

HYDROMATIC[®] SUBMERSIBLE SOLIDS HANDLING PUMPS





HYDROMATIC®

Hydromatic® Submersible Solids Handling Pumps Are Field Proven and Reliable

You can depend on Hydromatic pumps to provide years of reliable service. As one of the oldest submersible pump manufacturers in the world, Hydromatic offers you field-proven pumps and systems for all your requirements. We also supply complete technical support and ongoing engineering assistance for the life of the pump.

Rugged, Safe Pumps

When government regulations or area classifications require hazardous location pumps, you can depend on Hydromatic submersible solids handling pumps.

Now you can get certified, Class I, Division 1, Group C and/or D hazardous location pumps for applications such as sewage wet wells where flammable gases exist.

Get the Same Reliability

With Hydromatic hazardous location pumps, you get the same reliability and efficiency designed into the non-hazardous location pumps. Plus, you get added safety advantages with FM approved, hazardous location, Hydromatic pumps.

Reliable, safe operation is ensured because all castings are inspected for porosity before, during and after machining. After assembly each hazardous location pump is thoroughly inspected to ensure reliable performance.

Vortex – Recessed Impeller Option

Hydromatic pumps are available with recessed impellers which are virtually impossible to clog. They perform up to shut-off head without damage. The recessed impeller creates a liquid vortex in the volute which directs all spherical solids, slurry, sludge, grit, stringy or fibrous material through the pump without clogging. Recessed impeller pumps are ideal for a broad range of sewage and special waste-handling situations, including high head and low flows and where large solids are present.

H Series – Greater Pump Efficiency

The H Series solids handling pumps, with the enhanced geometry of the monovane impeller, provide greater pump efficiency and steeper non-overloading performances while passing up to a full 3" spherical solid, as is required by the "Ten States Standards" policy for submersible solids handling pumps. H Series pumps are available with horsepower ratings from 7.5 to 15 with speeds up to 1750 RPM.

Installations:

Municipal

- Wastewater transfer
- Wastewater treatment plants
- Wastewater lift stations
- Subdivisions
- Airports
- Storm water

Commercial

- Building wastewater systems
- Wastewater
- Hospitals
- Motels
- Apartments
- Schools
- Churches
- Universities
- Campgrounds
- Amusement parks

Industrial

- Wastewater
- Sump
- Spray wash
- Storm water

Standard Pump Features

A. Motor

Oil filled to efficiently dissipate heat and lock out damaging moisture so you receive reliable pumping service. Easily field serviceable.

B. Connection Box

Two epoxy barriers and a compression fitting prevent water contamination of the motor area, assuring long-term reliable operation. Additionally, epoxy encapsulation and stripped leads positively eliminate "wicking" from the cable.

C. Bearings

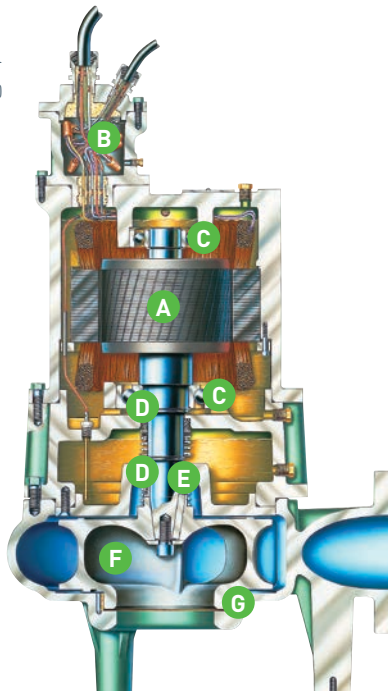
Heavy-duty upper and lower ball bearings are submerged in oil to provide permanent lubrication and ensure long service life.

D. Seals

A dual seal system operates in an oil chamber to provide long pump service life. Various seal options available.

E. Shaft

The stainless steel shaft eliminates corrosion and fatigue for longer pump life. The minimum shaft overhang decreases deflection and increases bearing and seal life. Tapered shaft allows for easy removal of impeller.



F. Impeller

Hydromatic solids handling pumps are available with a wide range of impellers for different applications. Pump-out vanes on the top shroud prevent the buildup of materials in the seal area and extend the life of the thrust bearing by significantly reducing axial thrust.

G. Renewable Case Wear Ring

Easily replaceable, true wear ring, with a top pullout design for easy disassemble operation.

Hazardous Location Pump Features

Flame-Proof Joints

Flame-proof joints have 1-1/4" flame paths. These close tolerance joints prevent any internal spark or fire from escaping into the environment.

Motor Housing

The hazardous location housing wall is thicker throughout the case to give you extra containment capability.

Heavy-Duty Bearings

Hydromatic pumps provide you heavy-duty bearings (minimum B-10 life of 50,000 hours) for long pump life.

Two Moisture Sensors

Two moisture sensors in the oil chamber provide extra security. The sensors are electrically isolated and made with stainless steel connections and stainless steel probes.

Labyrinth Joint

The special labyrinth joint gives you added protection by preventing flame or spark travel to the media being pumped.

Oil-Filled Motor

Dependable Operation

The Hydromatic pump's oil-filled motor keeps the windings cool, eliminates moisture, and permanently lubricates the bearings, to provide reliable pumping service.

The oil bath keeps the motor and bearings cool by dissipating heat and maintaining the correct operating temperature. The oil transfers heat generated in the motor windings to the housing where it is dissipated by the surrounding wet well media. Airborne moisture contamination is locked out so that moisture, which condenses with temperature changes, does not cause premature motor and bearing failure.

The oil bath also permanently lubricates the bearings which minimizes heat and flushes contaminant away from bearing races. Maintenance costs are reduced because bearings do not require routine service and motors do not require a secondary cooling apparatus. Oil-filled motors ensure dependable, reliable service!

Dual Seal System/Moisture Sensor

Dual Seal System Gives Long Pump Service Life

The mechanical dual seal system protects the motor from water with one upper shaft seal and one below an oil chamber. The oil chamber provides lubrication for the seals and traps any moisture that may leak through the lower seal. The upper seal operates entirely in oil. The dual seal design gives the pump exceptionally long service life by keeping pumped media out of the motor housing.

Moisture Sensor Decreases Downtime and Maintenance Costs

The moisture sensor, provided as a standard feature on all solids handling pumps, saves money and decreases downtime by allowing you to take corrective action before an expensive bearing or motor failure occurs. The internal sensor detects the presence of moisture in the oil chamber and signals that the lower seal is beginning to leak.

Some manufacturers put a moisture sensor in the motor area and moisture is not detected until after it affects the bearings and motor itself.

System Operations

Rail Systems for Easy Pump Retrieval

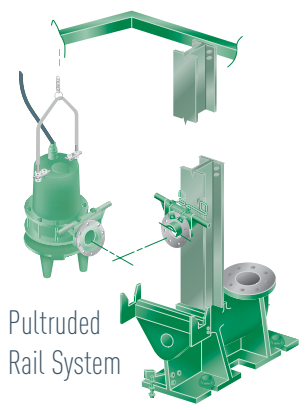
To easily raise and lower your pump(s) for service and maintenance, you can choose from among three rail systems.



Hydr-O-Rail System



MTM Rail System



Pultruded Rail System

Novus Series – A New Generation of Custom Controls

Custom built to your specifications and individually tested, the Hydromatic Novus Series is available in five different models: 1000, 1000 Plus, 2000, 3000 and 4000. The series starts with the dependable yet inexpensive Hydromatic Novus 1000 Series which features basic relay logic controls in a quality NEMA 3R painted steel enclosure. The next model is the Hydromatic Novus 1000 Plus Series offering additional features in a NEMA 4X enclosure for Hydromatic 2 hp grinder packages.



The Hydromatic Novus 2000, 3000 and 4000 Series offer more advanced features. These series use state-of-the-art digital controllers that are optimized for submersible pumps in simplex, duplex or triplex wastewater lift stations.



Novus 2000 Simplex Controller Unit

Novus 2000 Duplex Controller Unit



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