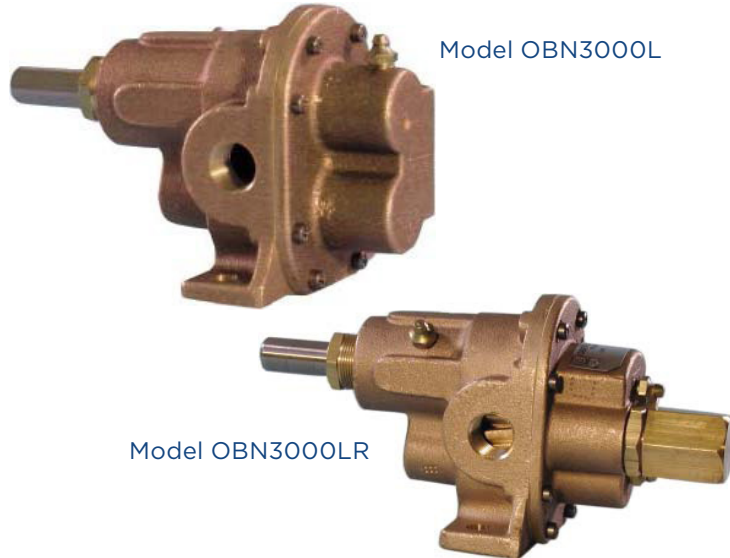




OBERDORFER®

An Ingersoll Rand Business

N3000L and LR Series Bronze Close Coupled Rotary Gear Pumps



Features

- 3/8" NPT Ports (1/2" NPT Ports available)
- 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) is standard
- Optional lip seals are available
- Positive displacement flow
- Bronze bearing surfaces with grease fittings

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 start.

Performance

Capacity Water 70° F

RPM	Ft. Hd.	0	46	92	138	184	231	290	346
		PSI	0	20	40	60	80	100	125
400	GPM	1.50	1.05	0.70	0.40	0.20	0.10	---	---
	HP Motor	0.05 1/6	0.08 1/6	0.13 1/6	0.15 1/6	0.20 1/4	0.24 1/4		
600	GPM	2.38	2.14	1.89	1.64	1.39	1.15	0.70	0.32
	HP Motor	0.06 1/6	0.10 1/6	0.17 1/4	0.20 1/4	0.28 1/3	0.35 1/3	0.44 1/2	0.53 1/2
800	GPM	3.17	2.90	2.64	2.37	2.11	1.85	1.70	1.30
	HP Motor	0.08 1/6	0.17 1/4	0.23 1/4	0.20 1/3	0.40 1/2	0.48 1/2	0.54 1/2	0.65 3/4
1000	GPM	4.00	3.74	3.48	3.22	2.96	2.71	2.40	2.15
	HP Motor	0.10 1/6	0.18 1/4	0.27 1/3	0.38 1/2	0.43 3/4	0.55 3/4	0.67 3/4	0.80 1
1200	GPM	4.85	4.60	4.35	4.10	3.84	3.58	3.50	3.20
	HP Motor	0.15 1/6	0.25 1/4	0.33 1/3	0.45 1/2	0.55 3/4	0.68 3/4	0.85 1	1.00 1
1600	GPM	6.67	6.42	6.16	5.90	5.64	5.38	5.25	5.00
	HP Motor	0.20 1/4	0.30 1/3	0.45 1/2	0.58 3/4	0.60 3/4	0.85 1	1.05 1	1.25 1 1/2
1725	GPM	7.25	7.00	6.75	6.50	6.25	6.00	5.75	5.50
	HP Motor	0.38 1/3	0.50 1/2	0.65 3/4	0.80 1	0.95 1	1.10 1	1.25 1 1/2	1.40 1 1/2

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

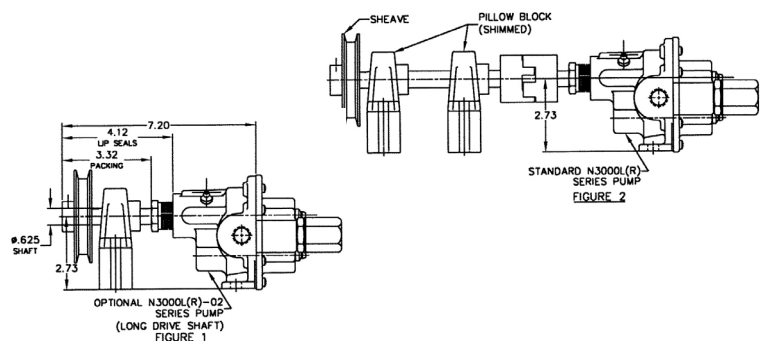
* For pressures over 100 PSI, the above selections are suitable for pumping fl uids with lubricity (eq. oils, polymers). Service life will decrease for fl uids without lubricity (eq. water, solvents).

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).





OBERDORFER®

An Ingersoll Rand Business

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.

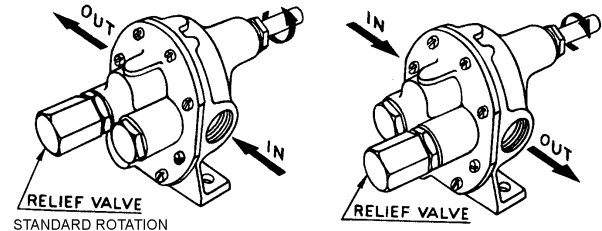
Temperature extremes are detrimental to service life and should be avoided. Basic metals of construction allow a temperature range of -40 to 400° F. Some lip seal elastomers have a limit of 212° F (see engineering data or check factory). Allowing a liquid to freeze in the pump can cause damage

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.

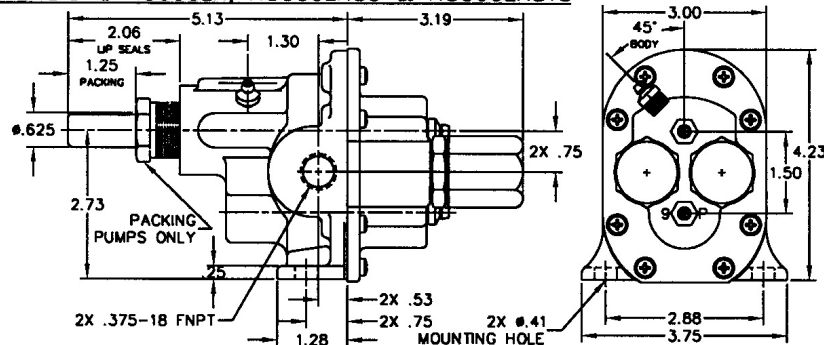
Reversing rotation reverses the “IN” and “OUT” ports and the location of the by-pass ports have to be reversed.

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.

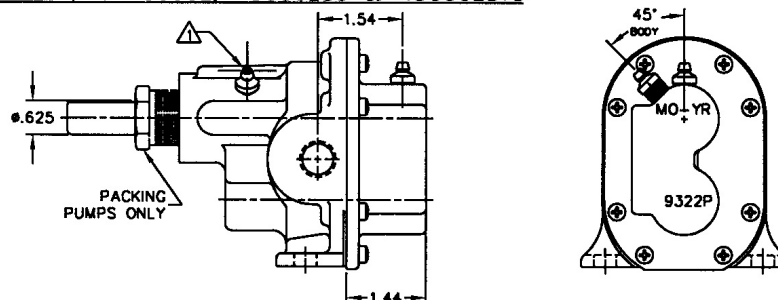


Dimensions

DIMENSIONS N3000LR, N3000LRS3 & N3000LRS15



DIMENSIONS N3000L, N3000LS3 & N3000LS15



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

IR Ingersoll Rand.

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



OBERDORFER®

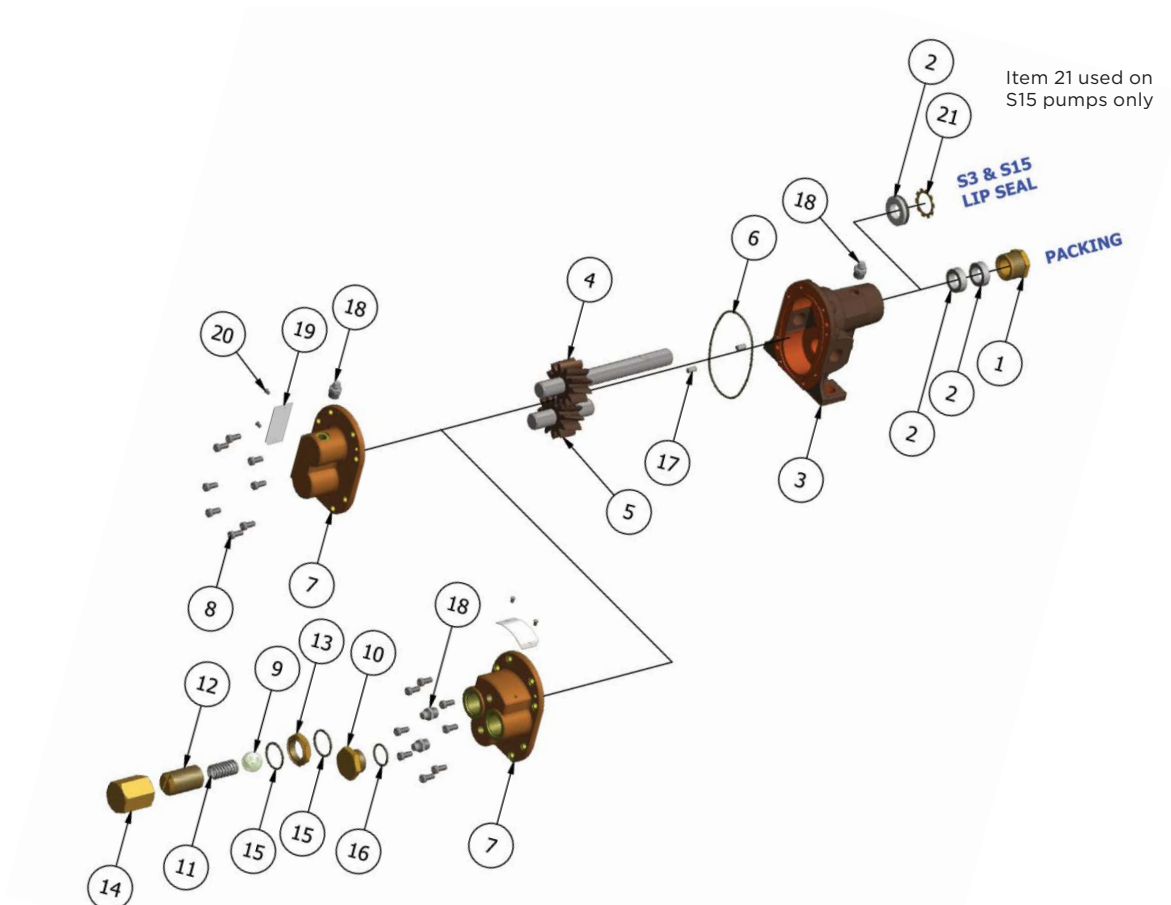
An Ingersoll Rand Business

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
OBN3000L	Packing	OB1762	OB5479	NA	OB9318PCIN-2	OB33001	OB33002	OB9797-041	OB9322PN5N-1	OB5385	NA	NA	NA
OBN3000LS3	NBR Lip	NA	NA	OB5463	OB9318PC2N-1	OB33001	OB33002	OB9797-041	OB9322PN5N-1	OB5385	NA	NA	NA
OBN3000LS15	FKM Lip	NA	NA	OB9997	OB9318PC2N-1	OB33001	OB33002	OB9797-041	OB9322PN5N-1	OB5385	NA	NA	NA
Relief Valve Versions: OBN3000LR, OBN3000LRS3, OBN3000LRS15					OB9318NC2N-C	OB33001	OB33002	OB9797-041	OB9323PN5B-1	OB5385	OB5206	OB5205	OB5207

	12	13	14	15	16	17	18	19	20	21	Repair Kit
Model	Adj. Screw	Locknut	Bypass Nut	O-Ring Locknut	O-Ring Plug Nut	Grease Fitting	Dowel Pin	Tag	Tag Screw	Lock Ring	
	Qty. 1	Qty. 1	Qty. 1	Qty. 2	Qty. 1	Qty. 2	Qty. 2	Qty. 2	Qty. 1	Qty. 1	
OBN3000L	NA	NA	NA	NA	NA	OB5390	OB8885	OB9344	OB9345	NA	OB12217
OBN3000LS3	NA	NA	NA	NA	NA	OB5390	OB8885	OB9344	OB9345	NA	OB12218
OBN3000LS15	NA	NA	NA	NA	NA	OB5390	OB8885	OB9344	OB9345	OB3033	OB12219
Relief Valve Versions	OB5200	OB5209D	OB5204	OB9797-021	OB9797-018	OB5390 (3 Req'd)		OB9344	OB9345		

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



IR Ingersoll Rand

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