

Tender No.

TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021

03/06/2021

Sub : Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210

Schedule of Quantities.

Name of Agency							
FINANCIAL BID							
Sr.No.	Item Code	Description	HSN/SAC code	Qty.	Unit	Rate	Amount
1	1	Transfer Pump System to be housed near to Horticulture Tank comprising of 02 Nos. (1W+1S) Vertical Multistage Pumps SS 304 Pump of 30 Cu.M/hr, 50 Meter Head 2 Pole IE3 Motor suitable for 415 V, 3 Phase 50 Hz A/c Supply fitted with Mechanical Seal , Impeller S 316 L, Casing SS 316 L, Shaft of SS 316 L, Efficiency More than 65% for each pump. All as Ebara /Grundfos/Kirloskar Make Complete in skid form , 01 No. Common Control Panel with all Pumps on VFD (Variable Frequency Drive) Total 2 Nos of VFD Drive of 7.5 KW/10 HP , 380-380V AC, Motor Speed 2900 RPM. If one VFD or pump fails other pump with VFD shall be selected automatically, and there shall also be provision to operate pumps in fixed speed mode without VFDs. Pump & Motor IP 66/NEMA 4X Back plate, RFI Class A2 (C3) , No Brake Chopper. Both Pumps will have individual suction in Schedule 40 and removable suction pipe with foot valve & strainer for serving. Discharge Manifold will be in SS 304 Schedule 40 size as per Pump House layout drawing with necessary OS & Y Type SS 304 Gate Valves with LOTO Provision & SS 304 Fittings, Flanges suitable for PN16 with all accessories complete in all respect GI Baseframe or MS Epoxy Powder coated painted frame to hold the complete skid with provision of grouting in RCC foundation , 01 No, 500 Ltrs 10 Bar Foot Mounted Pressure Tank, 01 No. 0-10 B. ar 21/2" Pressure Transmitter 01 Nos. Float with 20 Mtrs Submersible Cable for Dry Run Prevention. Each Pump will be provided with Normex Make 4 Inch Foot Valve with Built-in strainer. Pump Motor Panel will have NO/NC Potential free contact for pump status monitoring (Strainer and Suction pipe removal for strainer cleaning shall be possible, so Suctions shall be individual to pumps. Each Pump, will be provided with name SS 304 coloured attractive number plates of size 6 Inch X 12 inch Self engraved giving their HP/KW//Head & Flow Rate Ratings, Discharge Pressure Gauge Glycerine filled SS 316 , 150mm diameter shall be provided with calibration certificate. Care shall be taken by vendor to see that no MS materials is used in the skid components considering the water quality		1.00	LS		-
2	2	Providing and fixing 10000 liter capacity sintex tank on terrace of Service block as per the instruction of Engineer incharge.		1.00	Nos		-
3	3	Flushing Pump System to be housed near to STP Plant comprising of 02 Nos. (1W+1S) Vertical Multistage Pumps SS 304 Pump of 30 Cu.M/hr, 50 Meter Head 2 Pole IE3 Motor suitable for 415 V, 3 Phase 50 Hz A/c Supply fitted with Mechanical Seal , Impeller SS 304 L, Casing SS 304 Shaft of SS 304 , Efficiency More than 65% for each pump. All as Ebara/Kirloskar/Grundfos Make Complete in skid form , 01 No. Common Control Panel with all Pump Motors on VFD (Variable Frequency Drive), Total 2 Nos of VFD Drive of 7.5 KW/10 HP , 380- 380V AC, Motor Speed 2900 RPM. If one VFD or pump fails other pump with VFD shall be selected automatically, and there shall also be provision to operate pumps in fixed speed mode without VFDs. IP 66/NEMA 4X Back plate, RFI Class A2 (C3) , No Brake Chopper. Both Pumps will have Individual Suctions in Schedule 40 pipe and pipe shall be removable to service foot valve & strainer and discharge Manifold shall also be in SS 304 Schedule 40 pipe size as per Pump House layout drawing with necessary OS & Y Type SS 304 Gate Valves with LOTO Provision & SS 304 Fittings, Flanges suitable for PN16 with all accessories complete in all respect GI Baseframe or MS Epoxy Powder coated painted frame to hold the complete skid with provision of grouting in RCC foundation , 01 No, 500 Ltrs 10 Bar Foot Mounted Pressure Tank, 01 No. 0-10 Bar 21/2" Pressure Transmitter 01 Nos. Float with 20 Mtrs Submersible Cable for Dry Run Prevention. Each Pump will be provided with Normex Make 4 Inch Foot Valve with Built-in strainer. Pump Motor Panel will have NO/NC Potential free contact for pump status monitoring. Each Pump, will be provided with name SS 304 coloured attractive number plates of size 6 Inch X 12 Inch Self engraved giving their HP/KW//Head & Flow Rate Ratings, Discharge Pressure Gauge Glycerine filled SS 316 , 150mm diameter shall be provided with calibration certificate		1.00	LS		-
4	4	SS 304 Nozzles & SS pipe Sleeves as required for 2 Nos Potable Tanks (1 +1) Including all Nozzles for Suction, Delivery, Flow Meter, SOV & Float, PRV, Overflow, Inlet, Outlet, Overflow, Tank Filling Connections, Tank vents with Insect Guards with puddle flanges as required complete in all respects, Make: Roopam Steel, Jindal, Swastik Lloyd, Metline		1.00	LS		-
5	5	Underground CPVC Pipeline : Supplying, installing and testing & commissioning under ground CPVC Pipe, Schedule 40 of following sizes conforming to specifications along with all fittings like Elbow (45 degree) , tee, reducer, flanges, MTA, FTA as necessary & with anticorrosive wrapping & coating as per IS 1standards 1/3rd overlap with 100mm wide and 4mm THICK wrapping coating tape and then laid in 300mm Hume pipe with proper packing of fine sand as required. Make Prince, Astral, Finolex, Surya, Paras, Wrapping Coating Tape : Pypekote, Tikidan, AR Industries. Sudhakar Pipe & Fittings : 100mm Schedule 40, OD of 4.5 mm, I Maximum Pressure Handling 220 PSI		150.00	m		-

6	6	Underground CPVC Pipeline : Supplying, installing and testing & commissioning under ground CPVC Pipe, Schedule 40 of following sizes conforming to specifications along with all fittings like Elbow (45 degree) , tee, reducer, flanges, MTA, FTA as necessary & with anticorrosive wrapping & coating as per IS standards 1/3rd overlap with 100mm wide and 4mm THICK wrapping coating tape and then laid in 300mm Hume pipe with proper packing of fine sand as required. Make Prince, Astral, Finolex, Surya, Paras, Wrapping Coating Tape : Pypekote, Tikidan, AR Industries. Sudhakar Pipe & Fittings : 80mm Schedule 40, OD of 4.5 mm, I Maximum Pressure Handling 220 PSI		150.00	m		-
7	7	Supplying, installing and testing & commissioning (SITC) above ground CPVC Pipeline of Schedule 40 Flushing line with glue, solvent material, along with all CPVC fittings as required at site & with distinctly painted Sea Green paint band as first paint band and second band as Canary Yellow every 10 meters as per IS- 5 Standard . The line will include all necessary fittings like Tee Branch, Tee Run, Elbow 45 & 90 degrees, Reducer, Coupling, Pipe Support GI Clamps with nuts for clamping on RCC Supports etc complete in all respect, with FLUSHING LINE written at every 50 meter interval in black colour. Inside Building CPVC Pipe will be of 80 mm , Schedule 40 to fill up Flushing tank on Building terrace with all necessary fittings like elbows, tee, reducers, flanges, fixing clamps, fixing glue etc. Wherever Valves are CI/SS/ DI valves requisite flanges, nuts & bolts, gaskets, MTA, FTA and threaded pipe connections will be provided by vendor in same price. All Pipe lines (SS & CPVC) will be 100% hydro tested for test pressure of 12 bar for 2 hour period , and test results will be verified by ACTREC Engineer, Make Prince, Astral, Finolex, Surya, Paras : 100mm dia. CPVC - Schedule 40, OD of 114 mm, Wall thickness minimum 6.0 mm Flushing Headers Maximum Pressure Handling 220 PSI		500.00	m		-
8	8	Supplying, installing and testing & commissioning (SITC) above ground CPVC Pipeline of Schedule 40 Flushing line with glue, solvent material, along with all CPVC fittings as required at site & with distinctly painted Sea Green paint band as first paint band and second band as Canary Yellow every 10 meters as per IS- 5 Standard . The line will include all necessary fittings like Tee Branch, Tee Run, Elbow 45 & 90 degrees, Reducer, Coupling, Pipe Support GI Clamps with nuts for clamping on RCC Supports etc complete in all respect, with FLUSHING LINE written at every 50 meter interval in black colour. Inside Building CPVC Pipe will be of 80 mm , Schedule 40 to fill up Flushing tank on Building terrace with all necessary fittings like elbows, tee, reducers, flanges, fixing clamps, fixing glue etc. Wherever Valves are CI/SS/ DI valves requisite flanges, nuts & bolts, gaskets, MTA, FTA and threaded pipe connections will be provided by vendor in same price. All Pipe lines (SS & CPVC) will be 100% hydro tested for test pressure of 12 bar for 2 hour period , and test results will be verified by ACTREC Engineer, Make Prince, Astral, Finolex, Surya, Paras : 80mm dia. CPVC - Schedule 40 , OD of 89 mm, Wall thickness Minimum 5.4 mm, Flushing Headers , Maximum Pressure Handling 260 PSI		500.00	m		-
9	9	SITC of GI Supports including angle, channel, beam, special fitting, plates & clamps required to support the pipe and pumps. Will be compensated as per installed quantity Make Hitech, Mupro, Erico, Hilti		1.80	Ton		-
10	10	SITC of Non Return Valves 80mm Cast Steel Valve , PN 16 , 150 Class Make: L & T, Kirloskar, Newage, C & R , Azbil		4.00	Nos.		-
11	11	SITC of Gate Valves Cast Iron 100mm , PN 16 , 150 Class with LOTO arrangement, Make: L & T, Kirloskar, Newage, C & R, Azbil, Hawa		6.00	Nos		-
12	12	Gate Valves Cast Iron 80mm Cast Steel Valve , PN 16 , 150 Class with LOTO arrangement, Make: L & T, Kirloskar, Newage, C air Automation, Hawa, Azbil		6.00	Nos		-
13	13	SS 304 Drain Valves 4 " Inlet and 1" outlet for maintenance and flushing of flushing line as per locations suggested by Siemens Make - Leader/Zolletto/Johnson Control/BER/Cair Euromatic		2.00	Nos		-
14	14	SS 304 Pot Strainer 100 dia. With Wire Mesh Screen of 0.5 mm and one of 4 mm Coarse Screen for Draining & Cleaning purpose Make Bombay Chemical Equipment, Hawa, Audco		4.00	Nos		-
15	15	Pressure Relief Valve to Prevent Pressure Exceeding in Yard headers above 10 bar Make : Claval, Frainger Lesser, Tyco		2.00	Nos		-
16	16	25 mm Pressure Reducing Valve to adjust pressure from 2- 10 bar Make Vanaz, Claval, Frainger Lesser		4.00	Nos		-
17	17	Excavation of Road crossing , Backfilling, Soling below PCC / Road, M-15 PCC below Hume pipe and RCC Slab, M-25 grade 150 mm thk. RCC Slab including shuttering and Reinforcement & Complete for both SS 304 Pipe & Electrical /Instrumentation Cables as required, without disturbing any existing utility systems		220.00	Cum		-
18	18	Pump Foundations for Pumps. Pressure Tank & LT Pump Panel as per the instruction of Engineer incharge		2.00	Nos		-
19	19	SITC For RCC Supports for Pipe upto 100 mm and also for combination of 80 mm and 100mm CPVC Pipe with all mounting accessories like GI 3mm thick plates on top of support, GI U clamps 8mm thick, GI bolts for CPVC Pipes, supporting beams, complete excavation, refilling, soling of 230mm, 100mm PCC, depth upto 750mm and final finishing in RCC on road/hard soil or enclosing with soft soil as required.		280.00	Nos		-
20	20	SITC of NP3 class RCC Precast hume pipes with collar for suitable piping complete provided with Inspection Chamber to check water leakage, pipe lengths should be suitable for required individual road width, no pipe length should be left loose during burying of hume pipe underground, adequate support system and packing, should be able to take load bearing of the vehicular movements on the specific road , burial depth 1000mm minimum or as per ACTREC Civil standards with complete soling, PCC, RCC Work and road rebuilt as original, One collar should be supplied with each full length plain ended RCC pipe, cost including in rates below. One rubber ring should be supplied with each full length of socketed pipe, cost included in rates : 300 mm dia, thickness 75mm, 2.5m long length with provision for collar fixing as per IS458 latest edition		150.00	m		-

21	21	Design, Engineering, Installation of Pre coated GI Sheet Engineered Shed near Horticulture tank with Columns & Beams MS Epoxy Painted (2 Coats) and Grey Oil Paint (3 Coats) Columns & Beams ISMC 150 and Supporting Structure of RCC Foundations for columns, with shed covered from all sides and rolling shutter of size 3 x 4 X 4.2 Meters (L X W X H) to protect pump skid and MCC panel for Flushing water Pump House with Stability Certification from approved structural consultants of dimension 6 X 9 meter area and height of 4.5 meters. floor will be with PCC of at least 150mm , with drain and nani trap provided with drains leading to storm water drain with suction inlets to available tanks, place to accommodate Electrical Distribution Panel, Hydro Pneumatic Pumps for Transfer & Flushing System as required with drains, foundations for pumps and MCC Panel,		1.00	Nos		-
22	22	SITC of Power Distribution Board for Main Potable Water Pumps in 1W +1 S (10 HP Motor) with automatic changeover as well as override manual changeover as per SLD given mode type free standing type of MS 1.6mm CRCA thickness with 7 tank process of manufacture , colour powder coated to Siemens Grey with 100mm Base frame, minimum dimensions of 1200X 1200 X 400 (H X W X D) mm with gland plate MCCB/Breaker, Load Manager, Overload relays, DOL Starter etc for individual loads as shown in distribution board drawing (for Controllers & Pumps of Main Electrical Pump, Lighting Load, with ATS of two incomers of main & standby power wired directly from two individual feeders , spare 3 phase 63 A Connection for connecting 3 phase loads as per enclosed drawing and in line with NBC, IS/IEC Standards. Panel board should have access below the panel of at least 1000mm and hence should be rested on required supports or RCC with access platform in RCC All Bus Bars shall be of Copper, Panel & CPVC) will be 100% hydro tested for test pressure of 12 bar for 2 hour period , and test results will be verified by ACTREC Engineer, Make Prince, Astral, Finolex, Surya, Paras : 80mm dia. CPVC - Schedule 40 , OD of 89 mm, Wall t		2.00	Nos		-
23	23	SITC of UnArmoured Copper FRLS Cable 4C X 4 sqm FRLS Multistranded, shielded in GI Conduit as per IS 1554& IS 694, Make Polycab/Havells/CCI/Metaplast		60.00	m		-
24	24	SITC of Armoured Copper FRLS Cable 4C X 10 sq.m FRLS Multistranded, shielded as per IS 1554& IS 694, Make Polycab/Havells/CCI/Metaplast		100.00	m		-
25	25	SITC of Armoured Copper FRLS Cable 4C X 2.5 sq.m FRLS Multistranded as per IS 1554& IS 694 Make Polycab/Havells/CCI/Metaplast		100.00	m		-
26	26	SITC of GI Perforated Cable trays for Power Distribution Board Incomer Cable Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. 50 mm width X 25 mm height X 2.5 mm thickness, in length of 3 meters each Make: Elcon,		8.00	Nos		-
Total Cost inclusive of All Taxes and duties excluding GST							-
GST @ 12% for the project							-
Total Cost inclusive of All Taxes and duties							-

NOTE:

- 1 The agency is requested to visit the site to know actual scope of work.
- 2 Rate shall be quoted inclusive of all taxes Excluding GST which will be paid extra as applicable on submission of challan. FOR TMC/ACTREC applicable rate of GST is 12%. Agency has to consider GST at rate specified.
- 3 Material required at site should be assessed by the agency and bill will not be settled for excess/supplied items.
- 4 Bill will be settled as per actual measurement after supply of material at site.
- 5 Deviations/suggestions may be put on separate page in order to attain higher quality performance. Competent authority reserves full right to accept or reject any kind of changes.
- 6 Agency will have to prepare detailed drawing/ plan of work & obtained approval before execution. Agency will have time bound work schedule for carrying out the work.
- 7 Payment will be released for consumed quantity on satisfactory completion on providing necessary certifications/documentation.
- 8 All above items of this schedule shall have standard make as specified in Tender and approved before installation.
- 9 Agency has to get a sample approved from Engineer-in-charge in writing before any supply of item.
- 10 ACTREC reserves the right to reject any sample and rescind the work order if the samples are found to be unsatisfactory and if the agency is unable to meet the requirement of ACTREC.