

## MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

### Item Specification

**Work Name: Nardhana Industrial Area (G.C.)...M & R to WSS ... Replacement of Discharge Head of pump for 150 HP VT pumps at WTP and allied works.**

#### **Sub Estimate:Sub Estimate**

**1 Supplying, erecting, testing and commissioning of Discharge Head of pump for WPIL make as per detail specification for VT pump model no. VK 50043/44.Heavy-duty discharge head assembly designed for secure seating on column pipes.discharge Head pressure Material Usually grey cast iron, bronze, or stainless steel depending Must be rated for significant pressures, often exceeding 100–160 mwc. Operating Speed 1460/980 RPM (common) or up to 2900 RPM Consists of a discharge head and packing box assembly.Self-water, forced-water, or oil-lubricated line shafts.Discharge (Capacity): Up to 3950 LPM (approximately ). 237 to300 m3/hr**

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**Mode of measurement - . The contract rate shall be on the basis of per Number.**

**2 Supplying, erecting, testing and commissioning of bowl bearing of pump for WPIL make as per detail specification Bearing Type Bush/Sleeve type bearings (interchangeable in intermediate bowls). Material: Often Bronze (standard), Bronze ZF, or Rubber, depending on the fluid handled.Lubrication: Pumped liquid lubrication (wet-type bearing). Clearance: Specific minimum clearance must be maintained between the bowl bearing and the impeller shaft/sleeve for smooth operation**

#### **Specification:**

Bowl bearing of pump for WPIL make as per detail specification Bearing Type Bush/Sleeve type bearings (interchangeable in intermediate bowls). Material: Often Bronze (standard), Bronze ZF, or Rubber, depending on the fluid handled.Lubrication: Pumped liquid lubrication (wet-type bearing). Clearance: Specific minimum clearance must be maintained between the bowl bearing and the impeller shaft/sleeve for smooth operation

**Mode of measurement** -The contract rate shall be on the basis of per **set**.

**3 Supplying, erecting, testing and commissioning of pump shaft pump for WPIL make as per detail specification Material High-grade heat-treated steel, typically Stainless Steel (e.g., SS 410 or better). Construction Accurately machined and ground over its entire length. Shaft Protection The shaft is generally protected from wear and erosion in the stuffing box area by removable stainless steel sleeves. Vertical Shaft Components: In 150 HP vertical turbine configurations (e.g., V-10, V-12 range), the shafting assembly consists of: Head Shaft: Connects the motor to the top line shaft. Line Shafts: Intermediate shafts. Bottom Line Shaft: Connects to the bowl assembly. Coupling: Shafts are coupled using threaded or keyed line shaft couplings for precise alignment**

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pump shaft pump for WPIL make as per detail specification Material High-grade heat-treated steel, typically Stainless Steel (e.g., SS 410 or better). Construction Accurately machined and ground over its entire length. Shaft Protection The shaft is generally protected from wear and erosion in the stuffing box area by removable stainless steel sleeves. Vertical Shaft Components: In 150 HP vertical turbine configurations (e.g., V-10, V-12 range), the shafting assembly consists of: Head Shaft: Connects the motor to the top line shaft. Line Shafts: Intermediate shafts. Bottom Line Shaft: Connects to the bowl assembly. Coupling: Shafts are coupled using threaded or keyed line shaft couplings for precise alignment .

**Mode of measurement** - measurement shall be payment on **Number** basis.

**4 Dismatlling complete pumpset & reinstalling the same**

**Specification:**

: The scope of works includes dismantling of complete pump set & re-installation with supplied Discharge head, bowl bearing set & pump shaft.

**Mode of Measurement:** The contract rate shall be on the basis of per **job**.

**5 Credit for Dismantled Material**

**5.1 H.G. / M.S. / G.I. Materials / Poles etc.**

**5.2 All types of SS material**

**Specification:**

The scope of work includes to Rebate of old MS materials, S.S. Materials , shaft , discharge head and other etc.

**Mode of Measurement** : Quantity shall be measured on **Kg** basis.