FLUGO

TECHNICAL CATALOGUE

# **PV-QV** SERIES
## HEAVY DUTY VERTICAL FROTH PUMP

## PV/QV HEAVY DUTY VERTICAL FROTH PUMP

The PV/QV froth pumps are of heavy duty construction, designed for continous pumping of highly abrasive and corrosive frothy slurry in flotation process. They have a vertical shaft configuration, and comprise a hopper, with vertical bearing assembly

## PV/QV | PUMP DESIGNATIONS

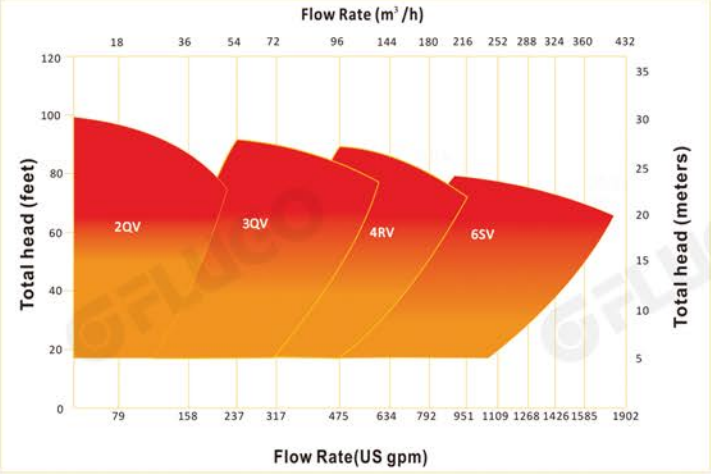
4 RV PV/QV

- PV/QV → Vertical Froth Pump
- RV → Bearing Assembly Model
- 4 → Discharge Diameter (inch)

## PV/QV | PUMP QUICK SELECTION CHART

**Pump Range**

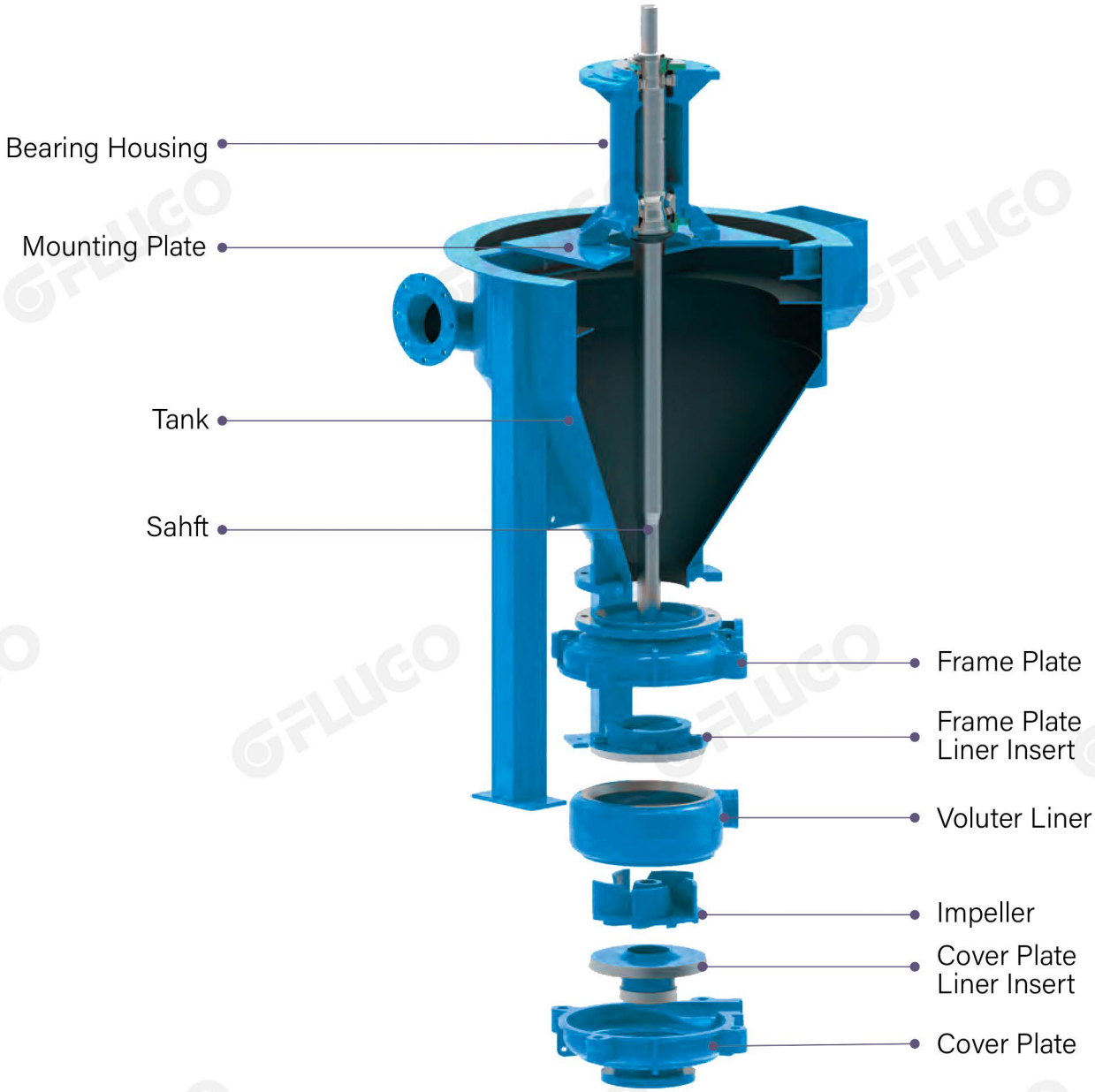
Discharge Size : 50 to 150mm
Capacity : 7 to 430 $m^3/h$
Head : 10 to 26 m




## TYPICAL APPLICATION

- Mineral Concrentrate
- Oil Sand
- Mineral Sand
- Fine Tailing
- Flotation
- Chemical Process
- Paper & Pulp

## PUMP STRUCTURE




## PUMP FEATURES

- Delivered abrasive & corrosive slurry which contains froth through the hopper and spiral frame plate liner insert, which increases the capacity of transfering slurry.
- Double casing structure
- No shaft seal and flushing water
- The parts immersed in liquid can be wear resistant metal or rubber
- Easy to maintain

## MATERIAL OPTIONS

A major advantages of the slurry pump is the numbers of optional materials available. This enables a pump to be constructed with the most appropriate materials specifically to meet the duty requirements.

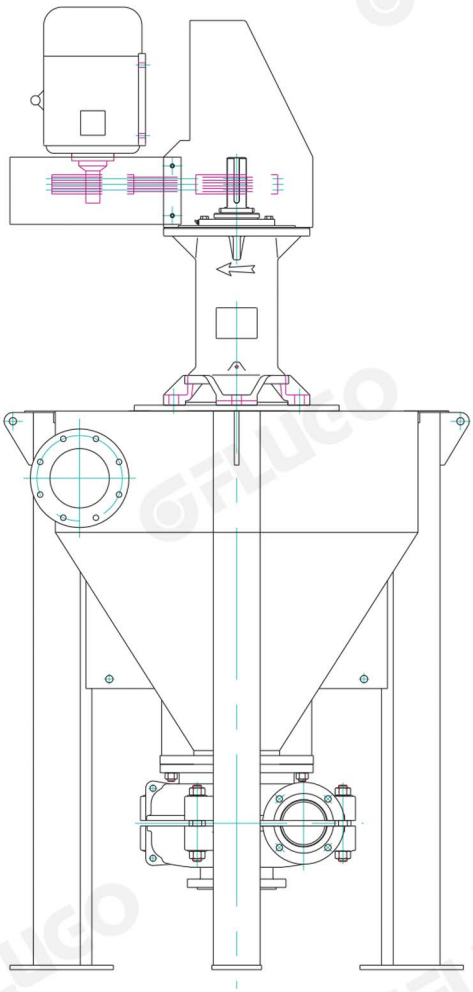
| Material Code | Hardness (HRC) | Impact Toughness (J/cm2) | Application | Standards |
|---|---|---|---|---|
| M05 | ≥58 | 5~7 | Alloy M05 is particularly suited for greater impact load and fair corrosion resistance, and it is used when pH range is 5-12. | ASTM A532 CL III-A |
| M07 | ≥58 | 5~7 | Alloy M07 has lower wear resistance but higher impact resistance than Alloy M05. It is used when pH range is 5-12. | ASTM A532 CL III-A |
| M49 | 35~45 | 5~7 | Alloy M49 has certain erosion resistance and better corrosion and abrasion resistance, which is used in mild acid application with pH =4, particularly suitable for Flu Gas Desulphurization (FGD) applications. | |
| M33 | 30~40 | 5~7 | Alloy M33 excels in erosion resistance and corrosion resistance, which can be used in oxidizing medium with pH =1, such as delivery of phosphogypsum and nitric acid, sulfuric acid and phosphoric acid, etc. | |
| M12 | 60~67 | 2~5 | Alloy M12 has better wear resistance than Alloy M05, but it is not best suited for corrosion application. It can be selected when pH ranges of 6-14, where Alloy M05 provides fair wear life. | |
| M61 | 60~67 | 5~6 | Alloy M61 has better toughness compared to Alloy M12. Alloy M61 can be further hardened by adjusting heat treatment, thereby improve its wear resistance. It is suitable for high abrasive slurry with fine particles with pH ranges of 6-14. | |

| Material Code | Material Name | Description and Application |
|---|---|---|
| M08R | Natural Rubber | M08R is a back natural rubber, low to medium harness generally used for impellers, and is required in fine particle slurries. |
| M26R | Natural Rubber | M26R is soft natural rubber, normally used for liners, and is required in fine particle slurries applications. |
| M33R | Natural Rubber | M33R is a premium grade material for use where M26R does not provide sufficient wear life. |
| M38R | Natural Rubber | M38R is a black natural rubber, of medium hardness, M38R is used for impellers where superior erosive is required in find particle slurries. |
| M55R | Natural Rubber | M55R is a premium grade material for use in a high wear application. Superior physical properties give increased cut resistance to hard, sharp particle slurries. |
| M02S | EPDM Elastomer | M02S is an acid resistant rubber which is of medium abrasion resistance. |
| M12S | Nitrile Elastomer | M12S is synthetic elastomer which is generally used in low abrasion/erosion application. It provides excellent resistance to oils, fats and waxes. |
| M21S | Butyl Rubber | M21S exhibits excellent chemical stability and good resistance to heat and oxidation. It is generally used in acidic applications. |
| M31S | Hypalon | M31S exhibits an excellent balance of chemical resistance to both hydrocarbons and acids. |
| M42S | Neoprene | M42S provides improved resistance to temperature, weather and ozone attack. It has excellent oil resistance. |
| M51S | Fluoroelastomer | M51S has exceptional resistance to oils and chemicals at elevated temperature. Limited erosion resistance. |

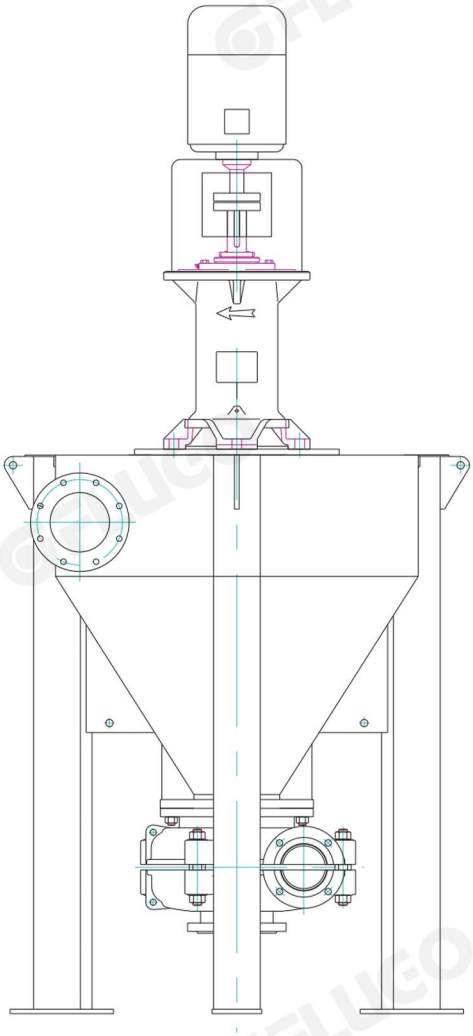
## DRIVE ARRANGEMENTS

- Type BD apply belt driving, components include pulley, belt, motor frame guard and fasteners
- Type DC apply coupling driving, components include motor base and coupling

BD Drive



DC Drive



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FLUGO

PV-QV Series
Heavy Duty Vertical Froth Pump