

MBH[®] **PUMPS**

SUBMERSIBLE SEWAGE AND EFFLUENT PUMPS

WE MOVE SOLIDS



ISO 9001:2008
Certified Company

A Mark of Quality

SUBMERSIBLE SEWAGE AND EFFLUENT PUMPS

NON-CLOG SUBMERSIBLE SEWAGE PUMPS :

"MBH" non-clog submersible sewage pumps offer simple, the most economical and most reliable way of solving the pumping and disposal of sewage containing suspended solids. "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 automatic couplings in a small sump from where sewage is to be pumped or can be used for portable duty. Being submersible they do not require any pump house.

CONSTRUCTION :

"MBH" non-clog submersible sewage pumps are of close coupled compact design and, having a pump below and a motor above, sump cleaning is possible to a maximum level. These are powered by squirrel cage induction dry motors suitable for operation at 400/440 volts, 3 phase, 50 Hz, AC Supply. Being submersible, they save a lot of costs on construction compared to other conventional pumps. They also are noise free in operation.

1. Bearings :

The bearing arrangements with double angular contact ball bearings with deep groove ball bearings give the best resistance to the radial and thrust load combination in a centrifugal pump. The life rating is over 40000 hrs. The bearing are lubricated for life with a high temperature grease.

2. Dry, squirrel cage 3 phase motor :

The housing is totally dust & waterproof for submersible duty. The cooling is done externally and the special insulation of the winding takes care of rises in temperature during intermittent operations.

3. Cable Joint :

Special triple protection does not permit any liquid entry into the dry motor.

4. Moisture detection probe :

The moisture detector indicates any moisture penetration into the motor.

5. Thermal Motor Protection :

Built-in temperature sensors enable tripping of the motor if the temperature rises above 150 deg.C and restarts at 80 deg.C, giving complete dry run protection. Maximum permissible liquid temperature is 50 deg.C.

6. Guide Device with single / double guide rail :

The guide rail system for lowering and lifting the pump is an outstanding feature. The pump slides down on to the duckfoot bend and engages with it without bolting. It is not necessary to enter the sump to carry out inspection and maintenance work.

7. Profile Gasket :

Ensures flexible, pressure-tight and automatic connection between pump and duckfoot bend.

8. Double Mechanical Seals :

All "MBH" pumps have as standard equipment double mechanical seals which seal off the motor from the pump section. The seal has seal faces made from silicon carbide for long life. The design of the oil chamber ensures efficient cooling of the seals.

9. Energy saving impellers to suit different applications :

Depending on the liquid, impellers may be semi-open or closed, running against a wear disc or casing ring. For industrial sewage, single channel, two channel or vortex impellers, can be used.

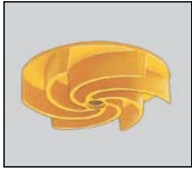
10. Shaft with rotor :

A shaft with a die-cast rotor on the motor side and a shaft protection sleeve on the pump side, ensures better life for the shaft. The compact seal arrangement has minimised shaft over-hang and consequently minimises shaft deflection.

11. The motor portion is isolated from the pump by an intermediate casing with double mechanical seal in the oil chamber.



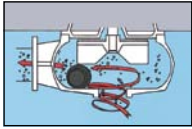
Hydraulic Section :



1. VORTEX IMPELLER

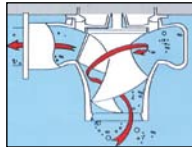
Vortex impellers are selected for applications having long, stringy solids in the pumped liquid, or for pumping sludge with high solids concentration.

A Vortex impeller creates a whirlpool or vortex inside the pump volute. Solids pass through this vortex rather than through the impeller.



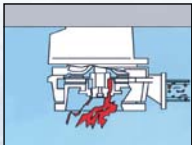
2. ROBOTEX IMPELLER

The special clog-free design of the spiral vanes impeller makes this pump the first choice for applications where the key words are high efficiency, excellent solids handling, fibrous materials, high suction lifts, minimum product damage and low flow disturbance. Mainly used for heavy & activated sludge.



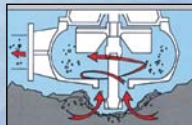
3. GRINDER PUMP

For limited quantities of water that require small discharge pipes. Solids are cut into very small particles that can be pumped through these small pipes without risk of blocking.



4. AGITATOR FOR HIGHEST DENSITY

The agitator which is mounted just below the intake opening feeds the impeller with high density material. This in combination with the strong vortex created by the impeller, leads to unmatched solids concentration. Strong surface boundaries are mechanically broken, making solids below accessible for pumping. Oversized solids are thrown away from the intake, preventing accumulation of large solids that would impair performance.



5. OPEN SINGLE CHANNEL IMPELLER

In order to achieve the best possible solids handling performance, the single channel impeller pumps are equipped with an open single channel impeller running against an adjustable suction cover.



6. DOUBLE CHANNEL IMPELLER

For achieving the highest possible efficiency the larger channel pumps are fitted with a double shrouded channel impeller with rubber wear rings.

Installation :



GUIDE BAR COUPLING :

Guide bar type quick release coupling for stationery wet installation. The pump is automatically coupled to the bend.

IMMERSIBLE :

For stationery installation in a dry sump. Motor in a flood-proof design with efficient cooling system. Both for horizontal and vertical installations.

TRANSPORTABLE :

Pump with support and hose adapter for temporary wet installation. The pump can easily be moved to other sites.

Application :

MUNICIPAL SECTOR :

- Pumping Station
- Hotels
- Subways
- Airports
- Lifting Station
- Sewage Works (treatment plant)

INDUSTRY :

- Iron & Steel
- Cellulose
- Paper
- Mechanical Engineering
- Chemical Industries
- Sugar
- Coal and Oil-fired Stations
- Food Processing Industry
- Sea Water
- Industrial water
- Refinery

Technical Specification :

Capacity : upto 3500 m³/hr
 Head : upto 90 mtrs.
 Solid size : upto 150 mm
 H.P. : 2 to 400 HP
 RPM : 740 / 960 / 1450 / 2900

Advantages :

- No pump house required
- Civil cost saving 50%
- Can be installed in a collection well
- It can pump out water from the bottom level
- Being portable it can be shifted / handled easily



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Manufacturing Facility at Ahmedabad (Gujarat) India



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.*

MBH PUMPS

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