Screw Pumps

Progressive Cavity Single / Double Stage Screw Pumps




Pumping Principle

The AM / BM - Series Positive Displacement Progressive Cavity Screw Pumps has unique pumping principle applied employs a highly precision manufactured Metallic Single helical rotor turning inside a double internal helical resilient stator. Thereby forming cavities confined by a “Sealing Line” which is maintained at stand still and during rotation. While the rotor rotates in the stator, the cavity formed between them progresses form suction to delivery side, gently carrying the medium.

Material of Construction

- Standard AM series pumps are made of with cast iron casting. All the rotating parts including the rotor are made of Ni-cr or Stainless Steel. For abrasive applications Tool steel hardened and Hard Chrome plated Rotor is used. Shaft sealing is ensured by soft gland packing or mechanical Seal as desired. Stores are usually of Natural or Nitrile Polymer, but to suit the mediums, EPDM, Hypalon, Silicon are also used.
- The Standard BM series pumps have wettable pump housing and rotating parts of SS304/SS316. For Special application of highly corrosive fluids Ebonite /FRP Lined housing parts are used, while rotating parts made of Haste-alloy, Alloy 20 or other Super Alloys. Both AM & BM pump series pumps are supplied with I.S.O. suction and delivery connection. Alternately pumps can also be supplied with B.S., DIN or special connections to suit the specific requirements.

Characteristics and Salient Features

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- Good self priming properties even with air or gas inclusion in the liquid up to 8.5 MWC.
- Handles solids in suspension or mixture containing high percentage of solids. Bigger size pumps up to 40 mm dia.
- Steady and smooth flow with little pulsation makes it suitable for dosing and metering duties.
- Direction of the flow through the pump is reversible by merely changing direction of rotation of the prime mover.
- The pressure head is independent of speed and capacity is proportional to speed.
- Gate and check valves are not necessary.
- The metal bonded high precision molded stator ensures, high efficiency pressure and increased life.

It is suitable for dosing and metering duties because of its sturdy and smooth flow with slight pulsation. Stator is metal bonded, guarantees high efficiency, pressure and improved life.

Technical Details

- **Capacity:** 150 Cu.M/Hr
- **Head:** up to 240 meters (24 kg/cm2)
- **Temperature:** Up to 200 Deg C
- **Viscosity:** Up to 5,00,000 CST
- **Solids Handling Capacity:** Up to 40 mm

Application

Industries

- Brewery
- Effluent

- Ceramics
- Chemical
- Construction
- Cosmetic
- Detergent
- Distillery Calcium
- Dyestuff
- Suger
- Textile
- Edible Oil
- Fertilizer
- Marine
- Pharmaceuticals
- Paper
- Paint
- Sweage Treatment
- Soap

Fluids Handled

- Acids
- Acrylic Emulsion
- Alkaline Slurry
- AL Hydroxide Gel
- Carbonated Bewerage
- Chemical Slurry
- Ceramic Slurry
- Coating Mix
- Domestic Effluent
- Detergent Slurry
- Sizing Paste
- Tribasic Lead
- Viscose
- Dyestuff
- Emulsion
- Explosive Slurry
- Instant Tea
- Floral Concrete
- Latex
- Lime Slurry
- Lube Oil
- Lubricating Oil
- Magma
- Solvents
- Sulphate
- Yeast
- Molasses
- Oil Slurry
- Paint
- Paper ULP
- Printing Colour
- Precipiated
- Carbonate
- Resin
- Rice Bran Oil
- Soap Solution
- Suger Juice
- Vegetable Oil