

A Gardner Denver Product

# GEAR PUMPS N9000 SERIES

# BRONZE PEDESTAL ROTARY GEAR PUMPS

# **GEAR PUMPS SERIES N9000**

# PERFORMANCE

CAPACITY - WATER 70° F



# **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 L the belt. Also, to absorb belt side thrust at higher pressures H.P. = Actual Horsepower and larger size pumps, an external ball bearing support is G.P.M. = Gallons per Minute recommended -- consult factory.

R.P.M.	FT.HD.	0	46	92	138	184	231	290	346
	P.S.I.	0	20	40	60	80	100	125*	150*
400	GPM	5.00	4.49	3.99	3.48	2.98	2.48	2.05	1.60
	HP	0.25	0.33	0.40	0.50	0.65	0.75	1.00	1.25
	MOTOR	1/4	1/3	1/2	1/3	3/4	3/4	1	1 1/2
600	GPM	7.50	7.08	6.65	6.23	5.80	5.38	4.90	4.05
	HP	0.35	0.40	0.55	0.75	0.90	1.10	1.32	1.60
	MOTOR	1/3	1/2	1/2	3/4	1	1	1 1/2	2
800	GPM	10.17	9.82	9.47	9.12	8.77	8.41	7.80	7.30
	HP	0.40	0.60	0.70	1.00	1.15	1.40	1.75	2.05
	MOTOR	1/2	3/4	3/4	1	1 1/2	1 1/2	2	2
1000	GPM	13.00	12.65	12.30	11.94	11.58	11.22	10.40	9.90
	HP	0.50	0.70	0.90	1.20	1.45	1.72	2.10	2.50
	MOTOR	1/2	3/4	1	1 1/2	1 1/2	2	2	3
1200	GPM	16.00	15.67	15.34	15.00	14.67	14.33	13.60	13.00
	HP	0.60	0.80	1.14	1.45	1.85	2.20	2.70	3.20
	MOTOR	3/4	3/4	1	1 1/2	2	3	3	5
1600	GPM	21.50	21.12	20.74	20.35	19.97	19.58	18.70	18.00
	HP	0.80	1.70	1.38	1.70	2.03	2.41	2.90	3.40
	MOTOR	1	1	2	2	2	3	3	5
1725	GPM	23.33	22.93	22.52	22.11	21.71	21.30	20.50	20.10
	HP	0.90	1.19	1.53	1.92	2.25	2.70	3.15	3.70
	MOTOR	1	1 1/2	1 1/2	2	3	3	3	5

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R.P.M. = Revolutions per Min.

Motor = Convenient Fractional Size P.S.I. = Lbs. Per Square Inch Pressure Ft. Hd. = Equiv. Press. in Ft of Water

#### 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.

#### 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. \*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).

# **EXPLODED VIEW AND PARTS LIST**

13 12 10 9 6 17 19 2 & S3 516																							
Pump No	Seal Arrangement	1	2	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
		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	Repair Kit	
10000		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	1 req'd	3 req'd	2 req'd	1 req'd	1 req'd	10000	
N9000	Packing	1762	5479	NA	9325NF1N	5091	33019	33020	9797-045	9326NN5N	5385								8885			10639	
N9000S3	Buna Lip	NA	NA	5463	9325NF2N	5091	33019	33020	9797-045	9326NN5N	5385								8885			10783	

9797-045 9326NN5N 5385

9797-045 9326NN5N

5385

N9000S17 Viton Bellows Mech. 5374 NA 32235 9375NF9N 5091 33042 33020 9797-045 9326NN5N 5385 N9000S18 Teflon Wedge Mech. NA 32923 9375NF6N 5091 33042 33020 9355-045 9326NN5N 5385 Relief Valve Versions: N9000R, N9000RS3, N9000RS15, N9000RS16, N9000RS17, N9000RS18 9327NN

32202

9997 9325NF2N 5091

9375NF9N

5091

33019

33042

33020

33020

NA

NA

NA

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

N9000S16 Buna Bellows Mech.

Viton Lip

N9000S15

12108

12125

12126

6052 12127

8885

8885

8885

8885

5382

5382

5382

### DIMENSIONS

