

**BUDGETARY OFFER**

**Name of Work:** Design, Manufacture, Supply, Erection, Testing and Commissioning of 3 Nos. of Vertical Turbine Pump set of 75 HP with allied Electro-Mechanical equipments complete for already existing pump house of Gayatri Kalambu LIS Stage - 1 , Tal.: Shahada, Dist.: Nandurbar

Sr. No.	Description	Qty.	Unit	Design, Manufacture & Supply		Total Amount in INR
				Unit Rate in INR	Total in INR	
1	<p><b>Vertical Turbine Pumps</b>                      Providing and installing at site of works and giving test to full capacity, vertical turbine pumps non-pull out type, complete with Strainer, Suction Bell, Column Assembly, Discharge Head, Motor Stool, Flexible Coupling, Sole Plates, Non-reverse Ratchet Arrangement etc. suitable for following duties and specifications.                      1) Duty point Discharge per Pump = 85 lps                      2) Duty point Head = 40 m                      3) AHFL of River = 95.5 m                      4) FSL Of Master Chamber = 98.760                      5) M.D.D.L. = 73.220                      6) Pump Floor Level = 96.5                      7) Centre Line or Delivery Pipe = 96.625                      8) Length of Rising Main PSC/ RCC = 3350 Mtr.                      9) Rising main Dia. = 500 mm                      10) Efficiency (a) Bowl Efficiency = 80 %                                    (b) Pump Efficiency = 77.5 %                                    (c ) Overall Efficiency = 74 %                      11) No. of Impeller Stages = 4 Max                      12) Max. Syn. RPM = 1500 rpm                      13) Column Pipe dia. = 200 mm                      14) Delivery Pipe dia. = 250 mm                      15) Delivery Pipe thickness = 8 mm                      16) Line Shaft dia. = As per design requirement                      17) Forced Water Lubricated / Oil Lubrication                      18) Above Surface Discharge                      19) No. of Pumps working in parallel = 3  <b>B) Lubrication &amp; Cooling As per Std.</b></p>	3	Nos.			
2	<p><b>Non Return Valve</b>                      Providing &amp; installing at site of works and testing of Cast Iron, Non-Slam, Double Flanged type Non Return Valve with by pass arrangement complete, suitable for following duties &amp; specifications and as per IS 5312 (Part II-1986)                      Diameter = 250 mm                      PN Rating = 1.6                      Working Pressure = 6.0 Kg/cm<sup>2</sup>                      Differential Pressure = 6.0 Kg/cm<sup>2</sup>                      Maximum Working Pressure = 12 Kg/cm<sup>2</sup></p>	3	Nos.			

3	<p><b>Butterfly Valve</b>  Providing &amp; installing at site of works and testing double flanged Butterfly Valves conforming to relevant IS/BS 5155 with Electric Actuator with 415 V A.C. Motors, D.O.L. Starting etc. complete, suitable for following duties &amp; specifications.</p> <p>Diameter = 250 mm  PN Rating = 1.6  Working Pressure = 6.0 Kg/cm<sup>2</sup>  Differential Pressure = 6.0 Kg/cm<sup>2</sup>  Maximum Working Pressure = 12 Kg/cm<sup>2</sup></p>	3	Nos.			
4	<p><b>Kinetic Air Valve</b>  Providing &amp; installing at site of works and testing KAV (with isolating Sluice Valve) of Dia. 80 mm, PN 1.6 for releasing air from Delivery Pipes.</p> <p>Working Pressure = 6.0 Kg/cm<sup>2</sup></p>	3	Nos.			
5	<p><b>Air Cushion Valve 150 mm Dia.</b></p> <p>Working Pressure = 6.0 Kg/cm<sup>2</sup>  Differential Pressure = 6.0 Kg/cm<sup>2</sup>  Maximum Working Pressure = 12 Kg/cm<sup>2</sup></p>	1	No.			
6	<p><b>Delivery Pipe</b>  Providing &amp; jointing at site of works and testing delivery pipeline including jointing of all in between Valves upto Rising Main/Manifold complete, suitable for following duties, specifications.</p> <p>Diameter (NB) = 250 mm  Wall Thickness = 8 mm  Hydraulic Test Pressure = 16 Kg/cm<sup>2</sup></p>	90	Mtr.			
7	<p><b>Dismantling Joints</b>  Providing &amp; installing at site of works &amp; testing of Dismantling Joints in pump delivery pipeline complete conforming to the following specifications.</p> <p>Diameter (NB) = 250 mm  Wall Thickness = 10 mm  Hydraulic Test Pressure = 16 Kg/cm<sup>2</sup></p>	3	Nos.			
8	<p><b>L.T. Induction Motor</b>  Providing &amp; installing at site of works and testing to full capacity, solid shaft, squirrel cage Induction Motors CACW type 'F' class insulation suitable for operation on voltage mentioned below-</p> <p>3 phase, 50 Hz with voltage variation of +/-6% and frequency variation +/-3% suitable for direct coupling with pumps under item No. 1 as per latest revision of IS 325, IS 4722 &amp; other Relevant IS specifications. Suitable for following duties, specifications &amp; conforming to detailed specifications.</p> <p>Operating Voltage 415 kV  Minimum kW Rating of Motor 250 kW  Maximum Syn. Speed 1500 RPM</p>	3	Nos.			
9	<p><b>FCMA Soft Starter</b>  ATS Starter suitable for above Motor and as per relevant IS standard.</p>	3	Nos.			
10	<p><b>Cubical Capacitors</b>  415 V, 3 Phase, 50 Hz Capacitor cubicles for the Motors to improve the power factor to .95. The KVAR capacity of the capacitors should not exceed the magnetizing KVAR of above motor.</p>	3	Nos.			

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10	<b>L.T. Distribution Panel (Suitable for above Pump house &amp; Lightining For Indoor &amp; Outdoor etc.)</b>	1	Job.			
11	<b>Temp. Scanner Panel</b> Providing, installing at site of works& testing of Temperature Scanner Panel comprising of 3 Nos. Microprocessor Temperature Scanners having 10 point each to monitor Motor windings and Bearing Temperature, complete.	1	No.			
12	<b>Preparation of Cable Schedule and Supply, Installation, Testing of Cables.</b> Providing, installing & energizing at site of works & testing suitable LT Control Cables & Wires, Cable Trays, Racks complete as required for the all above electrical equipments in Pump House.	1	Job.			
13	<b>Earthing</b> Providing, installing at site of works Earthing comprising of adequate No. of Earth Stations, Earth Bars & individual double earthing to all electrical equipments as per detailed specifications.	1	Set			
14	<b>Water Level Indicator</b> Providing installing at site of works and testing Water Level Indicators operating on 230 V, 50 Hz, A.C. supply and as per detailed specifications.	1	Set			
15	<b>Spares &amp; Tools</b> Providing installing at site of works, Spares and Tools complete as per detailed specifications.	1	Set			
16	<b>Testing, Commissioning, Trials and Operations</b> for pumping machinery and performance testes and training to Departmental Staff and as per detailed specifications.	1	Job.			
17	<b>Providing and installing Fire Fighting System for the Pump House.</b> Adequate Fire Fighting System for complete Pump House and Control Room as per latest Fire Norms/Guidelines for Safety issued by Central Electricity Authority confirming to IE rule No. 43,44,45 of 2005 specifications.	1	Job.			
18	<b>Chain Pulley Block 5T Capacity With 30 Mtrs. Lift</b>	2	Job.			
<b>TOTAL in INR</b>						