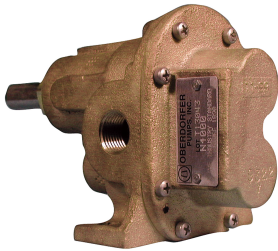


# BRONZE PEDESTAL ROTARY GEAR PUMPS

## GEAR PUMPS SERIES N7000

## PERFORMANCE



### 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

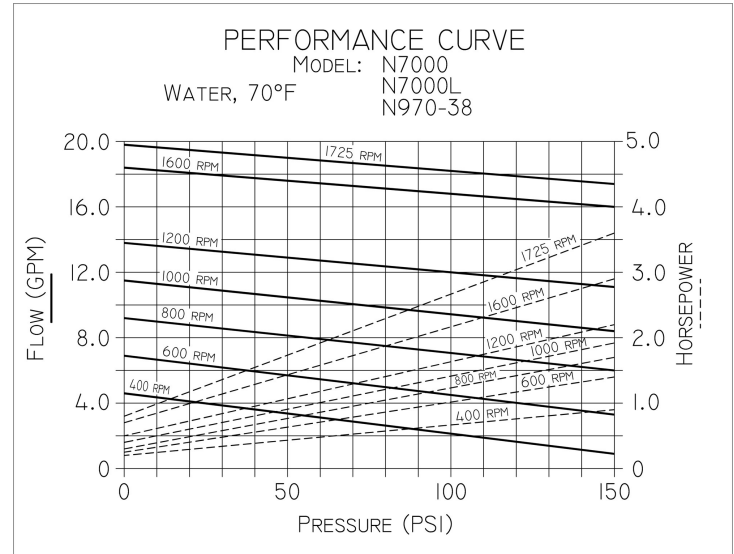
### DRIVE

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 over tighten 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 400oF. Some lip and mechanical seal elastomers have a limit of 212oF. (see engineering data or check factory). Allowing a liquid to freeze in the pump can cause damage.

\*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).



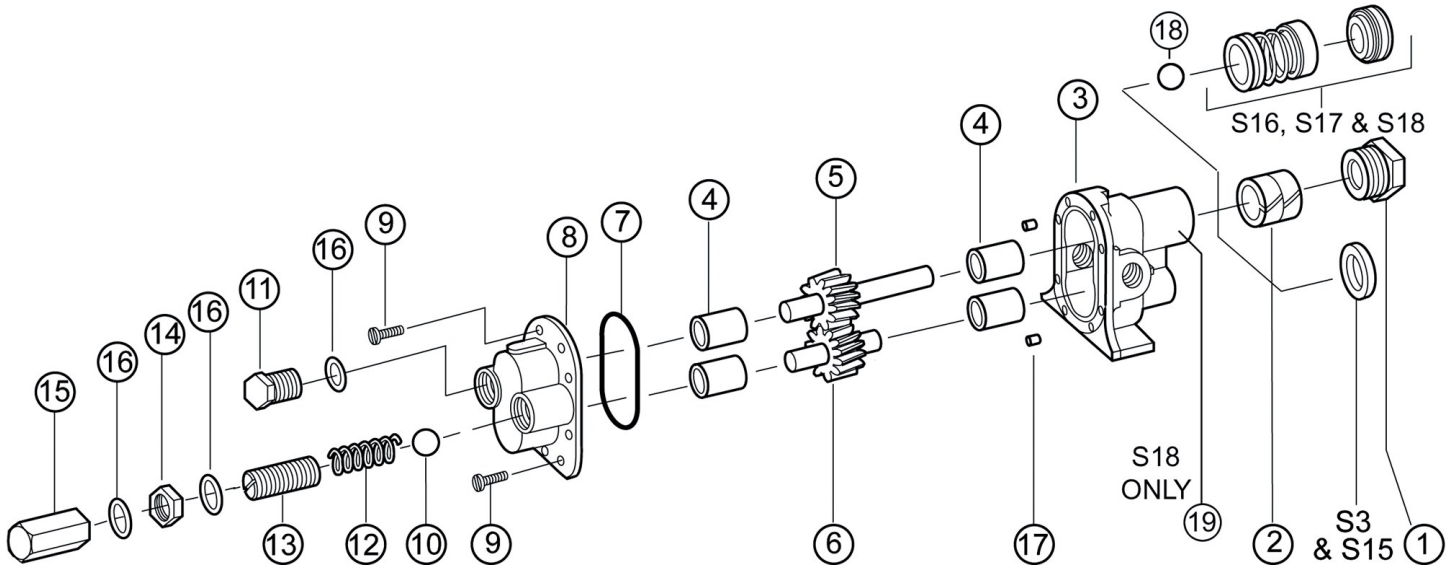
CAPACITY - WATER 70° F									
R.P.M.	FT.HD.	0	46	92	138	184	231	290	346
		P.S.I.	0	20	40	60	80	100	125*
400	GPM	4.00	3.45	2.90	2.35	1.50	1.30	1.20	1.00
	HP	0.20	0.23	0.30	0.39	0.55	0.65	0.70	0.90
	MOTOR	1/4	1/4	1/3	1/2	1/2	3/4	3/4	1
600	GPM	6.30	5.78	5.26	4.74	4.22	3.95	3.50	3.10
	HP	0.25	0.30	0.40	0.65	0.75	0.95	1.15	1.40
	MOTOR	1/4	1/3	1/2	3/4	3/4	1	1 1/2	1 1/2
800	GPM	8.58	8.18	7.78	7.38	6.98	6.57	6.40	6.20
	HP	0.30	0.40	0.58	0.85	0.93	1.15	1.40	1.70
	MOTOR	1/3	1/2	3/4	1	1	1 1/2	1 1/2	2
1000	GPM	10.90	10.51	10.12	9.72	9.33	8.93	8.00	7.90
	HP	0.40	0.60	0.70	0.90	1.10	1.38	1.60	1.92
	MOTOR	1/2	3/4	3/4	1	1	1 1/2	2	2
1200	GPM	13.33	12.94	12.55	12.16	11.76	11.37	11.20	11.10
	HP	0.50	0.70	0.85	1.08	1.35	1.65	1.90	2.20
	MOTOR	1/2	3/4	1	1	1 1/2	2	2	3
1600	GPM	18.17	17.79	17.41	17.03	16.65	16.28	16.10	16.00
	HP	0.70	0.91	1.20	1.50	1.80	2.14	2.50	2.90
	MOTOR	3/4	1	1 1/2	1 1/2	2	2	3	3
1725	GPM	19.85	19.48	19.11	18.74	18.37	18.00	17.70	17.40
	HP	0.80	1.10	1.42	1.85	2.18	2.65	3.00	3.60
	MOTOR	1	1	1 1/2	2	2 1/2	3	3	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							

## 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.

## EXPLODED VIEW AND PARTS LIST

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 set point, turn the bypass valve adjusting screw in a clockwise direction.



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 Ring	Packing	Seal	Body	Bearing	Drive Gear Ass'y	Idle Gear 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	8 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		10638
N7000	Packing	1762	5479	NA	9324NE1N	5091	33015	32959	9797-045	9326NN5N	5385							8885				
N7000S3	Buna Lip	NA	NA	5463	9324NE2N	5091	33015	32959	9797-045	9326NN5N	5385							8885				11258
N7000S15	Viton Lip	NA	NA	9997	9324NE2N	5091	33015	32959	9797-045	9326NN5N	5385							8885				12107
N7000S16	Buna Bellows Mech.	5374	NA	32202	9374NE9N	5091	33043	32959	9797-045	9326NN5N	5385							8885	5382			12128
N7000S17	Viton Bellows Mech.	5374	NA	32235	9374NE9N	5091	33043	32959	9797-045	9326NN5N	5385							8885	5382			12129
N7000S18	Teflon Wedge Mech.	5374	NA	32923	9374NE6N	5091	33043	32959	9355-045	9326NN5N	5385							8885	5382	6052		12130
Relief Valve Versions: N7000R, N7000RS3, N7000RS15, N7000RS16, N7000RS17, N7000RS18										9327NN5B	6217	5278	5277	5275	1642	5276	6965					

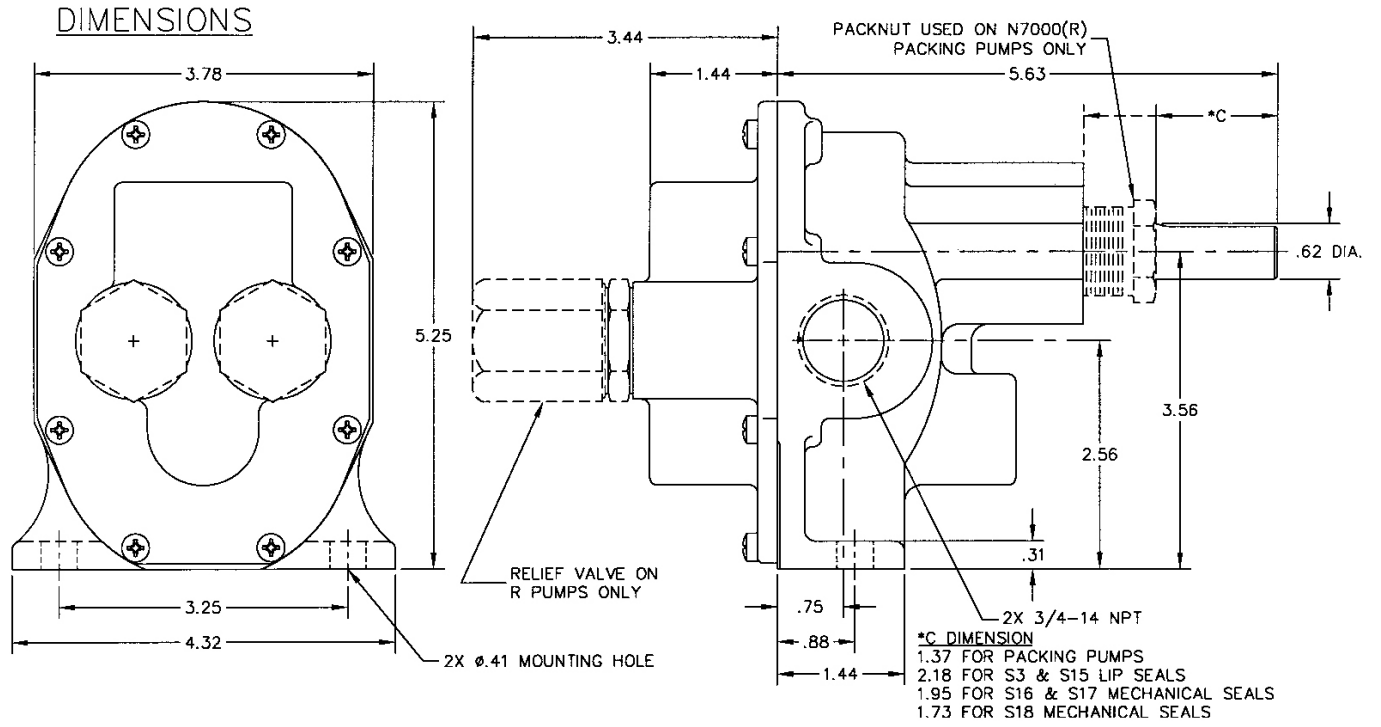
All Repair Kits contain items 2, 4, 5, 6 and 7.

Pump No	1	2 <sup>1,2</sup>	3	4 <sup>1</sup>	5 <sup>1</sup>	6 <sup>1</sup>	7 <sup>1</sup>	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
N7000	1762	5479	9324NE1N	5091	33015	32959	9797-045	9326NN5N	5385	---	---	---	---	---	---	---	8885
N7000R	1762	5479	9324NE1N	5091	33015	32959	9797-045	9327NN5B	5385	6217	5278	5277	5275	1642	5276	6965	8885

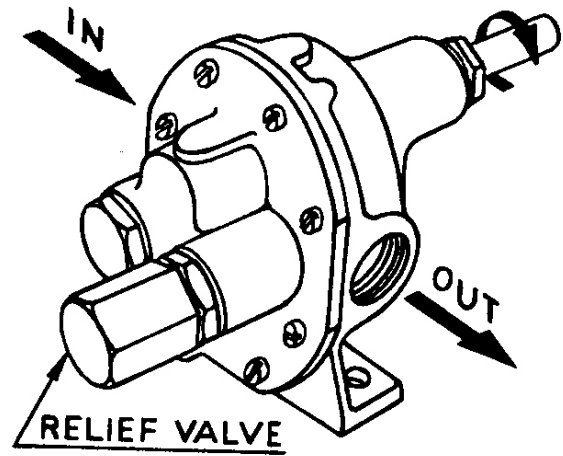
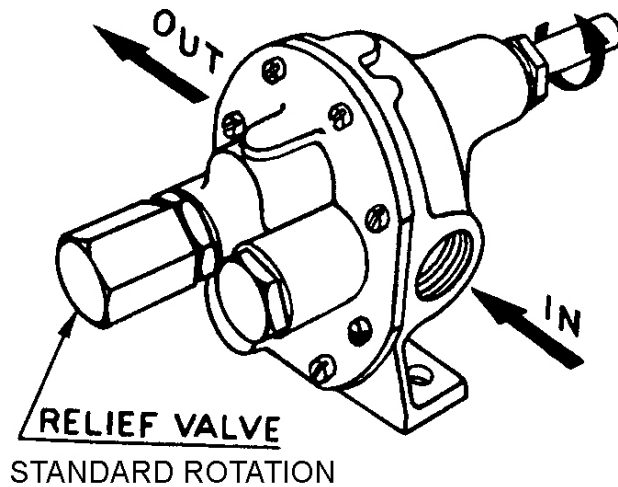
Repair Kits contain items 2, 4, 5, 6, & 7. Repair Kit for N7000(R) is #10638.

Items 10 thru 16 are for relief models only.

# DIMENSIONS



## ROTATION



## SEALS

<sup>2</sup> Seals									
Number	Description	Part #	Reqd	Repair Kit	Number	Description	Part Number	Reqd	Repair Kit
S3	Buna N Lipseal	5463	1	11258	S6	Buna N Mech. Seal	32202	1	11061
S15	Viton(R)*-Teflon(R)* Lipseal	9997	1	12107	S7	Viton(R)* Mech. Seal	32235	1	11448

Note: For seals S3 & S15 part #3 is 9324NE2N.

Note: For seals S6 & S7 part #5 is 333016 & part #3 is 9324NE4N.

Pump No.	A	B	C	C*	C**	D	E	F	G	H
N7000, N7000R N7000B, N7000BR	3/4	0.625	1.31	2.00	1.25	5.63	0.75	0.88	1.44	0.31
C - Packing	C* - Lip Seal			C** - Mechanical Seal						
	J	K	L	M	N	O	P	R	S	
	0.41	3.56	1.44	3.38	3.78	5.25	2.56	3.25	4.25	