

MBH[®] **PUMPS**

SUBMERGED CENTRIFUGAL PUMPSET



Energy Efficient Pumps



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"MBH" Submerged Centrifugal Pumps offer simple, the most economical and most reliable way of solving the pumping water. "MBH"s rich experience over several years in the field of designing and manufacturing of varieties of pump sets has built up technical know-how and expertise in designing of reliable and efficient pumps which need practically no maintenance. These compactly designed pumps are easy to handle and can be installed permanently with the help of horizontal standard / automatic couplings in a small sump from where water is to be pumped or can be used for portable duty. Being submersible they do not require any pump house. Pump is designed to handle clear & raw water in the canal, river or dam site.

PUMPSET FEATURES :

- The motor is submersible squirrel cage, induction type and dry type with class 'F' or 'H' insulation and IP 68 enclosure fitted with ball bearing & mechanical sealing to ensure in high depth submergence condition. It is rated for $415 \pm 10\%$ V, 3ph $50 \pm 5\%$ C/S A.C. supply.
- Winding with 'H' class insulation*(withstanding winding hot spot temperature upto $185\text{ }^{\circ}\text{C}$ respectively) while the nominal temperature rise of winding hot spot will not exceed of class 'B'.
- Common shaft of pump and motor is fitted with angular contact ball or roller bearing gives the best result. (Minimum life of ball bearing is 75000 hours in accordance with BS 5512.)
- The pump casing is volute casing which is suitable both horizontal / vertical installation. The Impeller is mounted directly to the extended motor shaft.
- The Impeller has narrow passage with multi channel enclosed type (except specific speed ≥ 4500 USCS – where semi open impellers are used) and designed for high efficiency.
- The motor's Rotor is dual cage copper bar brazed type/ aluminium die cast.
- Thermal overload protectors (bimetallic over load relays) is embedded in each phase of stator windings to detect overheating and trip the motor, from control panel while temperature exceeds above $130\text{ }^{\circ}\text{C}$.
- Moisture sensor also provides to detect primary mechanical seal's leakage.
- Oil chamber is provided for cooling and lubrication of mechanical seal (tandem). The primary (inboard) seal is of silicon carbide or tungsten carbide faces to withstand erosive wear due to any silt particles. The secondary (outboard) seal of carbon v/s cast chrome molybdenum steel or silicon carbide or tungsten carbide.

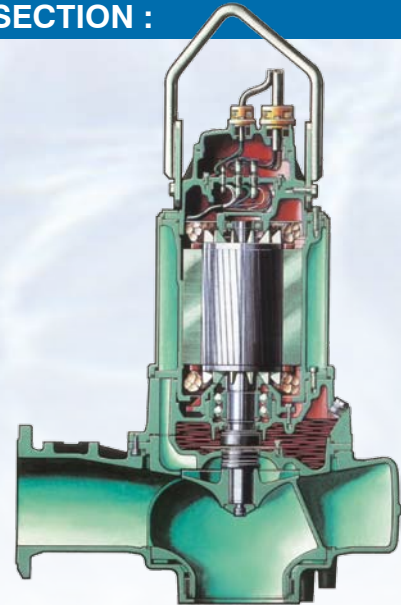
TECHNICAL SPECIFICATION :

Capacity	: upto 2500 m^3 / hr.
Head	: upto 100 mtr.
H.P.	: 2 to 250 hp
RPM	: 960 / 1450 / 2900

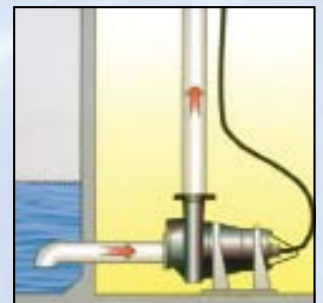
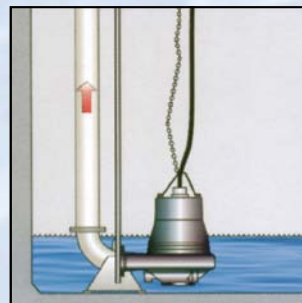
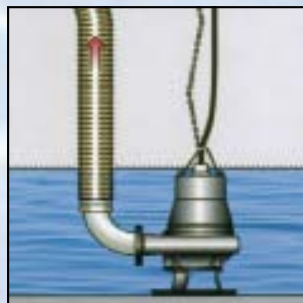
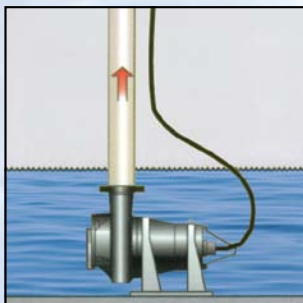
MATERIAL OF CONSTRUCTION :

Pump Casing (Volute)	: CI / SS
Motor Body	: CI / SS
Oil Chamber	: CI / SS
Impeller	: CI/SS / Bronze / NI hard
Shaft	: SS-410
Cable	: PVC insulated multi core

CROSS SECTION :



INSTALLATION OPTIONS :



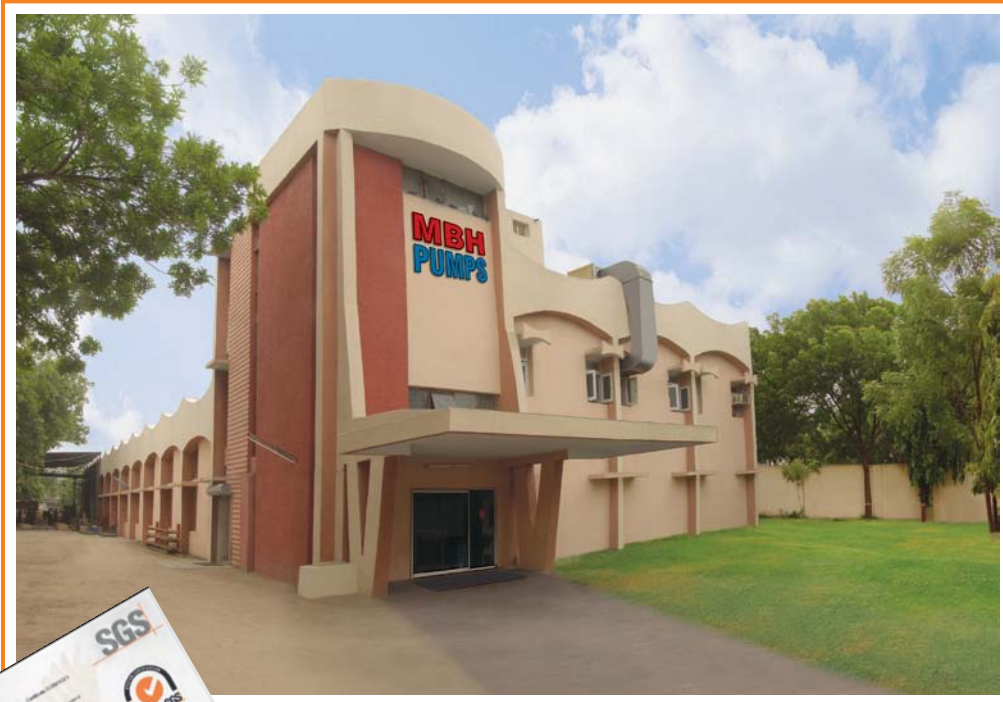
Highlight of Submerged Centrifugal Pumps in Comparison with Centrifugal / Vertical Turbine Pumps

Submerged Centrifugal 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 leakage b) Air locking c) 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.

APPLICATIONS :

- ◆ Canal
- ◆ Dam Site
- ◆ Clear Water & Drinking Water
- ◆ Cooling Tower
- ◆ Steel Plants
- ◆ Sugar Industries
- ◆ Power Plant and many more...





Manufacturing Facility at Ahmedabad (Gujarat) India



**ISO 9001:2008
Certified Company**



Our Other Products



*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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PUMPS**

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Authorised Dealer :

