

VERTICAL SUBMERGED PUMPS

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Type : **NVS** / **PVS** / **SPR**



QUALITY CONTROL : All the raw materials which go into the **ENTITY** Pumps are tested thoroughly for chemical and physical properties. Material tests such as magnetic particle test, dye penetration test, ultrasonic tests etc. are also offered as optional tests. All the parts manufactured on machines are thoroughly checked for dimensional accuracies with the help of standard measuring equipment. Each and every pump is tested rigorously in the testing laboratory where the parameters like rate of flow, head and power are measured. The pumps are cleared for the dispatch only when they produce satisfactory hydraulic and mechanical performance.

Pump Type **NVS**

APPLICATIONS : These are solid handling pumps and are most suitable for pumping liquids such as raw sewage, raw sludge, digested sludge, effluents, waste water, sump water, coal slurries, muddy water, fly ash, sand, gravel etc.

RANGE :

| | |
|------------------|------------------------------|
| Rate of Flow | - upto 600 m ³ /h |
| Head | - upto 60 m |
| Delivery Size | - 40 to 200 mm |
| Temperature | - upto 110 °C |
| Solid Size | - 100 mm Ø max |
| Working Pressure | - upto 16 kg/cm ² |

Pump Type **PVS** / **SPR**

APPLICATIONS : These are vertical submerged pumps designed for clean or slightly contaminated liquids and are most suitable For Acid Circulation, Molten Sulphur, Coolant Circulation, Liquid Transfer, Molten Salts, Solvents, Hydrocarbons, Hot Water, Raw Water, Cooling Water, Alkalies, etc.

Range :

| | |
|------------------|------------------------------|
| Delivery Size | : Upto 125 mm |
| Rate of Flow | : Upto 300 m ³ /h |
| Head | : Upto 60 m |
| Temperature | : Upto 450° C |
| Working Pressure | : Upto 16 kg/cm ² |

ENTITY

HYDRODYNAMICS

CONSTRUCTIONAL DETAILS

DESIGN FEATURES :

The **'ENTITY'** make vertical submerged pumps, are used for variety of liquids. The casing and impeller are submerged in liquid and are suspended through column pipes into the sump or tank. The power is transmitted through a shafting which is supported by bush bearings provided near the casing and in between two column pipes. The axial load is taken by thrust bearing provided at support level. The pump is driven by a vertical flange mounted motor supported by suitable motor stool. Since the casing and impeller is submerged in the liquid the pump is ready to start at the push of button. No priming is required as in the case of horizontal pumps working against suction lift.

OTHER DESIGNS OFFERED :

These pumps can also be installed outside the tank where pump can not be installed into the tank. By incorporating some special design features, these pumps can be used for very high temperature liquids.

SALIENT FEATURES :

- Generally offered in Glandless design which eliminates gland leakage problem. However for liquids which liberate fumes or vapors, gland packed designed is offered to prevent the vapors or fumes coming into contact with atmosphere.
- Heavy duty bearings provided for pumps used for critical applications to give better life.
- Steam jacketed version is offered for liquids which solidify at ambient temperature

MATERIAL OF CONSTRUCTION :

As the **'ENTITY'** pumps are used for pumping wide range of corrosive and abrasive liquids, they are offered in different materials of constructions such as Grey Cast Iron, Alloyed Cast Iron, Alloy Steels in grades CFB/AISI 304, CF8M/AISI 316, CN7M (Alloy 20), Bronze and Rubber Lined Construction.

OTHER PRODUCTS

We also manufacture pumps in following types -

Horizontal Back Pullout Chemical Process Pumps

Horizontal Self Aligned Chemical Process Pumps

Horizontal Self Priming Chemical Process Pumps

Horizontal Multistage Pumps

Barrel Pumps

Vertical Submerged Pumps for Chemical Process Applications

Vertical Submerged Steam Jacketted Pumps

Designed & Manufactured by :

Entity Hydrodynamics

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Represented By