



**HYDROMATIC<sup>®</sup>**  
SOLIDS HANDLING  
DRY PIT PUMPS

# HYDROMATIC®

## Solids Handling Dry Pit Pumps

### Dependability

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

First, 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.

Second, the oil bath locks out airborne moisture contamination which destroys motors and bearings. Air carries moisture that condenses with temperature changes and causes premature motor and bearing failure.

Third, the oil bath permanently lubricates the bearings, which minimizes heat and flushes contaminants away from bearing races.

Heat and contaminants cause grease breakdown that leads to premature failure of grease-packed bearings supplied by other manufacturers. Oil-filled motors ensure dependable, reliable service!

You get long pump life because the oil-filled motor dissipates heat from the windings, through the oil, to the outer housing.

### Reliability

The moisture sensor saves money and decreases downtime by allowing you to take corrective action before an expensive bearing or motor failure occurs.

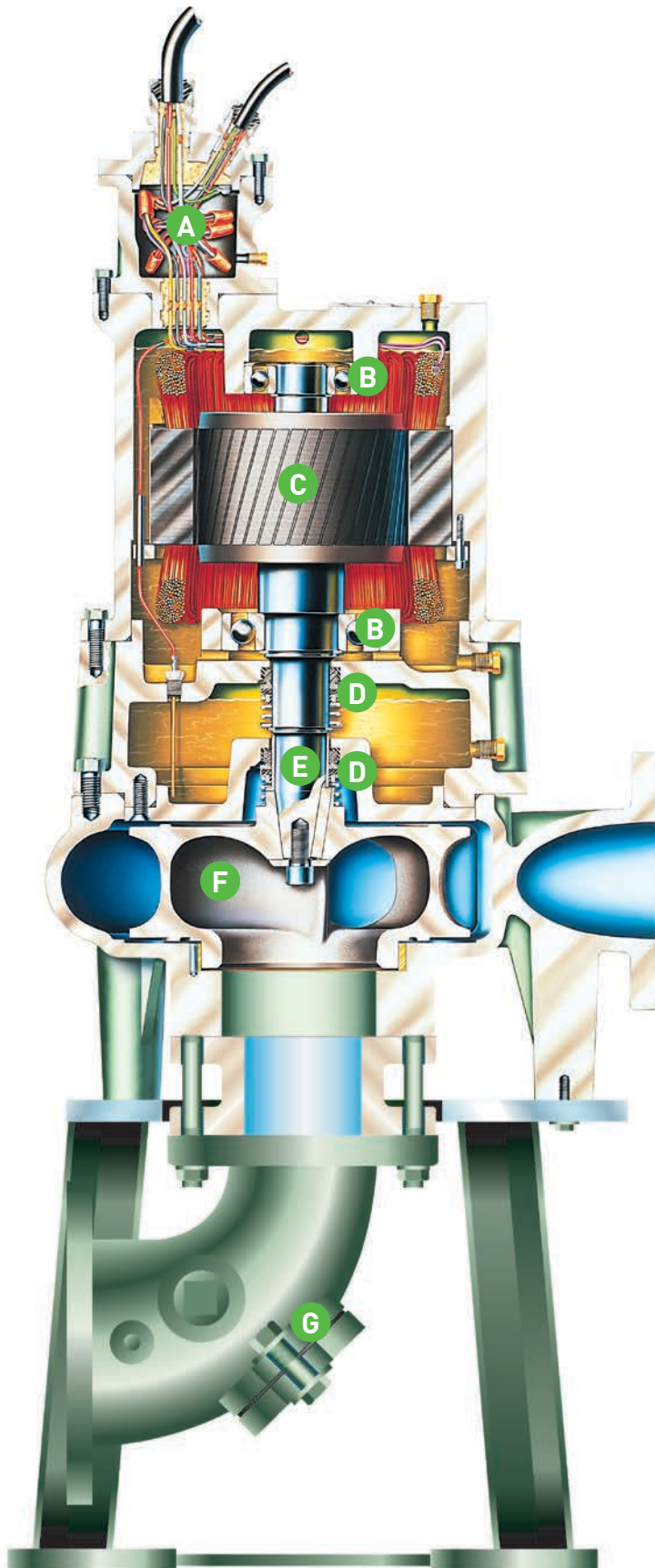
Hydromatic pumps incorporate an internal moisture sensor that detects the presence of moisture in the oil chamber.

The sensor's signal to the warning system lets you know that the lower seal is beginning to leak.

Some manufacturers put a moisture sensor in the motor area which means moisture is detected after it begins affecting the bearings and motor. Hydromatic's lower seal moisture sensor allows you to perform immediate maintenance instead of reacting to an emergency breakdown. The internal moisture sensor saves you money and decreases downtime.

Hydromatic supplies necessary plumbing to connect the water jacket to the suction and discharge piping. This plumbing includes ball valves that allow easy removal of the water jacket for periodic cleaning without shutting down the system.

# Pump Features



## A. 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.

## B. Bearings

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

## C. Motor

Hydromatic uses "Class H" insulation for long life. Three-phase pumps are suitable for use with VFD drives. Oil-filled motor efficiently dissipates heat and locks out damaging moisture so you receive reliable pumping service.

## D. Seals

Dual seal system operates in an oil chamber to provide long pump service life.

## E. Shaft

Stainless steel shaft eliminates corrosion and fatigue to give longer pump life. Minimum shaft overhang decreases deflection and increases bearing and seal life.

## F. Impeller

Two-vane solids handling impellers provide the most energy efficient design. 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. Clean-Out

Pump is provided with a clean-out type cast iron suction elbow which is bolted directly to the pump suction flange. A clean-out hole is provided with a removable cover of the largest possible size.

# Pump Benefits

## Low Maintenance

Hydromatic pumps are virtually maintenance free because the oil-filled design keeps the motor and bearings both fully lubricated and operating in the proper temperature range for very long life. You perform periodic maintenance for bearings and seals less often than required by other manufacturers.

## Cooling Fins/Water Jackets (Optional)

When additional cooling is required, Hydromatic can supply pumps with cooling fins or water jackets. Both are designed to keep the motor temperature in the normal operating range.

### Installations:

#### Municipal

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

#### Industrial

- Wastewater
- Sump
- Spray wash

#### Commercial

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

### Benefits:

- Field-proven
- Reliable, long life equipment
- Quick delivery
- Easy-to-install
- Low operating costs
- Completely field serviceable
- Easy-to-service
- Energy efficient
- Less maintenance



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