# BRONZE PEDESTAL ROTARY GEAR PUMPS

OBERDORFER PUMPS

A Subsidiary of Thomas Industries Inc.

MODEL N2000 SERIES

# **MODEL N2000-1/4"NPT PORT STANDARD**

# **FEATURES**

- Bronze Corrosion Resistant Castings
- Special Cast Bronze Gears
- Stainless Steel Shafts & Fasteners
- Formed Ring Seal Packing (Lip & Mechanical Seals on Special Order)
- Heavy Duty Carbon Bearings (Self Lubricating)
- 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 N2000R**



### **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.	0	46	92	138	184	231	290	346
	P.S.I.	0	20	40	60	80	100	125*	150*
	GPM	0.97	0.69	0.40	0.10				
400	HP	0.02	0.04	0.08	0.10				
	MOTOR	1/6	1/6	1/6	1/6				
	GPM	1.50	1.30	1.09	0.88	0.68	0.47	0.21	
600	HP	0.03	0.05	0.09	0.13	0.18	0.24	0.26	
	MOTOR	1/6	1/6	1/6	1/6	1/4	1/4	1/4	
	GPM	2.03	1.82	1.62	1.41	1.21	1.00	0.65	0.30
800	HP	0.04	0.07	0.11	0.15	0.22	0.29	0.36	0.45
	MOTOR	1/6	1/6	1/6	1/6	1/4	1/3	1/2	1/2
	GPM	2.50	2.30	2.10	1.90	1.70	1.50	1.00	0.50
1000	HP	0.04	0.08	0.13	0.18	0.24	0.32	0.45	0.55
	MOTOR	1/6	1/6	1/6	1/4	1/4	1/3	1/2	1/2
	GPM	2.92	2.72	2.52	2.31	2.10	1.90	1.50	1.00
1200	HP	0.05	0.09	0.16	0.22	0.28	0.36	0.48	0.58
	MOTOR	1/6	1/6	1/6	1/4	1/3	1/3	1/2	1/2
	GPM	3.75	3.55	3.35	3.15	2.95	2.75	2.45	2.20
1600	HP	0.06	0.11	0.18	0.25	0.33	0.41	0.53	0.65
	MOTOR	1/6	1/6	1/4	1/4	1/3	1/2	1/2	3/4
	GPM	4.07	3.86	3.65	3.44	3.23	3.03	2.80	2.50
1725	HP	0.10	0.14	0.20	0.29	0.37	0.43	0.56	0.68
	MOTOR	1/6	1/6	1/4	1/3	1/2	1/2	3/4	3/4

H.P. = Actual Horsepower

Motor = Convenient Fractional Size

G.P.M. = Gallons per Minute

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

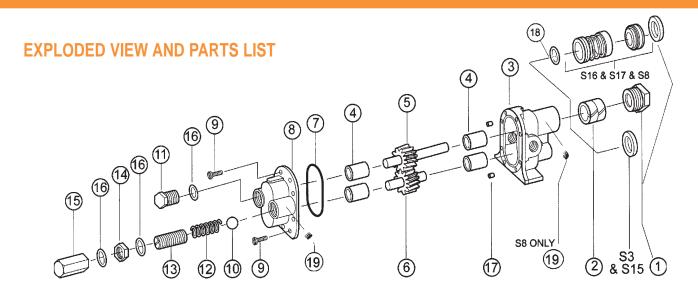
R.P.M. = Revolutions per Min. Ft. Here

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

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

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Pump No	Seal Arrangement	1	2		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Repair Kit
	-	Packnut or Retaining					Drive Gear	ldle Gear														
		Ring	Packing	Seal	Body	Bearing	Ass'y	Ass'y	O-ring	Cover	Screw	Ball	Plug Nut	Spring	Adj. Screw	Locknut	Bypass Nut	Fiber Washer	Dowel Pin	Retaining Ring	Pipe Plug	
		1 req'd	2 req'd	1 req'd	1 req'd	4 req'd	1 req'd	1 req'd	1 req'd	1 req'd	7 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	1 req'd	1 req'd	
N2000	Packing	1892	5481	NA	9315NB1N	5024	32992	32993	9797-038	9316NN5N	5385								8885			10641
N2000S3	Buna Lip	NA	NA	5007	9315NB2N	5024	32992	32993	9797-038	9316NN5N	5385								8885			11379
N2000S5	Viton Lip	NA	NA	7580	9315NB2N	5024	32992	32993	9797-038	9316NN5N	5385								8885			11195
N2000S16	Buna Bellows Mech.	7639	NA	32584	9371NB4N	5024	33000	32993	9797-038	9316NN5N	5385								8885	5373		11970
N2000S17	Viton Bellows Mech.	7639	NA	32585	9371NB4N	5024	33000	32993	9797-038	9316NN5N	5385								8885	5373		12103
N2000S18	Teflon Wedge Mech.	7639	NA	32335	9371NB6N	5024	33000	32993	9355-038	9316NN5N	5385								8885	5373	6052	12225
Relief Valve Versions: N2000R, N2000RS3, N2000RS5, N2000RS16, N2000RS17, N2000RS18										9317NN5B		5238	1838	1840	5237	5240	5239	6533				

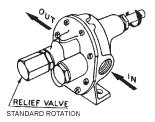
All Repair Kits contain items 2,4,5,6 and 7

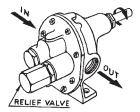
# **BY-PASS AND ROTATION**

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.

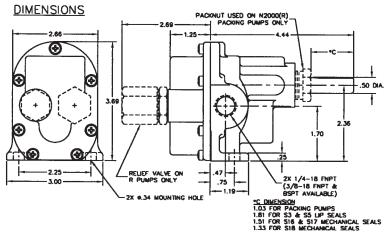
Reversing rotation reverses the "IN" and "OUT" ports and the location of the by-pass ports have to be reversed.

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.





# **DIMENSIONS**



\* Viton® or equivalent FKM will be used. Viton® is a registered trademark of DuPont Dow Elastomers.

Teflon® or equivalent PTFE will be used. Teflon® is a registered trademark of DuPont.

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Specifications are subject to change without notice.