

Bronze Plate-Mount Rotary Close-Coupled External Gear Pumps

Description

SherTech self-priming, positive displacement, external rotary gear pumps are ideal for a wide range of light-duty industrial, marine, agricultural, and commercial applications, providing a nearly pulseless flow. Close-coupled models are available directly mounted to NEMA framed AC ODP single-phase, thermally overload-protected motors or as pump heads only for custom installations. All models include a pressure relief valve. Motor-driven models are HP configured to handle up to 500 SSU at 100 psi (specific gravity of 1.0).

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

Excellent for water-based fluids. Feature 303 stainless steel shafts, carbon graphite bushings, and Buna-N lip seal with a temperature range of -20° to 210° F. Pressure relief valve is standard. Wet-end parts are constructed from bronze, brass, stainless steel (17-7, 300 series and/or 18-8), graphite, carbon, vellumoid gasket and Buna-N.

For more intermittent duty applications, refer to the "Carbonator Series of Rotary Gear Pumps" available in Bronze and Cast Iron.

- Flows to 4.4 GPM.
- Max. RPM: 1725.
- Max. PSI: 100.
- Suction lift to 3.6 feet.
- Maximum viscosity of 500 SSU at 1725 RPM (max. input torque of 45 in-lbs.).
- Temperature ranges from -20 to 210° F.
- Maximum working pressure: 130 PSI.
- Pumps can operate bi-directionally (reversible). It should be noted that it is recommended that the pumps be run in the pump rotation indicated in Figure 5 in the owner's manual (clockwise as viewed from the pump end of the pump/motor combination).

In the opposite rotation, the pump is limited to 15 PSI discharge pressure, and the pressure relief valve will not function.

NOTE: Intermittent and heavy duty series gear pump models are also available for continued use.

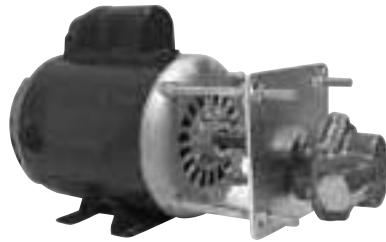
NOTE: See Rotary Gear Pump Selection Guide in the Motor Manual for suggestions concerning installation, selection, options, and accessories.



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 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: GFBV33

1st	2nd	3rd	4th	5th
Mounting	Material	Relief Valve	Gear Size: Ports	AC Motor
GF: Plate-mount Gear Pump	B: Bronze (Buna-N lip seal is standard, Viton seal is available through parts only.)	V: Pressure Relief Valve	2: 1/4" 3: 3/8"	1: 1/4 HP 2: 1/3 HP 3: 1/2 HP If blank, motor is not included with pump head.

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.

Maximum motor speed is 1725 RPM.

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Performance

Bronze Models	Port Size*	Motor HP	RPM	Max. Input Torque in.-lbs.	Suction Lift**	GPM Pumping 10 Wt. Oil at 70° F (500 SSU)						
						Free Flow GPM	20 PSI GPM	40 PSI GPM	60 PSI GPM	80 PSI GPM	100 PSI GPM	
Models with Motors		Equipped										
GFBV22	1/4	1/3	1725	45	3.2	2.2	2.1	2.1	1.7	1.5	1.3	
GFBV33	3/8	1/2	1725	45	3.6	4.4	4.1	3.8	3.5	3.3	3.0	
Models without Motors		Suggested										
GFBV2	1/4	1/3***	1725	45	3.2	2.2	2.1	2.1	1.7	1.5	1.3	
GFBV3	3/8	1/2***	1725	45	3.6	4.4	4.1	3.8	3.5	3.3	3.0	

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

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

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

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

(***) Motor not provided

NOTES: Pumps with motors are HP rated to handle up to 500 SSU at 100 PSI and specific gravity of 1.0.

Max. PSI = 100

Max. Viscosity = 500 SSU

Max. RPM = 1725

Max. Specific Gravity = 1.1 at 100 PSI, up to 1.6 at lower PSI & viscosity.

Max. Input Torque = See chart above.

Reverse Rotation = Pumps are equipped with pressure relief valves and can be run in reverse rotation; however, pressure relief valve will not function when pump is reversed unless pump relief valve cover is rotated 180 degrees. Maximum reverse pressure is 15 PSI or seal damage will occur.

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. Driver data is subject to change without notice; see label on driver for specifications and wiring information.

Manufacturer reserves the right to change performance without notification.

Price List and Specifications

List Price	NEMA Motor											PUMP CONSTRUCTION (Wet End)								Ship Wt. (lbs.)		
	Model	Frame Required	Motor HP	Motor Voltage	Motor Amps	AC Motor Frame	Hz	Insulation Class	Thermal Overload Protection	Motor Duty	Max. RPM	Port Size **	Body & Cover	Gear	Shaft	Bushings	Pressure Relief Valve****	Relief Valve Gasket	Pump Gasket		Seals ***	
Models with Motors																						
\$	GFBV22	48	1/3	115	6.0	ODP	60	A	Yes†	Cont.	Sleeve	1725	1/4	BZ	BZ	303 SS	CG	BR & SS	Hard Fiber	Vellumoid	Buna Lip	20.6
\$	GFBV33	48	1/2	115/230	8.2/4.1	ODP	60	B	Yes†	Cont.	Ball	1725	3/8	BZ	BZ	303 SS	CG	BR & SS	Hard Fiber	Vellumoid	Buna Lip	24.8
Models without Motors																						
\$	GFBV2*	48	1/3	-	-	-	-	-	-	-	-	1725	1/4	BZ	BZ	303 SS	CG	BR & SS	Hard Fiber	Vellumoid	Buna Lip	4.6
\$	GFBV3*	48	1/2	-	-	-	-	-	-	-	-	1725	3/8	BZ	BZ	303 SS	CG	BR & SS	Hard Fiber	Vellumoid	Buna Lip	4.8

BZ = Bronze BR = Brass SS = Stainless Steel CG = Carbon Graphite ODP = Open Drip-Proof

(*) Motor not provided, but suggested. Pump head only provides the ability to adjust HP for viscosity and to use existing and/or special motors.

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

(***) Lip seal components include 303 stainless steel case and garter spring.

(****) Models are made of stainless steel (17-7, 300 series and/or 18-8), brass and/or bronze.

(†) Thermal overload protection reset may be automatic or manual.

NOTES: Motor may be split-phase or capacitor start.

Motor base may be removable, movable or fixed.

Driver data is subject to change without notice; see label on driver for specifications and wiring information.

Manufacturer reserves the right to change specifications without notification.

To Order Optional Motors

For custom applications or configurations, select a pump head from above and a Plate-Mount motor from the motor section of this catalog.

Source: Owner's Manual L-4084 (11/06)