TECHNO FLOW

PROGRESSIVE CAVITY PUMPS



Performance Data

Capacity Pressure : Up to 200 M³/Hr. : Up to 36 Kg/ Cm² Temperature: Up to 140°CViscosity: Up to 10,00,000 CST

www.technoflowpump.com



PRINCIPLE

The main pumping elements of **Progressive Cavity Pump** are single external helix metallic Rotary part Rotor and a fixed double internal helix polymer part Stator. As the rotor rotates within the stator, the cavities progress from suction to discharge end of the progressive cavity pump carrying the fluid.

SALIENT FEATURES

Self-Priming: Inherently self-priming can work on Snore and does not require Gate & Check Valve.

Non-Clogging: Handles solids in suspension or mixture containing high percentage of solids.

Low NPSH requirement: Suction lift

capability up to 8.4 MWC & effective even in high vacuum conditions.

Low Internal Velocity: Very low internal velocity reduces wear due to erosion and corrosion.

Silent Running: Rotor turns inside a resilient stator and thus generates Low Noise Level around 75db.

Uniform Flow: Metered uniform and steady flow with minimum pulsation.

Reversible: Pumps perform with equal efficiency in either direction due to reversible rotation capabilities.

Separate Bearing Housing: In progressive cavity pumps fluids can be pumped with no contamination.

Easy Maintenance: Simple design of Techno Flow Pump facilitates carry to dismantle & re-assembly for fast maintenance.

Techno Flow Pumps can handle any kind of liquid, from water to highly abrasive & highly viscous fluids.

MATERIAL OF CONSTRUCTION

Housing Components:

Cast Iron, Mild Steel, Cast Steel, CF8 (AISI-304), CF8M (AISI-316), & AISI-316L.

Rotating Parts:

Rotor, Shafts, Coupling Rods, Pins &

APPLICATIONS

Sewage & Waste Water Treatment Plant:

Sewage Water, Raw Sludge, Activated Sludge, Alum Sludge, Centrifuge Sludge, Tannery Effluent, Lime Sludge, Chrome Liquor etc.

Mines:

Coal Washing, Flotation Sludge, Mine Water & Coal Slurry etc.

Chemical, Dye, Paint & Petrochemicals:

Lime Slurry, Alkaline & Acidic Slurry / Chemical, Detergent & Soap Slurry, Filter Cake, Printing Ink, Dyes & Intermediates, Solvent, Binding Agent, Dispersion Paint, Clear & Opal Varnish, Acrylic Emulsion, Alum Aluminum Hydroxide Slurry, Bentonite Slurry, Resins, Solvents, Petroleum Jelly etc.

Explosive:

Matrix Emulsion, Ammonium Nitrate, Bulk

Bushes in AISI-1040, AISI-410, AISI-420, AISI-431, AISI-304, AISI-316, AISI-316L or other exotic Monel Alloys.

Stator:

Natural, Nitrile, Neoprene, Butyl, EPDM, Silicon, Teflon, Viton & Noncontaminating Food Grade Stators.

Explosives, Emulsion Matrix/Mix and Water etc.

Beverages, Breweries & Winners:

Yeast, Wart, Cider, Undiluted Brewer's, Whole Grapes with Stalks, Waste Yeast.

Dairy, Sweets & Confectioneries:

Condensed & Concentrated Milk, Cream, Butter, Liquid Glucose, Latex, Chocolate Mix, Jam Honey, Sugar Syrup, Maltodextrin, Gelatins, Nut Paste, Ice Cream & Dung Slurry etc.

Fruit & Vegetable Process:

Mango, Litchi, Guava, Banana, Apple, Pine Apple, Orange, Pomegranate, Peach, Grapes, Strawberry, Papaya Pulp, Noodles, Idli Mix, Shrikhand, Ghee, Lecithin, Lithophone Paste.

Cosmetics & Pharmaceuticals:

Chywanprash, Sugar Syrup, Cream, Boost, Horlicks, Toothpaste, Lyes, Gelatin, Medical Formulation, Ointments etc.

Gland packing or Mechanical Seal.

Shaft Sealing:

Base Frames:

Mild Steel or Stainless Steel (cladded or whole) Fabricated.

Sugar Mills:

Molasses, Sulphited Syrup, Melt, Flocculent, Sodium Silicate, Milk of Lime, Muddy Water.

Paper & Pulp:

High consistency Paper Cellulose Pulp, Black Liquor, Paper Coating Mix, Starch & Spent Wash etc.

Ceramic & Refectories:

Ceramic/Clay Slip, Aluminium Oxide, LDO, HSD etc.

Construction :

Cement Slurry, Grouting, Plastering, Mortar Injection, Vermiculite Slurry etc. **Steel Plant:**

Steel Plant:

Carbon Injection in Blast Furness, Grouting, LDO, HSD & Oil Sludge.

Veg Oil & Vanaspti Plant:

De-Waxed Gum & Oils, Crude Palm Oil, Rice Bran Oil, Soap Stock, Wax Oil, De-Gumming, lecithin & numerous fluids.



CARDAN JOINT



Industrial & Chemical Series Pump Type TEI

Latest & modified designed of PC pump to handle viscous, non-viscous, abrasive & non-abrasive slurry / media for filter, dosing & transfer application. Max. Flow: 200 M³/Hr. Max. Viscosity to be handled: 1,00,000 Cp Discharge Pressure: Upto 36 bar



Hygienic Series Pump Type TEF



Smooth and Highly finished stainless steel pump specially designed for Food/Hygienic application quick to dismantle, easy clean in place and quick maintenance. Max. Flow: Upto 150 M³ /Hr. Max. Viscosity to be handled: 1,00,000 Cp. Discharge Pressure: Upto 36 bar.

Wide Throat Pump Type TEW

Open hopper type inlet with augur design to handle highly viscous media with low moisture content. Max. Flow: Up to 120 M³ /Hr. Max. Viscosity to be handled: 10,00,000 Cp. Discharge Pressure: Up to 36 bar.



Industrial/ Monobloc Pump Type TED

Specially designed in light weight & compact unit to handle Viscose, Non-viscose, Abrasive & Corrosive media like Water, Grape Pulp & Juice, Edible Oil, Chemical Dosing, Ink & Heating Oil etc.



TYPE OF DRIVE

Barrel Emptying Pump Type TEB

Designed for handling viscous, non-viscous fluids and pulped material in suspension to empty the barrel/containers, storage tanks to fill in other containers or process line. The pump can be supplied with Geared Motor, On/Off localized control switch Max. Flow: 50 M³/Hr. Max. Viscosity: 10,00,000 Cp.



DIRECT DRIVE

ECHNO FLOW SINGLE STAGE PRESSURE DOUBLE STAGE PRESSURE FOUR STAGE PRESSURE

TECHNO FLOW PUMP PERFORMANCE AT MAXIMUM SPEED & PRESSURE

MODEL	MAX. RPM	M³/Hr	KW	MODEL	MAX. RPM	M³/Hr	KW	MODEL	MAX. RPM	M³/Hr	KW
1541	1440	0.18	0.37	1542	1440	0.16	0.5	1544	1440	0.15	0.5
1941	1440	0.8	0.75	1942	1440	0.90	1.1	1944	1440	0.90	2.2
2541	1440	2.6	1.1	2542	1440	2.65	2.2	2544	1440	2.20	3.7
2941	1440	5.5	2.2	2942	1440	5.40	3.7	2944	1440	5.20	5.5
3541	1440	7.5	3.7	3542	1440	7.40	5.5	3544	960	5.00	7.5
3911	960	9.2	3.7	3912	960	9.20	5.5	3914	720	6.90	9.3
4541	960	12.0	5.5	4542	960	12.00	7.5	4544	720	8.40	11.0
4741	720	14.0	5.5	4742	720	13.50	7.5			-	-
5641	720	21.0	7.5	5642	720	20.50	11.0	5644	480	9.00	15.0
6641	720	35.0	11.0	6642	720	34.50	18.5	6644	480	18.00	22.5
7641	720	60.0	15.0	7642	480	39.00	22.5	7644	450	29.00	30.0
8641	480	60.0	18.5	8642	480	58.00	30.0	8644	360	38.00	37.5
9741	400	72.0	18.5	9742	400	70.00	30.0	The above data related to water at ambient temperature at 760 mm Hg. Atmospheric pressure. Pump RPM and absorbed power will depend on actual viscosity of pumping media.			
10041	375	100.0	22.0	10042	375	100.00	30.0				
12041	350	200.0	42.5	12042	300	150.00	55.0				

OPTIONAL ACCESSORIES





When Pump runs dry (Without Liquid) the temperature rises due to the high friction between the rotor and stator, and when set temperature reached the device trip the motor.

> This Device sensed temperature thermoelectrically in the stator and protect dry running of Stator.

PRESSURE RELIEF VALVE

Where the pump running against closed valve or line blockade then it is suggested for the safety of the plant.



MECHANICAL SHAFT SEALS

Highly efficient and reliable Mechanical Shaft Seals designed for Centrifugal Pump, Screw Pump, PP Pump, all types of Agitators & Dying machines for perfect sealing to avoid leakage.



Type of Seals: Multi Spring, Single Spring, Conical Spring Teflon Bellow, Metallic Bellow and Cartridge Seals Suitability: Up to 350°c Temperature, 36 Bar Pressure & 6500 RPM. Range - 3/8" to 8"

Application: Chemical, Processing, Oil & Natural Gas, Petrochemical Solvent/Refinery, Textile & other industries.



TECHNO ENGINEERING INDUSTRIES

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