

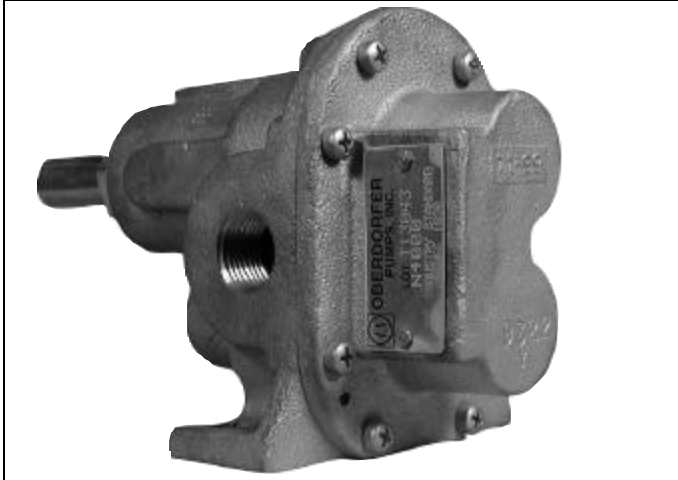
BRONZE PEDESTAL ROTARY GEAR PUMPS



OBERDORFER PUMPS
A Subsidiary of Thomas Industries Inc.

**MODEL
N4000
SERIES**

MODEL N4000 - 1/2" NPT PORTS



FEATURES

- n Bronze Corrosion Resistant Castings
- n Special Cast Bronze Gears
- n Stainless Steel Shafts & Fasteners
- n Formed Ring Seal Packing (Lip & Mechanical Seals on Special Order)
- n Heavy Duty Carbon Bearings (Self Lubricating)
- n Positive Displacement Flow

DRIVE

Either direct drive with flexible coupling or pulley drive can be used. Make sure both flexible coupling halves are properly aligned. When using a pulley, do not overtighten the belt. Also, to absorb belt side thrust at higher pressures and larger size pumps, an external ball bearing support is recommended -- consult factory.

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). 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 and mechanical 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.

MODEL N4000R



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.

CAPACITY - WATER 70° F

R.P.M.	FT.HD.	CAPACITY - WATER 70° F								
		0	46	92	138	184	231	290	346	
	P.S.I.	0	20	40	60	80	100	125*	150*	
400	GPM	2.30	2.00	1.75	1.55	1.30	1.10	0.85	0.65	
	HP	0.10	0.15	0.20	0.25	0.32	0.40	0.53	0.70	
	MOTOR	1/6	1/6	1/4	1/4	1/3	1/2	1/2	3/4	
600	GPM	3.45	3.20	2.95	2.75	2.50	2.30	2.07	2.17	
	HP	0.15	0.20	0.25	0.35	0.40	0.60	0.75	0.94	
	MOTOR	1/4	1/4	1/4	1/3	1/2	1/3	3/4	1	
800	GPM	4.65	4.18	4.10	3.90	3.70	3.50	3.25	3.05	
	HP	0.20	0.22	0.29	0.45	0.64	0.86	1.20	1.60	
	MOTOR	1/4	1/4	1/3	1/2	3/4	1	1 1/2	2	
1000	GPM	5.86	5.65	5.40	5.18	4.95	4.76	4.50	4.30	
	HP	0.22	0.25	0.30	0.45	0.65	0.75	1.20	1.50	
	MOTOR	1/4	1/4	1/3	1/2	3/4	3/4	1 1/2	1 1/2	
1200	GPM	7.10	6.85	6.60	6.35	6.12	5.90	5.68	5.45	
	HP	0.25	0.30	0.40	0.60	0.75	0.97	1.30	1.70	
	MOTOR	1/4	1/3	1/2	3/4	3/4	1	1 1/2	2	
1600	GPM	9.70	9.45	9.20	8.95	8.72	8.50	8.30	8.10	
	HP	0.30	0.39	0.60	0.80	1.05	1.30	1.64	2.05	
	MOTOR	1/3	1/2	3/4	1	1	1 1/2	2	2	
1725	GPM	10.56	10.33	10.10	9.85	9.63	9.42	9.20	9.00	
	HP	0.50	0.75	0.90	1.20	1.50	1.75	2.00	2.32	
	MOTOR	1/2	3/4	1	1 1/2	1 1/2	2	2	3	

H.P. = Actual Horsepower

Motor = Convenient Fractional Size

G.P.M. = Gallons per Minute

P.S.I. = Lbs. Per Square Inch Pressure

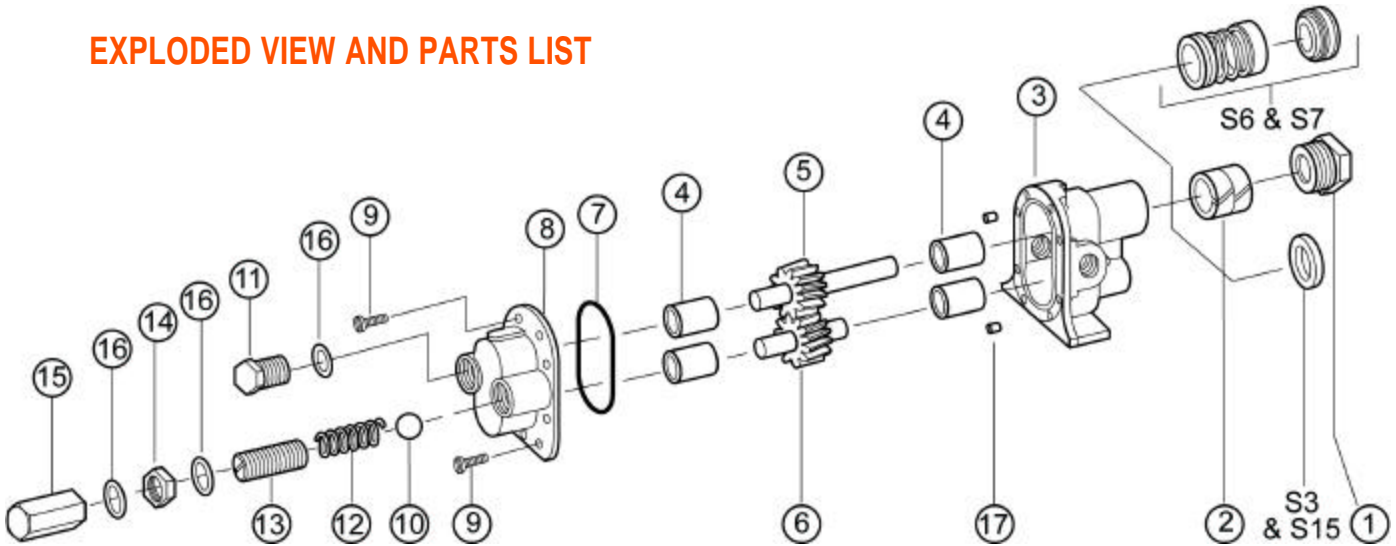
R.P.M. = Revolutions per Min.

Ft. Hd. = Equiv. Press. in Ft of Water

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



EXPLODED VIEW AND PARTS LIST



Pump No	1	2 ^{1,2}	3	4 ¹	5 ¹	6 ¹	7 ¹	8	9	10	11	12	13	14	15	16	17
	Packnut	Seal/ Packing	Body	Bearing	Drive Gear Assy.	Idle Gear Assy.	O-Ring	Cover	Screw	Ball	Plug Nut	Spring	Adj. Screw	Locknut	Bypass Nut	Fiber Washer	Dowel Pin
	1 Req'd	2 Req'd	1 Req'd	2 Req'd	1 Req'd	1 Req'd	1 Req'd	1 Req'd	8 Req'd	1 Req'd	1 Req'd	1 Req'd	1 Req'd	1 Req'd	1 Req'd	3 Req'd	2 Req'd
N4000	1762	5479	9319ND1N	5091	33007	33008	9797-041	9322NN5N	5385	---	---	---	---	---	---	---	8885
N4000R	1762	5479	9319ND1N	5091	33007	33008	9797-041	9323NN5B	5385	5206	5205	5207	5200	5209	5204	6964	8885

¹Repair Kits contain items 2, 4, 5, 6 & 7. Repair Kit for N4000(R) is # 10637.

Items 10 through 16 are for relief models only.

²Seals

Number	Description	Part #	Req'd	Repair Kit
S3	Buna Lipseal	5463	1	11387
S15	Viton(R)*-Teflon(R)* Lipseal	9997	1	12106

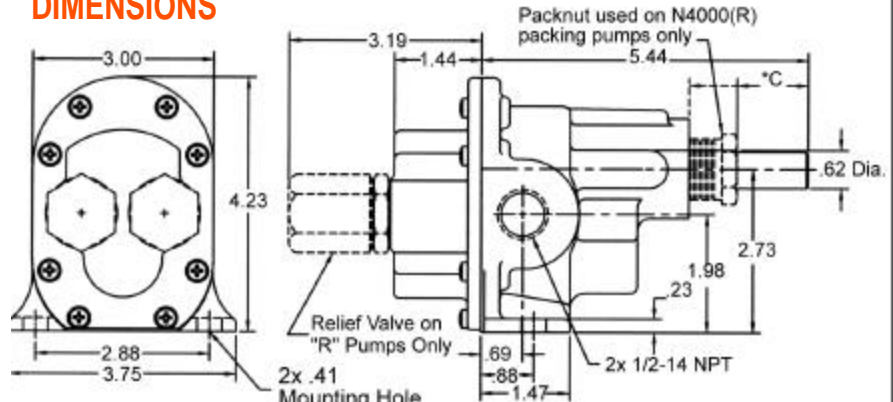
Note: For seals S3 & S15 part #3 is 9319ND2N.

Number	Description	Part Number	Req'd	Repair Kit
S6	Buna N Mech. Seal	32202	1	11388
S7	Viton(R)* Mech. Seal	32235	1	11437

Note: For seals S6 & S7 part #5 is 32184 & part #3 is 9319ND4N.

* Viton(R) or equivalent FKM will be used. Viton(R) is a registered trademark of DuPont Dow Elastomers.
Teflon(R) or equivalent PTFE will be used. Teflon(R) is a registered trademark of DuPont.

DIMENSIONS



C Dim: 1.18 for Packing Pumps, 2.00 for S3 & S5 Lip Seals, 2.44 for S6 & S7 Mech. Seals

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 p.s.i. To increase the setpoint, turn the by-pass valve adjusting screw in a clockwise direction.

