

PC

Progressive Cavity Pumps Eccentric Screw Pumps

Flow upto 5000 LPM

Pressure upto 24 Bar

Temperature upto 150° C

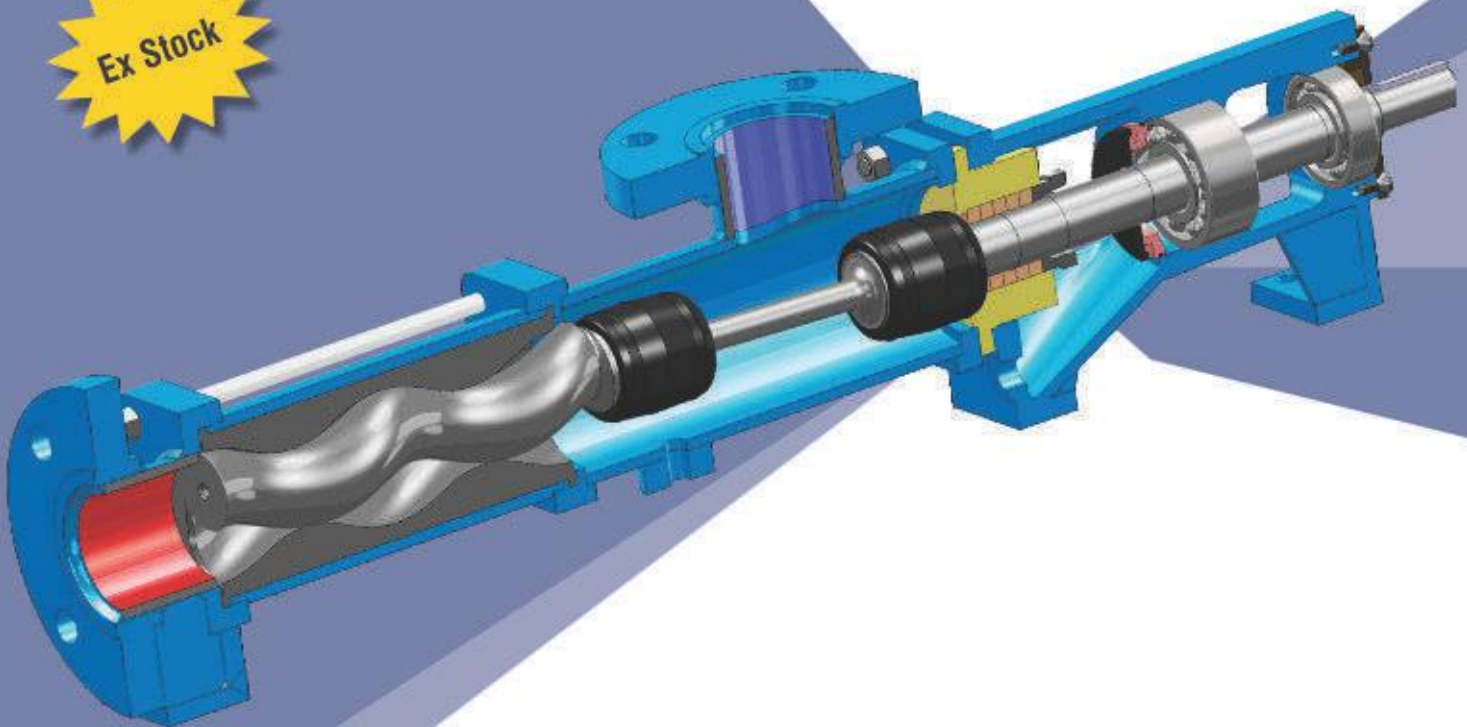
Shearless Pumping of Fluid

Can Pump Solid Particles

PUMP

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ENTERPRISE

Ex Stock



PUMPSQUARE SYSTEMS LLP

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ISO 9001:2008

General Information

The progressive cavity pump is a positive displacement rotary pump. **The actual pumping elements of the pump are the rotor and the stator.** The single helical rotor rolls eccentrically in a double threaded helix stator of twice the pitch length. A series of sealed cavities 180° apart are created that progress from suction and to discharge end. The opposing cavities fill and empty simultaneously resulting in a pulsation free flow. The fluid travels axially with relatively low velocity and minimal agitation of the fluid. **This Pump has the Capability to transfer the liquid without Shear and no Churning of the Liquid takes place during Pumping.** The stator is made of a resilient elastomeric material and vulcanized to the stator tube providing a slide radial interference of the rotor in the stator. The important feature of the pumping principal is the **ability to handle slurries and solid particles.** The elastomers stator adds abrasion resistance beyond that of conventional rotary pumps. The particles tend to imbed rather than abrade the elastomers stator also allowing deformation to partially accommodate the solid particles. **The compression fit of the rotor and stator enables the Progressive cavity pumps to handle gaseous liquids and low viscosity liquids.** The pressure capabilities of the pump are a function of the number of times the progressive seal lines are repeated. Our progressive cavity pumps are available in 1, 2, and 4 stage design. Each stage has a maximum pressure limit of 6 Bar. This pumps are available in a wide variety of materials and can be easily customized as per the fluid compatibility and requirements. Our progressive cavity pumps are versatile, rugged, compact and highly efficient.

If the fluid is delicate, shear sensitive or abrasive, low or high viscosity, with fibers, high air content, or large solids, our progressive cavity pumps can solve the problem of moving the fluid. Pumps are available for Discharge pressure upto 24 Bar, flow upto 5000 LPM, temperature upto 150° C.

Special Features

- Solid drive design provides strength for rigorous continuous operation.
- Unique Pivot-joint design extends service life and reduces replacement cost.
- Single, Two and four stage models for pressures upto 24 Bar
- Equal Wall Stator design available for some models which reduces pump slippage and increases pressure limit.
- Close coupled models with built on speed reducers offer a compact unit.
- Stators are available in a wide range of elastomers.
- Suction lift to 28" w.c.

Stages

Pressure in Bar	Substance (Max. Pressure in Bar)		
	Number of Stages	Homogeneous	Lightly Abrasive
One Stage [A]	6	5	3
Two Stage [B]	12	10	6
Three Stage [C]*	18	15	9
Four Stage [D]	24	20	12

*Non Standard Design

Rotor Stator Pitch

- Long Pitch
- Short Pitch
- Standard Pitch
- Custom Made

Rotor Type

- Solid Rotor
- Hollow Rotor

Joint Kit Option

- Cardan Joint
- Standard Pin Joint
- Square Joint
- Shaft Joint
- Custom Joint

Sealing Options

- Gland Packing
- Mechanical Seal
- Lip Seal
- Seal Less

Material of Construction

Stator Material

Elastomer Type	Permissible Temperatures °C
Natural Commercial Rubber	65
Neoprene	70
Nitrile Commercial (Black)	80
Nitrile Food Graded (White)	80
EPDM	100
Silicone Commercial Rubber**	110
Hypalon	125
Viton	150

** Non Standard

Other Elastomer on Special Request

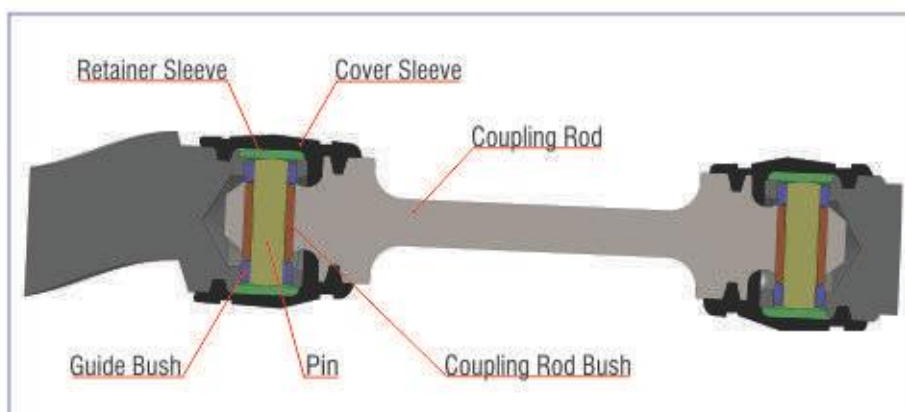
Rotor Material

- Alloy Steel
 - Tool Steel
 - Stainless Steel
- 410 / 202 / 316 / 304 / 316L
with / without Hard Chrome Plating

Casing Material

- Cast Iron
- Mild Steel
- Stainless Steel

Coupling Rod Assembly



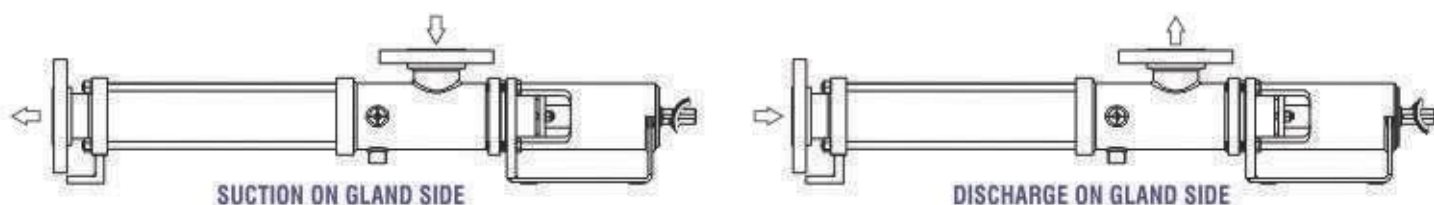
Mounting Design

- Horizontal
- Vertical
- Tank Mounted
- Block Pumps
- Custom Made Pumps
- Gear Box Mounted Horizontal Pumps
- Gear Box Mounted Vertical Pumps

Suction Casing Option

- Standard Casing
- Hopper Design Casing
- Hopper Design Casing with Auger Screw
- Custom Made Execution

Direction of Flow



Pump Performance Table for

Size	CC / rev	Inlet / Outlet Flanges	Max Allowable Speed	Sphere Max Diameter (mm)	Stringy Max Length (mm)	Speed Reducer Type
01	30	1"	1200	2	35	01
02	62.5	2"	1000	2.5	42	01
03	125	2"	850	3	42	01
04	250	2½"	700	3.75	48	01
05	500	3"	600	5	60	01
06	950	4"	500	6.5	80	02
07	1375	4"	475	7.5	85	02
08	1875	5"	450	9	98	02
09	2500	6"	435	9	98	--
10	3625	6"	420	14	130	--
11	6750	8"	400	20	210	--
12	12500	10"	400	24	300	--
13	17.27	1" / ¾" BSP Threaded Connection	960	--	--	--
51	32.5	Open / ½"	2860	--	--	--

* Data Indicated is for standard pump model and is subject to change.

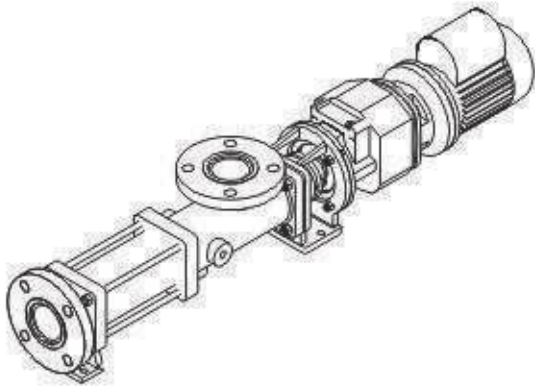
Built In Gear Reducer Chart

Speed Reducer Type	Available Ratio	Output Speed for Input Speed of 2900 RPM	Output Speed for Input Speed of 1440 RPM	Output Speed for Input Speed of 960 RPM	Output Speed for Input Speed of 720 RPM	Max Power in (Hp)	Shaft Diameter (mm)
01	1.5:1	1933	965	640	480	20	28
	2:1	1450	725	480	360	15	28
	2.5:1	1160	580	384	288	14	28
	3:1	967	485	320	240	12.5	28
	4:1	725	365	240	180	10	24
	5:1	580	290	192	144	7.5	24
	6:1	483	240	160	120	5.0	24
02	2:1	1450	725	480	360	32	38
	3:1	967	485	320	240	32	38
	4:1	725	365	240	180	28	38
	5:1	580	290	192	144	28	38
	6:1	483	240	160	120	20	38

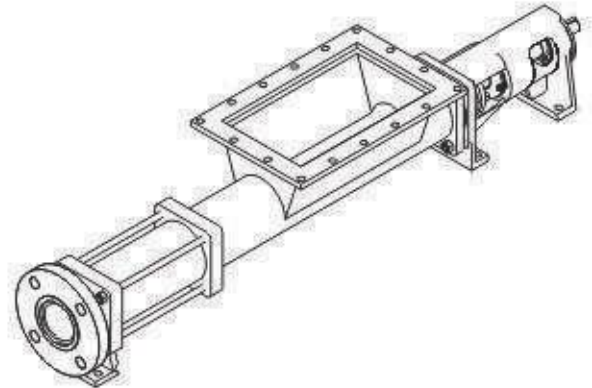
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Execution Options

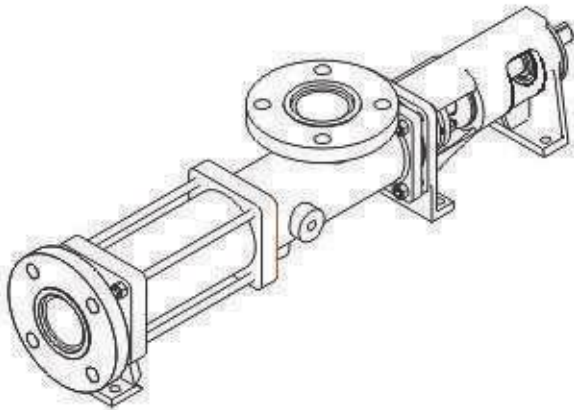
- Pumps with Bearing Bracket
- Pumps with Built in Speed Reducer
- Pumps with Short Shaft Execution



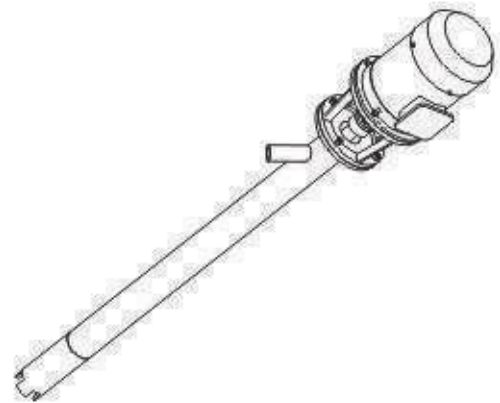
HORIZONTAL PUMP IN BLOCK PUMP CONSTRUCTION
(CLOSED COUPLE)



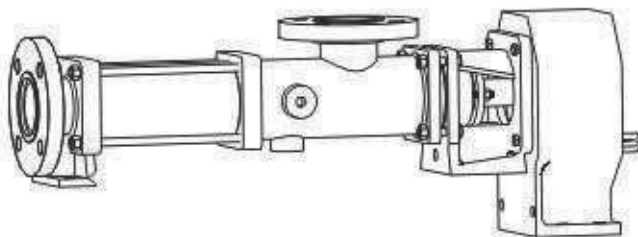
HORIZONTAL BARE SHAFT PUMP WITH
HOPPER AND FEEDER / AUGER



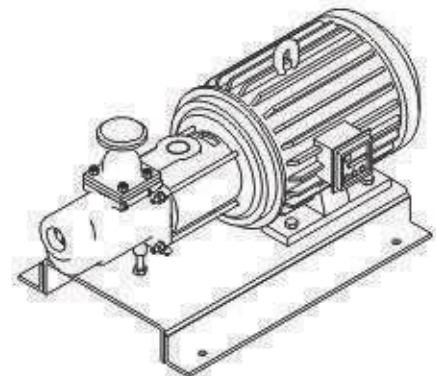
HORIZONTAL BARE SHAFT PUMP



DRUM PUMP



HORIZONTAL PUMP WITH
BUILT IN SPEED REDUCER



MONO BLOCK PUMP WITH
2 SPEED MOTOR

We also Manufacture :

Internal Gear Pumps
Internal Lobe Pumps
External Gear Pumps

External Lobe Pumps
Thermic Fluid Pumps
Twin Screw Pumps

Piston Pumps
Triple Screw Pumps
Shuttle Block Pumps

Peristaltic Pumps
Flexible Impeller Pumps
Simplex / Duplex Filters

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