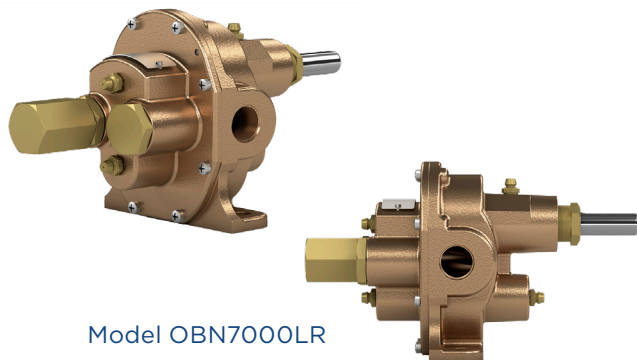




OBERDORFER®

An Ingersoll Rand Business

N7000L and LR Series Bronze Pedestal Rotary Gear Pumps



Model OBN7000LR

Features

- 3/4" NPT Ports
- Temp. Range: -40 - 400°F
- Bronze corrosion resistant castings
- Special cast bronze helical gears for quiet operation
- Stainless steel shafts & fasteners
- Synthetic Braided Compression Packing (with Teflon dispersion), Lipseal & Mechanical Seal Options
- Positive displacement flow
- Bronze bearing surfaces with grease fittings

Liquids and Temperature

Service life will be increased substantially if the liquid pumped is clean and has some degree of lubricity. These positive displacement pumps have tight tolerances. Fine abrasives like sand, silt, or powders in suspension will accelerate pump wear and reduce throughput.

Liquids compatible with bronze and stainless steel can be pumped providing proper seal has been specified (see chemical compatibility or check factory). No carbon bearings used. When possible, flush the pump after each usage.

Temperature extremes are detrimental to service life and should be avoided. Basic metals of construction allow a temperature range of -40 to 400°F.

Performance

Capacity Water 70° F

RPM	Ft. Hd.	0	46	92	138	184	231	290	346
	PSI	0	20	40	60	80	100	125*	150*
400	GPM HP Motor	4.00 0.20 1/4	3.45 0.23 1/4	2.90 0.30 1/3	2.35 0.39 1/2	1.50 0.55 1/2	1.30 0.65 3/4	1.20 0.70 3/4	1.00 0.90 1
	GPM HP Motor	6.30 0.25 1/4	5.78 0.30 1/3	5.26 0.40 1/2	4.74 0.65 3/4	4.22 0.75 3/4	3.95 0.95 1	3.50 1.15 1 1/2	3.10 1.40 1 1/2
800	GPM HP Motor	8.58 0.30 1/3	8.18 0.40 1/2	7.78 0.58 3/4	7.38 0.85 1	6.98 0.93 1	6.57 1.15 1 1/2	6.40 1.40 1 1/2	6.20 1.70 2
	GPM HP Motor	10.90 0.40 1/2	10.51 0.60 3/4	10.12 0.70 3/4	9.72 0.90 1	9.33 1.10 1	8.93 1.38 1 1/2	8.00 1.60 2	7.90 1.92 2
1200	GPM HP Motor	13.33 0.50 1/2	12.94 0.70 3/4	12.55 0.85 1	12.16 1.08 1	11.76 1.35 1 1/2	11.37 1.65 2	11.20 1.90 2	11.10 2.20 3
	GPM HP Motor	18.17 0.70 3/4	17.79 0.91 1	17.41 1.20 1 1/2	17.03 1.50 1 1/2	16.65 1.80 2	16.28 2.14 2	16.10 2.50 3	16.00 2.90 3
1725	GPM HP Motor	19.85 0.80 1	19.48 1.10 1	19.11 1.42 1 1/2	18.74 1.85 2	18.37 2.18 2 1/2	18.00 2.65 3	17.70 3.00 3	17.40 3.60 3

HP = Actual Horsepower
GPM = Gallons per minute
RPM = Rev. per minute

Motor = Convenient Fractional Size
PSI = Lbs. per square inch pressure
Ft. Hd. = Equiv. pressure in Ft. of water

* For pressures over 100 PSI, the above selections are suitable for pumping fluids with lubricity (eq. oils, polymers). Service life will decrease for fluids without lubricity (eq. water, solvents).

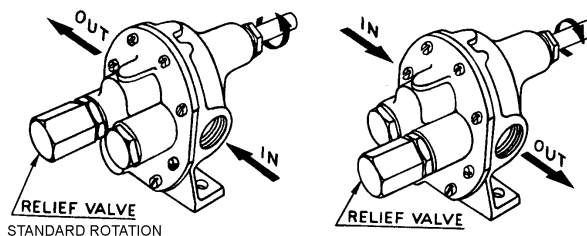
Some lip seal elastomers have a limit of 212°F. (see engineering data or check factory). Allowing a liquid to freeze in the pump can cause damage.

By-Pass and Rotation

The pump by-pass is not intended to be a metering or flow control device. Its main purpose is to function as a pressure relief when the desired set point is exceeded, overheating can occur within 5 -10 minutes if the discharge line is completely shut off for extended periods.

Reversing rotation reverses the "IN" and "OUT" ports and the location of the by-pass ports have to be reversed.

The by-pass valve is factory set at 50 psi. To increase the setpoint, turn the by-pass valve adjusting screw in a clockwise direction.





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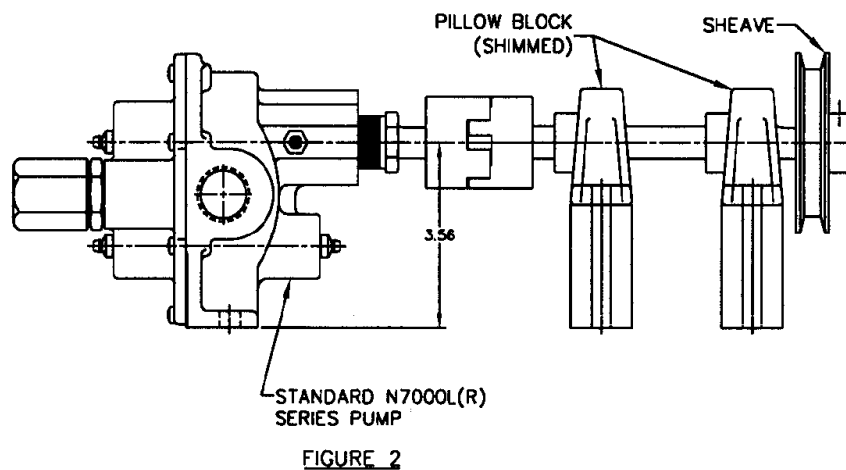
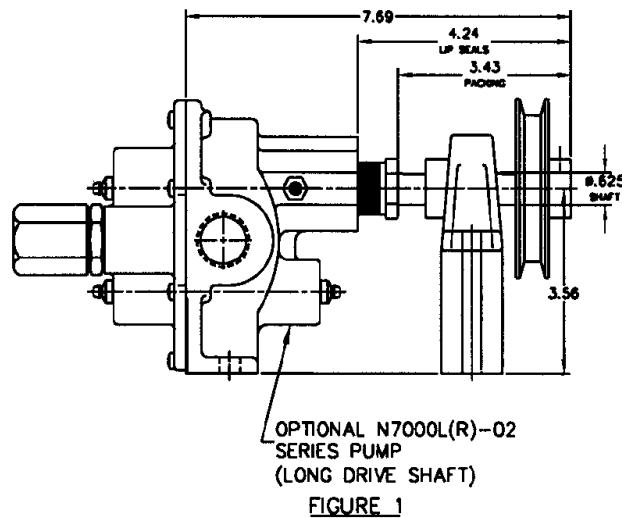
Suction Lift

Close tolerances and the positive pumping action make the rotary gear pump capable of lifting water on the suction side as high as 20 feet. Though gear pumps are self priming, a foot valve is recommended. If possible, wet the gears with liquid to be pumped for the first dry start. Liquid retained in the system and gear chambers serves to “wet” the pump on subsequent starts.

Mounting and Drive Arrangement

Pumps should be mounted on a rigid base and properly aligned with the motor. Direct drive via flexible shaft coupling is the preferred method. When a belt drive is needed, additional support is necessary to absorb the added pulley load. this can be accomplished in two ways:

- 1) Use the standard pump arrangement by adding an independently supported jackshaft (see figure 2 below) or use kit 34P.
- 2) When space is an issue, use an optional “long shafted” pump and add a properly shimmed pillow block bearing (see figure 1).



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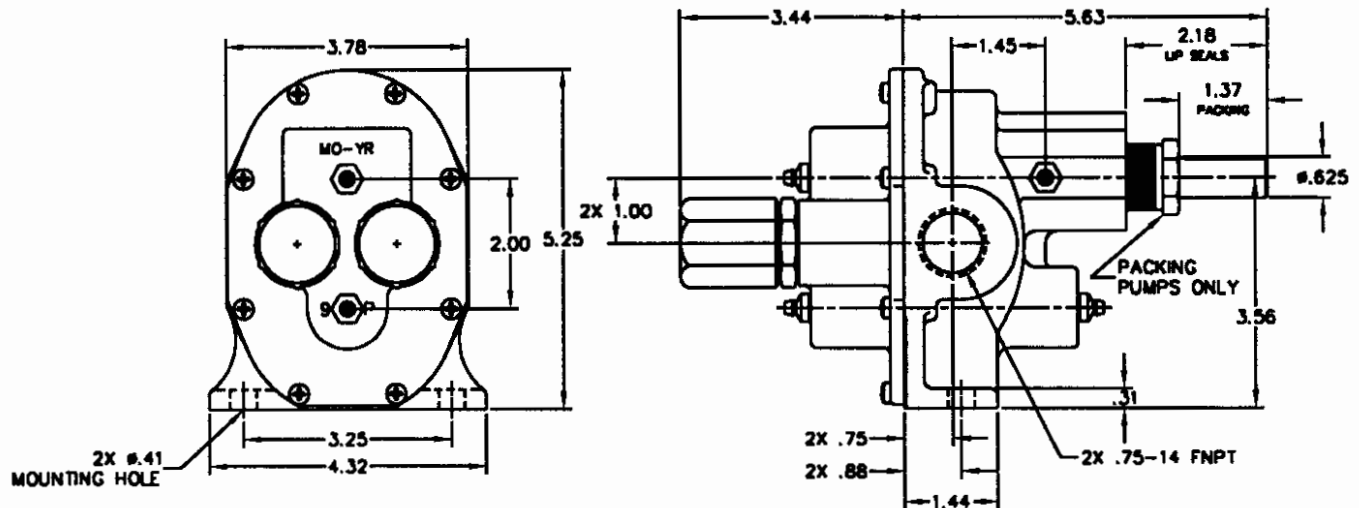


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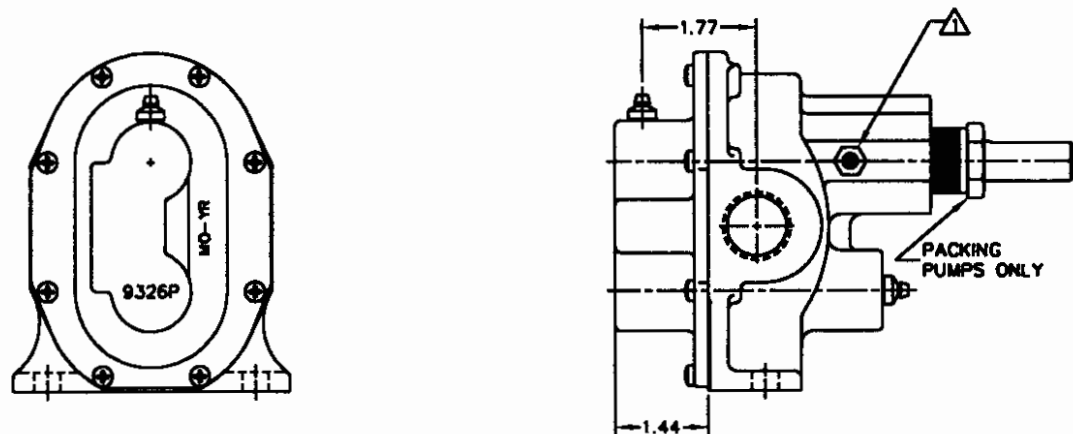
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Dimensions

DIMENSIONS N7000LR, N7000LRS3 & N7000LRS15



DIMENSIONS N7000L, N7000LS3 & N7000LS15



⚠ GREASE FITTINGS (ITEM 17) INSTALLED INTO .125-27 NPT CONNECTIONS.

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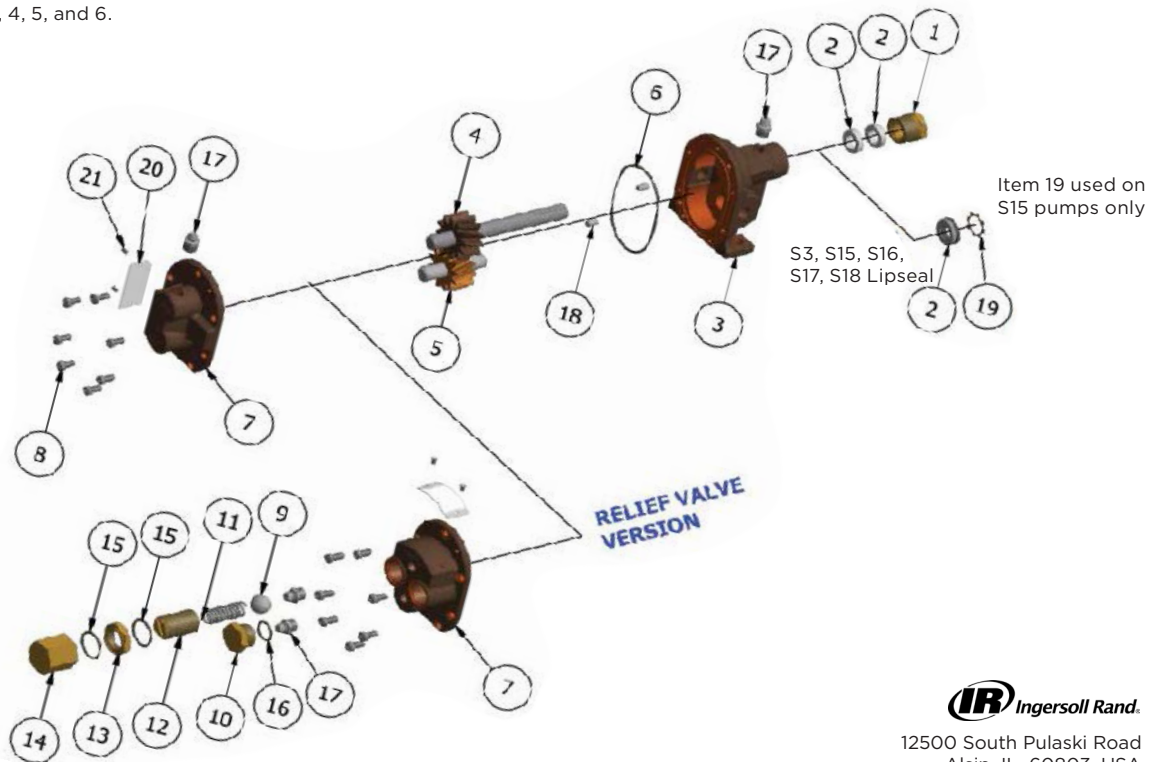
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Exploded View and Parts List

		1	2		3	4	5	6	7	8	9	10	11
		Packnut or Retaining Ring	Packing	Seal	Body	Drive Gear Ass'y	Idle Gear Ass'y	O-Ring	Cover	Screw	Ball	Plug Nut	Spring
Model	Seal Arrangement	Qty. 1	Qty. 2	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 8	Qty. 1	Qty. 1	Qty. 1
OBN7000L	Packing	OB1762	OB5479	NA	OB9324PEIN-1	OB33015	OB32959	OB9797-045	OB9326PN5N-1	OB5385	NA	NA	NA
OBN7000LS3	Buna Lip	NA	NA	OB5463	OB9324PE2N-1	OB33015	OB32959	OB9797-045	OB9326PN5N-1	OB5385	NA	NA	NA
OBN7000LS15	Viton Lip	NA	NA	OB9997	OB9324PE2N-1	OB33015	OB32959	OB9797-045	OB9326PN5N-1	OB5385	NA	NA	NA
OBN7000LS16	Buna Bellows Mech.	OB5374	NA	OB32202	OB9374PE9N-1	OB33043	OB32959	OB9797-045	OB9326PN5N-1	OB5385	NA	NA	NA
OBN7000LS17	Viton Bellows Mech.	OB5374	NA	OB32235	OB9374PE9N-1	OB33043	OB32959	OB9797-045	OB9326PN5N-1	OB5385	NA	NA	NA
OBN7000LS18	Teflon Wedge Mech.	OB5374	NA	OB32923	OB9374PE6N-1	OB33043	OB32959	OB9355-045	OB9326PN5N-1	OB5385	NA	NA	NA
Relief Valve Versions: OBN7000LR, OBN7000LRS3, OBN7000LRS15, OBN7000LRS16, OBN7000LRS17, OBN7000LRS18									OB9327PN5B-1		OB6217	OB5278R	OB5277

	12	13	14	15	16	17	18	19	20	21	22	Repair Kit
	Adj. Screw	Locknut	Bypass Nut	O-Ring Locknut	O-Ring Plug Nut	Grease Fitting	Dowel Pin	Lock Ring	Tag	Tag Screw	Retaining Ring	
Model	Qty. 1	Qty. 1	Qty. 1	Qty. 2	Qty. 1	Qty. 3	Qty. 2	Qty. 1	Qty. 2	Qty. 1	Qty. 1	
OBN7000L	NA	NA	NA	NA	NA	OB5390	OB8885	NA	OB9344	OB9345	NA	OB12222
OBN7000LS3	NA	NA	NA	NA	NA	OB5390	OB8885	NA	OB9344	OB9345	NA	OB12223
OBN7000LS15	NA	NA	NA	NA	NA	OB5390	OB8885	OB3033	OB9344	OB9345	NA	OB12224
OBN7000LS16	NA	NA	NA	NA	NA	OB5390	OB8885	NA	OB9344	OB9345	OB5382	TBD
OBN7000LS17	NA	NA	NA	NA	NA	OB5390	OB8885	NA	OB9344	OB9345	OB5382	TBD
OBN7000LS18	NA	NA	NA	NA	NA	OB5390	OB8885	NA	OB9344	OB9345	OB5382	TBD
Relief Valve Versions	OB5275	OB1642D	OB5276	OB9797-022	OB9797-019	OB5390						

All Repair Kits contain items 2, 4, 5, and 6.



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