

| SR. NO. | DESCRIPTION OF WORKS | Make & Model Quoted | Total Qty | UNIT | Unit Supply (Rs.) | Total Amount Supply (Rs.) | Unit Rate Labour (Rs.) | Total Amount Labour (Rs.) | Total Amount Supply + Labour (Rs.) | GST % |
|------------|--|----------------------|-----------|------|-------------------|---------------------------|-------------------------|---------------------------|------------------------------------|-------|
| B | NEW WATER DISTRIBUTION: | | | | | | | | | |
| 1.0 | Chilled Water Piping | | | | | | | | | |
| | Supply, fabrication, assembling, laying, testing and balancing of chilled water piping using Mild Steel Heavy Duty "C" Class Pipes as per IS 1239 Part A & B & IS 3589 with all heavy duty fittings such as bends, elbows, tees etc. and complete with vibration isolators, hangers, full round PU supports as per specifications. The chilled water piping on terrace and outside of the HVAC Plant room shall be suitably supported for proper head room clearance. This supporting arrangement shall be included in the respective pipe sizes and no additional measurements / costs shall be considered. | Zindal / Tata / Sail | | | | | | | | |
| 1.1 | 200 NB[6 mm thk. as per IS 3589] | | 270 | RMT | | | | | | |
| 1.2 | 150 NB[thk. as per IS 1239 - heavy duty] | | 120 | RMT | | | | | | |
| 1.3 | 125 NB[thk. as per IS 1239 - heavy duty] | | 108 | RMT | | | | | | |
| 1.4 | 100 NB[thk. as per IS 1239 - heavy duty] | | 48 | RMT | | | | | | |
| 1.5 | 80 NB[thk. as per IS 1239 - heavy duty] | | 0 | RMT | | | | | | |
| 1.6 | 65 NB[thk. as per IS 1239 - heavy duty] | | 0 | RMT | | | | | | |
| 1.7 | 50 NB[thk. as per IS 1239 - heavy duty] | | 0 | RMT | | | | | | |
| 1.8 | 40 NB[thk. as per IS 1239 - heavy duty] | | 0 | RMT | | | | | | |
| 1.9 | 32 NB[thk. as per IS 1239 - heavy duty] | | 0 | RMT | | | | | | |
| 1.10 | 25 NB[thk. as per IS 1239 - medium duty] | | 0 | RMT | | | | | | |
| 1.11 | 19 NB[thk. as per IS 1239 - medium duty] | | 0 | RMT | | | | | | |
| 1.12 | 15 NB[thk. as per IS 1239 - medium duty] | | 0 | RMT | | | | | | |
| 1.13 | 12.5 NB[thk. as per IS 1239- medium duty] | | 0 | RMT | | | | | | |
| 2.0 | Valves | | | | | | | | | |
| | Supply, installation, testing & commissioning of heavy duty valves PN-16 rated for all valves, as specified and shown on the drawing complete with: | | | | | | | | | |
| | a) Flanges for valves above 50 mm dia and screwed ends with flanges for valves below 50-mm dia. | | | | | | | | | |
| | b) Additional supports | | | | | | | | | |
| | c) Nuts, bolts, gaskets etc. | | | | | | | | | |
| | d) with ports for balancing valves only | | | | | | | | | |
| 2.1 | Butterfly Valves | | | | | | | | | |
| 2.1.1 | 200 mm butterfly valves -with gear control | | 2 | No. | | | | | | |
| 2.1.2 | 150 mm butterfly valves | | 4 | Nos. | | | | | | |
| 2.1.3 | 125 mm butterfly valves | | 22 | Nos. | | | | | | |
| 2.1.4 | 100 mm butterfly valves | | 0 | Nos. | | | | | | |
| 2.1.5 | 80 mm butterfly valves | | 0 | Nos. | | | | | | |
| 2.1.6 | 65 mm butterfly valves | | 0 | Nos. | | | | | | |

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|-------------|--|---------------------|-----------|------|-------------------|---------------------------|-------------------------|---------------------------|------------------------------------|-------|
| | The system shall be suitable for operating pressure upto 16 kg/cm ² g. Capacity calculation based on shop drawing & manufacturer recommendation to be submitted for approval. (Pressurisation unit shall include with complete double pump, PN16, 2CMH, 25mWC), 16 bar, 230V, 50Hz, single phase), pressure regulating valve in make up line with its control cabling, pressure transmitter, IP55 Control Panel Pressure transmitter, Interconnecting Piping Wiring & Canopy suitable for outdoor installation. | | | | | | | | | |
| 7.1 | 500 litres Closed Expansion Tank | | 1 | Set | | | | | | |
| 8.0 | Centrifugal Air Separator | | | | | | | | | |
| | Disconnection, Removal, Relocation, Re-installation of Existing of Centrifugal Air Separator as per specifications & shall be constructed to meet ASME code and is stamped for design pressure and temperature ratings complete with all accessories flange connections with companion flanges, strainer with low pressure drop etc.The air separator shall be suitable for operating pressure of 16kg/cm ² g. | | 1 | Set | | | | | | |
| 9.0 | Magnetic Particle Collector | | | | | | | | | |
| | Disconnection, Removal, Relocation, Re-installation of Existing Magnetic Particle Collector for suitable pipe size in chilled water header line with all accessories as per Specifications. | | 1 | Set | | | | | | |
| 10.0 | Combination Suction Deareator & Dirt Separator | | | | | | | | | |
| | Disconnection, Removal, Relocation, Re-installation of Existing Combination Suction Deareator & Dirt Separator Comprising of Fabricated Vessel consisting of unique tubes for dirt separation, auto air vent, air chamber, collection chamber, drain valve etc. & suitable for pipe size upto 1 x 150 mm with flanged connections & mating flanges. | | 1 | Lot | | | | | | |

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|---------|---|---------------------|-----------|------|-------------------|---------------------------|-------------------------|---------------------------|------------------------------------|-------|
| D | DISCONNECTION & REMOVAL OF EXISTING CH.W.PIPING & ANCILLARIES AT TERRACE & REUSING THEM FOR RE-INSTALLATION, TESTING & COMMISSIONING AT GROUND LEVEL INSTALLATION | | | | | | | | | |

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|------------|---|---------------------|-----------|------|-------------------|---------------------------|-------------------------|---------------------------|------------------------------------|-------|
| 1 | Chilled Water Piping | | | | | | | | | |
| | Disconnecting, Dismantling, Removal, Shifting of existing Insulated Chilled Water Piping from Terrace to GF, re-fabrication, assembling, laying, testing and balancing of chilled water piping using Mild Steel Heavy Duty "C" Class Pipes as per IS 1239 Part A & B & IS 3589 with all heavy duty fittings such as bends, elbows, tees etc. and complete with vibration isolators, hangers, full round PU supports as per specifications. The chilled water piping GF shall be suitably supported for proper head room clearance. This supporting arrangement shall be included in the respective pipe sizes and no additional measurements / costs shall be considered. | | | | | | | | | |
| 1.1 | 200 NB[6 mm thk. as per IS 3589] | | 0 | RMT | | | | | | |
| 1.2 | 150 NB[thk. as per IS 1239 - heavy duty] | | 50 | RMT | | | | | | |
| 1.3 | 125 NB[thk. as per IS 1239 - heavy duty] | | 60 | RMT | | | | | | |
| 1.4 | 100 NB[thk. as per IS 1239 - heavy duty] | | 12 | RMT | | | | | | |
| 1.5 | 80 NB[thk. as per IS 1239 - heavy duty] | | 0 | RMT | | | | | | |
| 2.0 | Valves | | | | | | | | | |
| | Disconnecting, Dismantling, Removal, Shifting & Re-installation, testing & commissioning of heavy duty valves PN-16 rated for all valves, as specified and shown on the drawing complete with: | | | | | | | | | |
| | a) Flanges for valves above 50 mm dia and screwed ends with flanges for valves below 50-mm dia. | | | | | | | | | |
| | b) Additional supports | | | | | | | | | |
| | c) Nuts, bolts, gaskets etc. | | | | | | | | | |
| | d) with ports for balancing valves only | | | | | | | | | |
| 2.1 | Butterfly Valves | | | | | | | | | |
| 2.1.1 | 200 mm butterfly valves -with gear control | | 0 | No. | | | | | | |
| 2.1.2 | 150 mm butterfly valves | | 2 | Nos. | | | | | | |
| 2.1.3 | 125 mm butterfly valves | | 12 | Nos. | | | | | | |
| 2.1.4 | 100 mm butterfly valves | | 0 | No. | | | | | | |
| 2.1.5 | 80 mm butterfly valves | | 0 | No. | | | | | | |
| 2.1.6 | 65 mm butterfly valves | | 0 | No. | | | | | | |
| 2.1.7 | 50 mm butterfly valves | | 0 | No. | | | | | | |
| 2.2 | Ball Valves | | | | | | | | | |
| 2.2.1 | 40 mm ball valves | | 0 | No. | | | | | | |
| 2.2.2 | 32 mm ball valves | | 0 | No. | | | | | | |
| 2.2.3 | 25 mm ball valves | | 0 | No. | | | | | | |

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| 2.3 | Non Return Valves [NRV] / Check Valve | | | | | | | | | |
| 2.3.1 | 150 mm NRV | | 0 | No. | | | | | | |
| 2.3.2 | 125 mm NRV | | 3 | Nos. | | | | | | |
| 2.3.3 | 100 mm NRV | | 0 | No. | | | | | | |
| 2.4 | Y Strainer | | | | | | | | | |
| 2.4.1 | 150 mm YS | | 0 | No. | | | | | | |
| 2.4.2 | 125 mm YS | | 3 | Nos. | | | | | | |
| 2.4.3 | 100 mm YS | | 0 | No. | | | | | | |
| 2.5 | Balancing Valves | | | | | | | | | |
| 2.5.1 | 150 mm Balancing Valve | | 0 | No. | | | | | | |
| 2.5.2 | 125 mm Balancing Valve | | 0 | No. | | | | | | |
| 2.5.3 | 100 mm Balancing Valve | | 0 | No. | | | | | | |
| 2.5.4 | 80 mm Balancing Valve | | 0 | No. | | | | | | |
| 2.5.5 | 65 mm Balancing Valve | | 0 | No. | | | | | | |
| 2.5.6 | 50 mm Balancing Valve | | 0 | No. | | | | | | |
| 2.6 | 2 way Motorised Valve - ON/OFF type | | | | | | | | | |
| | Disconnecting, Dismantling, Removal, Shifting & Re-installation, testing & commissioning of heavy duty valves as specified and shown on the drawing complete with: | | | | | | | | | |
| | a) Flanges for valves above 50 mm dia and screwed ends with flanges for valves below 50-mm dia | | | | | | | | | |
| | b) Additional supports | | | | | | | | | |
| | c) Thermostat, 100VA -transformer, mounting plate etc. | | | | | | | | | |
| | d) Union, nut bolts, gaskets or any other special fittings as required. | | | | | | | | | |
| | e) With Controller, Sensor, Thermostat, Mounting Brackets etc. | | | | | | | | | |
| 2.6.1 | 150 mm 2 way motorised valves | | 0 | No. | | | | | | |
| 2.6.2 | 125 mm 2 way motorised valves | | 3 | Nos. | | | | | | |
| 2.6.3 | 100 mm 2 way motorised valves | | 0 | No. | | | | | | |
| 2.7 | Miscellaneous Control | | | | | | | | | |
| | Disconnecting, Dismantling, Removal, Shifting & Re-installation of: | | | | | | | | | |
| 2.7.1 | 25 mm Air release valve | | 4 | Nos. | | | | | | |
| 2.7.2 | 25 mm Auto Purge valve | | 4 | Nos. | | | | | | |

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|------------|---|---------------------|-----------|------|-------------------|---|------------------------|---------------------------|------------------------------------|-------|
| 3.0 | Instruments and Indicators | | | | | | | | | |
| | Disconnecting, Dismantling, Removal, Shifting & Re-installation of instruments and Indicators as specified | | | | | | | | | |
| 3.1 | a) Pressure gauges with gauge cocks-1/2" | | 0 | No. | | | | | | |
| 3.2 | b) Thermometers with thermowells | | 0 | No. | | | | | | |
| 3.3 | Pressure gauge 6" dial (range 0-10kg/cm2g) | | 9 | Nos. | | | | | | |
| 3.4 | Thermometers Dial type - 6" dial (range 0-50deg.C) | | 9 | Nos. | | | | | | |
| 3.5 | Wall mounted digital room temperature Indicators | | 0 | No. | | | | | | |
| 3.6 | Immersion type temperature sensors (range 0-20deg.C) | | 9 | Nos. | | | | | | |
| 4 | Expansion Bellow / Flexible Connectors | | | | | | | | | |
| | Disconnecting, Dismantling, Removal, Shifting & Re-installation of rubber flexible connection at the pump inlet and outlet complete with flanged joints, nuts, bolts and gasket. The flexible connectors shall be with AISI 321 SS corrugated tubing with AISI 304 SS single overbraid & SS fittings. | | | | | | | | | |
| 4.1 | 150 mm connection | | 0 | | | | | | | |
| 4.2 | 125 mm connection | | 12 | | | | | | | |
| 4.3 | 100 mm connection | | 0 | | | | | | | |
| 5.0 | Removal of Existing Insulation with new Chilled Water Piping Insulation -TF EPS + Lag coating | | | | | | | | | |
| | Removal of Existing damaged insulation over existing piping | | | | | | | | | |
| 5.1 | 200 NB with 75 mm thk | | 0 | RMT | | | | | | |
| 5.2 | 150 NB with 75 mm thk | | 120 | RMT | | | | | | |
| 5.3 | 125 NB with 75 mm thk | | 108 | RMT | | | | | | |
| 5.4 | 100 NB with 50 mm thk | | 48 | RMT | | | | | | |
| 5.5 | 80 NB with 50 mm thk | | 0 | RMT | | | | | | |
| | TOTAL FOR 'D' - DISCONNECTION & REMOVAL OF EXISTING CH.W.PIPING & ANCILLARIES AT TERRACE & REUSING THEM FOR RE-INSTALLATION, TESTING & COMMISSIONING AT GROUND LEVEL INSTALLATION | | | | | | | | | |
| | TOTAL of 'A' + 'B' + 'C' + 'D' | | | | | | | | | |
| | TOTAL OF EXCISE DUTY (%) | | | | | To be included in respective items as applicable | | | | |
| | TOTAL OF GST AMOUNT (%) | | | | | | | | | |
| | TOTAL OF ANY OTHER TAXES AMOUNT (%) | | | | | | | | | |
| | ALL INCL. TOTAL | | | | | | | | | |

Note: Rates quoted shall be basic rates inclusive of GST* and shall be inclusive of overheads and profit, All taxes, duties, levies etc. shall be indicated seperately as above. (Inclusive* of ED for local items, Customs Duty, CVD (as applicable), Port Clearance, Local Freight, Transit Insurance & Any other charges for all imported items), GST shall be extra as applicable.