

Submersible Sewage Pumps

Versatile, really robust and definitely reliable



We move SOLIDS

MBH[®]
PUMPS

Waste Water Handling is simple for us.

MBH makes Submersible sewage pumps operate directly in the liquid being pumped, which means they require neither special housing nor a superstructure to support them, considerably reducing construction costs. They are smaller than non-submersible counterparts as the motor and hydraulics are integrated into one compact unit, resulting in smaller pumping stations that are less complex to build. Operating submerged they take-up less space, noise and cooling problems are virtually eliminated.

With a variety of combinations of non-clog impellers to choose from, it is easy to find a pump for your needs. The impeller design gives you efficiency and solids handling capability. This helps to ensure smooth operation and delivers savings in terms of maintenance costs and energy consumption.

MBH Pumps has a wide variety of submersible sewage pumps or various applications. Our NS Series and PST series pumps are perfect solution for domestic and municipal use, where as our Contractor Pumps and Ni-hard series slurry pumps can handle the most abrasive slurries from infrastructure to power industries.

Also MBH has introduced its corrosion resistance submersible pumps which are best suited for seawater and acidic applications.



Tough to Beat.

Robust

All components are made from robust materials for easy maintenance and long life.

Powerful

The motor is specifically designed for reliable operation in submersible applications and it can run continuously without overheating.

Durable

Heavy-duty bearings with long life provide peace of mind.

Environmentally friendly

The cooling system is designed to use its surroundings to cool the pump, no use of environmentally hazardous fluids such as oils.

Safe and straightforward

Cable entry prevents both cable strain and leakage.

Consistent

The double mechanical seal provides extra reliability and protects against leakage.

Flexibility

Drilled pump housing, ready for any installation method.



Applications

1. Municipal sewage pumping stations & Sewage treatment plants
2. Wastewater pumping stations
3. Storm-water pumping stations
4. Industrial effluents pumping and Effluent treatment plants.
5. Slurry handling for Power & Steel Industry
6. Handling slurry and liquids with high content of solids at construction sites

Installations

DWP Pumps (MIDC Boisar)
225 HP (6 units)

Aqua engineering Services (Bangalore International Airport Ltd.) upto 20 HP (20 units)

Maruti Infrastructure (Wadhwan project)
upto 100 HP (20 units)

MEM Engineering pvt. Ltd. (Chennai Metro Project)
upto 40 HP (100 units)

Kevadiya Infra Projects Pvt. Ltd. (Valod Project)
upto 45 HP (14 units)

Sunrise Power tech (Thara Project)
upto 40 HP (13 units)

Adani Power Ltd. (Udupi)
120 HP (1 unit)

Triveni Engineering & Industries Ltd. (Mathura Projects)
upto 225 HP (53 Nos)

Advent Envirocare Technology Pvt Ltd. (Tata Steel Kalinganagar Project) upto 10 HP (48 units)

Western Corporation Ltd. (Halfaya Refinery project)
upto 75 HP (7 units)





NS Series Pumps Submersible Sewage Pumps

Submersible Sewage Pumps are wet-installed type submersible motor pumps with non-clog impeller. Pumps have a robust design for continuous duty operation for various sewage and sludge handling applications.

Technical Specifications :

Head : upto 65 meters
Capacity : upto 4000 m³/hr
HP : 0.5 to 250
Solid Size : upto 150 mm
MOC : Cast Iron with Stainless steel
Frequency : 50 / 60 Hz

Applications • Handling of industrial abrasive & aggressive slurry • Untreated sewage containing solid particles • ETP • Municipal sewage plant

CP Series Submersible Contractor Pumps

These pumps are special MOC wet-installed type submersible motor pumps with non-clog impeller. Pumps have a robust design for continuous duty operation for various construction related slurry

Technical Specifications :

Head : upto 50 meters
Capacity : upto 450 m³/hr
HP : upto 60
Solid Size : 40 mm
MOC : 27% high chrome impeller, 2% Ni. CI volute
Frequency : 50 / 60 Hz

Applications • Construction slurry • Dewatering

PST Series Submersible Portable Pumps

Also known as cutter pumps, these pumps are fully foldable, vertical, closed coupled single stage submersible motor pumps. These pumps are your solution for critical application.

Technical Specifications :

Head : 45 meters
Capacity : 170 m³/hr
HP : 0.5 to 10
Solid Size : 35 mm
MOC : Cast iron, Aluminum, Stainless steel
Frequency : 50 / 60 Hz

Applications • Automatic dewatering of Pits • Yards & basements subjected to flood risk • Portable application



SS Series – Corrosion Resistance Submersible Pumps

MBH submersible corrosion-resistant pumps are made of stainless steel (304 or 316). Because these materials are used, the pumps can handle chemical fluids of low pH value (e.g., corrosive acidic fluid), as well as seawater.

Technical Specifications :

Head : upto 50 meters
 Capacity : 420 m³/hr
 HP : upto 60
 Solid Size : 35 to 100 mm
 MOC : Stainless steel 304 & 316
 Frequency : 50 / 60 Hz

Applications • Pharma industries
 • Dewatering of chemical tanks
 • Acidic water • Sea water

DS Series Duplex Steel Submersible Pumps

The DS Series pumps use highly corrosion-resistant materials for all parts that are exposed to fluids, including the impeller, casing, motor frame, outer cover, strainer stand, bend, flange and sealing parts. Perfect solution for sea water applications.

Technical Specifications :

Head : upto 65 meters
 Capacity : upto 4000 m³/hr
 HP : upto 250
 Solid Size : 100 mm
 MOC : Duplex Stainless Steel
 Frequency : 50 / 60 Hz

Applications • Seawater dewatering
 • Desalination plants • Ports & Dockyards
 • Seawater intake for power plants
 • Coastal projects

Ni-HARD Series Submersible Slurry Pumps

These pumps are special MOC wet-installed type submersible motor pumps with non-clog impeller. Pumps have a robust design for continuous duty operation for various slurry applications.

Technical Specifications :

Head : upto 50 meters
 Flow : 800 m³/hr
 Solid content by weight : 65%
 Specific gravity : 2.8 kg/l
 Particle size : 40 mm
 MOC : Ni-Hard 600 BHN, 27% High chrome
 Frequency : 50 / 60 Hz

Applications • Fly Ash, Dredging & Thick mud
 • Coke pits • Sand and gravels excavation
 • Ocean sand mining • Silt removal
 • Mill scale • Coal washery

Extensive Range of MBH wastewater pumps now comes with Optimal cooling solution for various pumping applications. This comprehensive selection of pump options will provide optimal performance and power, while reducing operating costs and simplifying maintenance.

Cooling is a key aspect of submersible pump performance. MBH offers several types of cooling systems, including advanced closed loop cooling, which delivers the ultimate flexibility and reliability.

Closed-loop cooling system with glycol cooling

MBH closed loop cooling system uses the latest technology to secure industry leading performance. It is suited to all DRY-INSTALLATIONS, as well as wet installations where the motor is not sufficiently submerged. Coolant is circulated between the inner and outer cooling jacket, down to the cooling bottom. The main strength of closed-loop cooling is that it is not sensitive to impurities in the pumped media. The close loop ensures the coolant is never contaminated. The Heat from stator body is transferred to the coolant, and the coolant at the same time is pumped at high speed inside the jacket with the help of specially designed 3D printed Impeller.

The coolant in the closed loop system is a precise mixture of pure distilled water and a special glycol formulation. It has excellent heat transfer and corrosion resistance properties and is freeze-proof upto -45 C.

Now ask for Closed loop jacketed submersible pumps for all variety of MBH submersible waste water pumps as an option.



NS Series Submersible Sewage Pumps

Technical Specifications :
 Head : upto 65 meters
 Capacity : upto 3000 m³/hr
 HP : 10 to 300
 Solid Size : upto 150 mm
 Frequency : 50 / 60 Hz

Ni-HARD Series Submersible Slurry Pumps

Technical Specifications :
 Head : upto 60 meters
 Capacity : upto 800 m³/hr
 Solid content by weight : 65%
 Specific gravity : 2.8 kg/l
 Particle size : 40 mm
 Frequency : 50 / 60 Hz

CP Series Submersible Contractor Pumps

Technical Specifications :
 Head : upto 50 meters
 Capacity : upto 450 m³/hr
 HP : upto 60
 Solid Size : 40 mm
 Frequency : 50 / 60 Hz

*** No need of external water source for cooling. * Can use a submersible pump as a surface pump.**



Cable Entry

Water resistant cable entry provides both sealing and strain relief functions for a safe installation.

Motor

Squirrel cage, high performance induction motor, specially designed and manufactured by MBH pumps for submersible use. Stator windings are trickle impregnated in resin to class H insulation or Class F insulation and rated at 180°C (355°F).

Seals

Two sets of mechanical shaft seals that work independently for double security. The Sealing system adopted for MBH make submersible pumps, offers increased sealing reliability and zero leakage into the motor, thereby reducing the risk of bearing or stator failure. Seal face - SIC / SIC & Carbon / Chrome steel. For some series pumps, MBH also offers Tungsten carbide seals.

Bearings

Durable bearings provide a minimum of 75,000 hours service life. In slurry pump series generously oversized bearings are used.

Oil Housing

In addition to lubricating the seals, the oil filled compartment diffuses heat from the motor and the bearings. The housing also provides additional security against penetration by liquids.

Sensors

Thermal Sensor embedded in the motor winding. Moisture monitoring sensor in stator chamber as standard. Bearing monitoring sensor on request.

Shaft

A short overhang of the shaft virtually eliminates shaft deflection. This results in significantly increased seal and bearing life, low vibration and quiet operation. All shafts used for MBH Sewage type pumps are made of high grade stainless steel.

Impeller

Highly reliable and efficient impeller design with single and multi vane models to ensure exceptional blockage resistance, solid passage. All impellers are optimally balanced.

Adjustable Bottom Plate

Due to adjustable bottom plates, Significant energy savings throughout lifetime & Blockage free operations is possible. Bottom plate restores the clearances between the open impellers and bottom plate.



Actual images of different type of impeller supplied with MBH Sewage Pumps

Optional Features and Accessories



Cooling Jacket

The cooling system is designed to use its surroundings to cool the pump; no use of environmentally hazardous fluids such as oils. Internal cooling jacket also available in select models on request. In case of dry pit installation is required, kindly contact factory for cooling jacket options.



PMU

Intelligent systems for submersible pumps. At MBH we produce monitoring and control systems for a wide range of pumps. Our systems offer lower maintenance costs, reliability, long life and reduced energy consumption. Our PMU unit can be used to run and monitor applications working in sewage treatment plants, sewage and drainage pumping.

Control Panel

We at MBH, understand the Investment a customer is making in buying our Submersible pumps and for getting optimum output of your investment, we recommend you to opt for our Control Max series Control panels.

All MBH Panels Protect against:

- Earth leakage faults - damage to the cable or pump
- Current overload of the pump
- Phase imbalance - voltage variation of the incoming supply phases
- Phase rotation - to ensure the pump runs in the correct direction
- Phase loss- the loss of one or more of the incoming phases
- Under voltage - if the incoming voltage is too low
- Over voltage - if the incoming voltage is too high



Auto-coupling System

Guide Rail Fitting System (NS, PST, DS, SS, NSS Series only)

The guide rail fitting system connects the pump to and from the piping easily just by lowering and hoisting the pump, allowing easy maintenance and inspection without the need to enter the sump.

Accessories

- Duck-foot Bend
- Guide Support
- Guide Hook
- Lifting Chain (with Shackles)

Custom made lifting chains are recommended so the slurry pump is lifted from a single point. This means that the pump remains vertical at all times, and is not lifted on an angle, which can happen on site if only one of the lifting points is used. Additionally when starting the pump when it is submerged in settled slurry it allows the pump to vibrate as described above.

As it is a submersible pump the shackles and chain unit come in a galvanised finish to minimise corrosion and maximise working life.

The chain unit is supplied with two shackles to couple it directly to the Pump.

Agitator

MBH Sewage pumps & slurry pump can be fitted with agitator which eliminates solids accumulating on the sump floor and can significantly reduce maintenance costs resulting from digging out sumps and downtime due to solids building up and choking off the suction of conventional pumps. It is because of Agitator blade that the highest efficiency in material mixing can be achieved.

Heavy duty blades situated in front of the pump's suction agitates, chops, cuts shreds incoming solids such as metal, plastic, wood, solid waste prior to them entering the impeller. The Agitator eliminates the pump and system from getting clogged.





“ Fresh water is becoming increasingly scarce worldwide. That is why we consider it as our responsibility to develop pumps and systems that can use to obtain and use this precious resource in the most efficient way possible – now and in the future. ”

Specifications and performance are subject to change without prior notice. Images used are for illustration purpose only.

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PUMPS

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