

Catalouge

# **DESIGNED TO PERFORM**

# **PRINCIPLE OF OPERATION**

#### Rugged and reliable solution to handle liquids from a pit or a tank.

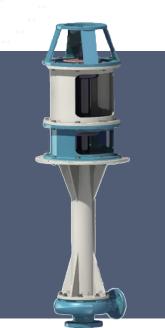
This design eliminates the requirement for a bush bearing, associated hydraulic flushing / cushioning. Bearings are situated above the mounting plate and the shaft designed on a cantilever principle to ensure a deflection at the impeller end being less than 50 micron.

These pumps have been designed for operating at elevated temperatures of upto 800°C with suitable material of construction for critical applications.

#### Salient features

- There is no bearing on the pump side namely any Guide Bush, hence the maintenance problem associated with the bearing on the guide bush is eliminated, which is the normal cause of Vertical Cantilever Shaft Pump.
- This is achieved by a special design, where we guarantee the maximum deflection at the impeller side less than 50 microns.
- As a result of this the diameter of the shaft is substantially high and there will be two bearings in the bearing housing side taking care of the Cantilever as well as axial and radial load.
- Since the rotating element does not come in contact with any stationary part while in operation as the pump can dry without any effect.
- The Pump can handle clear liquid and slurries.
- Since the diameter of the shaft is very high, the failure of the shaft is negligible.
- The construction and design features of the Vertical Cantilever Shaft Pump are totally different from Sump Pump to ensure high reliability and Low maintenance.
- The Liquid does not reach the gland area, thus avoid the use of Mechanical Seal.
- We prefer to operate the Vertical Cantilever Shaft Pump at 1440 RPM with the maximum depth of Im. The tanks of higher depth can be emptied by having a tail pipe attached to the suction port.
- These pumps can be used wherever automatic switching ON/OFF is required.

## **METALLIC SERIES**



#### **Technical Specifications**

- Offered only in 1440 RPM.
- Maximum depth of 1.5 meters.
- Pumps offered comply to VS5 as per API 610.
- Head of upto 45m.
- Capacity from  $3m^3$  /hr to  $250m^3$  /hr.
- Offered in Semi Open or Closed impeller to suit the application.

## **NON-METALLIC SERIES**

#### **Technical Specifications**

- Offered only in 1440 RPM.
- Maximum depth of 2.5 meters
- Pumps offered comply to VS5 as per API 610.
- Head of upto 45m.
- Capacity from 3m<sup>3</sup> /hr to 250m<sup>3</sup> /hr.
- Offered in Semi Open or Closed impeller to suit the application.

### **Material of Construction**

The material of construction of a pump plays a crucial role in the operation and durability of the pump. Based on the liquid handled, its nature, temperature and pressure of operation, the material of construction of the pump is to be selected with suitable corrosion allowance. Specialized in offering corrosion resistant pump, we offer the pump in a wide range of metallic and nonmetallic materials to suit the application

### **Metallic Material**

#### **Casted Pumps**

Stainless Steel conforming to various ASTM specifications such as CF8, CF8M. CF3, CF3M and many more.

Duplex and Super Duplex Steel which include CD4MCu, CD6Mn, CD3Mn CD3Mn, CZ100 Inconel & Alloy 20 and many more.

### **Non Metallic Materials**

**Fully Moulded** 

Ultra High Molecular Weight Poly Ethylene (UHMWPE)

#### Lined Pumps

Poly Vinyl Di Fluoride (PVDF), Fluorinated Ethylene Propylene (FEP), Per Fluoro Alkoxy Alkanes (PFA)

# **OTHER PRODUCTS**



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Pumping solutions redefined

