

Series PX

Classic: Dry-Running, Long-Coupled,
Single Head Peristaltic/Hose Pump

165 RPM
Maximum Speed

23 feet
Maximum Suction Height

30 psig
Maximum Pressure



About Series PX Hose Pumps

The PX series is comprised of five different hose pumps. Their rugged cast housing and variety of hose choices will handle a broad range of pump applications.

This series offers the dry-running design, which provides long tubing life, yet prevents system contamination should the hose ever rupture.

Flow capacities are available at up to 55 GPM with a single hose.

The rib-backed hose design allows easy hose replacement without requiring disassembly of the pump. The rib on the hose is positively captured in the tube bed and prevents the hose from side-to-side movements, which shorten hose life in other designs.

These pumps are shipped as complete pump, motor, and drive systems that are ready to install and start up. Standard motor drives are fixed speed. Optional drives include mechanical variable speed, variable frequency drives, hazardous area-rated drives, wash-down, chemical duty, and air-operated drives.

The standard inlet and outlet connections provided are a barbed hose type. Optional inlet and outlet connections include ANSI 150 flanges, sanitary Tri-Clamp fittings, and NPT connections.

To learn more about our complete line of peristaltic pumps, please visit our web site at
<http://www.granzow.com/pumps/peristaltic/>

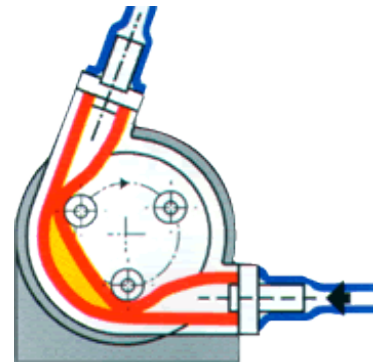
Peristaltic Principle of Operation

Ponndorf® hose pumps are self-priming rotary positive displacement pumps. They operate based on the "peristaltic" principle.

The pump consists of three major parts: hose, housing, and rotor. The hose is placed in the tubing bed — between the rotor and the housing — where it is occluded (squeezed).

The rollers move across the hose, pushing the fluid. The tubing behind the rollers recovers its shape, creates a vacuum, and draws fluid in behind it.

A "pillow" of fluid is formed between the rollers. This is specific to the ID of the hose and the geometry of the rotor. Flow rate is determined by multiplying speed (RPM) by the size of the pillow. This pillow volume is consistent, even under a wide range of viscosity.



Advantages of Peristaltic Pumps

- Handles abrasive slurries and corrosive fluids with minimal wear
- No seals in contact with the medium pumped
- No valves to clog
- Smooth inner surfaces that are easy to clean
- Fluid contacts only the hose material
- Self priming and suction lift of up to 26 feet
- Very low shear for handling the most shear-sensitive of fluids, like latex or fire-fighting foam
- Capable of running dry and pumping fluids with high quantities of entrained air such as black liquor soap
- High volumetric efficiency allows operation in metering or dosing applications where high accuracy is required
- Handles extremely viscous fluids
- Hose materials are available that are suitable for food and pharmaceutical use
- Dual hose models for low pulsation requirements

Dry-Running Design

This hose pump design incorporates a unique tube-bed that ensures that one roller is always occluding the hose. It is termed "dry running" because rollers do not operate in a lubricated bath to occlude the hose.

Dry running pumps are available in models capable of discharge pressure up to 60 PSIG. Unique dual hose versions provide a nearly pulse-free flow stream.

Optional Features

Drive Options

Standard drives are fixed-speed integral gearmotors. Optional drive packages include mechanical variable speed drives, inverter duty, and DC motors. Optional motor enclosure types include chemical duty, washdown (sanitary), and hazardous area rated motors.

General Pump Specifications

Materials of Construction	
Hose material:	Natural rubber, Neoprene, Hypalon
Housing:	Cast aluminum
Tube bed:	PTFE
Inlet/Outlet fittings:	Polypropylene (316SS optional)
Rollers:	Carbon-filled PTFE
Rotor:	Cast aluminum
Shaft:	Stainless steel
Bearings:	Permanently sealed, grease-filled ball bearings

Maximum Performance	
Pressure:	30 psig
Suction height:	23 feet
Viscosity:	35,000 cPs
Speed (int.):	165 RPM
Speed (cont.):	100 RPM
Temperature (int.):	176° F
Temperature (cont.):	140° F

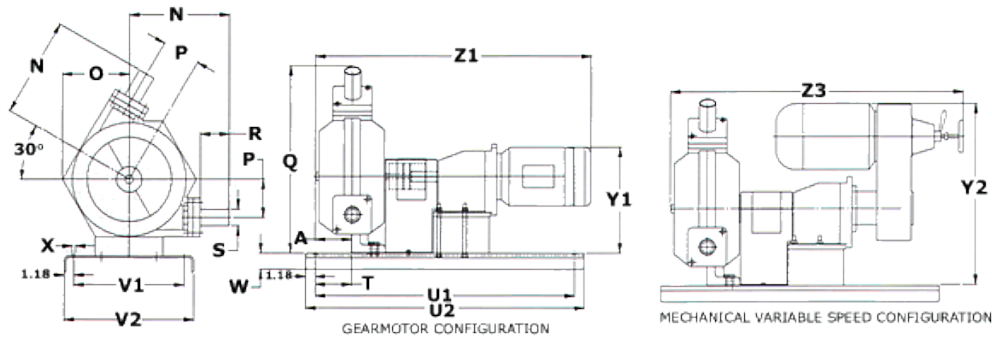
Detailed Model Specifications

Model #	Normal Capacity (GPM)		Hose ID (inches)	Connection OD (inches)	Maximum Power (HP)
	Intermittent Duty (Max. 165 RPM)	Continuous Duty (Max. 100 RPM)			
PX 10	0.62	0.40	0.39"	0.55"	½
PX 15	2.20	1.40	0.59"	0.98"	½
PX 27	9.70	6.10	1.06"	1.30"	½
PX 35	26.40	16.20	1.38"	2.00"	2.00
PX 50	55.00	34.30	1.97"	2.95"	3.00

Hose Ordering Information

Model #	Pump Hose				
	Natural rubber	Food-grade natural rubber	Neoprene	Hypalon	Food-grade Ponnprene
PX 10	VA-61008	VA-61011	VA-61009	VA-61010	
PX 15	VA-61108	VA-61111	VA-61109	VA-61110	
PX 27	VA-61208	VA-61211	VA-61209	VA-61210	
PX 35	VA-61308	VA-61311	VA-61309	VA-61310	
PX 50	VA-61408	VA-61411	VA-61409	VA-61410	

Pump Model Dimensions



Model #	Dimensions (Inches)								
	A	N	O	P	Q	R	S	T	U1
PX 10	2.01"	4.37"	3.19"	1.79"	8.84"	1.10"	0.55"	4.72"	21.26"
PX 15	2.87"	6.57"	4.76"	2.40"	12.36"	2.05"	0.98"	3.86"	21.26"
PX 27	3.66"	9.49"	6.38"	3.46"	17.09"	2.60"	1.30"	2.60"	21.26"
PX 35	4.45"	12.17"	8.15"	4.65"	22.72"	3.50"	2.01"	4.45"	31.50"
PX 50	5.00"	14.88"	9.65"	5.28"	25.59"	4.61"	2.95"	3.82"	31.50"
	U2	V1	V2	W	X	Y1	Y2	Z1*	Z3
PX 10	23.62"	9.45"	11.81"	1.97"	0.43"	6.87"	14.80"	23.54"	26.44"
PX 15	23.62"	9.45"	11.81"	1.97"	0.43"	8.05"	15.98"	25.27"	28.17"
PX 27	23.62"	9.45"	11.81"	1.97"	0.43"	9.63"	17.56"	27.32"	30.22"
PX 35	33.86"	13.39"	15.75"	1.97"	0.43"	12.97"	22.61"	33.85"	38.43"
PX 50	33.86"	13.39"	15.75"	1.97"	0.43"	13.33"	22.61"	35.74"	39.61"

*Note: Dimension Z1 is for the longest motor in the speeds listed for a given pump.

Performance Characteristics, by Pump Model

