**Bronze Close Coupled Rotary Gear Pumps**  
**Model N3000 Series**

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**Model N3000 3/8" NPT Ports**

**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

**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.

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**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.

**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.

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**Capacity Water 70° F**

<table>
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<tr>
<th>RPM</th>
<th>Ft. Hd.</th>
<th>GPM</th>
<th>HP Motor</th>
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<td>0</td>
<td>1.50</td>
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<td>0.44/1/2</td>
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HP = Actual Horsepower  
GPM = Gallons per minute  
RPM = Rev. per minute  
PSI = Lbs. per square inch pressure  
Ft. Hd. = Equiv. pressure in Ft. of water  

* For pressures over 100 PSI, the above selections are suitable for pumping fluids with lubricity (eq. oils, polymers). Service life will decrease for fluids without lubricity (eq. water, solvents).
Bronze Close Coupled Rotary Gear Pumps
Model N3000 Series

Exploded View and Parts List

<table>
<thead>
<tr>
<th>Model</th>
<th>Qty. 1</th>
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Relief Valve Versions: N3000R, N3000RS3, N3000RS15, N3000RS16, N3000RS17, N3000RS18

* Repair Kit contains items 2, 4, 5, 6, 7.

Dimensions

* 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.

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 psi. To increase the setpoint, turn the by-pass valve adjusting screw in a clockwise direction.

Visit 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.