

Carbonator-Mount Hot Oil NSF Rotary Close-Coupled Gear Pumps (Light-Duty)



Description

SherTech self-priming, positive displacement, external rotary gear hot oil pumps feature cast-iron construction for high temperature use. This series of pumps is designed for hot oil or frying oil filtration up to 375° F. meeting NSF-listing requirements. Pumps are configured with motors specifically for hot oil filtration applications where oil is heated prior to pumping. The discharge pressure limitations of these pumps should not exceed 80 PSI. They provide a nearly pulseless flow in applications where non-particulate and non-abrasive fluids are pumped. Not for use with water-based fluids. AC ODP single-phase motors have thermal overload protection. Complete package is easy to install, or pump heads only can be purchased for custom installations.

Uses: Ideal for a wide range of commercial fat fryer hot oil cooking, filtering, or waste oil rendering applications. This pump can also be used in non-NSF hot oil applications with non-particulate and non-abrasive fluids compatible with pump wet-end construction component materials.

- Pumps meet NSF-listed standards including NSF-accepted paint for hot oil cooking applications.
- Pumps can operate bi-directionally (15 PSI max. in reverse operation).
- Pressures to 80 PSI with pump heads.
- Pressures to 60 PSI with configured motors (1/3 HP models have a max. of 40 PSI and 1/2 HP models have a max. of 60 PSI).
- Flows to 5.2 GPM.
- Operating temperatures to 375° F with Viton o-ring and silicon lip seal.
- Maximum viscosity of 100 SSU and maximum specific gravity of 1.1.
- Suction lift capabilities up to 6.2 feet of head.
- Maximum RPM: 1725.
- Port size: 1/2".
- ODP single-phase motors with 1/3 or 1/2 HP.

CARBONATOR-MOUNT CAST IRON PUMPS (LIGHT-DUTY) – Pumps feature steel shaft and gears with cast iron bushing support with flows of 4.4 and 5.2 GPM. Direct couple to carbonator mount, ODP single-phase motors. Wet-end parts are constructed from cast iron, steel, 303 stainless steel, Viton and silicone.

PUMP HEADS (NO MOTOR) – Close-coupled gear pump heads are designed to direct couple to carbonator pump motors (See NEMA Spec. MGI-18.739, Dimensions of Carbonator Motor mounting). The face of this gear pump has been machined to match the carbonator motor face. Pump and motor held together with a stainless steel beveled "V" band clamp. Coupling of shafts is done by mating the carbonator motor's slot with the pump's slot using the Oldham coupling (See Figure 2 in the owner's manual). This positive displacement characteristic offers a wide range of applications.

NOTE: Intermittent and commercial models are available for continued use.



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: GN63

Series	Gear Size: Ports	AC Motor
GN - Gear NSF	6: 1/2" 7: 1/2"	3 - 1/3 HP 1 - 1/2 HP 0 - No motor (pump head only)

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.

Cast Iron construction with Viton o-ring and silicone lip seal.

Do not use for water-based fluids.

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Performance

Models	Port Size*	Pump RPM	Max. Input Torque in.-lbs.	Suction Lift**	GPM Pumping Cooking Oil at 300° F									
					Free Flow		20 PSI		40 PSI		60 PSI		80 PSI	
					GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP
Models without Motors														
GN60	1/2"	1725	45	5.1	4.4	1/3	4.0	1/3	3.8	1/3	3.5	1/2	3.0	1/2
GN70	1/2"	1725	45	6.2	5.2	1/3	4.7	1/3	4.4	1/2	4.3	1/2	4.1	3/4
Models with Motors														
GN63	1/2"	1725	45	5.1	4.4	1/3	4.0	1/3	3.8	1/3	-	-	-	-
GN71	1/2"	1725	45	6.2	5.2	1/3	4.7	1/3	4.4	1/2	4.3	1/2	-	-

Test data taken on cooking oil at 300° F.

Performance in water will decrease by about 10%, and HP required will also be reduced by 10%. (Don't use water with Cast Iron.)

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

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

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

NOTES: Pumps with 1/3 HP motors have a max. of 40 PSI, handle up to 100 SSU and specific gravity of 1.1.

Pumps with 1/2 HP motors have a max. of 60 PSI, handle up to 100 SSU and specific gravity of 1.1.

Pumps without motors have a max. of 80 PSI, handle up to 100 SSU and specific gravity of 1.1.

Max. RPM = 1725

Max. Input Torque = See chart above.

Reverse Rotation = Pumps with or without motors are limited to a max. reverse rotation of 15 PSI.

Manufacturer reserves the right to change performance without notification.

Price List and Specifications for Pump Heads

Price List	Model	NEMA Motor Frame Required	Max. RPM	Pump Shaft Size	Required Motor Shaft Dia.	PUMP CONSTRUCTION (Wet End)							Ship Wt. (lbs.)
						Port Size NPT*	Body & Cover Castings†	Gears	Bushings	Shaft Keys & Clips	Seal**	O-Rings ****	
Models without Motors													
\$	GN60	Carbonator	1725	1/2 slotted	1/2 carbonator	1/2	CI	Steel	CI	303 SS	Silicone	Viton	4.7
\$	GN70	Carbonator	1725	1/2 slotted	1/2 carbonator	1/2	CI	Steel	CI	303 SS	Silicone	Viton	4.3
Models with Motors													
\$	GN63***	Carbonator	1725	1/2 slotted	1/2 carbonator	1/2	CI	Steel	CI	303 SS	Silicone	Viton	22.7
\$	GN71***	Carbonator	1725	1/2 slotted	1/2 carbonator	1/2	CI	Steel	CI	303 SS	Silicone	Viton	26.3

SS = Stainless Steel CI = Cast Iron

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

(**) NSF-listed lip seal with 300 Series SS case and spring.

(***) Motor specification shown below.

(****) NSF-listed material.

(†) NSF-listed paint.

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

Manufacturer reserves the right to change specifications without notification.

Specifications for Pump with Motors

Model	Motor HP	AC Motor Type	NEMA Frame	Motor Voltage	Amps	Phase	Hz	Thermal Overload Protection*	Motor RPM	Motor Shaft
GN63	1/3	ODP	Carbonator	115	5.5	1	60	Yes	1725	1/2 Slotted
GN71	1/2	ODP	Carbonator	115/230	6.8/3.4	1	50/60	Yes	1425/1725	1/2 Slotted

ODP = Open Drip-Proof

(*) Reset may be automatic or manual.

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

Motor base may be removable, movable or fixed.

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 Carbonator-Mount motor from the motor section of this catalog.

Source: Owner's Manual L-4090 (11/07)