

POLDER PUMPSET



A Mark of Quality



POLDER PUMPSET

APPLICATIONS:

- Irrigation and Dewatering
- Cooling Water Supply
- Storm Water Pumping Station
- Retention Reservoirs
- Flood Prevention Pumping Station
- Dewatering from Canal and River Bed

DESIGN / CONSTRUCTION:

MBH Polder pump sets are portable pumping units, which have pump below and motor above construction with single/two stage mixed flow impeller design. These are powered by squirrel cage induction motor suitable for 400/440 volts, three phase, 50 Hz A.C. supply. The Motor windings are wet type, totally enclosed, water filled, water and oil resistant, robust in design and lightweight. The pump motor unit of close coupled and jacketed construction design provide an effective water cooling of the motor by liquid flowing around the motor casing up into the discharge main. The motor is sealed by special mechanical seal, so that the pumping water does not enter the motor chamber and damage the motor. Axial thrust is controlled by thrust bearing. All parts are made from specially material and processed to ensure long life under arduous operating condition.

ADVANTAGES:

- The Pumps are of robust construction and can work under flooded or partially submerged condition. The pump motors are water filled and water lubricated.
 The motor is cooled by the continues flowing liquid that is being pumped which prevents overheating of the motor.
- It can pump out liquid from the lowest level.
- Submersible installation, hence no need of foundation or pump house.
- Cuts civil cost by nearly 50 %.
- Can be installed in collection well.
- Being portable it can be shifted/handled easily.
- Silent in Operation.

MATERIAL SPECIFICATION:

Volute Casing/Suction Housing: Cast Iron

IS 210 FG200

Impeller : S.S / Bronze / C.I.

Shaft : SS 410

Motor Body : M.S. Fabricated Bush bearing : Bronze-LTB 4

Different material can be offered according to the application.

TECHNICAL SPECIFICATION:

Head : upto 120 mtrs.
Capacity : upto 3500 cu.mtr./hr.

Stage : One / Two Lubrication : Water HP : 10 to 350 RPM : 2900 / 1450

CROSS SECTION:



Highlight of Submersible Polder Pumps in Comparison with Centrifugal / Vertical Turbine Pumps

Submersible Polder Pumps	Centrifugal Pumps	Vertical Turbine Pumps
Could Completely / Partially be submerged in water.	Not Possible, since motor not sealed and is wound with enameled winding wire.	Pump is of course submerged, but needs pump house, in well, jack-well etc.
Since very much portable, no permanent structure is needed. A simple pit / tank filled with water is quite sufficient and could be discharged with flexible rubber / PVC pipe / M.S. pipe.	The nature of pump needs permanent structure, Suction pipe, foot valve etc. making it cumbersome.	Pumps needs permanent structure like pump house, pump foundation etc. and installation is quite cumbersome.
An absolutely trouble free Compact design pump.	a) Gland leakageb) Air lockingc) Foot valve chocking (clogging) are regular and need constant attention.	 a) Needs column pipe assembly, shaft assembly and bowl assembly and because of lengthy column shaft assembly continues vibration occurs resulting in more wear and tear. As a result of this, there would be constant gland leakage from the shaft sleeve. b) Proper alignment is must.
Self priming (Submerged).	Priming is necessary.	Self-Priming (submerged) Constant attention is a must.
Needs no extra man-power.	Constant attention is a must.	Needs regular replacement of parts and repairing costs are quite exorbitant.
Quite a longer life.	Needs regular replacement of parts. Particularly, horizontal pumps need proper alignment and periodical check-up is must.	Bowl bearing bushes are regularly getting worn out as they are directly coming in to contact with water duly mixed with slit / mud / sludge.













As improvements are made in design from time to time, specifications and performance are subject to change without prior notice.

Installation photographs shown in catalogue are for illustration only.



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