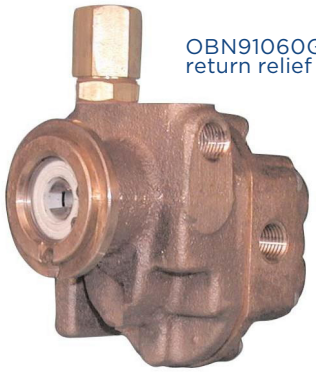
OBERDORFER®
An Ingersoll Rand Business

N91 Series

Bronze Rotary Gear Pumps
High Pressure Carbonator
Motor Mounted



OBN91060GKC with external return relief valve

OBN91060GRC with internal recirculation relief valve

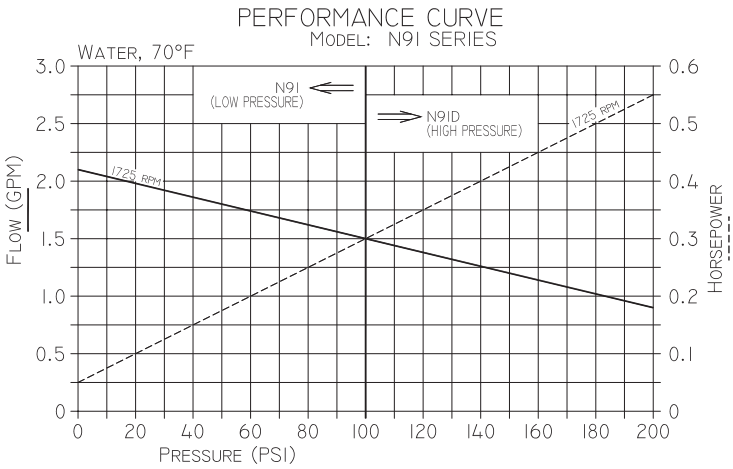
Features

- 1/4” NPT Ports
- Temp. Range: 32°F - 140°F
- Bronze Body, Stainless Steel Shaft
- Buna N Mechanical Seal (Viton optional)
- Self-lubricating Carbon Bearings
- Carbonator Motor Mount
- Bronze Spur Gears
- 200 PSI capability
- Superior to Vane Pumps

General Description

The carbonator motor mounting uses a circular clamp, similar to a hose clamp, as means of attaching the pump to a specially machined hub on the motor. This concept was first developed for the vending machine industry to pump carbonated beverages in soft drink dispensers. The main advantages are compactness and economy due to the elimination of the adapter casting. Carbonator motors are readily available from electric motor distributors.

Performance



The rotary gear pump features an all bronze design and 303 stainless steel shafts with options of non-metallic gears and a variety of shaft seals. The built-in relief valve is available in multiple options; internal recir- culation to suction side or external connection for return line to supply tank.

Suction Lift

For a first start-up, the pump should be primed to avoid dry running. Gear pumps are self-priming, but a foot valve with strainer is recommended at the beginning of the suction line. This will keep the gear chamber primed to insure instant flow when the pump is started. maximum suction lift is 20 feet. The suction line should be as short as possible ever possible.

Liquids and Temperature

Bronze pumps are suitable for water, oil, and mild chemicals in the pH-range from 4-10. Viscous liquids may be handled with carbonator pumps up to a viscosity of 300 SSU. Higher viscosities require a pump speed lower than 1725 RPM, which is currently not available in carbonator motors.

Liquids containing abrasives, solids, powders or pigments are highly detrimental to pump life and must be avoided. The recommended liquid temperature range is from 32°F to 140°F. If more extreme temperature conditions exist, factory should be consulted. Allowing the liquid to freeze in the pump can cause damage.

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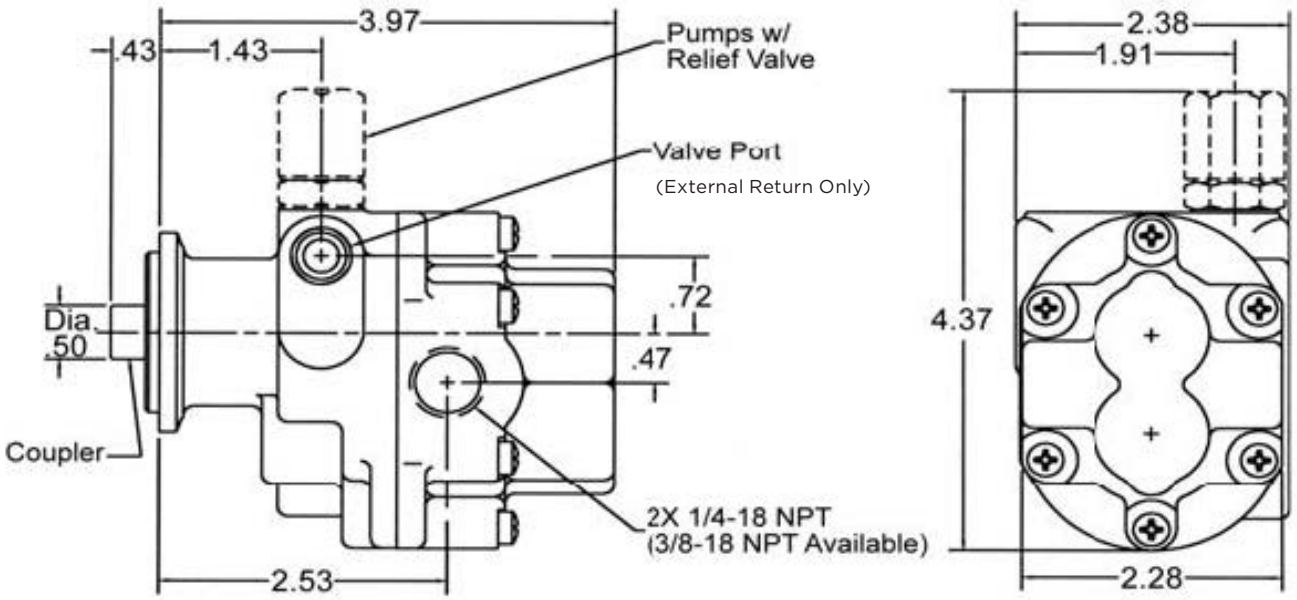
Rotation and Relief Valve

The relief valve is not intended to be a metering or flow control device. Its main purpose is to function as a discharge pressure relief when the spring tension is exceeded by the discharge pressure. Overheating can occur within 5-10 minutes if the discharge line is completely shut off for extended periods.

Unless otherwise specified, the pump motor unit is supplied by the factory for shaft rotation clockwise from shaft end. Reversing the motor rotation will reverse the “in” and “out” ports and also requires changing the relief valve location. The relief valve is always on the discharge side in this pump series. The factory pressure setting is 50 PSIG. To increase pressure, turn the relief valve adjusting screw in a clockwise direction. For relief settings between 100-200 PSI, specify high pressure spring (N91D) To reverse single phase motors, find instructions on the inside of the junction box cover or on the name plate of the motor.

Dimensions



			Integrated Relief Valve				
Model	**Ports**	**Seal**	**Poppet or Ball**	**Spring**	**Internal or External* Return**	**Valve Position ***	**Rotation***
OBN91060GKC	1/4	Buna	Poppet	Low Pressure	External / Right	Left	CCW
OBN91060GOC	1/4	Buna	N/A				
OBN91060GEC	1/4	Buna	Poppet	Low Pressure	External / Left	Right	CW
OBN91060GRC	1/4	Buna	Ball	Low Pressure	Internal	Right	CW
OBN91060GLC	1/4	Buna	Ball	Low Pressure	Internal	Left	CCW
OBN9105	1/4	Viton					
OBN91K	3/8						

* facing pump shaft

Ingersoll Rand
12500 South Pulaski Road
Alsip, IL 60803, USA
Phone (800) 448.1668

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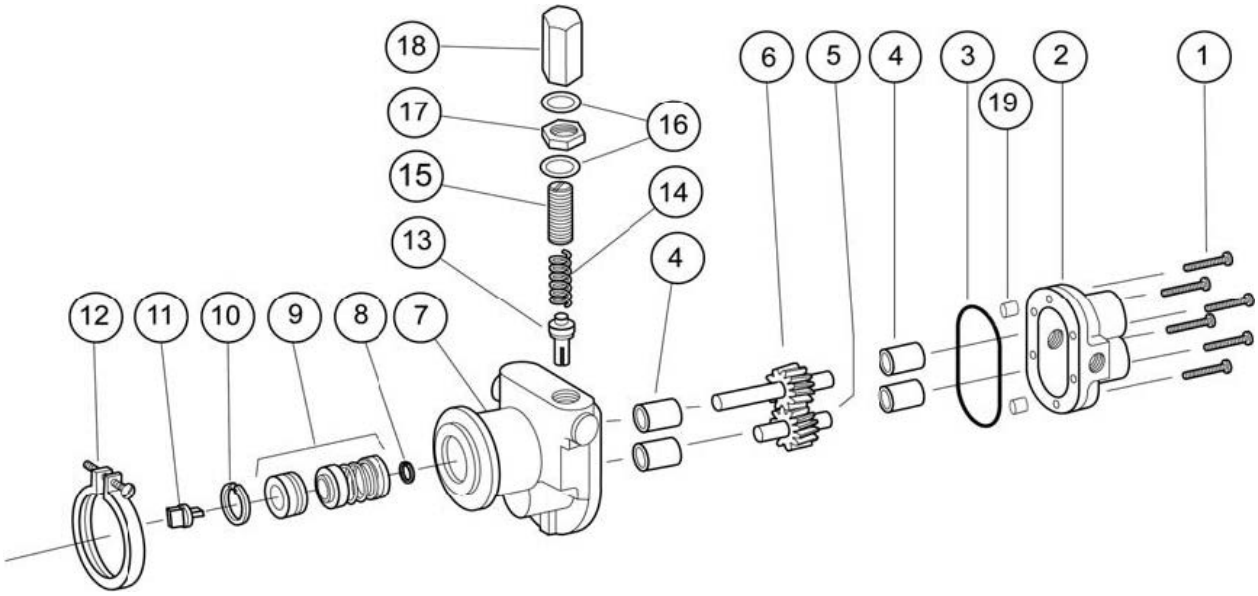
Exploded View



	1	2	3*	4*	5*	6*	7	8*	9*	10*	11*	12	13	14	15
	Screw	Body	O-Ring	Bearing	Idle Gear Assy	Drive Gear Assy	Cover	Snap Ring	Seal	Snap Ring	Coupler	Clamp	Poppet / Ball	Spring	Adjust. Screw
Model	Qty. 6	Qty. 1	Qty. 1	Qty. 4	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1
OBN91060GKC	OB7733	OB9300NB5N	OB9797-033	OB5024	OB32110	OB32914	OB9305NN4L	OB5373	OB32584	OB7639	OB9175	OB8840	OB7640	OB5806	OB5766
OBN91060GOC	OB7733	OB9300NB5N	OB9797-033	OB5024	OB32110	OB32914	OB9305NN4N	OB5373	OB32584	OB7639	OB9175	OB8840	N/A	N/A	N/A
OBN91060GEC	OB7733	OB9300NB5N	OB9797-033	OB5024	OB32110	OB32914	OB9305NN4R	OB5373	OB32584	OB7639	OB9175	OB8840	OB7640	OB5806	OB5766
OBN91060GRC	OB7733	OB9300NB5N	OB9797-033	OB5024	OB32110	OB32914	OB9305NN4B	OB5373	OB32584	OB7639	OB9175	OB8840	OB5809	OB5806	OB5766
OBN91060GLC	OB7733	OB9300NB5N	OB9797-033	OB5024	OB32110	OB32914	OB9305NN4B	OB5373	OB32584	OB7639	OB9175	OB8840	OB5809	OB5806	OB5766
OBN9105XXXX									OB32585						
OBN91KXXXXX		OB9300NC5N-C													

	16	17	18	19	Repair Kit
	O-Ring	Lock Nut	Valve Nut	Dowel Pin	
Model	Qty. 2	Qty. 1	Qty. 1	Qty. 2	
OBN91060GKC	OB9797-015	OB5774D	OB5767	OB8885	OB11969
OBN91060GOC	N/A	N/A	N/A	OB8885	OB11969
OBN91060GEC	OB9797-015	OB5774D	OB5767	OB8885	OB11969
OBN91060GRC	OB9797-015	OB5774D	OB5767	OB8885	OB11969
OBN91060GLC	OB9797-015	OB5774D	OB5767	OB8885	OB11969
OBN9105XXXX					OB11968
OBN91KXXXXX					OB11969

Carbonator Style ODP Motors

Code	HP	Voltage	Frequency	Speed (RPM)	Thermal Overload	Part #
C33	1/4	115/230	60/50 HZ	1725 / 1425	Auto	OB9630
C34	1/4	115	60 HZ	1725	Auto	OB9873
F02	1/3	115/230	60/50 HZ	1725 / 1425	Auto	OB8876
F06	1/3	115	60 HZ	1725	Auto	OB9403
F12	1/3	230	60/50 HZ	1725 / 1425	Auto	OB8520
J39	1/2	115	60 HZ	1725	Auto	OB3150

* Repair Kits contain items 3, 4, 5, 6, 8, 9, 10 & 11.

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