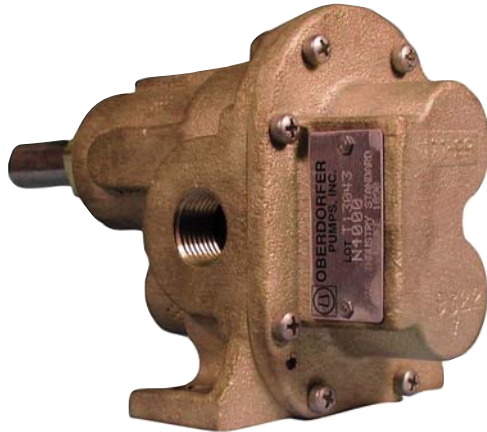
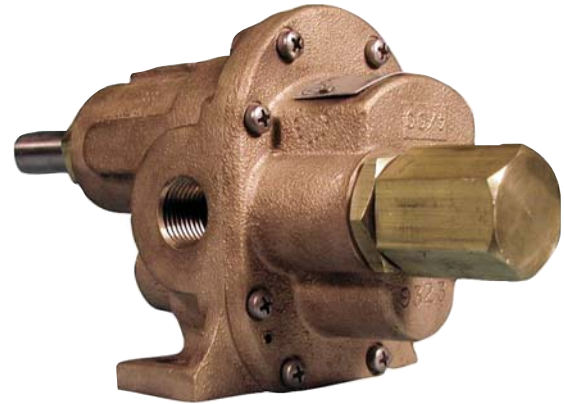


# BRONZE PEDESTAL ROTARY GEAR PUMPS

## MODEL N4000 - 1/2" NPT PORTS



## MODEL N4000R



### 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.

### 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. P.S.I.	0	46	92	138	184	231	290	346
		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

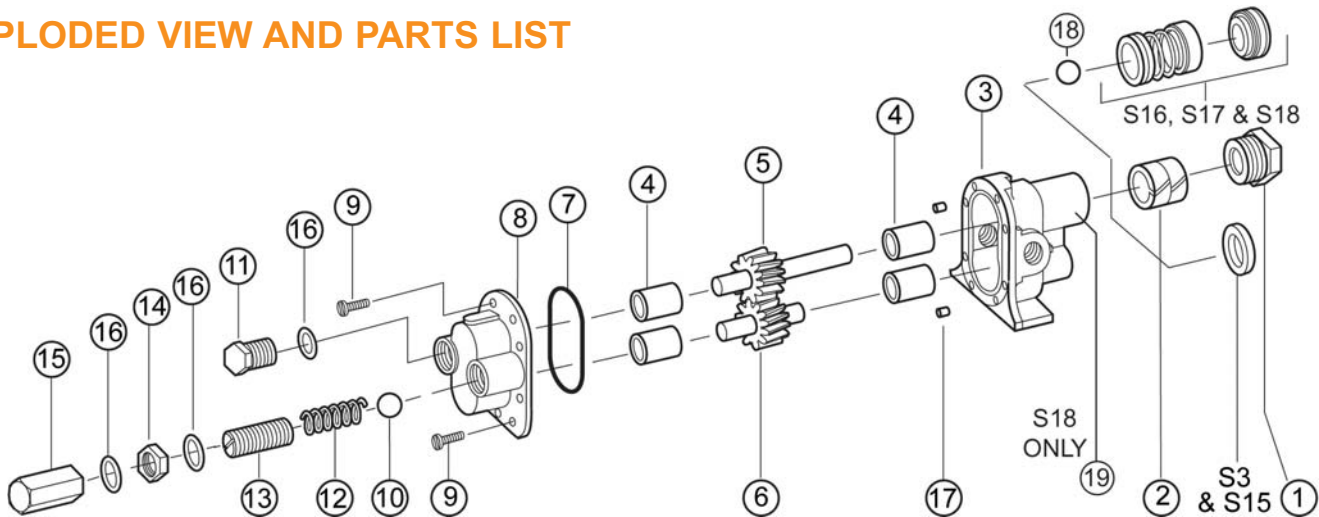
R.P.M. = Revolutions per Min.

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

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

# BRONZE PEDESTAL ROTARY GEAR PUMPS

## EXPLODED VIEW AND PARTS LIST



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	
N4000	Packing	1 req'd 1762	2 req'd 5479	1 req'd NA	1 req'd 9319ND1N	4 req'd 5091	1 req'd 33007	1 req'd 33008	1 req'd 9797-041	1 req'd 9322NN5N	8 req'd 5385	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	10637	
N4000S3	Buna Lip	NA	NA	5463	9319ND2N	5091	33007	33008	9797-041	9322NN5N	5385							8885			11387	
N4000S15	Viton Lip	NA	NA	9997	9319ND2N	5091	33007	33008	9797-041	9322NN5N	5385							8885			12106	
N4000S16	Buna Bellows Mech.	5374	NA	32202	9373ND9N	5091	33044	33008	9797-041	9322NN5N	5385							8885	5382		12131	
N4000S17	Viton Bellows Mech.	5374	NA	32235	9373ND9N	5091	33044	33008	9797-041	9322NN5N	5385							8885	5382		12132	
N4000S18	Teflon Wedge Mech.	5374	NA	32923	9373ND6N	5091	33044	33008	9355-041	9322NN5N	5385							8885	5382	6052	12133	
Relief Valve Versions: N4000R, N4000RS3, N4000RS15, N4000RS16, N4000RS17, N4000RS18											9323NN5B		5206	5205	5207	5200	5209	5204	6964			

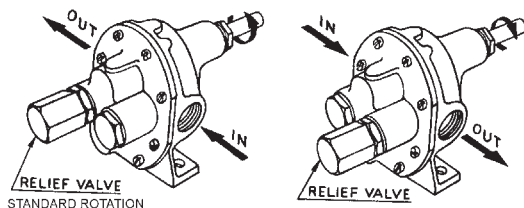
All Repair Kits contain items 2, 4, 5, 6 and 7.

## BY-PASS AND ROTATION

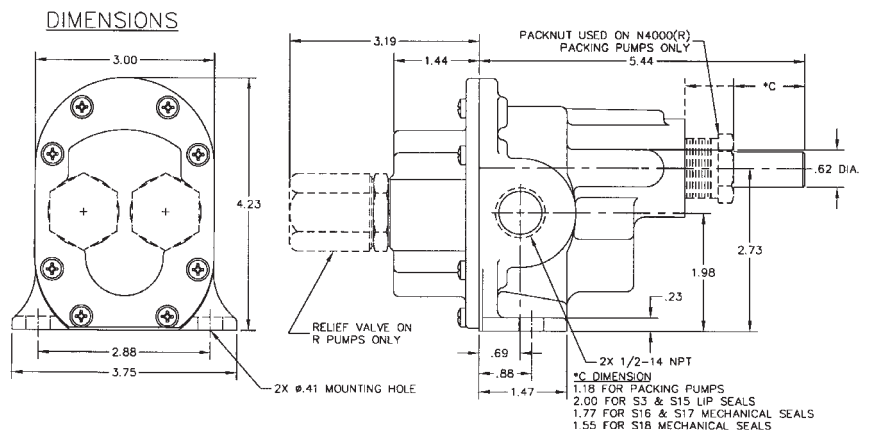
The pump by-pass is not intended to be a metering or flow control device. Its main purpose is to function as a pressure relief when the desired set point is exceeded, overheating can occur within 5 -10 minutes if the discharge line is completely shut off for extended periods.

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(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. Specifications are subject to change without notice.