

316 Stainless Steel Rotary Pedestal External Gear Pumps

Description

SherTech self-priming, positive displacement, external rotary gear pumps operate bi-directionally (reversible) and provide a nearly pulseless flow for a wide range of industrial, marine, agricultural, and commercial chemical-duty applications. Ryton PPS (Polyphenylene Sulfide) spur gears provide quiet operation and chemical compatibility with no metal-to-metal contact. Pumps can operate in a temperature range of 32° F to 280° F.

Quality features include a keyed 316 stainless steel shaft supported by a ball bearing and carbon graphite bushings. Wet-end parts are constructed of 316 stainless steel, Ryton PPS, graphite, graphoil, carbon, ceramic, and seal material (Teflon[®] or Viton).

Uses: For use with non-particulate and non-abrasive fluids compatible with pump wet-end construction component materials.

- Capacities up to 24.8 GPM.
- Maximum pressure to 125 PSI and working casing pressure to 200 PSI.
- Max. RPM: 1725.
- Suction lift to 19.5 ft.
- Temperature ranges from 32° to 280° F.
- Large female NPT ports allow use with viscous fluids.
- Pumps can be long-coupled with electric motors to handle up to 500 SSU at 1725 RPM or run at reduced speeds to handle a wide range of pump fluid viscosities and specific gravity up to 100,000 SSU. (Maximum torque loads are found in the performance chart.)
- Viton or Teflon[®] mechanical seals (standard) with carbon on ceramic faces with engineered flush chamber for internal or external flush to handle viscosities beyond 2000 SSU.
- Pumps can operate bi-directionally (reversible).
- Ball bearing shaft support allows for pulley drive.

REPAIR SEALS AND OPTIONS – Standard seals are Viton or Teflon[®] (Buna-N is optional) with carbon on ceramic faces. Seals can be located in the repair parts list pages in the owner's manual. When switching between optional mechanical seals, be sure to order the matching o-rings in the same material. These can be found in the repair parts list pages in the owner's manual.

NOTE: This series of gear pumps is also available as close-coupled models equipped with motors.



WARNING: Do not use to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do not use in flammable and/or explosive atmospheres. When pumping hazardous or dangerous materials, use only in a room or area designated for that purpose. For your protection, always wear proper clothing, eye protection, etc. in case of any malfunction. For proper handling techniques and cautions, contact your chemical supplier, insurance company and local agencies (fire dept., etc.). Failure to comply with this warning could result in personal injury and/or property damage.

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Model Ordering Codes and Options



Example Model: GPSV2 (will require 3/4 HP ODP motor with >1.15 Service Factor*)
(motor not supplied with pedestal pump)

1st	2nd	3rd	4th
Mounting	Material	Seal (Mech)	Gear** Size: Ports
GP: Gear Pedestal	S: 316 Stainless Steel	V: Viton T: Teflon	2: 3/8" 4: 1/2" 6: 1"

(1) GP (2) S (3) V (4) 2

NOTE: Not all order code combinations (configurations) are standard models available from the manufacturer. Custom model configurations may require ordering standard components and/or optional parts that will need to be assembled by the customer.

Manufacturer reserves the right to change model order codes, standard models, specifications, and performance without notification.

(*) ODP motors have > 1.15 service factors. Due to service factor, it is recommended TEFC motors are oversized by one HP increment.

Pedestal Pumps are not supplied with a motor.

(**) Gears are made of Ryton PPS (Polyphenylene Sulfide).

Maximum motor speed is 1725 RPM.

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Performance (with Oil)

Viton Pump Models	Teflon Pump Models	*Port Size	Max. Input Torque in.-lbs.	Pump RPM	Suction** Lift (ft)	Free Flow		GPM Pumping 10 Wt. Oil at 70° F (500 SSU)											
						GPM	HP	25 PSI		50 PSI		75 PSI		100 PSI		125 PSI			
GPSV2	GPST2	3/8"	45	900	1.5	2.5	1/4	2.5	1/4	2.4	1/4	2.3	1/4	2.1	1/4	1.8	1/3		
				1200	2.2	3.3	1/4	3.3	1/4	3.2	1/4	3.1	1/3	2.9	1/3	2.6	1/2		
				1725	3.5	4.8	1/4	4.8	1/3	4.7	1/2	4.6	1/2	4.4	3/4	4.1	3/4		
GPSV4	GPST4	1/2"	90	900	5.1	5.6	1/3	5.5	1/3	5.4	1/2	5.3	3/4	5	1	4.5	1		
				1200	6.7	7.5	1/3	7.4	1/2	7.3	3/4	7.2	1	6.9	1	6.4	1½		
				1725	12.3	10.8	1/2	10.7	3/4	10.6	3/4	10.5	1	10.2	1½	9.7	1½		
GPSV6	GPST6	1"	160	900	8.1	12.6	1/2	12.5	3/4	12.3	1	12.1	1	11.7	1½	11.1	1½		
				1200	11.7	16.7	3/4	16.6	1	16.4	1½	16.2	1½	15.8	2	15.2	2		
				1725	19.5	24.8	3/4	24.7	1	24.5	1½	24.3	2	23.9	3	23.3	3		

Test data taken on SAE 10 wt oil at 70° F (500 SSU).

Performance in water will decrease by about 10%, and HP required will also be reduced by 10% (see the chart below).

Pump performance when pump is new. As pump wears, the performance will decrease.

(*) Female NPT inlet and outlet (in inches).

(**) Suction lift requires wetted gears and primed seal chamber.

NOTES: Max. PSI = 125

Max. Viscosity = 500 SSU at 1725 RPM with standard spur gears

Max. RPM = 1725

Max. Specific Gravity = 1.1 at 125 PSI, up to 1.6 at lower PSI & viscosity.

Max. Input Torque = See chart above.

Reverse Rotation = Pumps can be run in reverse rotation.

The pump relationship between volume (GPM), pressure (PSI), speed (RPM) and horsepower is shown on performance chart in SherTech Motor Manual form L-4082. When pumping a more viscous liquid, a slower speed, a larger pipe size pump, and possibly a larger motor should be selected. Manufacturer reserves the right to change performance without notification.

Price List and Specifications

List Price	Model	Max. RPM	PUMP CONSTRUCTION (Wet End)									Ship Wt. (lbs.)
			NPT Inlet & Outlet Port	Pump Shaft Size	Motor Adapter	Bushing Material	Body & Cover Castings	Gear Material	Shaft, Keys & Clip	Gasket Material	O-Rings & Seals*	
316 SS Models with Viton												
\$	GPSV2	1725	3/8"	1/2 Keyed	CI	CG	316 SS	Ryton PPS	316 SS	Graphoil	Viton	7.1
\$	GPSV4	1725	1/2"	5/8 Keyed	CI	CG	316 SS	Ryton PPS	316 SS	Graphoil	Viton	9.0
\$	GPSV6	1725	1"	3/4 Keyed	CI	CG	316 SS	Ryton PPS	316 SS	Graphoil	Viton	11.8
316 SS Models with Teflon®												
\$	GPST2	1725	3/8"	1/2 Keyed	CI	CG	316 SS	Ryton PPS	316 SS	Graphoil	Teflon®	7.1
\$	GPST4	1725	1/2"	5/8 Keyed	CI	CG	316 SS	Ryton PPS	316 SS	Graphoil	Teflon®	9.0
\$	GPST6	1725	1"	3/4 Keyed	CI	CG	316 SS	Ryton PPS	316 SS	Graphoil	Teflon®	11.8

SS = Stainless Steel CI = Cast Iron CG = Carbon Graphite Ryton = PPS (Polyphenylene Sulfide)

(*) Standard Shaft Seals have carbon on ceramic faces and 316 SS components.

NOTE: Manufacturer reserves the right to change specifications without notification.

To Order Optional Motors

For custom applications or configurations, select a motor from the motor section of this catalog.

Source: Owner's Manual L-4088 (1/06)