



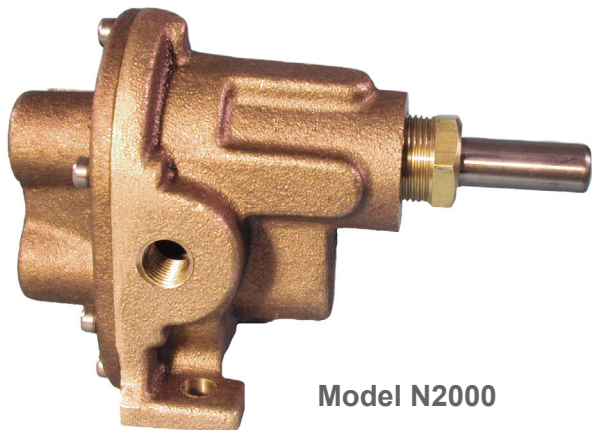
# OBERDORFER PUMPS

by Gardner Denver

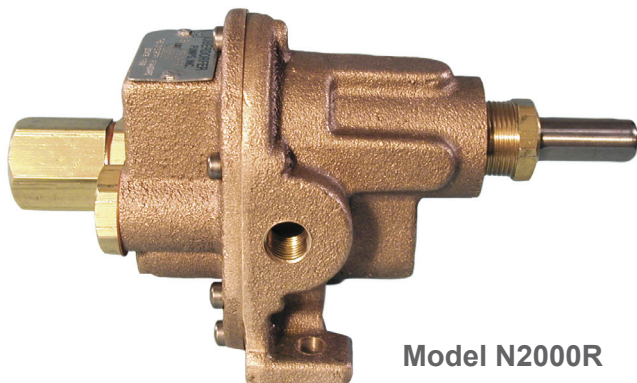
## Bronze Pedestal Rotary Gear Pumps

### N2000 Series

### 1/4" NPT Port Standard



Model N2000



Model N2000R

#### FEATURES:

- Bronze Corrosion Resistant Castings
- Special Cast Bronze Gears
- Stainless Steel Shafts & Fasteners
- Formed Ring Seal Packing (Lip & Mechanical Seals available)
- 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.

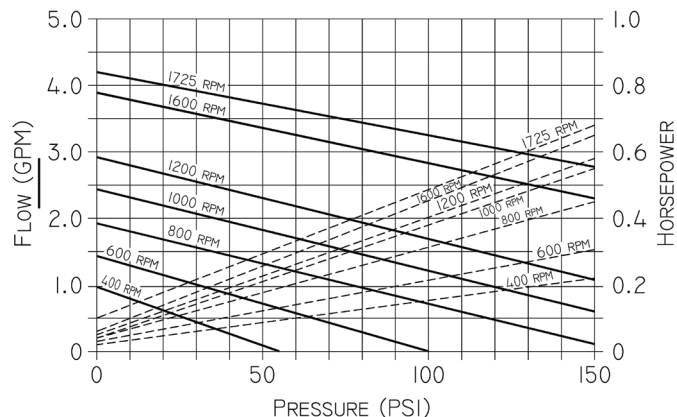
#### LIQUIDS AND TEMPERATURE:

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.

#### PERFORMANCE:

##### CAPACITY WATER AT 70°F



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:

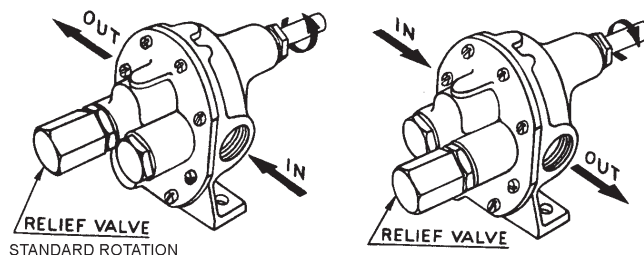
Close tolerances and the positive pumping action make the rotary gear pump capable of lifting water on the suction side as high as 20 feet. Though gear pumps are self priming, a foot valve is recommended. If possible, wet the gears with liquid to be pumped for the first dry start. Liquid retained in the system and gear chambers serves to "wet" the pump on subsequent starts.

#### 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.

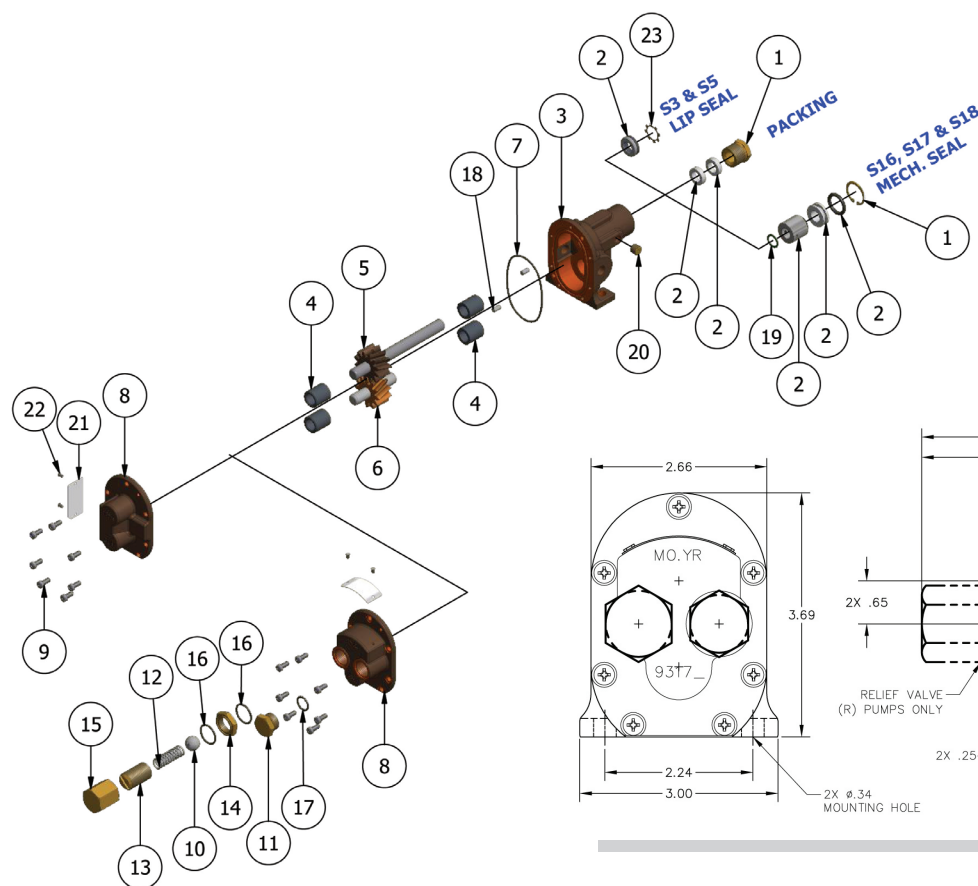
Reversing rotation reverses the "IN" and "OUT" ports and the location of the by-pass ports have to be reversed.

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.



\* VITON® is a trademark of DuPont Dow Elastomers. VITON® or equivalent FKM may be used. Teflon® is a registered trademark of DuPont. Teflon® or equivalent PTFE will be used.

### Exploded View and Parts List

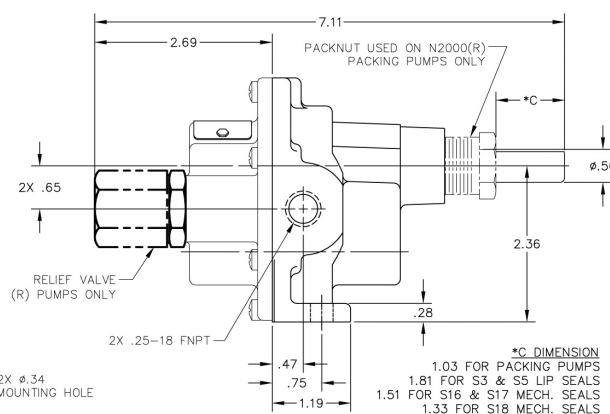


Items 8 and items 10-17 for the "R" versions only.

Item 23 is only used on N2000S5 Pumps.

Item 20 is only used on N2000S18 pumps.

### Dimensions



|                                                                                     |                   | 1                         | 2*      |        | 3        | 4*      | 5*              | 6*             | 7*       | 8        | 9      | 10     |
|-------------------------------------------------------------------------------------|-------------------|---------------------------|---------|--------|----------|---------|-----------------|----------------|----------|----------|--------|--------|
|                                                                                     |                   | Packnut or Retaining Ring | Packing | Seal   | Body     | Bearing | Drive Gear Assy | Idle Gear Assy | O-Ring   | Cover    | Screw  | Ball   |
| Model                                                                               | Seal Arrangement  | Qty. 1                    | Qty. 2  | Qty. 1 | Qty. 1   | Qty. 4  | Qty. 1          | Qty. 1         | Qty. 1   | Qty. 1   | Qty. 7 | Qty. 1 |
| N2000                                                                               | Packing           | 1892                      | 5481    | NA     | 9315NB1N | 5024    | 32992           | 32993          | 9797-038 | 9316NN5N | 5385   | NA     |
| N2000S3                                                                             | NBR Lip           | NA                        | NA      | 5007   | 9315NB2N | 5024    | 32992           | 32993          | 9797-038 | 9316NN5N | 5385   | NA     |
| N2000S5                                                                             | FKM Lip           | NA                        | NA      | 7580   | 9315NB2N | 5024    | 32992           | 32993          | 9797-038 | 9316NN5N | 5385   | NA     |
| N2000S16                                                                            | NBR Bellows Mech. | 7639                      | NA      | 32584  | 9371NB4N | 5024    | 33000           | 32993          | 9797-038 | 9316NN5N | 5385   | NA     |
| N2000S17                                                                            | FKM Bellows Mech. | 7639                      | NA      | 32585  | 9371NB4N | 5024    | 33000           | 32993          | 9797-038 | 9316NN5N | 5385   | NA     |
| N2000S18                                                                            | PTFE Wedge Mech.  | 7639                      | NA      | 32335  | 9371NB6N | 5024    | 33000           | 32993          | 9355-038 | 9316NN5N | 5385   | NA     |
| Relief Valve Versions: N2000R, N2000RS3, N2000RS5, N2000RS16, N2000RS17 & N2000RS18 |                   |                           |         |        |          |         |                 |                |          | 9317NN5B |        | 523    |

Relief Valve Versions: N2000R, N2000RS3, N2000RS5, N2000RS16, N2000RS17 & N2000RS18

9317NN5B 5238

|          |                   | 11       | 12     | 13         | 14      | 15         | 16     | 17     | 18        | 19             |            |
|----------|-------------------|----------|--------|------------|---------|------------|--------|--------|-----------|----------------|------------|
|          |                   | Plug Nut | Spring | Adj. Screw | Locknut | Bypass Nut | O-Ring | O-Ring | Dowel Pin | Retaining Ring | Repair Kit |
| Model    | Seal Arrangement  | Qty. 1   | Qty. 1 | Qty. 1     | Qty. 1  | Qty. 1     | Qty. 2 | Qty. 1 | Qty. 2    | Qty. 1         |            |
| N2000    | Packing           | NA       | NA     | NA         | NA      | NA         | NA     | NA     | 8885      | NA             | 10641      |
| N2000S3  | NBR Lip           | NA       | NA     | NA         | NA      | NA         | NA     | NA     | 8885      | NA             | 11379      |
| N2000S5  | FKM Lip           | NA       | NA     | NA         | NA      | NA         | NA     | NA     | 8885      | NA             | 11195      |
| N2000S16 | NBR Bellows Mech. | NA       | NA     | NA         | NA      | NA         | NA     | NA     | 8885      | 5373           | 11970      |
| N2000S17 | FKM Bellows Mech. | NA       | NA     | NA         | NA      | NA         | NA     | NA     | 8885      | 5373           | 12103      |
| N2000S18 | PTFE Wedge Mech.  | NA       | NA     | NA         | NA      | NA         | NA     | NA     | 8885      | 5373           | 12225      |

Relief Valve Versions:

1838

1840

5237

5240D

5239

9797-019

9797-015

\* Repair kit contains 2, 4, 5, 6 and 7 NBR = Acrylonitrile-Butadiene PTFE = Polytetrafluorethylene FKM = Fluoroelastomer



# OBARDORFER PUMPS

## by Gardner Denver

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Visit [www.oberdorfer-pumps.com](http://www.oberdorfer-pumps.com) to find in-depth descriptions of the world's leading high-quality, dependable pumps.

Due to ongoing product improvements, data shown here is subject to change without notice. Contact Oberdorfer Pumps for latest specifications.