrasonic flowmeter Picosonic at various location at NMC |  |  |
|  | 6) Successful contractor has to study the serial protocol of Picosonic flowmeter for feasibility |  |  |
|  | 7) while executing contract performance of present system shall not be hampered |  |  |
|  | 8) Successful contractor has to arrange demonstration of his system within 8 days from notice |  |  |
|  | 9) GSM/GPRS system shall send SMS to Central Monitoring room or Central Monitoring rooms with user predefined frequency 1Hr-24Hr. |  |  |
|  | 10) GSM/GPRS system shall send SMS to min 3 cell nos.with user predefined frequency 1Hr-24Hr. With additions to central Monitoring room. |  |  |
|  | 11) GSM/GPRS system shall send SMS to min 1 cell no in predefined alarm condition such as high flow rate, low flow rate |  |  |
|  | 12) GSM/GPRS system shall work at least 12 hours in absence of electric supply |  |  |
|  | 13) Successful contractor has to carry out survey of necessary strength of RF signal for proper functioning of system |  |  |
|  | 14) Successful contractor has to give location wise suitability of service provider |  |  |
| a | 50mm dia | Each | **69297.00** |
| b | 65mm dia | Each | **74711.00** |
| c | 80mm dia | Each | **90829.00** |
| d | 100mm dia | Each | **93501.00** |
| e | 150mm dia | Each | **106858.00** |
| f | 200mm dia | Each | **114872.00** |
| g | 250mm dia | Each | **128230.00** |
| h | 300mm dia | Each | **141587.00** |
| i | 350mm dia | Each | **168301.00** |
| j | 400mm dia | Each | **195016.00** |
| k | 450mm dia | Each | **261802.00** |
| l | 500mm dia | Each | **301874.00** |
|  | | | |
| 15150 | Supplying, installation, testing and Commissioning of Full Bore Carbon Steel Flanged ends Electromagnetic Flow Meter (FBEM), for Raw/ treated water with accuracy+/-0.5% and sensor of protection of IP 68 Grade for pressure rating PN 16 including sensor coil housed in Cast Aluminium/ Carbon Steel with anti-corrosive food grade powder coating; Co-axial signal sensor/ transmitter & power cable routed through duct of 50mm dia G.I. Pipe; surge arrestor; over voltage protection unit, PTFE/ Rubber Liner material(as desired by the Engineer-in charge). The output showing volumetric flow rate and totalized flow with other details shall be on LCD display screen mounted on the flow meter body or in the nearby control room with upto 25m length transmitter / sensor cabling and simultaneous transmission of reading through GSM Mobile signals to designated phone numbers and meter should have data storage of required capacity and shall be freely programmable for future upgradation and Scada compatible with power supply 80-300 V AC/DC etc. complete as directed by Engineer-in charge. |  |  |
| A | **Mandatory Accessories:** |  |  |
| 1 | 100 | Each | **127962.00** |
| 2 | 150 | Each | **137805.00** |
| 3 | 200 | Each | **164382.00** |
| 4 | 250 | Each | **182100.00** |
| 5 | 300 | Each | **211629.00** |
| 6 | 350 | Each | **295297.00** |
| 7 | 400 | Each | **344513.00** |
| 8 | 450 | Each | **364199.00** |
| 9 | 500 | Each | **418337.00** |
| 10 | 600 | Each | **492161.00** |
| 11 | 700 | Each | **541377.00** |
| 12 | 750 | Each | **590593.00** |
| 13 | 800 | Each | **674942.00** |
| 14 | 900 | Each | **935106.00** |
| 15 | 1000 | Each | **1135767.00** |
|  |  |  |  |
| **15151** | Supply, installation, testing and Commissioning of INBUILT BATTERY OPERATED Electromagnetic Flow Meter (EMF), for Raw/ treated water with accuracy +/-1% of measured valve and protection as per given specifications for size 100 mm – 1000 mm including sensor, transmitter, surge arrestor, 25 mtrs sensor/ transmitter AC/ DC. Inbuilt battery should proSupply, installation, testing and Commissioning of INBUILT BATTERRRY OPERATED Electromagnetic Flow Meter (EMF), for Raw/ treated water with accuracy +/-1% and sensor of protection of IP 68 Grade for pressure rating PN 16 including sensor coil housed in Cast Aluminium/ Carbon Steel with anti-corrosive food grade powder coating; Co-axial signal sensor/ transmitter & power cable routed through duct of 50mm dia G.I. Pipe; surge arrestor; over voltage protection unit, PTFE/ Rubber Liner material(as desired by Engineer in-charge). The output showing volumetric flow rate and totalized flow with other details shall be on LCD display screen mounted on the flow meter body or in the nearby control room with upto 25m length transmitter / sensor cabling and simultaneous transmission of reading through GSM Mobile signals to designated phone numbers and meter should have data storage of required capacity and shall be freely programmable for future upgradation and Scada compatible. Inbuilt battery should provide power to meter for minimum five years etc. complete as directed by Engineer-incharge.vide power to meter for minimum five years etc. complete as directed by Engineer-in charge. |  |  |
| 1 | 100 | Each | **167335.00** |
| 2 | 125 | Each | **174225.00** |
| 3 | 150 | Each | **196439.00** |
| 4 | 200 | Each | **225477.00** |
| 5 | 250 | Each | **254514.00** |
| 6 | 300 | Each | **269033.00** |
| 7 | 350 | Each | **290810.00** |
| 8 | 400 | Each | **399702.00** |
| 9 | 450 | Each | **501333.00** |
| 10 | 500 | Each | **617483.00** |
| 11 | 600 | Each | **726374.00** |
| 12 | 700 | Each | **828004.00** |
| 13 | 750 | Each | **929635.00** |
| 14 | 800 | Each | **1031267.00** |
| 15 | 900 | Each | **1161935.00** |
| 16 | 1000 | Each | **1459570.00** |
|  |  |  |  |
| **15152** | **Additional / Optional Accessories :** |  |  |
| **1** | **Sensor / Transmitter cable** |  |  |
|  | 3 x 0.38 mm 2 PVC cable with common, braided copper shield (7 mmdia) and individually shielded cores. With empty pipe detection 9 EPD 4 x 0.38 mm 2 PVC cable with common braided copper shield (7 mm dia) and individually shielded cores Conductor resistant. | Metre | **406.00** |
| **2** | **Coil Cable** |  |  |
|  | 3 x 0.75 mm 2 PVC cable with common, braided copper shield (7 mmdia) – Conductor resistance :</=37 Ohm/km. – Capacitance : core / core, shield grounded : </= 120 pF/m Permanent operating temperature : 20… +80 Deg.C | Metre | **435.00** |
| **3** | **Pressure Transmitter Cable** |  |  |
|  | 3 x 0.75 mm 2 PVC cable with common , braided copper shield (7mm dia) – Conductor resistance :</37 Ohm/km. – Capacitance: core/core, shield grounded: </=120 pF/m Permanent operating temperature : 20…+80 deg.C | Metre | **145.00** |
| **4** | **GI duct of 50 mm with suitable rating** |  |  |
|  | For laying underground with all the necessary fitting joints,etc. for housing the cables between sensor and transmitter. The cable shall be installed in a suitable GI duct to minimize the risk of damage during excavation. All cable laid at a minimum depth. | Metre | **509.00** |
|  |  |  |  |
| **15153** | Hydraulic Design, Analysis & Pipeline for Pressure, Surge analysis, manufacturing, supplying of electrically/ hydraulically operated surge Relief Valve with integral flanges of high strength D.I/ C.I. body with pressure rating PN 1.6/ PN 2.5 having two pressure sensing pilots, reinforced diaphragm of EPDM material or piston based water release mechanism etc. complete as directed by Engineer in charge. |  |  |
| a | 100 mm | Each | **415428.00** |
| b | 150 mm | Each | **623142.00** |
| c | 200 mm | Each | **830856.00** |
| d | 250 mm | Each | **1038569.00** |
| e | 300 mm | Each | **1246283.00** |
|  |  |  |  |
| **15154** | Supply of watertight control panel of required dimensions with AC and DC relays of 12 Volts, Electronic timer with 0 to 60 sec time settings should be provided for operation of the valve. | Each | **53327.00** |
|  |  |  |  |
| **15155** | Supply of maintenance free batteries of Exide make or equivalent of 24 volts each with an automatic battery charger should be provided in the control panel. (2 Batteries) | Each | **7550.00** |
|  |  |  |  |
| **15156** | Installation, testing and commissioning of Surge relief valve by gas cutting the existing M.S. pipe and welding, fixing a M.S. tail piece length as per the site conditions. |  |  |
| a | 100 mm | Each | **18816.00** |
| b | 150 mm | Each | **21952.00** |
| c | 200 mm | Each | **25088.00** |
| d | 250 mm | Each | **48783.00** |
| e | 300 mm | Each | **58075.00** |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **DUCTILE IRON VALVES** |  |  |
|  | **DUCTILE IRON RESILIENT SEATED SLUICE VALVES** |  |  |
| 15157 | Supplying at store or site of work including freight, transit insurance, carting, loading, unloading,stacking, etc. Ductile Iron double flanged, manually operated Sluice valve generally confirming to IS 14846-2000, non-rising spindle type, (soft seated) resilient seated with Body, Bonnet of Ductile Iron of grade GGG40 or SG 400/12, 400/15, 500/7 or equivalent grade as per IS 3896 part 2-1985 and subsequent revisions, Wedge fully rubber lined with food grade EPDM(WRAS approved) and seals of NBR, spindle stem SS/AISI 410 and having glandless operation. The valve should be vacuum tight 100% leak proof with face to face dimensions as per IS14846-2000 or BS 5163-89 or DIN 3202-F4. The valves should be coated with electrostatic Powder/ Epoxy Coating on both inside and outsideminimum 250 microns thickness of blue colour RAL5017/5005 suitable for drinking water and shall have pocket less body passage. The flanges shall be Drilled as per IS: 1538 with latest amendments. The valve shall be supplied with Hand Wheel for operation (by-pass and gear arrangements for sizes above 400mm dia) and relevant Test & Guarantee certificates. TYPE P.N. 1.0 (Class A) |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 50 | Each | **18933.00** |
| b | 80 | Each | **19209.00** |
| c | 100 | Each | **24148.00** |
| d | 125 | Each | **31047.00** |
| e | 150 | Each | **37946.00** |
| f | 200 | Each | **61598.00** |
| g | 250 | Each | **97583.00** |
| h | 300 | Each | **139476.00** |
| i | 350 | Each | **221745.00** |
| j | 400 | Each | **322125.00** |
| k | 450 | Each | **386884.00** |
| l | 500 | Each | **521970.00** |
| m | 600 | Each | **727093.00** |
| n | 800 | Each | **1339093.00** |
|  |  |  |  |
| 15158 | Supplying at store or site of work including freight, transit insurance, carting, loading, unloading, stacking etc. Ductile Iron double flanged, manually operated Sluice valve generally confirming to IS 14846-2000, non-rising spindle type, (soft seated) resilient seated with Body, Bonnet of Ductile Iron of grade GGG40 or SG 400/12, 400/15, 500/7 or equivalent grade as per IS 3896 part 2-1985 and subsequent revisions, Wedge fully rubber lined with food grade EPDM(WRAS approved) and seals of NBR, spindle stem SS/AISI 410 and having glandless operation. The valve should be vacuum tight 100% leak proof with face to face dimensions as per IS14846-2000 or BS 5163-89 or DIN 3202-F4. The valves should be coated with electrostatic Powder/ Epoxy Coating on both inside and outsideminimum 250 microns thickness of blue colour RAL5017/5005 suitable for drinking water and shall have pocket less body passage. The flanges shall be Drilled as per IS: 1538 with latest amendments. The valve shall be supplied with Hand Wheel for operation (by-pass and gear arrangements for sizes above 400mm dia) and relevant Test & Guarantee certificates. TYPE P.N. 1.6 (Class A) |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 50 | Each | **12600.00** |
| b | 80 | Each | **19209.00** |
| c | 100 | Each | **24148.00** |
| d | 125 | Each | **31047.00** |
| e | 150 | Each | **37946.00** |
| f | 200 | Each | **61598.00** |
| g | 250 | Each | **97583.00** |
| h | 300 | Each | **139476.00** |
| i | 350 | Each | **221745.00** |
| j | 400 | Each | **322125.00** |
| k | 450 | Each | **386884.00** |
| l | 500 | Each | **521970.00** |
| m | 600 | Each | **727093.00** |
| n | 800 | Each | **1339093.00** |

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| --- | --- | --- | --- |
| **DUCTILE IRON METAL SEATED SLUICE VALVES** | | | |
| 15159 | Supplying at store or site of work including freight, transit insurance, carting, loading, unloading, stacking etc. Ductile Iron double flanged, manually operated Sluice valve generally confirming to IS 14846-2000, with Body, Bonnet of Ductile Iron of grade GGG40 or SG 400/12, 400/15, 500/7 or equivalent grade as per IS 3896 part 2-1985 and subsequent revisions, four faces and spindle nut of leaded gun metal of IS 318 GR LTB 2/Al Bronze, inside screw of non-rising stainless steel AISI 410/420 spindle. . The valves should be coated with electrostatic Powder/ Epoxy Coating on both inside and outside minimum 250 microns thickness of blue colour RAL5017/5005 suitable for drinking water. The flanges shall be Drilled as per IS: 1538 with latest amendments. The valve shall be supplied with Hand Wheel for operation (by-pass and gear arrangements for sizes above 400 mm dia) and relevant Test & Guarantee certificates. TYPE P.N. 1.0 (Class A) |  |  |
|  | Nominal dia in MM |  |  |
| a | 50 | Each | **16464.00** |
| b | 80 | Each | **23782.00** |
| c | 100 | Each | **31988.00** |
| d | 150 | Each | **48504.00** |
| e | 200 | Each | **82478.00** |
| f | 250 | Each | **116479.00** |
| g | 300 | Each | **153405.00** |
| h | 350 | Each | **432095.00** |
| i | 400 | Each | **555526.00** |
| j | 450 | Each | **684888.00** |
| k | 500 | Each | **781870.00** |
| l | 600 | Each | **1076397.00** |
| m | 700 | Each | **1626042.00** |
| n | 750 | Each | **1720123.00** |
| o | 800 | Each | **2079201.00** |
| p | 900 | Each | **2519032.00** |
| q | 1000 | Each | **2946058.00** |
| r | 1200 | Each | **3812914.00** |
| 15160 | Supplying at store or site of work including freight, transit insurance ,carting, loading, unloading, stacking,etc. Ductile Iron double flanged, manually operated Sluice valve generally confirming to IS 14846-2000,with Body, Bonnet of Ductile Iron of grade GGG40 or SG 400/12, 400/15, 500/7 or equivalent grade as per IS 3896 part 2-1985 and subsequent revisions, four faces and spindle nut of leaded gun metal of IS 318 GR LTB 2/Al Bronze, inside screw of non-rising stainless steel AISI 410/420 spindle. . The valves should be coated with electrostatic Powder/ Epoxy Coating on both inside and outside minimum 250 microns thickness of blue colour RAL5017/5005 suitable for drinking water. The flanges shall be Drilled as per IS: 1538 with latest amendments. The valve shall be supplied with Hand Wheel for operation (by-pass and gear arrangements for sizes above 400 B38mm dia) and relevant Test & Guarantee certificates. TYPE P.N. 1.6 (Class A) |  |  |
|  | Nominal dia in MM |  |  |
| a | 50 | Each | **16875.00** |
| b | 80 | Each | **24376.00** |
| c | 100 | Each | **32788.00** |
| d | 150 | Each | **49717.00** |
| e | 200 | Each | **84540.00** |
| f | 250 | Each | **119391.00** |
| g | 300 | Each | **157240.00** |
| h | 350 | Each | **442897.00** |
| i | 400 | Each | **569414.00** |
| j | 450 | Each | **702009.00** |
| k | 500 | Each | **801416.00** |
| l | 600 | Each | **1103307.00** |
| m | 700 | Each | **1666693.00** |
| o | 750 | Each | **1763127.00** |
| p | 800 | Each | **2131182.00** |
| q | 900 | Each | **2582008.00** |
| r | 1000 | Each | **3019710.00** |
| s | 1200 | Each | **4720957.00** |

|  |  |  |  |
| --- | --- | --- | --- |
| **DUCTILE IRON AIR VALVES** | | | |
|  |  |  |  |
| 15161 | Supplying at store or site of work including freight, transit insurance, carting, loading, unloading, stacking etc. Ductile Iron Single chamber/kinetic double orifice, tamper proof type Air Valve generally conforming to IS 14845 with body and cover in Ductile Iron of grade SG 400/12, 500/7 or equivalent grade as per IS 3896 part2-1985 and subsequent revisions. All internal parts such as float, shell etc. all cover bolts of Stainless Steel and Gaskets, seals,etc. made of food grade EPDM. The valve body shall be coated with food grade blue colour Epoxy inside and outside minimum 250 microns thickness of blue colour RAL5017/5005 suitable for drinking water. The flanges shall be Drilled as per IS: 1538,etc. complete (Class A) |  |  |
|  | TYPE P.N. 1.0 |  |  |
| a | 50.00 | Each | **16025.00** |
| b | 80.00 | Each | **19856.00** |
| c | 100.00 | Each | **24401.00** |
| d | 150.00 | Each | **64586.00** |
| e | 200.00 | Each | **68181.00** |
|  |  |  |  |
| 15162 | Supplying at store or site of work including freight, transit insurance, carting, loading, unloading, stacking etc. Ductile Iron Single chamber/kinetic double orifice, tamper proof type Air Valve generally conforming to IS 14845 with body and cover in Ductile Iron of grade SG 400/12, 500/7 or equivalent grade as per IS 3896 part2-1985 and subsequent revisions. All internal parts such as float, shell etc. all cover bolts of Stainless Steel and Gaskets, seals,etc. made of food grade EPDM. The valve body shall be coated with food grade blue colour Epoxy inside and outside minimum 250 microns thickness of blue colour RAL5017/5005 suitable for drinking water. The flanges shall be Drilled as per IS: 1538,etc. complete TYPE P.N. 1.6 (Class A) |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 50 | Each | **16025.00** |
| b | 80 | Each | **19856.00** |
| c | 100 | Each | **24401.00** |
| d | 150 | Each | **64586.00** |
| e | 200 | Each | **68181.00** |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **DUCTILE IRON BUTTERFLY VALVES** | | | |
| 15163 | Supplying at store or site of work including freight, transit insurance, carting, loading, unloading, stacking etc. Ductile Iron Butterfly (tight Shut off) valve with Body, Bonnet of Ductile Iron of grade GGG40 or SG 400/12 or equivalent grade as per IS 3896 part2-1985 and subsequent revisions, Body seat with Stainless Steel/Nickel Weld overlay and Disc seat of replaceable EPDM. Internal Fasteners and Seal Retaining Ring of Stainless Steel 304 grades. The valves shall be 100% leak proof. Face to face dimensions as per IS 13095 or BS 5155. Valves shall be with Epoxy Coating both inside and outside. Flanges Drilled as per IS: 1538. Operation by worm gear for 500mm dia and above. TYPE P.N. 1.0 (Class A) |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100 | Each | **26970.00** |
| b | 150 | Each | **52764.00** |
| c | 200 | Each | **78558.00** |
| d | 250 | Each | **113211.00** |
| e | 300 | Each | **130146.00** |
| f | 350 | Each | **164381.00** |
| g | 400 | Each | **202275.00** |
| h | 450 | Each | **256111.00** |
| i | 500 | Each | **282271.00** |
| j | 600 | Each | **397312.00** |
| k | 700 | Each | **514417.00** |
| l | 800 | Each | **829328.00** |
| m | 900 | Each | **926651.00** |
| n | 1000 | Each | **1119204.00** |
| 15164 | Supplying at store or site of work including freight, transit insurance, carting, loading, unloading, stacking etc. Ductile Iron Butterfly (tight Shut off) valve with Body, Bonnet of Ductile Iron of grade GGG40 or SG 400/12 or equivalent grade as per IS 3896 part2-1985 and subsequent revisions, Body seat with Stainless Steel/Nickel Weld overlay and Disc seat of replaceable EPDM. Internal Fasteners and Seal Retaining Ring of Stainless Steel 304 grades. The valves shall be 100% leak proof. Face to face dimensions as per IS 13095 or BS 5155. Valves shall be with Epoxy Coating both inside and outside. Flanges Drilled as per IS: 1538. Operation by worm gear. TYPE P.N. 1.6 (Class A) |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100 | Each | **16203.00** |
| b | 150 | Each | **48609.00** |
| c | 200 | Each | **81015.00** |
| d | 250 | Each | **115773.00** |
| e | 300 | Each | **145826.00** |
| f | 350 | Each | **167779.00** |
| g | 400 | Each | **210115.00** |
| h | 450 | Each | **261338.00** |
| i | 500 | Each | **308405.00** |
| j | 600 | Each | **412992.00** |
| k | 700 | Each | **527379.00** |
| l | 800 | Each | **866072.00** |
| m | 900 | Each | **955450.00** |
| n | 1000 | Each | **1165565.00** |

**CHAPTER VI**

**LAYING PIPES AND ACCESSORIES ETC.**

**Notes:**

**Carriage**

1. The items for laying of pipes include for carriage of pipes from stacks at site. If the pipes are to be transported from departmental stores to site, separate provision for this shall be made in the estimate.
2. **Soil Cover**

For AC/RCC/PVC/Stoneware pipes, the minimum soil cover shall be

1. 75cm when laid under footpath.
2. 90cm when laid under light traffic or cultivated soil.
3. 100cm under roads with heavy traffic and if soil has a poor bearing capacity.
4. Pipe line subjected to heavy traffic pipe shall be laid on concrete cradle.
5. For C.I /D.I pipes, shall not be less than 1 meter under roads and not less than 95cm elsewhere.
6. For G.I. pipes, the soil cover shall be 60cm. for pipe diameter 15mm to 50mm and 75cm for pipe diameter 65mm to 100 mm.
7. For PVC pipes, the soil cover shall be 90cm.
8. The initial backfill for 15cm shall be in soft soil and bedding for pipes shall be soft soil free from rock and gravel.
9. The road crossing shall always be done with a casing pipe for A.C. /G.I /PVC/ HDPE pipelines.
10. **The trench width**

For A.C./ C.I /D.I/ PVC/HDPE shall be such as;

1. To provide a space of 300mm on either side of the pipe.
2. Nominal diameter plus 40cm but not less than 60 cm in case of all kinds of soil excluding hard rock and not less than 100cm in case of hard rock.
3. For G.I pipe of diameter from 15 to 50mm shall be 30cm and 45cm for 65 to 100mm.
4. For refilling the initial back filling material for first 30cm shall be free of large stones and dry lumps. In rocky areas the material for backfilling shall be shared from the side of trenches. The initial backfilling shall be done in layers of 10cm thick and properly consolidated and continued for minimum 30cm cover from the pipe balance of the backfill need not be so carefully selected as the initial material.
5. Plastic/jute bags and marshy earth with vegetable matter shall not be used for bedding for pipes for laying and gravel or crushed stone shall be used.
6. The hydraulic test shall be conducted as per relevant is specification. The rate for jointing is inclusive of charges for hydraulic testing. Separate item is provided for hydraulic testing of the pipeline as per the standards of “manual on water supply and treatment” (published by CPHEEO). This item is inclusive of cost of water required for hydraulic testing. If water is supplied by the department for testing, the same shall be recovered at the prevailing commercial rates.
7. Rates for hoisting and laying of sluice valves, reflux valves, double orifice type air valve are inclusive of the cost of flanged joints including the cost of nut bolts and rubber packing etc. as required for fixing completely the unit.
8. For AC pipe, the laying rate is including of cutting and filing charges wherever require and for G.I. pipe the rate inclusive of cutting and threading of pipes and specials required. For C.I. pipes and D.I, separate for each cut according to diameter shall be estimated.
9. For sluice valves and butterfly valves, non-return valves, water meter etc. where there is not complete item (Providing and laying) available separate rates for hoisting and laying and jointing as required shall be made.
10. The rates for masonry chambers, includes the rates for earthwork required for such work either in soil or rock as applicable and as such no extra shall be paid on this account.
11. Reference in the CPHEEO manual on water supply and treatment is to be made for design of water supply schemes as per table-1.

Table – I



|  |  |  |  |
| --- | --- | --- | --- |
|  | | | |
| **LAYING PIPE AND ACCESSORIES** | | | |
| A | CONVEYING & LAYING | | |
|  |  |  |  |
| Item No | **Description** | **Unit** | **Rate** |
| **15201** | Conveying carefully from stack at site, 250m from both sides rolling and lowering in trenches, laying and jointing true to line and level and perfect linking of joints |  |  |
| a | Cast iron or Ductile iron or A.C. or S & S or flanged & PVC pipes. | QTL | **322.00** |
| b | S&S flanged/plain ended specials | QTL | **715.00** |
|  | | | |
| **15202** | Conveying carefully from stack at site, 250m from both sides rolling and lowering in trenches, laying and jointing true to line and level and perfect linking of joints, including tack welding for mild steel pipes for water supply pipeline complete in all respects as per the direction of the engineer in-charge |  |  |
|  | Nominal diameter in mm |  |  |
| a | 200 | Metre | **133.00** |
| b | 250 | Metre | **181.00** |
| c | 300 | Metre | **213.00** |
| d | 350 | Metre | **226.00** |
| e | 400 | Metre | **231.00** |
| f | 450 | Metre | **218.00** |
| g | 500 | Metre | **221.00** |
| h | 600 | Metre | **237.00** |
| i | 700 | Metre | **250.00** |
| j | 750 | Metre | **257.00** |
| k | 800 | Metre | **268.00** |
| l | 900 | Metre | **277.00** |
| m | 1000 | Metre | **291.00** |
| n | 1100 | Metre | **304.00** |
| o | 1200 | Metre | **305.00** |
|  |  |  |  |
| **15203** | Conveying carefully from stack at site, 250m from both sides rolling and lowering in trenches, laying true to line and level and perfect linking for joints for P.V.C / H.D.P.E complete in all respects as per the direction of the engineer in-charge |  |  |
| a | 63 mm OD | Metre | **3.00** |
| b | 75 mm OD | Metre | **3.00** |
| c | 90 mm OD | Metre | **4.00** |
| d | 110 mm OD | Metre | **4.00** |
| e | 140 mm OD | Metre | **7.00** |
| f | 160 mm OD | Metre | **7.00** |
| g | 180 mm OD | Metre | **8.00** |
| h | 200 mm OD | Metre | **9.00** |
| i | 225 mm OD | Metre | **9.00** |
| j | 250 mm OD | Metre | **10.00** |
| k | 280 mm OD | Metre | **12.00** |
| l | 315 mm OD | Metre | **13.00** |
|  |  |  |  |
| B | CONVEYING, LAYING & JOINTING | | |
|  |  |  |  |
| **15204** | Conveying carefully from stack at site, 250m from both sides rolling and lowering into trenches, laying and jointing true to line and level, RCC spun pressure and non-pressure pipes of various classes, specials including collar and perfect linking of joint with jack to correct position including cost of jointing material in cement mortar 1:2, necessary hydraulic testing, curing of cement mortar etc. complete. |  |  |
|  | Nominal diameter in mm |  |  |
| a | 100 | Metre | **87.00** |
| b | 150 | Metre | **105.00** |
| c | 250 | Metre | **140.00** |
| d | 300 | Metre | **166.00** |
| e | 350 | Metre | **217.00** |
| f | 400 | Metre | **232.00** |
| g | 450 | Metre | **284.00** |
| h | 500 | Metre | **317.00** |
| i | 600 | Metre | **365.00** |
| j | 700 | Metre | **446.00** |
| k | 800 | Metre | **482.00** |
| l | 900 | Metre | **542.00** |
| m | 1000 | Metre | **647.00** |
| n | 1100 | Metre | **752.00** |
| o | 1200 | Metre | **874.00** |
|  | | | |
| **15205** | Conveying carefully from stack at sites 250m from both the sides rolling and lowering into trenches, laying, jointing G.I. Pipes with G.I Fittings of sizes given below true to line and level including fixing sockets, elbows tees bends, gland packing and other fittings with cutting and threading as required including hydraulic testing,etc. complete. |  |  |
|  | Nominal diameter in mm |  |  |
| a | 15 | Metre | **22.00** |
| b | 20 | Metre | **25.00** |
| c | 25 | Metre | **36.00** |
| d | 32 | Metre | **41.00** |
| e | 40 | Metre | **52.00** |
| f | 50 | Metre | **70.00** |
| g | 65 | Metre | **104.00** |
| h | 80 | Metre | **111.00** |
| i | 100 | Metre | **126.00** |
| j | 125 | Metre | **146.00** |
| k | 150 | Metre | **187.00** |
|  | | | |
|  | | | |
| C | JOINTING | | |
|  |  |  |  |
| **15207** | Making C.I Detachable joints to A.C. pressure pipes of various classes and C.I Plain ended specials with collar, rubber rings, nut and bolts, etc. complete including testing of joints but excluding the cost of joints |  |  |
|  | Nominal diameter in mm |  |  |
| a | 50 | Each | **89.00** |
| b | 80 | Each | **110.00** |
| c | 100 | Each | **152.00** |
| d | 125 | Each | **194.00** |
| e | 150 | Each | **236.00** |
| f | 200 | Each | **278.00** |
| g | 250 | Each | **320.00** |
| h | 300 | Each | **362.00** |
| i | 350 | Each | **395.00** |
| j | 400 | Each | **437.00** |
| k | 450 | Each | **479.00** |
| l | 500 | Each | **521.00** |
| m | 600 | Each | **563.00** |
| n | 700 | Each | **605.00** |
| o | 750 | Each | **647.00** |
| p | 800 | Each | **689.00** |
| q | 900 | Each | **731.00** |
| r | 1000 | Each | **773.00** |
|  |  |  |  |
| **15208** | Jointing of RING FIT PVC pipes by cleaning the pipes and hydraulic testing of joints etc. complete, as directed by the engineer in-charge |  |  |
|  | Outer Diameter in mm |  |  |
| a | 63 | Each | **7.20** |
| b | 75 | Each | **7.60** |
| c | 90 | Each | **8.30** |
| d | 110 | Each | **9.50** |
| e | 140 | Each | **10.80** |
| f | 160 | Each | **12.30** |
| g | 180 | Each | **14.00** |
| h | 200 | Each | **32.70** |
| i | 225 | Each | **35.90** |
| j | 250 | Each | **39.70** |
| k | 315 | Each | **44.20** |
|  | | | |
| **15209** | Jointing of rigid / SEL FIT PVC pipes by cleaning the pipe with solvent cement including the cost of solvent cement and hydraulic testing of joints etc. complete as per IS:7634-1975 Part 3, including hydraulic testing of joints as directed by the Engineer in-charge. |  |  |
|  | Outer Diameter in mm |  |  |
| a | 63 | Each | **16.00** |
| b | 75 | Each | **20.00** |
| c | 90 | Each | **26.00** |
| d | 110 | Each | **39.00** |
| e | 140 | Each | **52.00** |
| f | 160 | Each | **73.00** |
| g | 180 | Each | **85.00** |
| h | 200 | Each | **160.00** |
| i | 225 | Each | **211.00** |
| j | 250 | Each | **238.00** |
| k | 315 | Each | **339.00** |
|  |  |  |  |
| **15210** | Jointing of HDPE pipes by heating the two ends of the pipe with electrically heated mirror, to the required temperature, including the hire charges of heating mirror and the generator set for the electricity for the heating mirror, etc. complete as per the direction of the engineer in- charge |  |  |
| I | **63 mm to180 mm OD** |  |  |
| a | 63 mm OD | Each | **67.00** |
| b | 75 mm OD | Each | **74.00** |
| c | 90 mm OD | Each | **83.00** |
| d | 110 mm OD | Each | **96.00** |
| e | 125 mm OD | Each | **112.00** |
| f | 140 mm OD | Each | **134.00** |
| g | 160 mm OD | Each | **168.00** |
| h | 180 mm OD | Each | **187.00** |
| II | for diameter from 200 mmto 800 mm diameter |  |  |
| a | 200 mm OD | Each | **145.00** |
| b | 225 mm OD | Each | **141.00** |
| c | 250 mm OD | Each | **174.00** |
| d | 280 mm OD | Each | **174.00** |
| e | 315 mm OD | Each | **186.00** |
| f | 355 mm OD | Each | **174.00** |
| g | 400 mm OD | Each | **189.00** |
| h | 450 mm OD | Each | **206.00** |
| i | 500 mm OD | Each | **356.00** |
| j | 560 mm OD | Each | **309.00** |
| k | 630 mm OD | Each | **349.00** |
| l | 710 mm OD | Each | **349.00** |
| m | 800 mm OD | Each | **350.00** |
|  |  |  |  |
| **15211** | Jointing of C.I/D.I pipes and specials with rubber gaskets (TYTON joints) EPDM type including cleaning the socket and spigot ends with kerosene oil/below lamp and applying soft soap to socket and spigot ends before inserting for rubber gasket jacking and fixing in proper condition including cost of rubber gasket, oil, soft soap and hydraulic testing of jointing as per IS:3144-1985. |  |  |
|  | Nominal diameter in mm |  |  |
| a | 80 | Each | **147.00** |
| b | 100 | Each | **187.00** |
| c | 125 | Each | **177.00** |
| d | 150 | Each | **231.00** |
| e | 200 | Each | **332.00** |
| f | 250 | Each | **425.00** |
| g | 300 | Each | **544.00** |
| h | 350 | Each | **625.00** |
| i | 400 | Each | **804.00** |
| j | 450 | Each | **924.00** |
| k | 500 | Each | **1213.00** |
| l | 600 | Each | **1572.00** |
| m | 700 | Each | **2968.00** |
| n | 750 | Each | **3362.00** |
| o | 800 | Each | **3813.00** |
| p | 900 | Each | **4778.00** |
| q | 1000 | Each | **5672.00** |
|  |  |  |  |
| **15212** | Jointing of C.I/D.I pipes and specials with rubber gaskets (TYTON joints) SBR type including cleaning the socket and spigot ends with kerosene oil/below lamp and applying soft soap to socket and spigot ends before inserting for rubber gasket jacking and fixing in proper condition including cost of rubber gasket, oil, soft soap and hydraulic testing of jointing as per IS:3144-1985 |  |  |
|  | Nominal diameter in mm. |  |  |
| a | 80 | Each | **119.00** |
| b | 100 | Each | **142.00** |
| c | 125 | Each | **159.00** |
| d | 150 | Each | **188.00** |
| e | 200 | Each | **236.00** |
| f | 250 | Each | **317.00** |
| g | 300 | Each | **376.00** |
| h | 350 | Each | **458.00** |
| i | 400 | Each | **529.00** |
| j | 450 | Each | **610.00** |
| k | 500 | Each | **739.00** |
| l | 600 | Each | **998.00** |
| m | 700 | Each | **1417.00** |
| n | 750 | Each | **1575.00** |
| o | 800 | Each | **1680.00** |
| p | 900 | Each | **1980.00** |
| q | 1000 | Each | **2712.00** |
|  |  |  |  |
| **15213** | Jointing of PVC pipes of ASTM Schedule 40/ 80 with by cleaning the pipe and joining with solvent cement including the cost of solvent cement and hydraulic testing of joints etc. complete as per IS:7634-1975 Part 3, as per the direction of the engineer in-charge |  |  |
| a | 20 mm O.D | Each | **18.00** |
| b | 25 mm O.D | Each | **21.00** |
| c | 32 mm O.D | Each | **23.00** |
| d | 40 mm O.D | Each | **30.00** |
| e | 50 mm O.D | Each | **33.00** |
|  |  |  |  |
| **15214** | Jointing of PVC pipes of ASTM Schedule 40/ 80 with by threading the pipe and joining with threaded fittings including the cost of threading, fittings and hydraulic testing of joints etc. complete as per IS:7634-1975 Part 3, as per the direction of the engineer in-charge |  |  |
| a | 20 mm O.D | Each | **41.00** |
| b | 25 mm O.D | Each | **53.00** |
| c | 32 mm O.D | Each | **64.00** |
| d | 40 mm O.D | Each | **76.00** |
| e | 50 mm O.D | Each | **89.00** |
|  |  |  |  |
| **15215** | Making joints to CI/DI pipes and specials with yarn and lead including melting lead caulking and hydraulic testing of the joints as per IS:782-1978 but excluding the cost of lead for the following sizes. |  |  |
|  | Nominal diameter in mm |  |  |
| a | 100 | Each | **259.00** |
| b | 125 | Each | **377.00** |
| c | 150 | Each | **386.00** |
| d | 200 | Each | **511.00** |
| e | 250 | Each | **642.00** |
| f | 300 | Each | **780.00** |
| g | 350 | Each | **807.00** |
| h | 400 | Each | **1049.00** |
| i | 450 | Each | **1172.00** |
| j | 500 | Each | **1239.00** |
| k | 600 | Each | **1662.00** |
| l | 700 | Each | **1806.00** |
| m | 750 | Each | **1952.00** |
| n | 800 | Each | **2099.00** |
| o | 900 | Each | **2248.00** |
| **15216** | Making hydrotite coupling joint to AC pressure pipes of various classes and C.I Plain ended specials with collars, rubber rings etc. complete including testing of joints but excluding cost of joints. |  |  |
|  | Nominal diameter in mms |  |  |
| a | 80 | Each | **70.00** |
| b | 100 | Each | **84.00** |
| c | 150 | Each | **114.00** |
| d | 200 | Each | **157.00** |
| e | 250 | Each | **179.00** |
| f | 300 | Each | **250.00** |
|  |  |  |  |
| **15217** | Making C.I Detachable joints to P.V.C. pressure pipes of 6 kgs / sq.cm and C.I Plain ended specials with collar, rubber rings, nut and bolts, etc. complete including testing of joints excluding cost of joints |  |  |
|  | outer diameter in mms |  |  |
| a | 63 | Each | **33.00** |
| b | 75 | Each | **70.00** |
| c | 90 | Each | **110.00** |
| d | 110 | Each | **152.00** |
| e | 140 | Each | **194.00** |
| f | 160 | Each | **236.00** |
| g | 200 | Each | **278.00** |
|  |  |  |  |
| **15218** | Making joints to D.I/ C.I pipes with mechanical joints by nut bolts rubber rings that are provided with the joints, forpushon tight joints including the cost of work force, tools, hydraulic testing of joints, etc. complete as per the direction of the engineer in-charge. |  |  |
| **I** | **Double socketed specials such as bends, collar couplings,etc.** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 80 | Each | **220.00** |
| b | 100 | Each | **304.00** |
| c | 125 | Each | **388.00** |
| d | 150 | Each | **472.00** |
| e | 200 | Each | **556.00** |
| f | 250 | Each | **640.00** |
| g | 300 | Each | **724.00** |
| h | 350 | Each | **790.00** |
| i | 400 | Each | **874.00** |
| j | 450 | Each | **958.00** |
| k | 500 | Each | **1042.00** |
| l | 600 | Each | **1126.00** |
| l | 700 | Each | **1210.00** |
| m | 750 | Each | **1294.00** |
| n | 800 | Each | **1378.00** |
| o | 900 | Each | **1462.00** |
| p | 1000 | Each | **1546.00** |
|  |  |  |  |
| **II** | **All Socket Tee** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 80x80 | Each | **330.00** |
| b | 100x80 | Each | **414.00** |
| c | 100x100 | Each | **456.00** |
| d | 150x80 | Each | **582.00** |
| e | 150x100 | Each | **624.00** |
| f | 150x150 | Each | **708.00** |
| g | 200x80 | Each | **666.00** |
| h | 200x100 | Each | **708.00** |
| i | 200x150 | Each | **792.00** |
| j | 200X200 | Each | **834.00** |
| k | 250x80 | Each | **750.00** |
| l | 250x100 | Each | **792.00** |
| m | 250x150 | Each | **876.00** |
| n | 250x200 | Each | **918.00** |
| o | 250x250 | Each | **960.00** |
| p | 300x80 | Each | **834.00** |
| q | 300x100 | Each | **876.00** |
| r | 300x150 | Each | **960.00** |
| s | 300x200 | Each | **1002.00** |
| t | 300x250 | Each | **1044.00** |
| u | 300x300 | Each | **1086.00** |
| v | 350x80 | Each | **900.00** |
| w | 350x100 | Each | **942.00** |
| x | 350x150 | Each | **1026.00** |
| y | 350x200 | Each | **1068.00** |
| z | 350x250 | Each | **1110.00** |
| a1 | 350x300 | Each | **1152.00** |
| b1 | 350x350 | Each | **1185.00** |
| c1 | 400x80 | Each | **984.00** |
| d1 | 400x100 | Each | **1026.00** |
| e1 | 400x150 | Each | **1110.00** |
| f1 | 400x200 | Each | **1152.00** |
| g1 | 400x250 | Each | **1194.00** |
| h1 | 400x300 | Each | **1236.00** |
| i1 | 400x350 | Each | **1265.00** |
| j1 | 400x400 | Each | **1307.00** |
| k1 | 450x100 | Each | **1110.00** |
| l1 | 450x200 | Each | **1236.00** |
| m1 | 450x250 | Each | **1278.00** |
| n1 | 450x300 | Each | **1320.00** |
| o1 | 450x350 | Each | **1349.00** |
| p1 | 450x400 | Each | **1395.00** |
| q1 | 450x450 | Each | **1432.00** |
| r1 | 500x100 | Each | **1194.00** |
| s1 | 500x150 | Each | **1278.00** |
| t1 | 500x200 | Each | **1320.00** |
| u1 | 500x350 | Each | **1433.00** |
| v1 | 500x400 | Each | **1479.00** |
| w1 | 500x500 | Each | **1558.00** |
| x1 | 600x150 | Each | **1362.00** |
| y1 | 600x200 | Each | **1404.00** |
| z1 | 600x300 | Each | **1488.00** |
| a2 | 600x350 | Each | **1521.00** |
| b2 | 600x400 | Each | **1563.00** |
| c2 | 600x500 | Each | **1647.00** |
|  |  |  |  |
| **III** | **Double Socket Reducer** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 100x80 | Each | **262.00** |
| b | 150x80 | Each | **346.00** |
| c | 150x100 | Each | **388.00** |
| d | 200x80 | Each | **388.00** |
| e | 200x100 | Each | **430.00** |
| f | 200x150 | Each | **514.00** |
| g | 250x80 | Each | **430.00** |
| h | 250x100 | Each | **472.00** |
| I | 250x150 | Each | **556.00** |
| j | 250x200 | Each | **598.00** |
| k | 300x80 | Each | **472.00** |
| l | 300x100 | Each | **514.00** |
| m | 300x150 | Each | **598.00** |
| n | 300x200 | Each | **640.00** |
| o | 300x250 | Each | **682.00** |
| p | 350x80 | Each | **505.00** |
| q | 350x100 | Each | **547.00** |
| r | 350x150 | Each | **631.00** |
| s | 350x200 | Each | **673.00** |
| t | 350x250 | Each | **715.00** |
| u | 350x300 | Each | **757.00** |
| v | 400x80 | Each | **547.00** |
| w | 400x100 | Each | **589.00** |
| x | 400x150 | Each | **673.00** |
| y | 400x200 | Each | **715.00** |
| z | 400x250 | Each | **757.00** |
| a1 | 400x300 | Each | **799.00** |
| b1 | 400x350 | Each | **874.00** |
| c1 | 450x250 | Each | **581.00** |
| d1 | 450x300 | Each | **958.00** |
| e1 | 450x350 | Each | **874.00** |
| f1 | 450x400 | Each | **916.00** |
| g1 | 500x100 | Each | **631.00** |
| h1 | 500x150 | Each | **757.00** |
| i1 | 500x200 | Each | **743.00** |
| j1 | 500x250 | Each | **841.00** |
| k1 | 500x300 | Each | **809.00** |
| l1 | 500x350 | Each | **916.00** |
| m1 | 500x400 | Each | **958.00** |
| n1 | 500x450 | Each | **1000.00** |
| o1 | 600x350 | Each | **958.00** |
| p1 | 600x400 | Each | **1000.00** |
| q1 | 600x500 | Each | **1084.00** |
|  |  |  |  |
| **15219** | Making joints to D.I/ C.I pipes with mechanical joints by nut bolts rubber rings that are provided with the joints, forpushon tight joints, and including the cost of rubber ring, nut bolts, for flanged joint, including the cost of work force, tools, hydraulic testing of joints,etc. complete as per the direction of the engineer in-charge. |  |  |
| **I** | **All Socket branch flange Tee** |  |  |
|  | Nominal Diameter in mm |  |  |
| a | 80x80 | Each | **487.00** |
| b | 100x40 | Each | **438.00** |
| c | 100x50 | Each | **534.00** |
| d | 100x80 | Each | **571.00** |
| e | 100x100 | Each | **764.00** |
| f | 150x40 | Each | **606.00** |
| g | 150x50 | Each | **702.00** |
| h | 150x80 | Each | **739.00** |
| I | 150x100 | Each | **932.00** |
| j | 150x150 | Each | **1040.00** |
| k | 200x80 | Each | **823.00** |
| l | 200x100 | Each | **1016.00** |
| m | 200x150 | Each | **1124.00** |
| n | 200X200 | Each | **1179.00** |
| o | 250x80 | Each | **907.00** |
| p | 250x100 | Each | **1100.00** |
| q | 250x150 | Each | **1208.00** |
| r | 250x200 | Each | **1263.00** |
| s | 250x250 | Each | **1513.00** |
| t | 300x80 | Each | **991.00** |
| u | 300x100 | Each | **1184.00** |
| v | 300x150 | Each | **1292.00** |
| w | 300x200 | Each | **1347.00** |
| x | 300x250 | Each | **1597.00** |
| y | 300x300 | Each | **1803.00** |
| z | 350x80 | Each | **1049.00** |
| a1 | 350x100 | Each | **1242.00** |
| b1 | 350x150 | Each | **1350.00** |
| c1 | 350x200 | Each | **1405.00** |
| d1 | 350x250 | Each | **1655.00** |
| e1 | 350x300 | Each | **1861.00** |
| f1 | 350x350 | Each | **1974.00** |
| g1 | 400x80 | Each | **1132.00** |
| h1 | 400x100 | Each | **1325.00** |
| i1 | 400x150 | Each | **1433.00** |
| j1 | 400x200 | Each | **1488.00** |
| k1 | 400x250 | Each | **1738.00** |
| l1 | 400x300 | Each | **1944.00** |
| m1 | 400x350 | Each | **2057.00** |
| n1 | 400x400 | Each | **3441.00** |
| o1 | 450x80 | Each | **1215.00** |
| p1 | 450x100 | Each | **1408.00** |
| q1 | 450x150 | Each | **1991.00** |
| r1 | 450x200 | Each | **1571.00** |
| s1 | 450x250 | Each | **1821.00** |
| t1 | 450x300 | Each | **2027.00** |
| u1 | 450x350 | Each | **2140.00** |
| v1 | 450x400 | Each | **3524.00** |
| w1 | 450x450 | Each | **3735.00** |
| x1 | 500x80 | Each | **1299.00** |
| y1 | 500x100 | Each | **1492.00** |
| z1 | 500x150 | Each | **1600.00** |
| a2 | 500x200 | Each | **1655.00** |
| b2 | 500x250 | Each | **1905.00** |
| c2 | 500x300 | Each | **2111.00** |
| d2 | 500x350 | Each | **2224.00** |
| e2 | 500x400 | Each | **3608.00** |
| f2 | 500x500 | Each | **3819.00** |
| g2 | 600x80 | Each | **1382.00** |
| h2 | 600x100 | Each | **2035.00** |
| i2 | 600x150 | Each | **2251.00** |
| j2 | 600x200 | Each | **1738.00** |
| k2 | 600x250 | Each | **1988.00** |
| l2 | 600x300 | Each | **2194.00** |
| m2 | 600x350 | Each | **2307.00** |
| n2 | 600x400 | Each | **3691.00** |
| o2 | 600x500 | Each | **3902.00** |
| p2 | 600x600 | Each | **1939.00** |
| q2 | 700 x80 | Each | **1732.00** |
| r2 | 750 x100 | Each | **2201.00** |
| s2 | 750 x400 | Each | **3857.00** |
| t2 | 800x400 | Each | **3940.00** |
| u2 | 900x100 | Each | **2368.00** |
| v2 | 900x400 | Each | **4024.00** |
|  |  |  |  |
| **II** | **Flanged Socket** |  |  |
| a | 80 | Each | **377.00** |
| b | 100 | Each | **612.00** |
| c | 150 | Each | **804.00** |
| d | 200 | Each | **901.00** |
| e | 250 | Each | **1193.00** |
| f | 300 | Each | **1441.00** |
| g | 350 | Each | **1587.00** |
| h | 400 | Each | **3013.00** |
| I | 450 | Each | **3091.00** |
| j | 500 | Each | **3308.00** |
| k | 600 | Each | **4667.00** |
| l | 700 | Each | **4834.00** |
| m | 750 | Each | **5212.00** |
| n | 800 | Each | **6784.00** |
| o | 900 | Each | **10450.00** |
| p | 1000 | Each | **10597.00** |
|  |  |  |  |
|  |  |  |  |
| **15220** | Making flanged joints for C.I./D.I. Pipes and specials with rubber insertion, nuts and bolts including necessary hydraulic testing etc. complete including cost of rubber insertion nuts and bolts, as directed by the Engineer in-charge. |  |  |
|  | Nominal diameter in mm. |  |  |
| a | 80 | Each | **267.00** |
| b | 100 | Each | **460.00** |
| c | 125 | Each | **499.00** |
| d | 150 | Each | **568.00** |
| e | 200 | Each | **623.00** |
| f | 250 | Each | **873.00** |
| g | 300 | Each | **1079.00** |
| h | 350 | Each | **1192.00** |
| i | 400 | Each | **2576.00** |
| j | 450 | Each | **2612.00** |
| k | 500 | Each | **2787.00** |
| l | 600 | Each | **4104.00** |
| m | 700 | Each | **4229.00** |
| n | 750 | Each | **4565.00** |
| o | 800 | Each | **6095.00** |
| p | 900 | Each | **9719.00** |
| q | 1000 | Each | **9824.00** |
|  |  |  |  |
|  | **D-HYDRAULIC TESTING** |  |  |
|  |  |  |  |
| **15221** | Hydraulic testing of pipeline as per CLAUSE NO 6.4.4 of CPHEEO MANUAL on water supply and treatment, a to the required test pressure by providing all work force, materials, reciprocating pump, pressure gauge, including the cost of water required, maintaining the test pressure for a period of 24 hours from the time the pipe line has attained the test pressure for successful testing, as per the standards, and maintaining the records of hydraulic test as required as per the direction of the engineer in- charge |  |  |
| **I** | **R.C.C/A.C/G.I.** |  |  |
| a | 80 mm diameter | Metre | **10.00** |
| b | 100 mm diameter | Metre | **11.00** |
| c | 125 mm diameter | Metre | **13.00** |
| d | 150 mm diameter | Metre | **13.00** |
| e | 200 mm diameter | Metre | **17.00** |
| f | 250 mm diameter | Metre | **20.00** |
| g | 300 mm diameter | Metre | **26.00** |
| h | 350 mm diameter | Metre | **31.00** |
| i | 400 mm diameter | Metre | **38.00** |
| j | 450 mm diameter | Metre | **45.00** |
| k | 500 mm diameter | Metre | **54.00** |
| l | 600 mm diameter | Metre | **71.00** |
| m | 700 mm diameter | Metre | **94.00** |
| n | 750 mm diameter | Metre | **106.00** |
| o | 800 mm diameter | Metre | **120.00** |
| p | 900 mm diameter | Metre | **147.00** |
|  |  |  |  |
| **15222** | Hydraulic testing of pipeline as per CLAUSE NO 6.4.4 of CPHEEO MANUAL on water supply and treatment, a to the required test pressure by providing all work force, materials, reciprocating pump, pressure gauge,including the cost of water required, maintaining the test pressure for a period of 24 hours from the time the pipe line has attained the test pressure for successful testing, as per the standards, and maintaining the records of hydraulic test as required as per the direction of the engineer in -charge For PVC/HDPE pipeline |  |  |
| a | 63 mm to 110 mm OD | Metre | **12.00** |
| b | 140mm to 160 mm OD | Metre | **13.00** |
| c | 180mm to 225 mm OD | Metre | **15.00** |
| d | 250 mm OD & above | Metre | **20.00** |
|  |  |  |  |
| **15223** | Hydraulic testing of pipeline as per CLAUSE NO 6.4.4 of CPHEEO MANUAL on water supply and treatment, to the required test pressure by providing all work force, materials, reciprocating pump, pressure gauge, including the cost of water required, maintaining the test pressure for a period of 24 hours from the time the pipe line has attained the test pressure for successful testing, as per the standards, required as per the direction of the engineer in-charge for ductile Iron/ Mild steel/cast iron pipeline. |  |  |
| a | 200 mm | Metre | **15.00** |
| b | 250 mm | Metre | **24.00** |
| c | 300 mm | Metre | **30.00** |
| d | 350 mm | Metre | **35.00** |
| e | 400 mm | Metre | **42.00** |
| f | 450 mm | Metre | **49.00** |
| g | 500 mm | Metre | **57.00** |
| h | 600 mm | Metre | **89.00** |
| i | 700 mm | Metre | **97.00** |
| j | 750 mm | Metre | **110.00** |
| k | 800 mm | Metre | **123.00** |
| l | 900 mm | Metre | **151.00** |
| m | 1000 mm | Metre | **184.00** |
| n | 1100 mm | Metre | **218.00** |
| o | 1200 mm | Metre | **259.00** |
|  |  | | |
|  | **HOISTING& LAYING / FIXING OF APPURTUNANCES** |  |  |
|  |  |  |  |
| **15224** | Hoisting laying cast iron sluice valves/butterfly valves/reflux valve of size given below at location in pipeline etc. complete as directed as per IS:2685-1971 CLASS I |  |  |
|  | Nominal diameter in mm. |  |  |
| a | 80 | Each | **231.00** |
| b | 100 | Each | **317.00** |
| c | 125 | Each | **403.00** |
| d | 150 | Each | **518.00** |
| e | 200 | Each | **869.00** |
| f | 250 | Each | **1286.00** |
| g | 300 | Each | **1733.00** |
|  |  |  |  |
| **15225** | Hoisting laying cast iron sluice valves/butterfly valves/reflux valve of size given below at location in pipeline etc. .complete as directed as per IS:2685-1971 CLASS II & III. |  |  |
|  | Nominal diameter in mm. |  |  |
| a | 350 | Each | **2338.00** |
| b | 400 | Each | **3897.00** |
| c | 450 | Each | **4576.00** |
| d | 500 | Each | **5577.00** |
| e | 600 | Each | **7665.00** |
| f | 700 | Each | **9796.00** |
| g | 750 | Each | **10940.00** |
|  |  |  |  |
| **15226** | Fixing C.I. Single large orifice air valve of similar make with bronze ferrule at inlet screwed suitable to working pressure of 15kg/sq. cm for 12 mm to 20mm and 10kg/sq. cm for 25mm to 50mm, complete, as directed by the Engineer in-charge, of following sizes. |  |  |
|  | Nominal diameter in mm. |  |  |
| a | 25 | Each | **77.00** |
| b | 40 | Each | **102.00** |
| c | 50 | Each | **210.00** |
|  |  |  |  |
| **15227** | Fixing C.I. Double orifice / Kinetic type air valve of following sizes with bronze ferrule at inlet screwed on isolating valve small orifice elastic ball resting valve small orifice elastic ball resting on small bronze orifice nipple and large orifice vulcanite ball resting on moulded seat ring inlet faced and drilled to BST "D" suitable to working pressure of 10 kg/sq. cm. |  |  |
|  | Nominal diameter in mm. |  |  |
| a | 40 | Each | **332.00** |
| b | 50 | Each | **353.00** |
| c | 65 | Each | **384.00** |
| d | 80 | Each | **550.00** |
| e | 100 | Each | **849.00** |
| f | 150 | Each | **1028.00** |
| g | 200 | Each | **1153.00** |
|  |  |  |  |
| **15228** | Fixing C.I. Tamper proof Kinetic double orifice type air valve. Small orifice elastic ball resting on bronze orifice nipple and large orifice vulcanite ball resting on moulded seat ring with built in Kinetic features of isolating sluice valve of rating P.N. 1.6 with ISI mark mounted on a horizontal mounting operated by metered wheel gear suitable for working pressure of 10 kg / sq. cm |  |  |
|  | Nominal diameter in mm. |  |  |
| a | 50 | Each | **353.00** |
| b | 80 | Each | **553.00** |
| c | 100 | Each | **853.00** |
| d | 150 | Each | **1033.00** |
| e | 200 | Each | **1159.00** |
|  |  |  |  |
| **15229** | Providing C.I. stand post fire hydrant conforming to IS:908-1969 bearing ISI certification mark consisting of two nos. 80mm sluice valves one duck foot bend, one no. C.I. surface box, 100x160x180mm, 80 mm dia tail piece and stand post including bronze coupling etc. complete. |  |  |
|  | Nominal diameter in mm. |  |  |
| a | 80 | Each | **34922.00** |
|  |  |  |  |
| **15230** | Providing C.I. underground fire hydrant conforming IS:906-1969 bearing ISI certification mark consisting of two no.80mm sluice valve one duck foot bend, one number C.I. surface box, 100x160x180mm ,80mm dia tail piece and stand post including bronze coupling etc. complete but underground fire hydrant bearing to IS:909-1969 including gun metal instantaneous metal coupling instead of stand post. |  |  |
|  | Nominal diameter in mm. |  |  |
| a | 80 | Each | **28905.00** |
|  |  |  |  |
| **15231** | Providing M.S. ladders 50x50x6mm (2" x2" x 1/4) equal with 18 mm M.S. rods 45 cm wide for steps placed at 30 cm c/c welded including two coats of red oxide etc. complete. | Metre | **1227.00** |
|  |  |  |  |
| **15232** | Providing 40mm (1½) dia G.I. Ladder medium class G.I. Pipe with 20 mm dia G.I. Pipe (medium class) steps 45cm wide place at 30cm c/c welded in the interior of reservoir including painting two coats with non- poisonous red oxide paint etc. complete. | Metre | **816.00** |
|  |  |  |  |
| **15233** | Providing 80x60cm M.S. inspection door with 25x25x5mm angle iron frame welded and M.S. shutter 3mm thick with locking arrangement iron but hinges 100mm x 40mm size painting with red oxide paint in two coats. complete | Each | **1900.00** |
|  |  |  |  |
| **15234** | Providing 25mm G.I. pipe railing (medium class) in three horizontal rows of pipes and angles of a size 65x65x8mm, 1.15m height and placed at 1.85m to centre including painting two coats and embedded in cement concrete complete. | Metre | **2078.00** |
|  |  |  |  |
| **15235** | Providing water level indicator (gauge) with M.S. Sheet 3 to 4mm thick with copper floats indicator and flexible copper/nylon wire fixed on standard pullies including necessary arrangement to prevent the swinging by hooks, painting figure with approved enamel paint etc. complete. | Metre | **3312.00** |
|  |  |  |  |
| **15236** | Construction of masonry chamber60x60x75cminside in 40kg/sq. cm ,brickwork complete with 23 cms wall thickness and in cement mortar 1:4( 1 cement : 4coarse sand) for sluice valves 50 to 80mm with necessary excavation, foundation concrete 1:5:10 ( 1 cement : 5 coarse sand: 10 graded stone ballast 40 mm nominal size) and inside plastered with CM 1:3 ( 1 cement : 3 coarse sand) finished with floating coat of neat cement complete and chamber cover as specified below etc. all complete as per standard drawing . (rate is inclusive of rate earthwork excavation, cost of surface cover and all other materials and labour and as per details below) |  |  |
| a | With C.I. Surface box 100mm top dia 160mm bottom dia and 160mm deep of wt 15kg inside with chain lid in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **10187.00** |
| b | With C.I. Surface box 200mm top dia 300mm bottom dia and 300 mm deep of wt 32kg inside with chain lid in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **12247.00** |
| c | With C.I. cover and frame 600mm x600mm weighing not less than 250 kgs in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **25567.00** |
| d | With D.I hinged, square, frame and cover as per EN 124 standards of size 600mm x 600mm size weighing not less than 98 kgs in 120 mm thick RCC slab cover in cement concrete 1:2:4 (1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **18952.00** |
| e | with M.S. sheet cover with 6 mm thick M.S. plate and frame of Angle iron 50x50x6mm in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **16994.00** |
| f | with M.S. sheet cover with 12mm thick M.S. plate and frame of Angle iron 50x50x6mm in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **23843.00** |
| g | Without surface box and with 120 mm thick R.C.C. slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **8370.00** |
|  |  |  |  |
| **15237** | Construction of masonry chamber 90x90x100 cm inside in 40kg/sq. cm brickwork complete with 23 cms wall thickness and in cement mortar 1:4( 1 cement : 4 coarse sand) for sluice valve of sizes 100 mm, 120 mm 150 mm and 200mm dia with necessary excavation, foundation concrete 1:5:10 ( 1 cement : 5 coarse sand: 10 graded stone ballast 40 mm nominal size) and inside plastered with CM 1:3 ( 1 cement : 3 coarse sand) finished with floating coat of neat cement complete and chamber cover as specified below etc. all complete as per standard drawing . (rate is inclusive of rate earthwork excavation, cost of surface cover and all other materials and labour and as per details below) |  |  |
| a | with C.I. Surface box 100mm top dia 160mm bottom dia and 160mm deep of wt 15kg inside with chain lid in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **17516.00** |
| b | with C.I. Surface box 200mm top dia 300mm bottom dia and 300 mm deep of wt 32kg inside with chain lid in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **19539.00** |
| c | with C.I. cover and frame 600mm x600mm weighing not less than 250 kgs in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **32860.00** |
| d | With D.I hinged, square, frame and cover as per EN 124 standards of size 600mm x 600mm size weighing not less than 98 kgs in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **26376.00** |
| e | with M.S. sheet cover with 6 mm thick M.S. plate and frame of Angle iron 50x50x6mm in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **28216.00** |
| f | with M.S. sheet cover with 12mm thick M.S. plate and frame of Angle iron 50x50x6mm in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **40111.00** |
| g | Without surface box and with 120 mm thick R.C.C. slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **15719.00** |
|  |  |  |  |
| **15238** | Construction of masonry chamber 120x120x100 cm inside in 40kg/sq. cm brickwork complete with 23 cms wall thickness and in cement mortar1:4 ( 1 cement : 4 coarse sand) for sluice valve size beyond 200mm dia with necessary excavation, foundation concrete 1:5:10 ( 1 cement : 5 coarse sand: 10 graded stone ballast 40 mm nominal size) and inside plastered with CM 1:3 ( 1 cement : 3 coarse sand) finished with floating coat of neat cement complete and chamber cover as specified below etc. all complete as per standard drawing . (rate is inclusive of rate earthwork excavation, cost of surface cover and all other materials and labour and as per details below) |  |  |
| a | with C.I. Surface box 100mm top dia 160mm bottom dia and 160mm deep of wt. 15kg inside with chain lid in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **23242.00** |
| b | with C.I. Surface box 200mm top dia 300mm bottom dia and 300 mm deep of wt. 32kg inside with chain lid in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **25265.00** |
| c | with C.I. cover and frame 600mm x600mm weighing not less than 250 kgs in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **38273.00** |
| d | With D.I hinged, square, frame and cover as per EN 124 standards of size 600mm x 600mm size weighing not less than 98 kgs in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **31659.00** |
| e | with M.S. sheet cover with 6 mm thick M.S. plate and frame of Angle iron 50x50x6mm in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **41154.00** |
| f | with M.S. sheet cover with 12mm thick M.S. plate and frame of Angle iron 50x50x6mm in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **57922.00** |
| g | Without surface box and with 120 mm thick R.C.C. slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **21445.00** |
|  |  |  |  |
| **15239** | Add or deduct for every 0.10 m depth or part thereof for brick masonry chamber. |  |  |
| a | 60cm x60cmx75cm | Per 10 cms | **625.00** |
| b | 90cm x90cmx100cm | Per 10 cms | **983.00** |
| c | 120cm x120cmx 100cm | Per 10 cms | **1220.00** |
|  |  |  |  |
| **15240** | Construction of masonry chamber 60x60x75cm inside in laterite masonry in neatly dressed stones complete with 23 cms wall thickness and in cement mortar 1:4 ( 1 cement : 4 coarse sand) for sluice valves 50 to 80mm with necessary excavation, foundation concrete 1:5:10 ( 1 cement : 5 coarse sand: 10 graded stone ballast 40 mm nominal size) and inside plastered with CM 1:3 ( 1 cement : 3 coarse sand) finished with floating coat of neat cement complete and chamber cover as specified below etc. all complete as per standard drawing . (rate is inclusive of rate earthwork excavation, cost of surface cover and all other materials and labour and as per details below) |  |  |
| a | with C.I. Surface box 100mm top dia 160mm bottom dia and 160mm deep of wt. 15kg inside with chain lid in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **9109.00** |
| b | with C.I. Surface box 200mm top dia 300mm bottom dia and 300 mm deep of wt. 32kg inside with chain lid in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **11170.00** |
| c | with C.I. cover and frame 600mm x600mm weighing not less than 250 kgs in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **24489.00** |
| d | With D.I hinged, square, frame and cover as per EN 124 standards of size 600mm x 600mm size weighing not less than 98 kgs in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **17875.00** |
| e | with M.S. sheet cover with 6 mm thick M.S. plate and frame of Angle iron 50x50x6mm in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **15916.00** |
| f | with M.S. sheet cover with 12mm thick M.S. plate and frame of Angle iron 5050x6mm in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **22765.00** |
| g | Without surface box and with 120 mm thick R.C.C. slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **7292.00** |
|  |  |  |  |
| **15241** | Construction of masonry chamber 90 x 90 x100 cm inside in 40kg/sq. cm laterite masonry in neatly dressed stones complete with 23 cms wall thickness and in cement mortar 1:4 ( 1 cement : 4 coarse sand) for sluice valve of sizes 100 mm, 120 mm 150 mm and 200mm dia with necessary excavation, foundation concrete 1:5:10 ( 1 cement : 5 coarse sand: 10 graded stone ballast 40 mm nominal size) and inside plastered with CM 1:3 ( 1 cement : 3 coarse sand) finished with floating coat of neat cement complete and chamber cover as specified below etc. all complete as per standard drawing . (rate is inclusive of rate earthwork excavation, cost of surface cover and all other materials and labour and as per details below) |  |  |
| a | with C.I. Surface box 100mm top dia 160mm bottom dia and 160mm deep of wt. 15kg inside with chain lid in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **15319.00** |
| b | with C.I. Surface box 200mm top dia 300mm bottom dia and 300 mm deep of wt. 32kg inside with chain lid in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **17343.00** |
| c | with C.I. cover and frame 600mm x600mm weighing not less than 250 kgs in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **30664.00** |
| d | With D.I hinged, square, frame and cover as per EN 124 standards of size 600mm x 600mm size weighing not less than 98 kgs in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **24179.00** |
| e | with M.S. sheet cover with 6 mm thick M.S. plate and frame of Angle iron 5050x6mm in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **26578.00** |
| f | with M.S. sheet cover with 12mm thick M.S. plate and frame of Angle iron 5050x6mm in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **37914.00** |
| g | Without surface box and with 120 mm thick R.C.C. slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **13523.00** |
|  |  |  |  |
| **15242** | Construction of masonry chamber 120 x 120 x100 cm inside in laterite masonry in neatly dressed stones complete with 23 cms wall thickness and in cement mortar 1:4 ( 1 cement : 4 coarse sand) for sluice valve size beyond 200mm dia with necessary excavation, foundation concrete 1:5:10 ( 1 cement : 5 coarse sand: 10 graded stone ballast 40 mm nominal size) and inside plastered with CM 1:3 ( 1 cement : 3 coarse sand) finished with floating coat of neat cement complete and chamber cover as specified below etc. all complete as per standard drawing. (rate is inclusive of rate earthwork excavation, cost of surface-cover and all other materials and labour and as per details below) |  |  |
| a | With C.I. Surface box 100mm top dia 160mm bottom dia and 160mm deep of wt. 15kg inside with chain lid in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **20462.00** |
| b | With C.I. Surface box 200mm top dia 300mm bottom dia and 300 mm deep of wt. 32kg inside with chain lid in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **22485.00** |
| c | with C.I. cover and frame 600mm x600mm weighing not less than 250 kgs in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **35493.00** |
| d | With D.I hinged, square, frame and cover as per EN 124 standards of size 600mm x 600mm size weighing not less than 98 kgs in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **28879.00** |
| e | with M.S. sheet cover with 6 mm thick M.S. plate and frame of angle iron 50x50x6mm in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **38374.00** |
| f | with M.S. sheet cover with 12mm thick M.S. plate and frame of angle iron 50x50x6mm in 120 mm thick RCC slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **50622.00** |
| g | Without surface box and with 120 mm thick R.C.C. slab cover in cement concrete 1:2:4 ( 1 cement: 2 coarse sand : 4 graded stone ballast 20 mm nominal size) | Each | **13629.00** |
|  |  |  |  |
| **15243** | Add or deduct for every 0.10m depth or part thereof for laterite stone masonry chamber. |  |  |
| a | 60cm x60cmx75cm | Per 10 cms | **481.00** |
| b | 90cm x90cmx100cm | Per 10 cms | **763.00** |
| c | 120cm x120cmx100cm | Per 10 cms | **942.00** |
|  |  |  |  |
| **15244** | Fixing of water meter by conveying and laying of pipeline, including threading, jointing of pipes inside the meter box with necessary fittings( four elbows and one union joint) in "U "shape( vertical side of U measuring 15cms and horizontal side of U having 0.55 or more as required), conforming to IS specification 2401-1973 for installation of meter including making holes in the masonry of the meter box but excluding cost of meter and valves, at various scattered locations as directed by the Engineer in-charge. |  |  |
| a | Size from 15mm to 25 mm size | Each | **799.00** |
|  |  |  |  |
| **15245** | Fixing of water meter including providing and laying of pipeline, including threading, laying and jointing of pipes inside the meter box with necessary fittings( four elbows and one union joint) in "U "shape( vertical side of U measuring 15cms and Horizontal side of U having 0.55 or more as required), conforming to IS 2401-1973 specification in meter for installation of meter including making holes in the masonry of the meter box but excluding cost of meter and valves, at various scattered locations as directed by the Engineer in-charge. |  |  |
| a | **with G.I pipes and fittings** |  |  |
| i | 15 mm nominal diameter | Each | **1156.00** |
| ii | 20 mm nominal diameter | Each | **1466.00** |
| iii | 25 mm nominal diameter | Each | **1953.00** |
| b | **with U-PVC plumbing threadable pipes and fittings** |  |  |
| i | 20mm outer diameter | Each | **1175.00** |
| ii | 25mm outer diameter | Each | **1239.00** |
|  |  |  |  |
| **15246** | Making connection to individual 15mm /20mm/25mm G.I/ OD Blue PVC pipeline with existing distribution line of any diameter with saddle piece / and necessary pipe and specials required suitable to the distribution line with road cutting trenching refilling the same including the cost of labour and accessories etc. complete. as per the direction of Engineer -in- charge. | Each | **3813.00** |
|  |  |  |  |
| **15247** | Blast cleaning the surface of the old or new pipeline internally to remove all rust etc. complete, including providing sand, machinery, labour cutting of pipes at required places and rewelding the same etc., complete as directed by the engineer-in-charge (pipes pieces if required for rewelding of old pipeline shall be paid separately) | Sq. m. | **904.00** |
|  |  |  |  |
| **15248** | Cleaning of new or old pipeline internally with mechanical cleaning machine having steel scraper blades with required passes including removing all rust, scaling etc. including cutting the pipes required places, rewelding the same including cost of all the material and labour etc. complete( pipes pieces if required for welding of old pipeline shall be paid separately) as per the direction of engineer -in- charge. | Sq. m. | **1169.00** |
|  |  |  |  |
| **15249** | Blast cleaning the surface of the old or new pipeline /concrete/R.C.C. Externally to remove all rust including providing sand machinery etc. complete as directed by the Engineer-in-charge. | Sq. m. | **864.00** |
|  |  |  |  |
| **15250** | Providing & applying primer and one coat of Red Oxide of iron paints, internally, including cleaning the surface of pipes with steel scrappers, wire brushes, and metal cleaning solution, etc. as per the direction of engineer -in- charge. | Sq. m. | **645.00** |
|  |  |  |  |
| **15251** | Gas cutting (either square cut or V cut) pipes, plates etc. of thickness. |  |  |
| a | Upto 5 mm dia. | Metre | **299.00** |
| b | Above 5 mm upto 10 mm dia. | Metre | **449.00** |
| c | Above 10 mm upto 14 mm dia. | Metre | **472.00** |
|  |  |  |  |
| **15252** | Gas cutting holes upto 50 mm dia. (for plugs) thickness of shell : 5 mm to 12 mm | Each | **288.00** |
|  |  |  |  |
| 15253 | Providing and making inner cement mortar lining to M.S. pipes with mechanical devices in cement mortar 1:1 proportion, including cost of all material, labour, special sand & required, machinery power generation all equipment and tacking necessary access opening and manholes cuts at suitable intervals as directed by the Engineer-in-charge. Andrewelding the same after done with doubler plates pipes including necessary excavation refilling, concrete breaking and remaking if any, breaking guniting and remaking the same, repainting whenever required with epoxy paint in 3 coats, all dewatering including empting the pipeline and refilling the same after done with (water to be supplied by the department free of cost within 5 kms. lead at fixed point and all other arrangement to be done by agency) including carrying out "C" value performance test of the pipeline, complete job as per the directions of the engineer-in-charge. |  |  |
| a | 10 mm thick for pipes upto 700 mm dia. | Sq.m. | **1324.00** |
| b | 12 mm thick for pipes upto 700 mm dia. | Sq.m. | **1324.00** |
| c | 10 mm thick for pipes above 700 mm dia.andupto 1250 mm Dia. | Sq.m. | **1704.00** |
| d | 12 mm thick for pipes above 700 mm dia.andupto 1250 mm Dia. | Sq.m. | **1704.00** |
|  |  |  |  |
| 15254 | Construction precast public fountain consisting of RCC vertical foundation slab in cement concrete 1:1. 5:3 (1 cement: 1.5 coarse Sand : 3 coarse aggregate20mm nominal size) with nominal reinforcement at 80kg cum. of cement concrete including finishing and plastering with 6mm thick plaster, foundation, platform curb and footrest in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 stone aggregate 20 mm nominal size) including 12mm thick plaster for platform and foot rest in cement mortar 1:3 ( 1cement: 3 coarse sand ) and providing and fixing G.I. Pipe 20mm nominal bore of length 4m including fixing of brass bib cock 20mm size (heavy duty) as per standard design etc. complete . |  |  |
| a | circular platform or square platform type | Each | **13997.00** |
|  |  |  |  |
| **15255** | Disinfecting C.I. water mains by flushing with water containing bleaching powder at 0.5 gms per litre of water and cleaning the same with fresh water, operation to be repeated three times including getting the sample of water from the disinfected main tested in the municipal laboratory , as per the direction of the engineer in-charge |  |  |
|  | Nominal diameter in mm. |  |  |
| a | 80 | Metre | **8.50** |
| b | 100 | Metre | **11.00** |
| c | 125 | Metre | **14.00** |
| d | 150 | Metre | **16.80** |
| e | 200 | Metre | **22.00** |
| f | 250 | Metre | **28.00** |
| g | 300 | Metre | **32.00** |
| h | 350 | Metre | **35.00** |
| i | 400 | Metre | **39.00** |
| j | 450 | Metre | **43.00** |
| k | 500 | Metre | **47.00** |
| l | 600 | Metre | **56.00** |
|  |  |  |  |
| **15256** | Extra for every operation of disinfecting the C.I. main by flushing with water containing bleaching powder at 0.5 gms per litre of water and cleaning the same with fresh water, including getting the samples of water tested in the municipal laboratory, as per the direction of the engineer in-charge |  |  |
|  | Nominal diameter in mm. |  |  |
| a | 80 | Metre | **3.00** |
| b | 100 | Metre | **3.00** |
| c | 125 | Metre | **5.00** |
| d | 150 | Metre | **5.00** |
| e | 200 | Metre | **8.00** |
| f | 250 | Metre | **10.00** |
| g | 300 | Metre | **11.00** |
| h | 350 | Metre | **13.00** |
| i | 400 | Metre | **15.00** |
| j | 450 | Metre | **17.00** |
| k | 500 | Metre | **18.00** |
| l | 600 | Metre | **23.00** |
| **15257** | Construction of Reinforcement cement concrete chamber 90x90x150cm inside with 30 cms wall thickness in Cement Concrete 1:2:4 (1cement: 2coarse sand:4 graded granitic or basaltic stone aggrt. 20mm. nominal size) including centering /shuttering and TMT steel not less than 70kg/cu.m, for sluice valves or equivalent main valves of suitable diameter, with necessary excavation, 15cms thick rubble packing and 10cms thick foundation concrete 1:3:6 (1cement: 3 coarse sand: 6 graded granitic or basaltic stone aggrt. 40 mm nominal size) and inside plastered with cement mortar 1:3 ( 1 cement : 3 coarse sand) finished with floating coat of neat cement complete and as per standard drawing (rate is inclusive of earthwork excavation, and all other materials and labour as per details above ,excluding cost of surface chamber cover) as directed by the Engineer in-charge. | Each | **37910.00** |
|  |  |  |  |
| 15257 (A) | Manufacturing, Fabricating supplying and fixing in position over the main valve chamber. Two/three shutter M. S. cover, manufactured out of 10mm thick M.S.plate ,size (1.2mx1.2m),with bottom angles of size 65x65x6mm supporting parallel in the middle M.S. I beam of size 125x75 as per requirement & size of chamber with both side extended 20cm to 30cm to be fixed in the wall further supporting Diagonal angles and cross angles of size 65x65x6mm to both ways perfectly hinged with 8nos of bar hinges capable to withstand heavy vehicle impact 4 nos. of handles made out of 12mm to 16mmdia bar, bottom side locking arrangement for both main shutter as well a side shutter, and welded 4 nos. of holdfast of L.S. 65x65x6mm to 40cm-long 4nos of bar hinges of high strength double angles and hold fast should be embedded in reinforcement concrete of 1:2:4 or richer mix incl. Transportation, labour, Priming coat, painting etc. complete As per standard drawing.(10mm thick ,1.2m x 1.2m, M.S plate , surface cover for R.C.C chamber size, 90cmx90cmx150cm) as directed by the Engineer in-charge. | Each | **39720.00** |
|  |  |  |  |
| **15258** | Construction of Reinforcement cement concrete chamber 120x120x170cm inside with 30 cms wall thickness in Cement Concrete 1:2:4 (1cement: 2coarse sand:4 graded granitic or basaltic stone aggrt. 20mm. nominal size) including centering/shuttering and TMT steel not less than 70kg/cu.m,for sluice valves or equivalent main valves of suitable diameter, with necessary excavation, 15cms thick rubble packing and 10cms thick foundation concrete 1:3:6 ( 1 cement : 3 coarse sand: 6 graded granitic or basaltic stone aggrt. 40 mm nominal size) and inside plastered with cement mortar 1:3 ( 1 cement : 3 coarse sand) finished with floating coat of neat cement complete and as per standard drawing (rate is inclusive of earthwork excavation, and all other materials and labour as per details above ,excluding cost of surface chamber cover) as directed by the Engineer in charge. | Each | **54269.00** |
|  |  |  |  |
| 15258(A) | Manufacturing, Fabricating supplying and fixing in position over the main valve chamber. Two/three shutter M. S. cover, manufactured out of 10mm thick M.S.plate ,size (1.5mx1.5m),with bottom angles of size 75x75x8mm supporting parallel in the middle M.S. I beam of size 150x100 as per requirement & size of chamber with both side extended 20cm to 30cm to be fixed in the wall further supporting Diagonal angles and cross angles of size 75x75x8mm to both way perfectly hinged with 8nos of bar hinges capable to withstand heavy vehicle impact 4 nos. of handles made out of 12mm to 16mmdia bar, bottom side locking arrangement for both main shutter as well a side shutter, and welded 4 nos. of holdfast of L.S. 75x75x8mm to 40cm-long 4nos of bar hinges of high strength double angles and hold fast should be embedded in reinforcement concrete of 1:2:4 or richer mix incl. Transportation, labour, Priming coat, painting etc. complete As per standard drawing.(10mm thick ,1.5m x 1.5m, M.S plate for surface cover for R.C.C chamber size, 120cmx120cmx170cm) as directed by the Engineer in charge. | Each | **68483.00** |
|  |  |  |  |
| **15259** | Construction of Reinforcement cement concrete chamber 150x150x200cm inside with 30 cms wall thickness in Cement Concrete 1:2:4 (1cement: 2coarse sand:4 graded granitic or basaltic stone aggrt. 20mm. nominal size) including centering /shuttering and TMT steel not less than 70kg/cu.m, for sluice valves or equivalent main valves of suitable diameter, with necessary excavation, 15cms thick rubble packing and 10cms thick foundation concrete 1:3:6 (1cement: 3 coarse sand: 6 graded granitic or basaltic stone aggrt. 40 mm nominal size) and inside plastered with cement mortar 1:3 ( 1 cement : 3 coarse sand) finished with floating coat of neat cement complete and as per standard drawing (rate is inclusive of earthwork excavation, and all other materials and labour as per details above ,excluding cost of surface chamber cover) as directed by the Engineer in charge. | Each | **77023.00** |
|  |  |  |  |
| 15259 (A) | Manufacturing, Fabricating supplying and fixing in position over the main valve chamber. Two/three shutter M. S. cover, manufactured out of 10mm thick M.S.plate ,size (1.8mx1.8m),with bottom angles of size 75x75x8mm supporting parallel in the middle M.S. I beam of size 150x100 as per requirement & size of chamber with both side extended 20cm to 30cm to be fixed in the wall further supporting Diagonal angles and cross angles of size 75x75x8mm to both way perfectly hinged with 8nos of bar hinges capable to withstand heavy vehicle impact 4 nos. of handles made out of 12mm to 16mmdia bar, bottom side locking arrangement for both main shutter as well a side shutter, and welded 4 nos. of holdfast of L.S. 75x75x8mm to 40cm-long 4nos of bar hinges of high strength double angles and hold fast should be embedded in reinforcement concrete of 1:2:4 or richer mix incl. Transportation, labour, Priming coat, painting etc. complete As per standard drawing.(10mm thick ,1.8m x 1.8m, M.S plate for surface cover for R.C.C chamber size, 150x150x200cm) as directed by the Engineer in charge. | Each | **87806.00** |

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| **CHAPTER VII** | | | |
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| **R.C.C. GROUND LEVEL AND OVERHEAD TANKS** | | | |

**NOTES:-**

1. Rates for the R.C.C works in construction of ground level and overhead reservoirs are inclusive of;
2. Cost of concreting, centering& shuttering.
3. 6mm rendering for all external surfaces of reservoirs,
4. 12 mm thick plastering for the inside surfaces (including the bottom surface of dome) of water tank
5. Construction of working platform for all necessary stages required for the required height of Ground level reservoir and overhead reservoir
6. Water tightness test as per IS- 3370 required for the construction of reservoir
7. The rates for guniting the reservoirs are inclusive of construction of working platform with necessary staging, water tightness test as per IS- 3370 for ground and overhead reservoirs.
8. Rates for Ready nix concrete as well as design mix concrete are furnished in the section for GLR and OHR. Preference shall be given for ready mix concrete for reservoir works.
9. Rates for the ready mix concrete are for initial lead of 10 kilometers from the plant. In case the distance to the work site is more than 10 kilometers from the nearest plant additional lead is to be provided in the respective item of the estimate by rate analysis by providing additional lead as required.
10. The measurement for any member shall be made exclusive of thickness of plaster and rendering.
11. Service reservoirs are to be designed as per the clause no 10.4 of the CPHEEO manual on water supply and treatment. (Vide appendix 10.1 for the example).

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| **RESERVOIRS** | | | |
| **READY MIXED CONCRETE-GROUND LEVEL RESERVOIR** | | | |
| Item No | **Description** | **Unit** | **Rate** |
| **15301** | Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead upto 10 kilometres distance having continuous agitated mixer, manufactured as per the mix design of M- 15( by using 325kg of cement per cu.m of concrete in Ground level reservoir) including the cost of pumping the R.M.C from transit mixer to the site of laying, including the cost of centering shuttering for plain cement concrete work, complete in all respects in Ground level reservoir as per the direction of the Engineer-in-charge.. |  |  |
| a | Foundation and Plinth | Cu.m | **9173.00** |
|  |  |  |  |
| **15302** | Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead upto 10 kilometres distance having continuous agitated mixer, manufactured as per the mix design of M- 30( by using 410kg of cement per cu.m of concrete in Ground level reservoir) for reinforced cement concrete work including the cost of pumping the R.M.C from transit mixer to the site of laying, excluding the cost of reinforcement ,including the cost of centering shuttering for R.C.C work, including rendering in cement mortar of 1:3 in 6mm thickness for all external R.C.C surfaces, and 12mm cement mortar of 1:3 for internal surfaces, in carrying including the cost of successful water tightness test as per IS code with relevant latest amendments complete in all respects in Ground level reservoir as per the direction of the Engineer-in-charge. |  |  |
| a | Bottom slab of GLR Including Haunch portion | Cu.m | **10997.00** |
|  |  |  |  |
| **15303** | Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead upto 10 kilometres distance having continuous agitated mixer, manufactured as per the mix design of M- 30 ( by using 410kg of cement per cu.m of concrete in Ground level reservoir)for reinforced cement concrete work including the cost of pumping the R.M.C from transit mixer to the site of laying excluding the cost of reinforcement ,including the cost of centering shuttering for R.C.C work, including construction of working platforms with staging, at suitable heights for the construction of the ground reservoir for a height of 6 metre with ballies, bamboos, planks rafters, and allied components, including rendering in cement mortar of 1:3 in 6mm thickness for all external R.C.C. surfaces of reservoir, including the cost of plastering in cement mortar in 1:3 in 12 mm thickness for all internal surfaces of reservoir (with mechanical machine mixer for plaster) including the cost of successful water tightness test as per IS code with relevant latest amendments complete in all respect in Ground level reservoir as per the direction of the Engineer-in-charge. |  |  |
| a | From ground level upto 5m height in walls | Cu.m | **47355.00** |
| b | Dome more than 5m upto 6.5m including ring beam | Cu.m | **35330.00** |

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|  | **READY MIXED CONCRETE - RESERVOIRS RECTANGULAR OR SQUARE IN PLAN IN** | | |
| **15304** | Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead upt 10 kilometres distance having continuous agitated mixer, manufactured as per the mix design, including the cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability in M- 15 grade of concrete for cement concrete work including the cost of pumping the R.M.C from transit mixer to the site of laying excluding the cost of reinforcement ,including the cost of centering shuttering, and near even finishing etc. complete in all respects as per the direction of the Engineer -in -charge in Ground level reservoir/Underground reservoir. |  |  |
| a | Foundation and Plinth | Cu.m | **9107.00** |
|  |  |  |  |
| **15305** | Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead upto 10 kilometres distance having continuous agitated mixer, manufactured as per the mix design, including the cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete to improve workability without impairing strength and durability in M- 30 grade of concrete with 420 kg of cement per cu.m of concrete, for reinforced cement concrete work including the cost of pumping the R.M.C from transit mixer to the site of laying excluding the cost of reinforcement ,including the cost of centering shuttering for R.C.C work, including Plastering in cement mortar of 1:3 in 12mm thickness with water proofing compound with a neat finishing floating coat of cement for internal R.C.C surfaces of bottom slab complete in all respects as per the direction of the Engineer -in -charge in Ground level reservoir/Underground reservoir. |  |  |
| a | Bottom slab of GLR including Haunch portion | Cu.m. | **11518.00** |
|  |  |  |  |
| **15306** | Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead upt 10 kilometres distance having continuous agitated mixer, manufactured as per the mix design, including the cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete to improve workability without impairing strength and durability of concrete, in M- 30 grade of concrete with 420 kg of cement per cu.m of concrete, for reinforced cement concrete work including the cost of pumping the R.M.C from transit mixer to the site of laying excluding the cost of reinforcement ,including the cost of centering shuttering for R.C.C work, including construction & removal of working platforms at suitable heights for the construction of the ground level reservoir/Underground reservoir for a height of 6 metre with ballies, bamboos, planks rafters, and allied components, including plastering in cement mortar of 1:3 in 15mm thickness for all external R.C.C surfaces of reservoir, including the cost of plastering in cement mortar in 1:3 in 12 mm thickness with waterproofing compound for all internal surface of reservoir (with mechanical machine mixer for plaster), including the cost of water tightness test as per I.S code with relevant latest amendments complete in all respects as per the direction of the Engineer in- charge in Ground level reservoir/Underground reservoir. |  |  |
| a | Up to 5m height in straight walls | Cu.m | **46255.00** |
|  |  |  |  |
| **15307** | Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead upt 10 kilometres distance having continuous agitated mixer, manufactured as per the mix design, including the cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete to improve workability without impairing strength and durability of concrete, in M- 30 grade of concrete with 420 kg of cement per cu.m of concrete, for reinforced cement concrete work including the cost of pumping the R.M.C from transit mixer to the site of laying excluding the cost of reinforcement ,including the cost of centering shuttering for R.C.C work, including construction& removal of working platforms at suitable heights for the construction of the ground level reservoir/Underground reservoir for a height of 6 meter with ballies, bamboos, planks rafters, and allied components, including plastering in cement mortar of 1:3 in 12mm thickness for all external R.C.C surfaces of columns beams and bracings, including the cost of plastering in cement mortar in 1:3 in 12 mm thickness with water proofing compound for all surfaces of columns beams bracings etc in reservoir (with mechanical machine mixer for plaster), complete in all respects as per the direction of the Engineer- in- charge in Ground level reservoir/Underground reservoir. |  |  |
| a | columns beams bracings upto roof slab level | Cu.m | **19681.00** |
|  |  |  |  |
| **15308** | Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead upt 10 kilometres distance having continuous agitated mixer, manufactured as per the mix design including the cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete to improve workability without impairing strength and durability of concrete, in M- 30 for reinforced cement concrete work including the cost of pumping the R.M.C from transit mixer to the site of laying excluding the cost of reinforcement , including the cost of centering shuttering for R.C.C work, including construction & removal of working platforms at suitable heights for the construction of the ground level reservoir/sump for a height of 6 metre with ballies, bamboos, planks rafters, and allied components, including plastering in cement mortar of 1:3 in 15mm thickness for all external R.C.C surfaces of reservoir roof slab, including the cost of plastering in cement mortar in 1:3 in 6 mm thickness for all internal surface of reservoir roof slab (with mechanical machine mixer for plaster), including the cost of water tightness test as per I.S code with relevant latest amendments complete in all respects as per the direction of the engineer in- charge in Ground level reservoir/sump. |  |  |
| a | Suspended Roof slab for Ground level reservoir/ underground reservoir | Cu.m | **19732.00** |

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|  | **READY MIXED CONCRETE-OVERHEAD RESERVOIR** | | |
| **15309** | Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead upto 10kms having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C., from the transit mixer to the site of laying, including the cost of centering, shuttering, finishing the cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability in M-15 grade of plain cement concrete by using 325 kg of cement per cu.m of concrete in overhead reservoir as per the directions of the Engineer- in -Charge. |  |  |
| a | Foundation and Plinth | Cu.m | **9271.00** |
|  |  |  |  |
| **15310** | Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead upto 10 kilometres distance having continuous agitated mixer, manufactured as per the mix design including the cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability of M- 30 for reinforced cement concrete work including the cost of pumping the R.M.C from transit mixer to the site of laying, excluding the cost of reinforcement ,including the cost of centering shuttering for R.C.C work, including plastering in cement mortar of 1:3 in 15mm thickness for all external R.C.C surfaces complete in all respects as per the direction of the Engineer in -charge in overhead reservoir. |  |  |
| a | Foundation and footing, beams columns, braces, landing slabs, cantilever portion etc. upto ground level | Cu.m | **12342.00** |
|  |  |  |  |
| **15311** | Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead upto 10 kilometres distance having continuous agitated mixer, manufactured as per the mix design including the cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability of M- 30 for reinforced cement concrete work including the cost of pumping the R.M.C from transit mixer to the site of laying, excluding the cost of reinforcement ,including the cost of centering shuttering for R.C.C work, including construction of working platforms with staging at suitable heights for the construction of the overhead reservoir for a height of 25 metre with ballies, bamboos, planks rafters, and allied components, including plastering in cement mortar of 1:3 in 15mm thickness for all external R.C.C surfaces of columns, beams ,bracings, girders of overhead reservoir, (with mechanical machine mixer for plaster),including the cost of successful water tightness test as per IS code with relevant latest amendments complete in all respects as per IS code with relevant latest amendments complete in all respects as per the direction of the Engineer in charge in overhead reservoir. |  |  |
| a | From ground level upto 5m height including 1st bracing beam (Column beam, bracings, landing slab etc.) | Cu.m | **24743.00** |
| b | More than 5m upto 10m height including 2nd bracing beam (Column an beam, bracings, landing slab,etc.) | Cu.m | **34368.00** |
| c | More than 10 m upto 15m height including 3rd bracing beam (Column an beam, bracings, landing slab,etc.) | Cu.m | **44010.00** |
| d | More than 15m up to 20m. height in column, beams bracings, landing slabs,etc. | Cu.m | **51739.00** |
| e | Bottom dome including bottom ring beam up to 20m level | Cu.m | **52075.00** |
| f | Circularwalls, circular conical walls and alike between 20m to 25m level | Cu.m | **43815.00** |
| g | Upper domes including top ring beam more than 20m upto 25m. level | Cu.m. | **48908.00** |

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| **DESIGN MIX- GROUND LEVEL RESERVOIR OR UNDER GROUND RESERVOIR** | | | |
|  |  |  |  |
| **15312** | Providing and laying in position Design mix concrete mixed in the mechanical mixing mixer with hopper, for cement concrete work of specified grade including the cost of laying , centering shuttering, finishing as per the direction of the Engineer-in-charge in M-15 grade of plain cement concrete by using 325kg of cement per cu.m of concrete in Ground level reservoir/sump |  |  |
| a | Foundation and Plinth | Cu.m | **7657.00** |
|  |  |  |  |
| **15313** | Providing and laying in position Design mix concrete mixed in the mechanical mixing mixer with hopper for reinforced cement concrete work including the cost of laying, centering shuttering, including Plastering in cement mortar of 1:3 in 12mm thickness with water proofing compound with a neat finishing floating coat of cement for internal R.C.C surfaces of bottom slab with neat finish including the cost of successful water tightness test as per IS code with relevant latest amendments and excluding the cost of reinforcement in M-30 grade of reinforced cement concrete by using 420kg of cement per cu.m of concrete in Ground level/underground reservoir as per the direction of the Engineer-in-charge. |  |  |
| a | Bottom slab of GLR Including Haunch portion | Cu.m | **9745.00** |
|  | | | |
| **15314** | Providing and laying in position Design mix concrete mixed in the mechanical mixing mixer with hopper for reinforced cement concrete work including the cost of laying, centering shuttering, plastering in cement mortar of 1:3 in 15mm thickness for all external R.C.C surfaces, including construction & removal of working platforms with staging at suitable heights for the construction of the overhead reservoir for a height of 25 metre with ballies, bamboos, planks rafters, and allied components, plastering the internal surfaces with 12 mm thickness cement plaster in 1:3 with water proofing compound with neat finish including the cost of successful water tightness test as per IS code with relevant latest amendments and excluding the cost of reinforcement in M-30 grade of reinforced cement concrete by using 420kg of cement per cu.m of concrete in Ground level reservoir as per the direction of the Engineer-in-charge. |  |  |
| a | Upto 5m height in walls | Cu.m | **45571.00** |
| b | Spherical dome including circular ring beam upto 6.5m | Cu.m. | **33547.00** |

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|  | **DESIGN MIX- RESERVOIRS RECTANGULAR OR SQUARE IN PLAN** | | |
| **15315** | Providing and laying in position Design mix concrete mixed in the mechanical mixing mixer with hopper, for cement concrete work of specified grade including the cost of laying , centering shuttering, finishing as per the direction of the Engineer-in-charge in M-15 grade of plain cement concrete by using 325kg of cement per cu.m of concrete in Ground level reservoir/sump |  |  |
| a | Foundation and Plinth | Cu.m. | **7592.00** |
|  |  |  |  |
| **15316** | Providing and laying in position Design mix concrete mixed in the mechanical mixing mixer with hopper for reinforced cement concrete work including the cost of laying, centering shuttering, including Plastering in cement mortar of 1:3 in 12mm thickness with water proofing compound with a neat finishing floating coat of cement for internal R.C.C surfaces of bottom slab with neat finish including the cost of successful water tightness test as per IS code with relevant latest amendments and excluding the cost of reinforcement in M-30 grade of reinforced cement concrete by using 420kg of cement per cu.m of concrete in Ground level reservoir as per the direction of the Engineer-in-charge. |  |  |
| a | Bottom slab of GLR Including Haunch portion | Cu.m. | **9735.00** |
|  |  |  |  |
| **15317** | Providing and laying in position Design mix concrete mixed in the mechanical mixing mixer with hopper for reinforced cement concrete work including the cost of laying, centering shuttering, plastering in cement mortar of 1:3 in 15mm thickness for all external R.C.C surfaces, plastering the internal surfaces with 12 mm thickness cement plaster in 1:3 with water proofing compound with neat finish, including construction of working platforms with staging at suitable heights for the construction of the overhead reservoir for a height of 6 meter with ballies, bamboos, planks rafters, and allied components including the cost of successful water tightness test as per IS code with relevant latest amendments and excluding the cost of reinforcement in M-30 grade of reinforced cement concrete by using 420kg of cement per cu.m of concrete in Ground level reservoir as per the direction of the Engineer-in-charge. |  |  |
| a | Upto 5m height in straight walls | Cu.m. | **44471.00** |
|  |  |  |  |
| **15318** | Providing and laying in position Design mix concrete mixed in the mechanical mixing mixer with hopper for reinforced cement concrete work including the cost of laying, placing in position, entering shuttering, plastering all the surfaces with 12 mm thickness cement plaster in 1:3 with water proofing compound with neat finish, including the cost of centering shuttering for R.C.C work, including construction of working platforms with staging at suitable heights for the construction of the overhead reservoir for a height of 6 meter with ballies, bamboos, planks rafters, and allied components including the cost of successful water tightness test as per IS code with relevant latest amendments and excluding the cost of reinforcement in M-30 grade of reinforced cement concrete by using 420kg of cement per cu.m of concrete in Ground level reservoir as per the direction of the Engineer-in-charge. |  |  |
| a | Columns beams bracings upto roof slab level | Cu.m. | **15713.00** |
| **15319** | Providing and laying in position Design mixed concrete manufactured in continuous agitated mixer at site ,manufactured as per the mix design in M- 30 by using 420kg of cement per cu.m of concrete for reinforced cement concrete work including the cost of laying and placing in position from mixer to the site of laying excluding the cost of reinforcement ,including the cost of centering shuttering for R.C.C work, including construction of working platforms at suitable heights for the construction of the ground level reservoir/sump for a height of 6 metre with ballies, bamboos, planks rafters, and allied components, including plastering in cement mortar of 1:3 in 15mm thickness for all external R.C.C surfaces of reservoir roof slab, including the cost of plastering in cement mortar in 1:3 in 6 mm thickness for all internal surface of reservoir roof slab (with mechanical machine mixer for plaster),including the cost of water tightness test as per IS code with relevant latest amendments complete in all respects as per the direction of the Engineer -in -charge in Ground level reservoir/sump. |  |  |
| a | Suspended Roof slab of rectangular/ square in plan for Ground level reservoir/ underground reservoir | Cu.m. | **16079.00** |

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|  | **DESIGN MIX-OVERHEAD RESERVOIR** | | |
|  |  |  |  |
| **15320** | Providing and laying in position Design mix concrete mixed in the mechanical mixing mixer with hopper, for cement concrete work including the cost of laying , centering shuttering, finishing , as per the direction of the Engineer-in-charge in M-15 grade of plain cement concrete by using 325kg of cement per cu.m of concrete in overhead reservoir . |  |  |
| a | Foundation and Plinth | Cu.m. | **7756.00** |
|  | | | |
| **15321** | Providing and laying in position Design mix concrete mixed in the mechanical mixing mixer with hopper, for cement concrete work including the cost of laying , centering shuttering, finishing , as per the direction of the Engineer-in-charge in M-30 grade of plain cement concrete by using 420kg of cement per cu.m of concrete ,including the cost of centering shuttering for R.C.C work, including plastering in cement mortar of 1:3 in 15mm thickness for all external R.C.C surfaces of foundation complete in all respects as per the direction of the Engineer -in -charge in overhead reservoir. |  |  |
| a | Foundation and footing, beams columns, braces, cantilever portion etc. upto ground level | Cu.m. | **10480.00** |
|  | | | |
| **15322** | Providing and laying in position Design mix concrete mixed in the mechanical mixing mixer with hopper for reinforced cement concrete work including the cost of laying, centering shuttering, plastering in cement mortar of 1:3 in 15mm thickness for all external R.C.C surfaces, including construction of working platforms with staging at suitable heights for the construction of the overhead reservoir for a height of 6 metre with ballies, bamboos, planks rafters, and allied components including the cost of successful water tightness test as per IS code with relevant latest amendments and excluding the cost of reinforcement in M-30 grade of reinforced cement concrete by using 420kg of cement per cu.m of concrete in overhead reservoir as per the direction of the Engineer-in-charge. |  |  |
| a | From ground level upto 5m height including 1st bracing beam (Column beam, bracings, landing slab etc.) | Cu.m. | **22985.00** |
| b | More than 5m upto 10m height including 2nd bracing beam (Column an beam, bracings, landing slab etc.) | Cu.m. | **32597.00** |
| c | More than 10 m Up to 15M height including 3rd bracing beam (Column an beam, bracings, landing slab etc.) | Cu.m. | **42227.00** |
| d | More than 15m up to 20M. height in column, beams bracings, landing slabs etc | Cu.m. | **49918.00** |
| e | Bottom dome including bottom ring beam up to 20M level | Cu.m. | **50242.00** |
| f | Circular walls, conical walls and alike between 20 to 25M level | Cu.m. | **41970.00** |
| g | Upper domes including top ring beam more than 20m up to 25mt. level | Cu.m. | **47088.00** |
|  | | | |
| **15323** | 12mm plaster in cement mortar 1:3 with neat finish for internal surfaces of the water tank such as one side of conical wall, one side of vertical wall, one surface of dome, complete as per the direction of the Engineer- in -charge. | Sq.m | **385.00** |
|  | | | |
| **15324** | 20mm plaster with neat finish in cement mortar 1:3 for internal surfaces of the water tank such as one side of conical wall, one side of vertical wall, one surface of dome, complete as per the direction of the Engineer-in- charge. | Sq.m | **476.00** |
|  | | | |
| **15325** | Providing Corrosion resistant steel CRS-50 bars of (SAIL,TATA,VIZAG,JSW Steel Ltd.)(Conforming to IS 1786 of 1985) for R.C.C. work including bending, binding & placing in position with factory made precast concrete cover blocks of strength more than M-30 for maintaining the required clear cover for R.C.C structures in all the floors complete as per the direction of the Engineer- in -charge. | Kg | **114.00** |
|  | | | |
| **15326** | Providing Mild steel reinforcement for R.C.C. work (Conforming to I.S 1786 of 1986) including bending, binding& placing in position with factory made precast concrete cover blocks of strength more than M-30 for maintaining the required clear cover for R.C.C structures in all the floors complete as per the direction of the Engineer -in- charge. | Kg | **110.00** |
|  | | | |
| **15327** | Providing TMT steel reinforcement bars of (SAIL,TATA,VIZAG,JSW Steel Ltd.) for R.C.C. work(Conforming to I.S 1786 of 1986) including bending, binding& placing in position with factory made precast concrete cover blocks of strength more than M-30 for maintaining the required clear cover for R.C.C structures in all the floors complete as per the direction of the Engineer in charge. | Kg | **111.00** |
|  | | | |
| **15328** | Providing High yield strength steel (HYSD)for R.C.C. work (Conforming to I.S 1786 of 1986) including bending, binding& placing in position with factory made precast concrete cover blocks of strength more than M-30 for maintaining the required clear cover for R.C.C structures in all the floors complete as per the direction of the Engineer- in -charge. | Kg | **91.00** |
|  |  |  |  |
| **15329** | providing and fixing ornamental cast iron stair case for overhead reservoir full set consisting of 12 steps with tread, riser, sideguard, baluster, central post , hand rail, foundation plate fasteners for pivoting the staircase including painting in black colour complete in all respects as per the direction of the Engineer- in -charge. | Set | **111039.00** |
|  | | | |
| **15330** | Add or deduct for providing an fixing each step of ornamental cast iron stair case for overhead reservoir set consisting of one step with tread,riser,sideguard,baluster,central post, hand rail, foundation plate fasteners for pivoting the staircase including painting in black colour complete in all respects as per the direction of the Engineer- in -charge. | Each | **8014.00** |
|  |  |  |  |
| **15331** | Drilling 40mm dia holes in masonry or concrete structure with providing and fixing0.5m long G.I Pipe nozzles for pressure grouting including all material labour cost and machinery Charges, etc. complete in all respects as per the direction of the Engineer -in- charge. |  |  |
| a | In Ground level reservoir. | R.mt | **7550.00** |
|  |  |  |  |
| **15332** | Providing pressure grouting at a pressure of 5.6kg/sqcm in required row / zigzag fashion as specified at 1.5m interval, as per the site condition to stop leakages, in water retaining structures, including the cost of water proofing compound, hardening materials, compressor, necessary allied equipment,scaffolding centering, shuttering ,and necessary platform with staging required,along with smooth finishing the grouted surface, water tightness test as per relevant IS code with latest amendments,etc. inGround level reservoir for reinforced concrete structure complete in all respects as per the direction of the Engineer in charge. | Per Bag | **20907.00** |
|  |  |  |  |
| **15333** | Providing and applying one coat of gamma coating or equivalent such as DR. bake , krishnaconchem, asia paints atul limited burger paints expoy primer 50 to 60 microns thick and covering two coats of gamma coating or equivalent such as DR. bake , krishnaconchem, asia paints atul limited burger paints 30microns thick each to new M.S pipes and structural steel or concrete surface including preparing the surface by finishing by solvent de-greasing and de-rusting by applying chemical method and scaffolding is necessary as per manufacture specifications complete in all respects as per the direction of the Engineer- in- charge. in Ground level reservoir . | sq.m | **3485.00** |
|  |  |  |  |
| **15334** | Drilling 40mm dia holes in masonry or concrete structure with providing and fixing 0.5m long G.I Pipeline for pressure grouting including all material labour cost and machinery Charges , etc. complete in all respects as per the direction of the Engineer in charge in overhead reservoir. | Rmt | **5808.00** |
|  | | | |
| **15335** | Providing pressure grouting at a pressure of 5.6kg/sqcm in required row / zigzag fashion as specified at 1.5m interval, as per the site condition to stop leakages, in water retaining structures, including water proofing compound, hardening materials, compressor, necessary allied equipment,scaffolding centering, shuttering ,and necessary platform with staging required for the completion of the job along with smooth finishing the grouted surface etc. in overhead reservoir for reinforced concrete structure complete in all respects as per the direction of the Engineer -in -charge. | Per Bag | **20907.00** |
| **15336** | Providing and applying one coat of gamma coating or equivalent such as DR. bake , krishnaconchem, asia paints atul limited burger paints expoy primer 50 to 60 microns thick and covering two coats of gamma coating or equivalent such as DR. bake , krishnaconchem, asia paints atul limited burger paints 30microns thick each to new M.S pipes and structural steel or concrete surface including preparing the surface by finishing by solvent de-greasing and de-rusting by applying chemical method and scaffolding is necessary etc. complete as per manufacture specifications in overhead reservoir. | sq.m | **2091.00** |
|  | | | |
| **15337** | Providing and fixing MS clamps fabricated out M.S flat of 6mm thickness 100mm wide to hold the inlet/ outlet/ scour pipes in vertical position, supporting on R.C.C column of the reservoir, along with nut bolts,fixture, inclusive of anti-corrosive paint etc. Complete in overhead reservoir. | Each | **2323.00** |
|  | | | |
| **15338** | supplying and fixing of cast iron ladder in concrete ladder of width 45 cms (in side dimensions of ladder) for inside/outside for RC.C. reservoir with steps spaced at 25 cms centre to centre with size of 15mm x 6mm for vertical supports in ladder and 10mmx 6 mm size for steps complete in all respects as per the direction of the Engineer- in -charge. | Metre | **2555.00** |
|  |  |  |  |
| **15339** | Hoisting laying CI /DI/ MS Flanged pipes including specials in vertical position and perfect alignment in correct plumbing for RCC overhead reservoir complete in all respects as per the direction of the Engineer in charge. | Metre | **2091.00** |
|  | | | |
| **15340** | Providing & fixing P.V.C. water stopper 150mm wide and 6mm thick corrugated with centre bulb for insertion for construction joints in R.C.C. works complete in all respects as per the direction of the Engineer- in- charge. | Metre | **697.00** |
|  | | | |
| **15341** | Extra for carriage of R.M.C beyond the initial lead of 10kms. | Per Cu.m. per Km | **232.00** |
|  | | | |
| **15342** | Supply of low density solid cast iron/ ductile iron inspection door,(cover and frame fixed with hinges by welding), at domestic places or other places having size, 610mm x 455mm with weight not less than 38kg for reservoirs | Each | **6969.00** |
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| **CHAPTER VIII** |
| **SEWERAGE WORKS** |

**NOTES:-**

1. Earthwork and rubble packing for all type of manholes are to be estimated separately.
2. In case of saturated soil when the strata are met the datum shall be the level at which the actual water table is measured from ground level. However, above the datum up to ground level extra rates for additional lifts involved shall only be considered in the estimate. The rates mentioned for the saturated soil is inclusive of all lifts for the particular depth mentioned in the item up to ground level.
3. The datum at which the water table is located, the stretches at which the centering and shuttering is to be left permanently in position, at site is to be furnished by the division chainage wise in the estimate. Accordingly, the items for pipe laying and for manhole are to be selected from the section.
4. Item number 15409 is providing dry conditions in the trench for the work of laying sewer lines together with construction of manholes.
5. The design of the sewer lines is to be made as per chapter 3 of Manual on sewerage and sewage treatment published by the ministry of urban development New Delhi. The sewer zones are to be framed with the maximum depth of manhole to 5m.
6. The rates for different kind of manhole are available in the section for depth varying from 1m to 5m. Rates for a depth between any two of the successive depths are to be arrived, by adding the item of extra depth for the fractional part to the main item. Manholes are to be measured up to the accuracy of one centimetre for depths.
7. Sewer chambers are suggested up to a depth of 1m. Above 1m up to 2.0 m depth circular/conical manhole are to be preferred. The suggested depth and diameter of manholes are furnished below.
8. Sewer line estimate shall include the design of sewers, bedding, anti-floatation blocks as per the Manual on sewerage and sewage treatment

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| **CHAPTER VIII** | | | |
| **SEWERAGE WORK** | | | |
|  | | | |
| Item No | **Description** | **Unit** | **Rate** |
| **4005 A** | Earthwork in excavation by manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10sq.m on plan) including disposal of excavated earth lead upto 50 m and lift upto 1.5m disposed earth to be levelled and neatly dressed as directed. |  |  |
| a | Ordinary soil | Cu.m. | **323.00** |
| b | Hard soil | Cu.m. | **421.00** |
| c | Ordinary rock including all types of lateritic rock soil requiring blasting | Cu.m. | **1029.00** |
| d | All types of lateritic rock (requiring chiselling) where blasting is prohibited | Cu.m. | **1519.00** |
| e | Hard rock (requiring blasting) | Cu.m. | **1321.00** |
| f | Hard rock requiring chiselling (where blasting is prohibited) | Cu.m. | **2188.00** |
|  |  |  |  |
| **4006 A** | Earthwork in excavation by manual means in foundation pipeline trenches drain (not exceeding 1.5m in width or 10 sq. m. on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 50m. |  |  |
| a | Ordinary soil | Cu.m. | **346.00** |
| b | Hard soil | Cu.m. | **444.00** |
| c | Ordinary rock including all types of lateritic rock soil requiring blasting | Cu.m. | **1152.00** |
| d | All types of lateritic rock (requiring chiselling) where blasting is prohibited | Cu.m. | **1689.00** |
| e | Hard rock (requiring blasting) | Cu.m. | **1428.00** |
| f | Hard rock requiring chiselling (where blasting is prohibited) | Cu.m. | **2334.00** |
|  |  |  |  |
| **4010** | Extra for additional depth of 1.5 m or part thereof in |  |  |
| a | All types of soil | Cu.m. | **38.00** |
| b | Saturated soil | Cu.m. | **62.00** |
| c | All types of laterite rocks and hard rocks | Cu.m. | **51.00** |
|  |  |  |  |
| **15401** | Providing barricading for water supply / sewer trenches with wooden ballies/ bamboos of 2 m height with vertical spacing at 2 meter centre to centre, and horizontal bracing at 0.6m centre to centre by forming squares of size 2m x0.6m ,and securing the joints of frames firmly with coir rope, including fixing of cautionary sign indication board of size 0.6m x0.45m,and board painted with " caution" " work in progress" letters and an arrow for diversion, all painted in reflectory paint, and providing and fixing two rows of reflectory tape in red colour along the periphery of the barricadingetc. complete as per the direction of the Engineer in charge | Meter | **322.00** |
|  |  |  |  |
| **15402** | Closed planking in trenches including strutting and shoring, packing cavities (wherever required) complete for sewerage works in saturated soil strata. |  |  |
| a | For works of depth up to 1.50 m | Sq.m | **689.00** |
| b | For works of depth upto to 3.00 m | Sq.m | **835.00** |
| c | For works of depth upto 4.50m | Sq.m | **1193.00** |
| d | For works at depth upto 6.00m | Sq.m | **1276.00** |
| e | For works at depth upto 7.500m | Sq.m | **1364.00** |
|  | | | |
| **15403** | Earthwork in excavation over areas in saturated soil (exceeding 0.30 m depth up to a depth of 0.60 m) including disposal of excavated earth, upto a lift of 1.5 m & within a lead of 50m to be neatly dressed levelled, as directed by the Departmental Officer. |  |  |
| a | excluding planking, timbering in trenches and dewatering. | Cu.m | **806.00** |
|  | | | |
| **15404** | Earthwork in excavation in foundation pipeline trenches, drain in saturated soil up to a depth of 0.60 m lift up to 1.50 m including disposing the excavated soil within a lead of 50 m Disposed earth to be neatly dressed and levelled, as directed by the Departmental Officer. |  |  |
| a | Excluding planking, timbering in trenches and dewatering. | Cu.m | **779.00** |
|  | | | |
| **15405** | Extra for earthwork excavated in saturated soil for every 0.30 m. depth or part thereof over 0.60 m. depth. | Cu.m | **117.00** |
|  | | | |
| **15406** | Extra for additional depth of 1.5 m or part thereof in saturated soil . | Cu.m | **61.00** |
|  | | | |
| **15407- (4016)** | Extra for planking and strutting and packing material for cavities (in close timbering) if required to be left permanently in position (face area of timbering to be left permanently in position is tobe measured) | Sq.m | **1079.00** |
|  |  |  |  |
| **15408** | Add extra for excavation in or under water and on liquid mud including cost of pumping and complete (extra rate per cu.m. of excavation qty. in saturated soil strata considering actual water table level during the construction as datum ) |  |  |
| a | Excavation work up to 1.5m depth from datum (measured from saturated soil/ strata level). | Cu.m | **448.00** |
| b | Excavation work upto 3.00m. depth from datum (measured from saturated soil/ strata level). | Cu.m | **781.00** |
| c | Excavation work upto 4.50 m depth from datum (measured from saturated soil/ strata level). | Cu.m | **1330.00** |
| d | Excavation work upto 6.0 m & above depth from datum (measured from saturated soil/ strata level). | Cu.m | **2473.00** |
|  | | | |
| **15409** | Pumping/bailing out water from the trench excavated in saturated soil strata to maintain dry/favourable working conditions while, rubble packing, laying, jointing & satisfactory testing of the sewer lines and allied works of manholes, construction encasing etc. (Payments are per finished pipelines length including manholes). |  |  |
| **I** | **For pipelines up to 300 mm dia** |  |  |
| a | For works up to 1.50 m depth or part thereof (measured from saturated soil/ strata level). | Metre | **293.00** |
| b | For works upto to 3.0 m.depth or part thereof (measured from saturated soil/ strata level). | Metre | **479.00** |
| c | For works upto to 4.50 m.depth or part thereof (measured from saturated soil/ strata level). | Metre | **725.00** |
| d | For works upto to 6.0 m.depth or more (measured from saturated soil/ strata level). | Metre | **1045.00** |
| **II** | **For pipelines between 350 mm dia and 600 mm dia** |  |  |
| a | For works up to 1.50 m depth or part thereof (measured from saturated soil/ strata level). | Metre | **327.00** |
| b | For works upto to 3.0 m.depth or part thereof (measured from saturated soil/ strata level). | Metre | **529.00** |
| c | For works upto to 4.50 m.depth or part thereof (measured from saturated soil/ strata level). | Metre | **809.00** |
| d | For works upto to 6.0 m.depth or more (measured from saturated soil/ strata level). | Metre | **1164.00** |
| **III** | **For pipelines from 650 mm dia and above** |  |  |
| a | For works up to 1.50 m depth or part thereof (measured from saturated soil/ strata level). | Metre | **404.00** |
| b | For works upto to 3.0 m.depth or part thereof (measured from saturated soil/ strata level). | Metre | **654.00** |
| c | For works upto to 4.50 m.depth or part thereof (measured from saturated soil/ strata level). | Metre | **999.00** |
| d | For works upto to 6.0 m.depth or more (measured from saturated soil/ strata level). | Metre | **1438.00** |
|  |  |  |  |
| **15410** | Hydraulic testing of the sewer line as per IS :4127 including the cost of testing equipment and materials such as pump, water, labour, tools and plants and maintaining the necessary records etc. complete as directed by the Engineer- in-charge |  |  |
| a | 150mm diameter | Metre | **39.00** |
| b | 200mm diameter | Metre | **53.00** |
| c | 230 mm diameter | Metre | **64.00** |
| d | 250mm diameter | Metre | **72.00** |
| e | 300mm diameter | Metre | **95.00** |
|  | | | |
| **15411** | Providing and fixing C.I. foot rest having minimum weight 5.3 kgs in manhole with 20x20x10cm cement concrete blocks 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) as per standard design. | Each | **1389.00** |
|  | | | |
| **15412** | Providing drop connection externally for 60cm drop from branch sewer line to main sewer manhole including inspection and cleaning eyes with chain and lid, HDPE drop pipe line, bend, all encased around with cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) with all centering shuttering required, cutting holes in manhole wall and making good with brick work in cement mortar 1:5 (1 cement : 5 coarse sand), plastering with cement mortar 1:3(1 cement : 3coarse sand) on inside of the manhole wall, HDPE welded joints between pipe, bend, drop including making required channels as per standard design and specification, etc. complete as directed by the engineer- in-charge. |  |  |
| a | With 110 mm OD HDPE pipe drop connection | Each | **4200.00** |
| b | With 160 mm OD HDPE pipe drop connection | Each | **6445.00** |
| c | With 180 mm OD HDPE pipe drop connection | Each | **6553.00** |
| d | With 200 mm OD HDPE pipe drop connection | Each | **6799.00** |
| e | With 225 mm OD HDPE pipe drop connection | Each | **7149.00** |
| f | With 250 mm OD HDPE pipe drop connection | Each | **7563.00** |
| g | With 280 mm OD HDPE pipe drop connection | Each | **8087.00** |
| h | With 315 mm OD HDPE pipe drop connection | Each | **9910.00** |
|  |  |  |  |
| **15413** | Extra for depth beyond 60cm of HDPE PIPE drop connection- |  |  |
| a | With110 mm OD HDPE pipe drop connection | Metre | **2153.00** |
| b | With160 mm OD HDPE pipe drop connection | Metre | **2169.00** |
| c | With 180 mm OD HDPE pipe drop connection | Metre | **2414.00** |
| d | With 200 mm OD HDPE pipe drop connection | Metre | **2666.00** |
| e | With 225 mm OD HDPE pipe drop connection | Metre | **3487.00** |
| f | With 250 mm OD HDPE pipe drop connection | Metre | **3872.00** |
| g | With 280 mm OD HDPE pipe drop connection | Metre | **4392.00** |
| h | With 315 mm OD HDPE pipe drop connection | Metre | **5003.00** |
|  | | | |
| **15414** | Providing and fixing square mouth S.W. gully trap grade 'A" complete with C.I. Grading brick masonry chamber and water light C.I. cover with frame 300x300mm size (inside) the weight of the cover to be not less than 4.53kg and frame to be not less than 2.72kg as per standard design. |  |  |
| a | 100 mm x 100 mm size P or S type | Each | **3667.00** |
| b | 150 mmx 100mm P or Stype | Each | **4445.00** |

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| **RECTANGULAR MANHOLE INCLUSIVE OF COST OF MANHOLE COVER & FRAME** | | | |
| **15415** | Construction of manhole rectangular in shape including cement concrete 1:3:6 (1 cement:3 coarse sand:6 graded stone aggregate 20mm nominal size) foundation thickness of concrete 20cms and offset 10cms on both sides and first class brick work with bricks class designation 100kg/sq.cm (wire cut bricks) cement mortar 1:3 (1 cement : 3 coarse sand) 23cms thick including providing & fixing CI footrests confirming to IS 5445/69 or revised and whose weight shall not be less than 5.30kgs including fixing in man-hole at 30cm c / c in 20x 20x10cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) and 12mm thick plaster inside and outside with cement mortar 1:3 (1 cement : 3 coarse sand) including adding waterproofing compound of approved brand in cement mortar with a floating coat of neat cement and making channel in cement concrete 1:2:4 (1 cement :2 coarse sand : 4 graded stone aggregate 20m nominal size) neatly finished complete as per standard design. |  |  |
| **I** | Inside size 0.45x 0.45m and 0.60m deep (with medium duty DI manhole cover & frame of size 0.45x 0.45m weighing 45kgs) including fixing with cement concrete 1:2:4 (1 cement :2 coarse sand: 4 graded stone aggregate 20mm nominal size and applying the frame & cover with coal tar. | Each | **17260.00** |
| **II** | Inside size 0.45x 0.60m and 0.60m deep (with medium duty DI manhole cover & frame of size 0.45x 0.60m weighing 70kgs) including fixing with cement concrete 1:2:4 (1 cement :2 coarse sand: 4 graded stone aggregate 20mm nominal size and applying the frame & cover with coal tar. | Each | **22866.00** |
| **III** | Inside size 0.60x0.60m and 0.60m deep (with medium duty DI manhole cover & frame of size 0.60x 0.60m weighing 90kgs ) including fixing with cement concrete 1:2:4 ( 1 cement :2 coarse sand : 4 graded stone aggregate 20mm nominal size and applying the frame & cover with coal tar. | Each | **23371.00** |
| **IV** | Inside size 0.90 x 0.60m and 1.00m deep ( with medium duty DI manhole cover & frame of size 0.90x 0.60m weighing 105 kgs including fixing with cement concrete 1:2:4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size and applying the frame & cover with coal tar.) | Each | **35465.00** |
| **15416** | Extra/Additional depth of above square/ rectangular manholes at above item no.infractions with 100kg/sq.cm(wire cut bricks) brickwork in cement mortar 1:3 (1cement:3coarse sand) 23cm thick including providing and fixing CI footrests not weighing less than 5.30kgs incl. fixing in manholes @ 30cmc/c staggered in 20x20x10cm cement concrete blocks 1:3:6(1cement:3coarse sand :6graded stone aggregate 20mm nominal size) 12mm thick plaster inside and outside with cement mortar 1:3 (1cement :3coarse sand)including adding water proofing compound of approved brand with a floating coat of neat cement. |  |  |
| **I** | 0.45 x 0.45m Manholes. | Per cm | **134.00** |
| **II** | 0.45 x 0.60m Manholes. | Per cm | **145.00** |
| **III** | 0.60 x 0.60m Manholes. | Per cm | **155.00** |
| **IV** | 0.90 x 0.60m Manholes. | Per cm | **179.00** |
|  |  |  |  |
| **15417** | Providing and fixing RCC vent shaft of 7.30 m total height including necessary , CC 1:2:4, connecting RCC NP3 class pipes, encased with CC 1:2:4 etc. as per standard drawing. | Each | **27445.00** |
|  | | | |
| **15418** | Providing and laying cement concrete 1:3:6 with (1 cement :3 coarse sand : 6 graded granitic or basalt 20mm nominal size) for hunching including necessary centering shuttering and form work around SW SG pipes including concrete as per standard design given IS:4127. |  |  |
| a | 100mm dia S.W. pipes | Metre | **821.00** |
| b | 150mm dia S.W. pipes | Metre | **902.00** |
| c | 200mm dia S.W. pipes | Metre | **1050.00** |
| d | 230mm dia S.W. pipes | Metre | **1145.00** |
| e | 250mm dia S.W. pipes | Metre | **1205.00** |
| f | 300mm dia S.W. pipes | Metre | **1353.00** |
|  |  |  |  |
| **15419** | Providing and laying cement concrete 1:2:4 with (1 cement :2 coarse sand : 4 graded granitic or basalt 20mm nominal size) for haunching including necessary centering shuttering and form work around SW SG pipes including concrete as per standard design given IS:4127. |  |  |
| a | 100mm dia S.W. pipes | Metre | **1291.00** |
| b | 150mm dia S.W. pipes | Metre | **1382.00** |
| c | 200mm dia S.W. pipes | Metre | **1712.00** |
| d | 230mm dia S.W. pipes | Metre | **1818.00** |
| e | 250mm dia S.W. pipes | Metre | **1886.00** |
| f | 300mm dia S.W. pipes | Metre | **2053.00** |
|  | | | |
| **15420** | Providing and laying cement concrete 1:3:6 (1cement : 3 coarse sand: 6 grade granite or basaltic stone 20mm nominal size) including centering shuttering and form work for encasing around S.W. pipes including bed concrete as per standard design in IS:4127. |  |  |
| a | 100mm dia S.W. pipes | Metre | **1546.00** |
| b | 150mm dia S.W. pipes | Metre | **1631.00** |
| c | 200mm dia S.W. pipes | Metre | **1981.00** |
| d | 230mm dia S.W. pipes | Metre | **2098.00** |
| e | 250mm dia S.W. pipes | Metre | **2176.00** |
| f | 300mm dia S.W. pipes | Metre | **2364.00** |
|  |  |  |  |
| **15421** | Providing and laying cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 grade granite or basaltic stone 20mm nominal size) including centering shuttering and form work for encasing around S.W. pipes including bed concrete as per standard design in I S:4127. |  |  |
| a | 100mm dia S.W. pipes | Metre | **1634.00** |
| b | 150mm dia S.W. pipes | Metre | **1724.00** |
| c | 200mm dia S.W. pipes | Metre | **2089.00** |
| d | 230mm dia S.W. pipes | Metre | **2214.00** |
| e | 250mm dia S.W. pipes | Metre | **2298.00** |
| f | 300mm dia S.W. pipes | Metre | **2500.00** |
|  | | | |
| **15422** | Making connections of drain or sewer line with existing manholes including Breaking and making good the walls, floors with cement concrete 1:2:4 (1 cement :2 coarse sand :4 graded stone as ggrt. 20mm nominal size) 12mm thick cement plaster on both sides with cement plaster on both sides with cement mortar 1:3 (1 cement :3 coarse sand) finished with floating coat of neat cement and making necessary channels for drains etc. complete. |  |  |
| a | For pipes 100 to 230 mm dia | Each | **286.00** |
| b | For pipes 250 to 300 mm dia | Each | **331.00** |
| c | For pipes 350 to 450 mm dia | Each | **881.00** |
|  | | | |
| **15423** | Supplying of heavy duty C.I Cover with frame weighing not less than 230 kg- 500mm diameter as per IS 1726-1976 with latest amendments | Each | **19266.00** |
|  |  |  |  |
| **15424** | Supplying and fixing C.I Cover 300x300mm with frame for gully trap (standard pattern the weight of cover to be not less than 7.0 kg | Each | **1306.00** |
|  | | | |
| **15425** | Detecting the Manhole location by metal detector and Raising manhole cover and frame slab to the required level including dismantling and demolishing disposing existing slab and making good the damage by reconstructing the R.C.C slab at desired level including fixing of frame and cover to the perfect fixing as required upto a depth of 20cms or part thereof. |  |  |
| a | Circular manhole 0.9m,1.2m and 1.5m dia | Each | **5104.00** |
| b | Rectangular manhole1.2 x 0.9m | Each | **5837.00** |
|  |  |  |  |
| **15426** | Constructing brick masonry road gully chamber 50x45x60 cm with bricks of class designation 100kg/sq.cm (wire cut bricks) in cement mortar 1:4 (1 cement : 4 coarse sand) including providing and fixing precast R.C.C. cover complete as per standard design. | Each | **8415.00** |
|  |  |  |  |
| 15427 | Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks of class designation 100kg/sq.cm (wire cut bricks)in cement mortar 1:4 (1 cement : 4 coarse sand) including providing and fixing precast R.C.C. cover complete as per standard design. | Each | **9270.00** |
|  |  |  |  |
| 15428 | Constructing brick masonry road gully chamber 110x50x77.5 cm with bricks of class designation 100kg/sq.cm(wire cut bricks) in cement mortar 1:4 (1 cement : 4 coarse sand) including providing and fixing precast R.C.C. cover complete as per standard design. | Each | **15052.00** |
|  | | | |
| 15429 | Constructing brick masonry chamber for underground C.I. inspection chamber and bends with 100 kg/ sq.cm (wire cut bricks) class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame not less than 38 kgs(minimum weight of cover 23 kgs& frame 15kgs )R.C.C top slab in 1:2:4 mix( 1: cement: 2 coarse sand:4 graded stone aggregate 20 mm nominal size)foundation concrete 1:5:10( 1: cement: 5 coarse sand:10 graded stone aggregate 40 mm nominal size) inside plastering inside surface with c:m 1:3( 1:cement:3 coarse sand) finished with a floating coat of neat cement on walls and bed concrete etc complete as per standard design |  |  |
| a | Inside dimensions 455x610 mm and 45 cm deep for single pipe line | Each | **13272.00** |
| b | Inside dimensions 500x700 mm and 45 cm deep for pipe line with one or two inlets | Each | **14177.00** |
| c | Inside dimensions 600x 850 mm and 45 cm deep for pipe line with three or more inlets | Each | **16116.00** |
|  |  |  |  |
| **15430** | Providing and fixing at the site of work orange colour safety foot rest of minimum 6mm thick plastic encapsulated as per IS:10910 on 12mm dia steel bar conforming to IS:1786 having minimum cross section as 23mm x 25mm and over all minimum length 263mm and width as 165mm with minimum 112mm space between protruded legs having 2mm thread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138mm as per standard drawing and suitable to withstand the bend test and chemical resistance test as per specifications and having manufactures permanent identification mark to be visible even after fixing including fixing in manholes with 30x20x15 in Cement Concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate. 20 mm nominal Size) complete as per standard design. | Each | **696.00** |
|  | | | |
| **15431** | Providing and fixing leak proof HDPE collar type clamps for the holes in the manholes, made for the entry of sewer lines in to the manholes to have a perfect leak-proof joint between masonry/ concrete/R.C.C surface of manhole and the HDPE surface of sewer |  |  |
| a | With 160 mm OD HDPE pipe drop connection | Each | **139.00** |
| b | With 180 mm OD HDPE pipe drop connection | Each | **175.00** |
| c | With 200 mm OD HDPE pipe drop connection | Each | **217.00** |
| d | With 225 mm OD HDPE pipe drop connection | Each | **274.00** |
| e | With 250 mm OD HDPE pipe drop connection | Each | **337.00** |
| f | With 280 mm OD HDPE pipe drop connection | Each | **424.00** |
| g | With 315 mm OD HDPE pipe drop connection | Each | **535.00** |
|  | | | |
| **15432** | construction of coffer dam in order to segregate the working area for laying of sewer lines across the nallah or drainage including all material, labour, tools and plants complete as directed by the engineer-in-charge. | Metre | **3845.00** |
|  |  |  |  |
| **MANHOLES** | | | |
| **CONICAL BRICK MASONRY MANHOLES** | | | |
| **15433** | Construction of manhole conical in shape including cement concrete 1:2:4 ( 1 cement:2coarse sand:4 graded stone aggregate 20mm nominal size) foundation thickness of concrete 25cms and offset 15cms on both sides and first class brick work with bricks class designation **100**kg/sq.cm(wire cut bricks) in cement mortar 1:3 (1 cement : 3 coarse sand) 35cms thick including providing & fixing CI footrests confirming to IS 5445/69 or revised and whose weight shall not be less than 5.30kgs including fixing in man-hole at 30cm c/c in 20 x 20 x 10cm cement concrete block 1:2:4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) and 12mm thick plaster inside and outside with cement mortar 1:3 (1 cement : 3 coarse sand) including adding waterproofing compound of approved brand in cement mortar with a floating coat of neat cement and making channel in cement concrete 1:2:4 ( 1 cement :2 coarse sand : 4 graded stone aggregate 20m nominal size) neatly finished including providing and fixing manhole cover and frame in cement concrete 1:2:4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) complete as per standard design. |  |  |
| **A** | Supply of 500mm dia heavy duty solid type C.I. circular cover and frame weighing not less than 230 kgs. |  |  |
| (i) | **0.90m dia** |  |  |
|  | (a) 1.00m deep | Each | **52498.00** |
|  | (b) 1.50m deep | Each | **54848.00** |
|  |  |  |  |
| (ii) | **1.20m dia** |  |  |
|  | (a) 1.50m deep | Each | **74578.00** |
|  | (b) 2.00m deep | Each | **87788.00** |
|  | (c) 2.50m deep | Each | **102655.00** |
|  |  |  |  |
| **B** | Supply 500mm dia D.I. heavy duty class C-250 circular cover with square frame weighing not less than 65 kgs. |  |  |
| (i) | **0.90m dia** |  |  |
|  | (a) 1.00m deep | Each | **45385.00** |
|  | (b) 1.50m deep | Each | **47736.00** |
|  |  |  |  |
| (ii) | **1.20m dia** |  |  |
|  | (a) 1.50m deep | Each | **59444.00** |
|  | (b) 2.00m deep | Each | **80676.00** |
|  | (c) 2.50m deep | Each | **95542.00** |
|  |  |  |  |
| **C** | Supply 500mm dia SFRC cover consisting of cast iron frame of 12mm thick having four prizing slots and cover embedded in 12mm thick cast iron ring suiting to fit into the frame. |  |  |
| (i) | **0.90m dia** |  |  |
|  | (a) 1.00m deep | Each | **42118.00** |
|  | (b) 1.50m deep | Each | **44469.00** |
|  |  |  |  |
| (ii) | **1.20m dia** |  |  |
|  | (a) 1.50m deep | Each | **56176.00** |
|  | (b) 2.00m deep | Each | **77408.00** |
|  | (c) 2.50m deep | Each | **92276.00** |
|  |  |  |  |
| **15434** | Add extra for conical brick masonry manhole for fractional depth of each one centimetre or part thereof for |  |  |
| a | 0.90m dia manhole | Per cm | **247.00** |
| b | 1.2m dia manhole | Per cm | **294.00** |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **COMPOSITE CONICAL MANHOLE AS PER STANDARD DRAWING** | | | |
| **15435** | Construction of manholes conical in shape at top including laying cement concrete 1:1.5:3 (1cement:1.5coarse sand:3graded stone aggregate 20mm nominal size) at base thickness of concrete as per diagram and offset 15cm and PCC 1:2:4 (1cement:2coarse sand :4graded stone aggregate 20mm nominal size)in vertical and conical wall with first class brick work in cement mortar 1:3 (1cement:3 coarse sand) with bricks of class designation **100** kg/sq.cm (wire cut bricks) incl.fixing C.I.footrests confirming to IS 5455/69 or revised whose weight shall not be less than 5.30kg including fixing in manhole at 30cm c/c staggered in 20x20x15cm cement concrete blocks 1:2:4 (1cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and 12mm thick plaster with cement mortar 1:3 (1 cement:3 coarse sand) inside and outside with water proofing compound and a floating coat of neat cement & providing and fixing C.I.manhole frame and cover 50cm dia heavy duty both weighing 230kgs in cement concrete 1:2:4 (1cement:2coarse sand:4 graded stone aggregate 20mm nominal size) and applying the frame and cover with coal tar and making channels in cement concrete 1:2:4 ( 1 cement : 2 Coarse sand: 4 graded stone aggregate 20mm nominal size) and neatly finished complete as per standard design. Cost of manhole inclusive of frame cover & footrest. |  |  |
| **A** | With 500mm dia heavy duty solid type C.I. circular cover and frame weighing not less than 230 kgs. |  |  |
| (i) | **1.20m dia** |  |  |
|  | 2.00 m depth | Each | **80697.00** |
|  | 2.50 m depth | Each | **90817.00** |
| (ii) | **1.50m dia** |  |  |
|  | 2.50 m depth | Each | **102333.00** |
|  | 3.00 m depth | Each | **120895.00** |
|  | 4.00 m depth | Each | **150454.00** |
|  | 5.00 m depth | Each | **174982.00** |
|  |  |  |  |
| **B** | With 500mm dia D.I. heavy duty class C-250 circular cover with square frame weighing not less than 65 kgs. |  |  |
| (i) | **1.20m dia** |  |  |
|  | 2.00 m depth | Each | **73585.00** |
|  | 2.50 m depth | Each | **83704.00** |
| (ii) | **1.50m dia** |  |  |
|  | 2.50 m depth | Each | **95221.00** |
|  | 3.00 m depth | Each | **113783.00** |
|  | 4.00 m depth | Each | **143342.00** |
|  | 5.00 m depth | Each | **167869.00** |
|  |  |  |  |
| **C** | With 500mm dia SFRC cover consisting of cast iron frame of 12mm thick having four prizing slots and cover embedded in 12mm thick cast iron ring suiting to fit into the frame. |  |  |
| (i) | **1.20m dia** |  |  |
|  | 2.00 m depth | Each | **70318.00** |
|  | 2.50 m depth | Each | **80437.00** |
| (ii) | **1.50m dia** |  |  |
|  | 2.50 m depth | Each | **91954.00** |
|  | 3.00 m depth | Each | **110516.00** |
|  | 4.00 m depth | Each | **140074.00** |
|  | 5.00 m depth | Each | **164602.00** |
|  |  |  |  |
| **15436** | Add extra for composite manhole for fractional depth for each one centimetre or part thereof |  |  |
| a | 1.20m dia | Per cm | **260.00** |
| b | 1.50m dia | Per cm | **300.00** |
|  |  |  |  |
|  |  |  |  |
| **SCRAPPER TYPE MANHOLE** | | | |
| **15437** | **Construction of scrapper manhole in R.C.C as per standard drawing of 1.8m diameter consisting of** |  |  |
| **I (a)** | Circular cylindrical R.C.C section in design mix M-30 of wall thickness 0.20m for the required height |  |  |
| (b) | Bottom R.C.C raft of 0.2m thickness in design mix M-30 |  |  |
| (c) | Laid on a bed concrete of 0.2m in C.C.in design mix M-15 |  |  |
| (d) | Plastering the inside and outside surfaces of manhole in c:m 1:3 with water proofing compound. |  |  |
| (e) | Benching , making channel at the bottom of the manhole in cement concrete 1:2:4. |  |  |
| (f) | C.C top slab in 15cms thick in M-15 mix to fix the manhole cover and frame |  |  |
| (g) | Providing and fixing 2nos heavy duty manhole covers with frame. |  |  |
| (h) | Providing and fixing of C.I. foot rests confirming to IS 5445/69 or revised and whose weight shall not be less than 5.30 kgs at a spacing of 30 cms centre to centre in staggered manner, including fixing in manholes with 20x20x10 in Cement Concrete blocks 1:2:4 (1 cement: 2 coarse sand : 4 graded stone aggregate. 20 mm nominal Size) complete as per standard design. |  |  |
| (i) | Water tightness test as per IS 3370 |  |  |
| (j) | Including the cost of centering,shuttering, reinforcement,material, labour tools as required for completion of work complete as per the direction of the Engineer- in-charge. |  |  |
| **A** | With 500mm dia heavy duty solid type C.I. circular cover and frame weighing not less than 230 kgs. |  |  |
|  | Depth of manhole in metre |  |  |
|  | (a) 3.00 | Each | **222450.00** |
|  | (b) 4.00 | Each | **241740.00** |
|  | (c) 5.00 | Each | **294119.00** |
|  |  |  |  |
| **B** | With 500mm dia D.I. heavy duty class C-250 circular cover with square frame weighing not less than 65 kgs. |  |  |
|  | Depth of manhole in metre |  |  |
|  | (a) 3.00 | Each | **208225.00** |
|  | (b) 4.00 | Each | **227514.00** |
|  | (c) 5.00 | Each | **279894.00** |
|  |  |  |  |
| **C** | With 500mm dia SFRC cover consisting of cast iron frame of 12mm thick having four prizing slots and cover embedded in 12mm thick cast iron ring suiting to fit into the frame. |  |  |
|  | Depth of manhole in metre |  |  |
|  | (a) 3.00 | Each | **201691.00** |
|  | (b) 4.00 | Each | **220980.00** |
|  | (c) 5.00 | Each | **273360.00** |
|  |  |  |  |
| **15438** | Add extra for each centimetre or part thereof depth for scrapper manhole | Per cm | **352.00** |
| **15439** | Supplying, of HDPE pipes at store or site of work including loading & unloading stacking, transit insurance etc. Complete bearing ISI mark conforming to IS: **14333 - 1996** and made from **PE 100** resin Class IV **(6kg/cm2)** |  |  |
|  | PE 100 PN 6 |  |  |
| a | 160 | Metre | **819.00** |
| b | 180 | Metre | **1030.00** |
| c | 200 | Metre | **1280.00** |
| d | 225 | Metre | **1617.00** |
| e | 250 | Metre | **1983.00** |
| f | 280 | Metre | **2499.00** |
| g | 315 | Metre | **3153.00** |
| h | 355 | Metre | **4002.00** |
| i | 400 | Metre | **5207.00** |
| j | 450 | Metre | **6593.00** |
| k | 500 | Metre | **8114.00** |
| l | 560 | Metre | **10153.00** |
| m | 630 | Metre | **12860.00** |
| n | 710 | Metre | **16479.00** |
| o | 800 | Metre | **21011.00** |
| p | 900 | Metre | **26596.00** |
| q | 1000 | Metre | **33967.00** |
|  |  |  |  |
| **15440** | Supplying, of HDPE pipes at store or site of work including loading & unloading stacking, transit insurance etc. Complete bearing ISI mark conforming to IS: **14333 - 1996** and made from **PE 80** resin Class **IV(6kg/cm2)** |  |  |
|  | PE 80 PN 6 |  |  |
| a | 160 | Metre | **1685.00** |
| b | 180 | Metre | **2127.00** |
| c | 200 | Metre | **2649.00** |
| d | 225 | Metre | **3849.00** |
| e | 250 | Metre | **4765.00** |
| f | 280 | Metre | **5972.00** |
| g | 315 | Metre | **7767.00** |
| h | 355 | Metre | **9866.00** |
| i | 400 | Metre | **12812.00** |
| j | 450 | Metre | **16184.00** |
| k | 500 | Metre | **22694.00** |
| l | 560 | Metre | **28455.00** |
| m | 630 | Metre | **36003.00** |
| n | 710 | Metre | **45750.00** |
| o | 800 | Metre | **57928.00** |
| 15441 | Supplying, of HDPE pipes at store or site of work including loading & unloading stacking, transit insurance etc. Complete bearing ISI mark conforming to IS: **14333 - 1996** and made from **PE 100** resin Class **IV(10kg/cm2)** |  |  |
|  | PE 100 PN 10 |  |  |
| a | 160 | Metre | **1240.00** |
| b | 180 | Metre | **1565.00** |
| c | 200 | Metre | **1933.00** |
| d | 225 | Metre | **2450.00** |
| e | 250 | Metre | **3012.00** |
| f | 280 | Metre | **3774.00** |
| g | 315 | Metre | **4787.00** |
| h | 355 | Metre | **6081.00** |
| i | 400 | Metre | **7885.00** |
| j | 450 | Metre | **10005.00** |
| k | 500 | Metre | **12302.00** |
| l | 560 | Metre | **15446.00** |
| m | 630 | Metre | **19519.00** |
|  |  |  |  |
| 15442 | Supplying, of HDPE pipes at store or site of work including loading & unloading stacking, transit insurance etc. Complete bearing ISI mark conforming to IS: **14333 - 1996** and made from **PE 80** resin Class **IV(10kg/cm2)** |  |  |
|  | PE 80 PN 10 |  |  |
| a | 160 | Metre | **1438.00** |
| b | 180 | Metre | **1816.00** |
| c | 200 | Metre | **2251.00** |
| d | 225 | Metre | **2836.00** |
| e | 250 | Metre | **3503.00** |
| f | 280 | Metre | **4404.00** |
| g | 315 | Metre | **5552.00** |
| h | 355 | Metre | **7062.00** |
| i | 400 | Metre | **9144.00** |
| j | 450 | Metre | **11457.00** |
| k | 500 | Metre | **13770.00** |
| **15443** | Construction of brick masonry chamber **90x60x100 cm**  with brick work of class designation **75kg/**sq. cm (wire cut bricks) of 23 cms wall thickness in cement mortar 1: 5(1cement: 5 coarse sand) with necessary excavation in foundation rubble soling , pcc in foundation of 15 & 10 cm thick respectively benching,haunching, in cement concrete 1:2:4 (1 cement :2 coarse sand: 10 graded stone ballast 40 mm nominal size) and inside plastered with CM 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement complete and external plaster of 18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1 : 5 (1 cement :5 coarse sand) and top layer 6mm thick in cement plaster 1:3 (1 cement :3 coarse sand) all other materials and labour as per details above) | Each | **14484.00** |
|  |  |  |  |
| 15444 | Construction of brick masonry chamber **90x60x100 cm**  with brick work of class designation **40**kg/sq. cm of 23 cms wall thickness in cement mortar 1:5 (1cement : 5coarse sand)with necessary excavation in foundation rubble soling, PCC in foundation of 15 & 10 cm thick respectively benching,haunching , in cement concrete concrete 1:2:4 (1 cement :2 coarse sand: 10 graded stone ballast 40 mm nominal size) and inside plastered with CM 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement complete and external plaster of 18 mm cement plaster in two coats under layer 12 mm thickcement plaster 1 : 5 (1 cement :5 coarse sand) and top layer 6mm thick in cement plaster 1:3 (1 cement :3 coarse sand) all other materials and labour as per details above) | Each | **13491.00** |
|  |  |  |  |
| 15445 | Construction of brick masonry chamber **60x45x100 cm**  with brick work of class designation **75**kg/sq. cm (wire cut bricks)of 23 cms wall thickness in 1:3 cement mortar (1cement: 3coarse sand)with necessary excavation in foundation rubble soling, PCC in foundation of 15 & 10 cm thick respectively benching,haunching , in cement concrete 1:2:4 (1 cement :2 coarse sand: 10 graded stone ballast 40 mm nominal size) and inside plastered with CM 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement complete and external plaster of 18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1 : 5 (1 cement :5 coarse sand) and top layer 6mm thick in cement plaster 1:3 (1 cement :3 coarse sand) all other materials and labour as per details above) | Each | **10338.00** |
|  |  |  |  |
| **15446** | Construction of brick masonry chamber 60**x45x100 cm**  with brick work of class designation **40**kg/sq. cm of 23 cms wall thickness in 1:5 cement mortar (1cement : 3coarse sand)with necessary excavation in foundation rubble soling , pcc in foundation of 15 & 10 cm thk respectively benching ,haunching , in cement concrete concrete 1:2:4 (1 cement :2 coarse sand: 10 graded stone ballast 40 mm nominal size) and inside plastered with CM 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement complete and external plaster of 18 mm cement plaster in two coats under layer 12 mm thickcement plaster 1 : 5 (1 cement :5 coarse sand) and top layer 6mm thick in cement plaster 1:3 (1 cement :3 coarse sand) all other materials and labour as per details above) | Each | **10383.00** |
|  |  |  |  |
| 15447 | Opening jammed manhole covers covered with asphalt due to constant plying of heavy vehicles to facilitate releasing of house **Sewer** connection,cleaning o manholes or sewer line as and when required as directed by Engineer-in-charges. | Each | **379.00** |
|  |  |  |  |
| 15448 | Desilting the gritty and silt deposits from manholes including necessary arrangements for lifting the deposits taking out and disposal within 5 K.m.s. as directed by the Engineer-in-charge |  |  |
| A | Manholes of upto 2.0 M depth | Each | **1124.00** |
| B | Manholes of upto 3.0 M depth | Each | **1148.00** |
| C | Manholes of 3.0 M depth upto 6.0 M depth | Each | **1682.00** |
|  |  |  |  |
| 15449 | Identifying of choked in Sewer lines between two consecutive manholes cleaning and removal of all choked materials without excavating for pipes of Sewer and disposal of unserviceable rubbish, dirty materials etc. as directed within alead of 3km,from worksite ,and restoration of Sewers to functioning and flushing the Sewers, including necessary dewatering,Sewer cleaning,rodding and scavenging arrangements all complete within 8 hours from written instruction by Engineer-in-charge. | Each | **140.00** |
|  |  |  |  |
| 15450 | Flushing and rodding the Sewerlines to clear the chokes and removal of grit and silt so accumulated in manholes due to flushing and rodding outside and disposal to a distance of 5 km including,providing necessary tools, rods, flushing water tankers,ladders,safety equipment etc. complete. | R.Metre | **92.00** |
|  |  |  |  |
| 15451 | Pumping the Sewage from upstream Sewers to downstream to prevent overflow's when Sewer fails to function or when in case of major faults and when the line has to be rectified as directed by Engineer-in-charge, until rectification work is started. | Per Hour | **585.00** |
|  |  |  |  |
| 15452 | Plugging of manhole both from upstream and pumping of Sewage from upstream or downstream sides while carrying out rectification of the Sewerlines /removing chokeup with sand bags and removing the same plugging after completion of the said work and making way for the smooth flow of sewage as directed by Engineer-in-charge. | Per Manhole | **14002.00** |

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| **CHAPTER IX** |
| MISCELLANEOUS |

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| Item No | **Description** | **Unit** | **Rate** |
| **15501** | Construction of meter box of size1.00x0.45x0.90 m in laterite stone masonry in cement mortar1:5(1cement :5coarse sand).Foundation concrete of 8cm thick 1:4:8 (1 cement : 4 coarse sand : 8 graded granitic or basaltic stone aggregate 40mm nominal size) RCC top slab 8cm thick 1:2:4 (1Cement:2 coarse sand:4 graded granitic or basaltic stone aggregate 20mm nominal size) including high yield steel bars 8mm dia. 4 nos. each in both directions finished with 12mm thick cement plaster 1:6 (1 cement:6 coarse sand) including white washing with lime, two or more coats to give an even shade. Providing & fixing door cover of mild steel angle frame of size 20mmx20mmx3mm including necessary hinges and holdfast of size 100mmx20mmx3mm (2 Nos.), paintings etc. complete as directed by the Departmental Officer (rate inclusive of earthwork in excavation, rubble packing 10cm thick, refilling of excavated earth etc. complete as per the standard drawing). |  |  |
| (a) | In the various Scattered locations as per the direction of the Engineer -in-charge | Each | **4853.00** |
|  | | | |
| **15502** | Supply of water by tanker for domestic/commercial purpose (to & fro trip),excluding cost of water including the cost of hire charges of the vehicle with water tanker (with stainless steel lining for internal surface of the water tanker), wages of driver, mazdoor, hose pipe for a length of 20 metres , cost of diesel, oil lubricant, etc. complete as per the direction of the Engineer in-charge. |  |  |
| a | For a distance upto 10 kilometres( to & fro totalled together) | Cu. m. | **248.00** |
| b | For a distance upto 20 kilometres( to & fro totalled together) | Cu. m. | **274.00** |
| c | For a distance upto 30 kilometres( to & fro totalled together) | Cu. m. | **287.00** |
| d | For a distance upto 40 kilometres( to & fro totalled together) | Cu. m. | **313.00** |
| e | For a distance upto 50 kilometres( to & fro totalled together) | Cu. m. | **339.00** |
|  | | | |
| **15503** | Supply of cast iron self-closing tap (gravity operated) with pilferage proof arrangement and with ball for self-closing action 20 mm size | Each | **118.00** |
|  | | | |
| **15504** | Dismantling old C.I./D.I. Pipes including excavation and refilling trenches after taking out the pipes, breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes at site, lead up to 50 metres at site. |  |  |
|  | Diameter in mm |  |  |
| a | 80 | Metre | **275.00** |
| b | 100 | Metre | **283.00** |
| c | 125 | Metre | **292.00** |
| d | 150 | Metre | **300.00** |
| e | 200 | Metre | **308.00** |
| f | 250 | Metre | **315.00** |
| g | 300 | Metre | **321.00** |
| h | 350 | Metre | **322.00** |
| i | 400 | Metre | **325.00** |
| j | 450 | Metre | **326.00** |
| k | 500 | Metre | **326.00** |
| l | 600 | Metre | **318.00** |
|  |  |  |  |
| **15505** | Manual cutting of C.I. Pipes with a steel saw/ hacksaw, by cutting the pipe vertically in two pieces including the cost of labour, tools,etc. complete as per the direction of Engineer in-charge |  |  |
|  | Dia in mm |  |  |
| a | 80 | Each | **76.00** |
| b | 100 | Each | **99.00** |
| c | 125 | Each | **136.00** |
| d | 150 | Each | **182.00** |
| e | 200 | Each | **241.00** |
| f | 250 | Each | **298.00** |
| g | 300 | Each | **359.00** |
| h | 350 | Each | **416.00** |
| I | 400 | Each | **476.00** |
| j | 450 | Each | **535.00** |
| k | 500 | Each | **594.00** |
| l | 600 | Each | **709.00** |
|  | | | |
| **15506** | Cutting of cast iron / ductile iron pipes by mechanical grinder working on electricity, including the cost of hire charges of mechanical grinder, diesel operated electrical generator set, suitable for supplying power for the grinder for cutting, cost of grinding blades , skilled work force, fuel.etc. required for completion of job as per the direction of Engineer- in -charge |  |  |
|  | Dia in mm |  |  |
| a | 80 | Each | **215.00** |
| b | 100 | Each | **221.00** |
| c | 125 | Each | **227.00** |
| d | 150 | Each | **235.00** |
| e | 200 | Each | **242.00** |
| f | 250 | Each | **259.00** |
| g | 300 | Each | **277.00** |
| h | 350 | Each | **300.00** |
| i | 400 | Each | **324.00** |
| j | 450 | Each | **355.00** |
| k | 500 | Each | **390.00** |
| l | 600 | Each | **434.00** |
| m | 700 | Each | **489.00** |
| n | 750 | Each | **651.00** |
| o | 800 | Each | **782.00** |
| p | 900 | Each | **981.00** |
| q | 1000 | Each | **1121.00** |
| r | 1100 | Each | **1308.00** |
| s | 1200 | Each | **1570.00** |
|  | | | |
| **15507** | Supply at store/site of work including transportation, loading&unloading etc. Blue Pig lead conforming to BIS specification of 99.99 purity | Kg | **232.00** |
|  | | | |
|  |  |  |  |
| **15508 (a)** | Supply at store/site of work including ,transportation ,loading & unloading, etc. of Alumina ferric containing 16% of Al2O3 content as per IS 299/2012 Grade -IV packed in HDPE bags of uniform weight, suitable for water treatment plant. | M.T. | **24310.00** |
|  | | | |
| **15509** | Conveying transportation , of empty liquid chlorine cylinders from the departmental store to the refilling place , refilling the cylinder to its designed capacity & re- transporting to the departmental store from refilling plant including loading unloading ,freight insurance ,etc. complete |  |  |
| a | 900kgs capacity cylinder | M.T. | **27992.00** |
| b | 100 Kgs capacity cylinder (Minimum 10 cylinder at a time) | M.T. | **60398.00** |
|  | | | |
| **15510** | Supply at store/site of work Bleaching powder stable grade-I, confirming to IS specification 1065:1989 including transportation, loading unloading etc. complete. |  |  |
| a | 34% available chlorine | M.T. | **25669.00** |
| b | 32% available chlorine | M.T. | **25495.00** |
|  | | | |
| **15511** | Supplying of Filter sand of size conforming to the IS specification with latest amendments suitable for Rapid gravity sand filter media (sand) conforming to the IS specification with latest amendments suitable for Rapid gravity sand filter for treating water in treatment plants with following specification as per the sizes as given below;- | Cu. m. | **19978.00** |
|  | 1. Effective size - 4.50mm to 0.70mm |  |  |
|  | 1. Uniformity Co-Efficient - 1.30 to1.70 |  |  |
|  | 1. Specific gravity - 2.55 |  |  |
|  | 1. Silica content more than - 90% |  |  |
|  | 1. Acid Solubility less than - 5% |  |  |
|  | 1. Loss on ignition less than - 1.5% |  |  |
|  | | | |
| **15512** | Supplying of gravel media suitable for rapid gravity sand filter media as desired by the department of following size |  |  |
| a | 6mm to 12mm | Cu. m. | **18061.00** |
| b | 12mm to 38mm | Cu. m. | **18061.00** |
| c | 38mm to 50mm | Cu. m. | **18061.00** |
|  |  |  |  |
| **15513** | Supplying of grit media of size 2mm to 6mm suitable for rapid gravity sand filters as desired by the department . | Cu. m. | **17655.00** |
|  | | | |
| **15513a** | Removal of existing old sand/ grit/ gravel/ pebbles, etc. media from filter beds and disposal of same upto a distance of 100 mts. | Cu. m. | **1742.00** |
|  |  |  |  |
| **15513b** | Laying of new filter media sand grit, gravel, pebble in filter beds as designed by the department including cost of cleaning nozzles, etc. complete. | Cu. m. | **2201.00** |
|  |  |  |  |
|  |  |  |  |
| **15514** | Supplying of M.S. full Threaded/half treaded Nut & bolts | Kg | **139.00** |
|  | | | |
| **15515** | Supply at store/site of work including transportation, loading & unloading hydrated lime containing of 86% of calcium hydroxide Ca(OH)2 as confirming to IS 1540 and tested ,analysed as per IS 1514 packed in HDPE bags suitable for potable water treatment,delivered at water treatment plant from the refilling place etc. complete | M.T. | **17132.00** |
|  |  |  |  |
| **15516** | Supply at store/site of work including transportation, loading & unloading Poly Aluminium Chloride - Powder as per IS 15573:2005 | Kg | **44.00** |
|  |  |  |  |
| **15517** | Transportation from one drilling site to the next site, of the down the hole hammer drilling rig. along with the compressor, supports truck all the allied drilling instruments diesel and oil barrels drilling screw and labourers for all leads. | Each | **8711.00** |
|  |  |  |  |
| **15518** | Setting of drilling rig on the drilling site and its shifting after completion of bore wells, drilling 203/150mm dia bore hole in all types of strata up to a maximum depth of 100mts and collecting and supplying representative sample of all soil rock strata encountered during drilling etc. complete. Over burden drilling 203mm dia and drilling through rock should be 150mm dia. | Metre | **1916.00** |
|  |  |  |  |
| **15519** | Development of borewell using air compressor air/back washing for a period of and less than hours until all lines are flushed out and steady discharge is attend & measuring the well discharge on 90-degree V notch or with a barrels and stop watch. tube wells by upto compressed air/back washing for a minimum period of two hours and all fines are flushed out including equipment for re-drilling and its removal after completion. | No | **18584.00** |
|  |  |  |  |
| **15520** | Providing and fixing threaded well cap of cast iron/G.I suitable for 150mm (6) dia casing pipes bore wells as directed. | Each | **842.00** |
|  |  |  |  |
| **15521** | Flushing existing tubewell with the help of drilling machine,fitted with air compressor including following operations. |  |  |
| a | Transportation of drilling equipment with air compressor,truck, labourers and other allied articles required for drilling / flushing of existing tubewell from one site to other site irrespective of distance including truck, oil and other petty charges. | Each | **8711.00** |
| b | Removal of submersible pumpset from the existing tubewell arranging tripod stand, chain pulley block and labourers as required. | Each | **9292.00** |
| c | Setting of drilling equipment over the existing tubewell after removal of pumpset incl. cleaning all the hindrances nearby to tubewell and flushing tubewell compressor air / back washing for awith min. period of one hour or upto all times are flushed out till water is cleaned conducting yield test with 'V' notch by pumping out water by means of compressor or drilling machine. | Each | **37168.00** |
| d | Reinstallation of submersible pumpset in the tubewell removed from the tubewell or new pump after flushing etc. all complete excluding cost of G.I. pipe reqd. to be replaced if necessary. | Each | **9060.00** |
|  |  |  |  |
| **15522** | Supplying of G.I. seamless collar couplings 50mm dia. | Each | **348.00** |
|  |  |  |  |
| 15523 | Providing 150mm (6") dia. G.I.pipes Medium grade (Class B) conforming to IS 1239/1973 for casing pipe including seam collar coupling, etc. complete and lowering the casing pipes in the drilling holes during drilling including fixing the pipe with socket of welding etc. complete. | RM | **8014.00** |
|  |  |  |  |
| 15524 | Supplying at departmental store, Caustic Soda Flakes with Min 99.5% (as NaOH, dry basis), conforming to IS 252/1991 (With latest amendments), packed in 25/50 Kg HDPE bags with inner HM-HDPE liners, including costs towards freight, loading & unloading, c. complete. | MT | **79667.00** |
|  |  |  |  |
| 15525 | Supplying of centrifugal pump of following capacity at the site of work including loading unloading excluding taxes, freight, loading & etc. complete. |  |  |
| 1 | Three Phase Monoblock Pump Sets of SYNC speed as 3000 RPM of .50HP | Each | **14433.00** |
|  |  |  |  |
| 2 | Three Phase Monoblock Pump Sets of SYNC speed as 3000 RPM of 1.02HP | Each | **17458.00** |
|  |  |  |  |
| 3 | Three Phase Monoblock Pump Sets of SYNC speed as 3000 RPM of 1.50 HP | Each | **20557.00** |
|  |  |  |  |
| 4 | Three Phase Monoblock Pump Sets of SYNC speed as 3000 RPM of 2.0HP | Each | **26620.00** |
|  |  |  |  |
| 5 | Three Phase Monoblock Pump Sets of SYNC speed as 3000 RPM of 3.0HP | Each | **34136.00** |
|  |  |  |  |
| 6 | Three Phase Monoblock Pump Sets of SYNC speed as 3000 RPM of 5.0HP | Each | **44140.00** |
|  |  |  |  |
| 7 | Three Phase Monoblock Pump Sets of SYNC speed as 3000 RPM of 7.5HP | Each | **57194.00** |
|  |  |  |  |
| 8 | Three Phase Monoblock Pump Sets of SYNC speed as 3000 RPM of 10HP | Each | **69967.00** |
|  |  |  |  |
| 9 | Three Phase Monoblock Pump Sets of SYNC speed as 3000 RPM of 12.50 HP | Each | **82753.00** |
|  |  |  |  |
| 10 | Three Phase Monoblock Pump Sets of SYNC speed as 3000 RPM of 15 HP | Each | **86632.00** |
|  |  |  |  |
| 11 | Three Phase Monoblock Pump Sets of SYNC speed as 3000 RPM of 20 HP | Each | **117010.00** |
|  |  |  |  |
| 12 | Three Phase Monoblock Pump Sets of SYNC speed as 3000 RPM of 25 HP | Each | **153574.00** |
|  |  |  |  |
| 13 | Three Phase Monoblock Pump Sets of SYNC speed as 3000 RPM of 30 HP | Each | **180914.00** |
|  |  |  |  |
| 14 | Three Phase Monoblock Pump Sets of SYNC speed as 15000 RPM of 3.0 HP | Each | **40528.00** |
|  |  |  |  |
| 15 | Three Phase Monoblock Pump Sets of SYNC speed as 15000 RPM of 5.0 HP | Each | **49386.00** |
|  |  |  |  |
| 16 | Three Phase Monoblock Pump Sets of SYNC speed as 15000 RPM of 7.50 HP | Each | **74481.00** |
|  |  |  |  |
| 17 | Three Phase Monoblock Pump Sets of SYNC speed as 15000 RPM of 10 HP | Each | **85961.00** |
|  |  |  |  |
| 18 | Three Phase Two stage Monoblock Pump Sets of SYNC speed as 3000 RPM of 5.0 HP | Each | **55425.00** |
|  |  |  |  |
| 19 | Three Phase Two stage Monoblock Pump Sets of SYNC speed as 3000 RPM of 7.50 HP | Each | **68381.00** |
|  |  |  |  |
| 20 | Three Phase Two stage Monoblock Pump Sets of SYNC speed as 3000 RPM of 10 HP | Each | **81325.00** |
|  |  |  |  |
| 21 | Three Phase **Two stage Monoblock** Pump Sets of SYNC speed as **3000** RPM of 12.5 HP | Each | **90988.00** |
|  |  |  |  |
| 22 | Three Phase **Two stage Monoblock** Pump Sets of SYNC speed as **3000** RPM of 15 HP | Each | **100186.00** |
|  |  |  |  |
| 23 | Three Phase **Two stage Monoblock** Pump Sets of SYNC speed as **3000** RPM of 20 HP | Each | **134468.00** |
|  |  |  |  |
| 24 | Three Phase **Two stage Monoblock** Pump Sets of SYNC speed as **3000** RPM of 25 HP | Each | **178608.00** |
|  |  |  |  |
| 25 | Three Phase **Two stage Monoblock** Pump Sets of SYNC speed as **3000** RPM of 30 HP | Each | **200019.00** |
|  |  |  |  |
|  | Submersible Monoblock Pump sets |  |  |
| 26 | Three Phase **Submersible Monoblock** Pump Sets of SYNC speed as **3000** RPM of .5 HP | Each | **19508.00** |
|  |  |  |  |
| 27 | Three Phase **Submersible Monoblock** Pump Sets of SYNC speed as **3000** RPM of 1.02 HP | Each | **22668.00** |
|  |  |  |  |
| 28 | Three Phase **Submersible Monoblock** Pump Sets of SYNC speed as **3000** RPM of 1.50 HP | Each | **28206.00** |
|  |  |  |  |
| 29 | Three Phase **Submersible Monoblock** Pump Sets of SYNC speed as **3000** RPM of 2.0 HP | Each | **33013.00** |
|  |  |  |  |
| 30 | Three Phase **Submersible Monoblock** Pump Sets of SYNC speed as **3000** RPM of 3.0 HP | Each | **35453.00** |
|  |  |  |  |
| 31 | Three Phase **Submersible Monoblock** Pump Sets of SYNC speed as **3000** RPM of 5.0 HP | Each | **39406.00** |
|  |  |  |  |
| 32 | Three Phase **Submersible Monoblock** Pump Sets of SYNC speed as **3000** RPM of 7.50 HP | Each | **53033.00** |
|  |  |  |  |
| 33 | Three Phase **Submersible Monoblock** Pump Sets of SYNC speed as **3000** RPM of 10 HP | Each | **59756.00** |
|  |  |  |  |
| 34 | Three Phase **Submersible Monoblock** Pump Sets of SYNC speed as **3000** RPM of 12.50 HP | Each | **80117.00** |
|  |  |  |  |
| 35 | Three Phase **Submersible Monoblock** Pump Sets of SYNC speed as **3000** RPM of 15.0 HP | Each | **84326.00** |