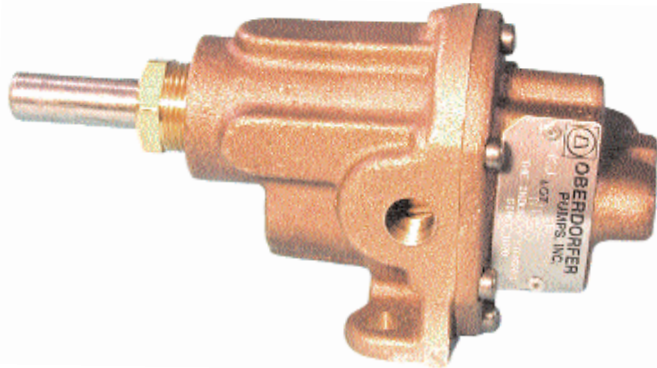
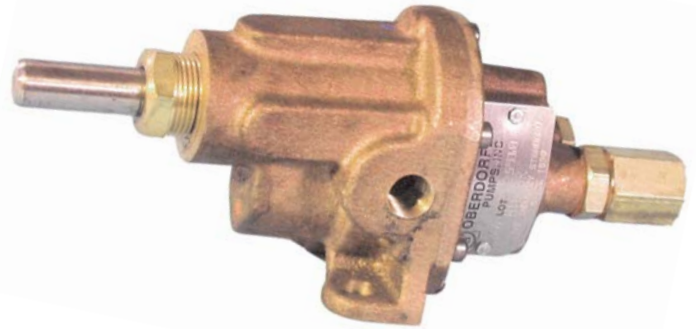


BRONZE CLOSE COUPLED ROTARY GEAR PUMPS

MODEL N1000- 1/4" NPT PORTS STANDARD



MODEL N1000R



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

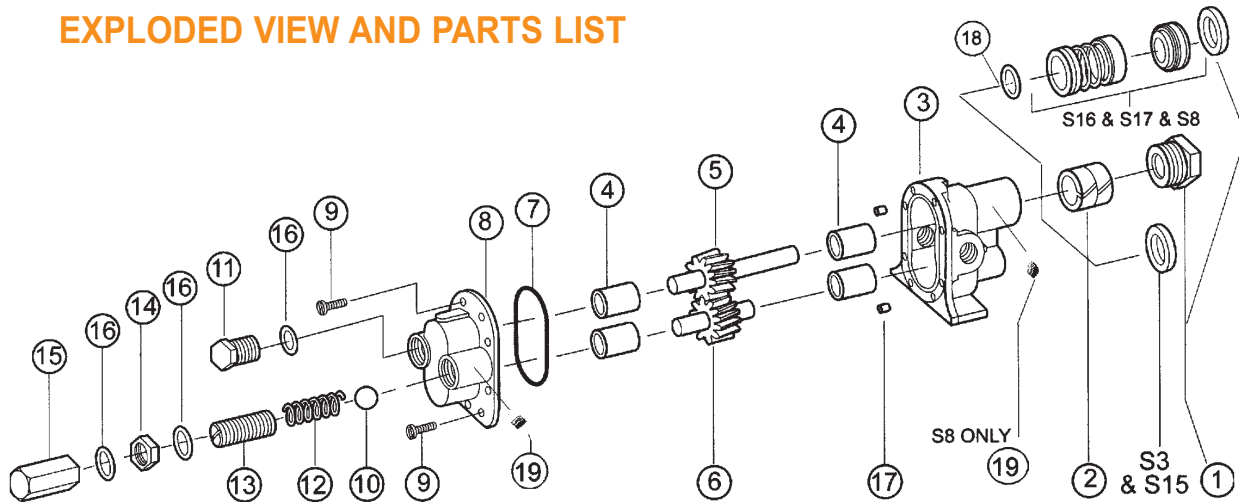
R.P.M.	FT. HD P.S.I.	0	46	92	138	184	231	290	346
		0	20	40	60	80	100	125*	150*
400	G.P.M.	0.50	0.30	0.10	---	---	---	---	---
	H.P.	0.01	0.03	0.04	---	---	---	---	---
	MOTOR	1/6	1/6	1/6	---	---	---	---	---
600	G.P.M.	0.80	0.62	0.44	0.27	0.10	---	---	---
	H.P.	0.02	0.04	0.06	0.08	0.10	---	---	---
	MOTOR	1/6	1/6	1/6	1/6	1/6	---	---	---
800	G.P.M.	1.03	0.87	0.72	0.56	0.40	0.24	0.10	---
	H.P.	0.02	0.04	0.07	0.10	0.12	0.15	0.18	---
	MOTOR	1/6	1/6	1/6	1/6	1/6	1/6	1/4	---
1000	G.P.M.	1.26	1.11	0.96	0.81	0.66	0.51	0.33	0.10
	H.P.	0.02	0.05	0.09	0.12	0.15	0.19	0.24	0.28
	MOTOR	1/6	1/6	1/6	1/6	1/6	1/4	1/4	1/3
1200	G.P.M.	1.50	1.35	1.20	1.05	0.90	0.75	0.60	0.45
	H.P.	0.03	0.05	0.12	0.14	0.17	0.21	0.26	0.29
	MOTOR	1/6	1/6	1/6	1/6	1/4	1/4	1/3	1/3
1600	G.P.M.	1.95	1.83	1.70	1.57	1.45	1.32	1.15	0.95
	H.P.	0.04	0.08	0.13	0.18	0.22	0.27	0.33	0.38
	MOTOR	1/6	1/6	1/6	1/4	1/4	1/3	1/3	1/2
1725	G.P.M.	2.10	1.98	1.86	1.74	1.62	1.50	1.35	1.20
	H.P.	0.05	0.09	0.14	0.19	0.23	0.28	0.34	0.39
	MOTOR	1/6	1/6	1/6	1/4	1/4	1/3	1/3	1/2

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).

BRONZE CLOSE COUPLED 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
		Packnut or Retaining Ring	Packing	Seal	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	Retaining Ring	
		1 req'd	2 req'd	1 req'd	1 req'd	4 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	
N1000	Packing	1892	5481	N/A	9311NB1N	5024	32101	32110	9797-033	9314NN5N	5385							8885			10635
N1000S3	Buna Lip	NA	N/A	5007	9311NB2N	5024	32101	32110	9797-033	9314NN5N	5385							8885			11266
N1000S5	Viton Lip	NA	N/A	7580	9311NB2N	5024	32101	32110	9797-033	9314NN5N	5385							8885			11396
N1000S16	Buna Bellows Mech.	7639	N/A	32584	9370NB4N	5024	32687	32110	9797-033	9314NN5N	5385							8885	5373		11925
N1000S17	Viton Bellows Mech.	7639	N/A	32585	9370NB4N	5024	32687	32110	9797-033	9314NN5N	5385							8885	5373		12104
N1000S8	Teflon Wedge Mech.	7639	N/A	32335	9370NB6N	5024	32687	32110	9355-033	9314NN5N	5385							8885	5373	6052	11283
Relief Valve Versions: N1000R, N1000RS3, N1000RS5, N1000RS16, N1000RS17, N1000RS8										9314NN5B		5809	5775	5806	5766	5774	5767	6966			6052

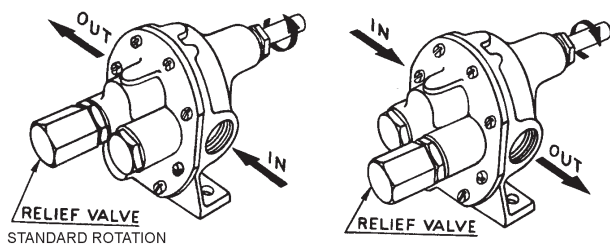
All Repair Kits contain items 2,4,5,6 and 7

BY-PASS AND ROTATION

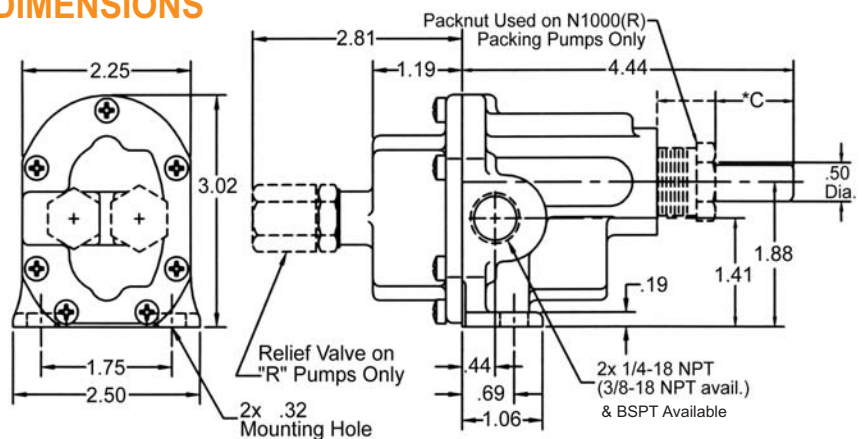
The pump by-pass is not intended to be a metering or flow control device. Its main purpose is to function as a pressure relief when the desired set point is exceeded, overheating can occur within 5 - 10 minutes if the discharge line is completely shut off for extended periods.

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



*C Dim: 1.03 for Packing Pumps, 1.18 for S3 & S5 Lip Seals, 1.51 for S16 & S17 Mech. Seals
1.32 for S8 Mechanical Seals

* 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.