

**SUBMERSIBLE / IMMERSIBLE PUMPS**

Hidrostat submersible pumps are a range of quality screw centrifugal non clog pumps capable of not only pumping general effluent but also those liquors that are :-

- Containing solids, including rags
- Viscous
- Requiring gentle handling.

**Submersible or Immersible ?**

Hidrostat manufacture two types of motor.

Our submersible type is cooled by conducting heat from the motor to the liquid in which it is submerged. This requires the motor to be submerged for normal and prolonged operation.

Our immersible type has independent cooling that enables the motor to run either in a wet well or dry well. Hidrostat do not use product for cooling so our motors do not suffer from overheating problems that can occur when product is circulated around the motor,( a method commonly used by other manufacturers).

**Motors**

A choice of motors is available for use in non-hazardous areas or ATEX rated for use in hazardous areas.

The standard motors have the following monitoring devices:-

- Klixon over-temperature protection
- Moisture sensing probe for the detection of water ingress in the cooling/seal chamber oil

The following options are also available:

- Float Switch detecting any water or oil passing through the motor side seal.
- Lower bearing temperature sensor
- Thermistor over-temperature protection

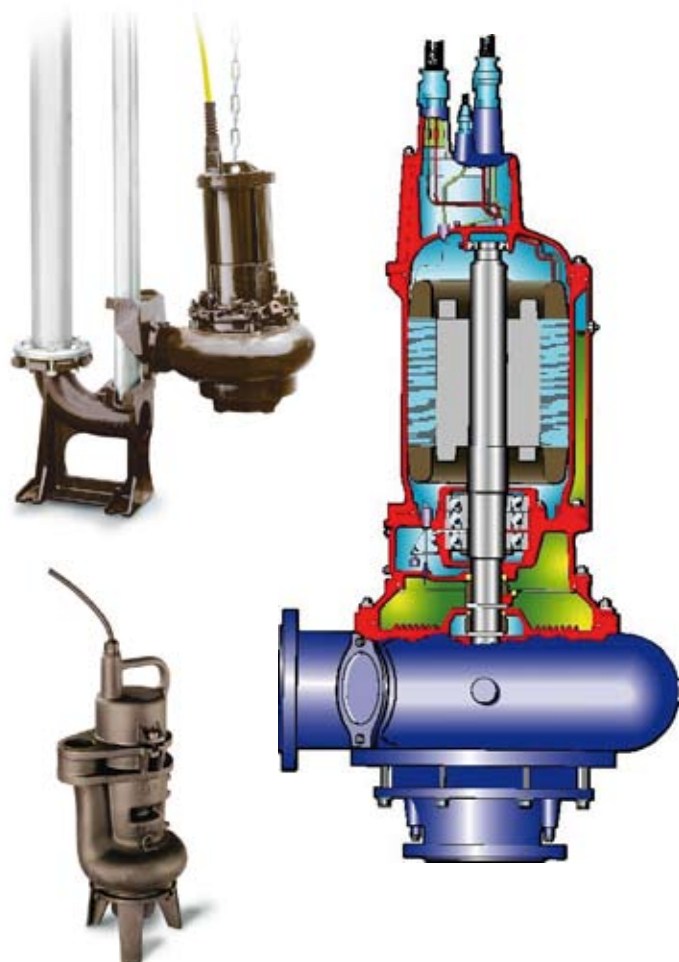
**Mounting Options**

	Guiderail in a wet well*	Free standing	Horizontal in a dry well	Vertical in a dry well
<b>Submersible</b>	•	•		
<b>Immersible</b>	•	•	•	•

**\* Guide Rail Mounting:**

For permanent installation and ease of maintenance, a guide rail mounting arrangement is available. Twin guide rails ensure the pump is guided to the discharge pedestal and correctly locates in position to give a leak free connection.

The pump discharge incorporates a gliding shoe, providing a rugged metal to metal, interlocking contact with the discharge pedestal. A positive sealing face is achieved by means of a rubber seal, compressed against the pedestal flange face by the weight of the pump.



**SECTION 4.1**  
**SUBMERSIBLE / IMMERSIBLE /**  
**AXIAL FLOW PUMPS**



**Pump Materials of Construction**

The pumps can be supplied in the following standard range of materials

Designation	Features	Volute	Liner	Impeller
Code 1	Standard for general applications	Cast iron	Cast iron	Nodular iron
Code 2	Hardened liner to improve wear resistance	Cast iron	Chrome iron	Nodular iron
Code 3	Hardened liner and impeller to further improve wear resistance for particularly gritty liquors	Cast iron	Chrome iron	Molybdenum steel
Code 5	Stainless steel volute, liner and impeller to improve corrosion resistance to certain chemicals	Stainless steel	Stainless steel	Stainlesssteel

Other materials are available on request such as duplex stainless steel.

**Impeller / liner clearance adjustment**

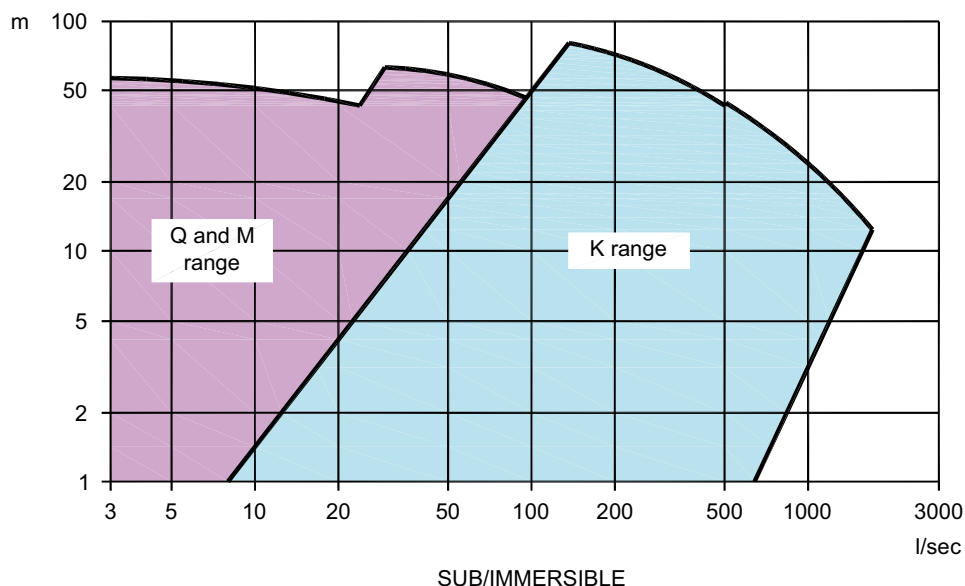
All our pumps have the facility to adjust impeller and liner clearance. However there is an optional feature available which allows impeller and liner clearance to be modified using a simple external jacking screw arrangement . This enables quick and easy adjustment on site without the need to disassemble any of the pump parts, which reduces whole life costs by ensuring that the user can easily maintain pump efficiency to optimise energy costs

**Mechanical seals**

The pumps have double mechanical seals running in an oil chamber. Hidrostal have three types of mechanical seal as standard

Designation	Features	Face materials	Body	Elastomers
'G'	Standard for general waste water applications	Silicon carbide / tungsten carbide	St.St.	Nitrile
'M'	Seal spring is rubber booted for protection against debris intrusion, and materials of faces increase abrasion resistance	Silicon carbide / tungsten carbide	St.St.	Nitrile
'X'	Seal is multi-spring design & has a complete stainless housing and body	Silicon carbide / tungsten carbide	St.St.	Nitrile / Viton

Other elastomer materials are available on request



**Hidrostal operate a policy of continuous product development. If your duty does not appear to be covered in this range chart, please contact our office with your duty condition as we have additional pumps available that may meet your specific requirements.**