



OBERDORFER®

An Ingersoll Rand Business

N7000E Series

Bronze Pedestal Rotary Gear Pumps



Model OBN7000E

Model OBN7000RE

Features

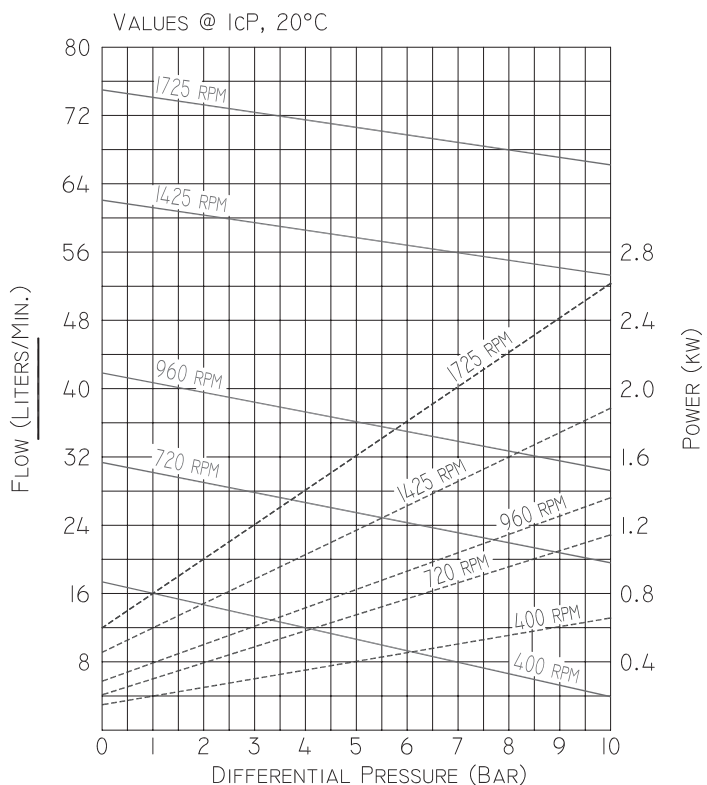
- 3/4" BSPT Ports
- Temp. Range: -40 - 204°C
- Bronze Corrosion Resistant Castings
- Special Cast Bronze Gears
- Stainless Steel Shafts & Fasteners
- Formed Ring Seal Packing, Lipseal & Mechanical Seal Options
- Heavy Duty Carbon Bearings (Self Lubricating)
- Positive Displacement Flow

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 204°C.

Performance

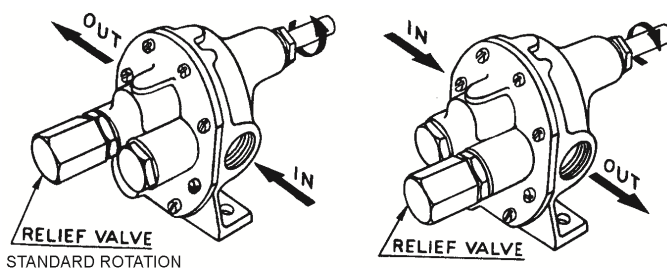


Some lip and mechanical seal elastomers have a limit of 100°C. (see engineering data or check factory). Allowing a liquid to freeze in the pump can cause damage

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





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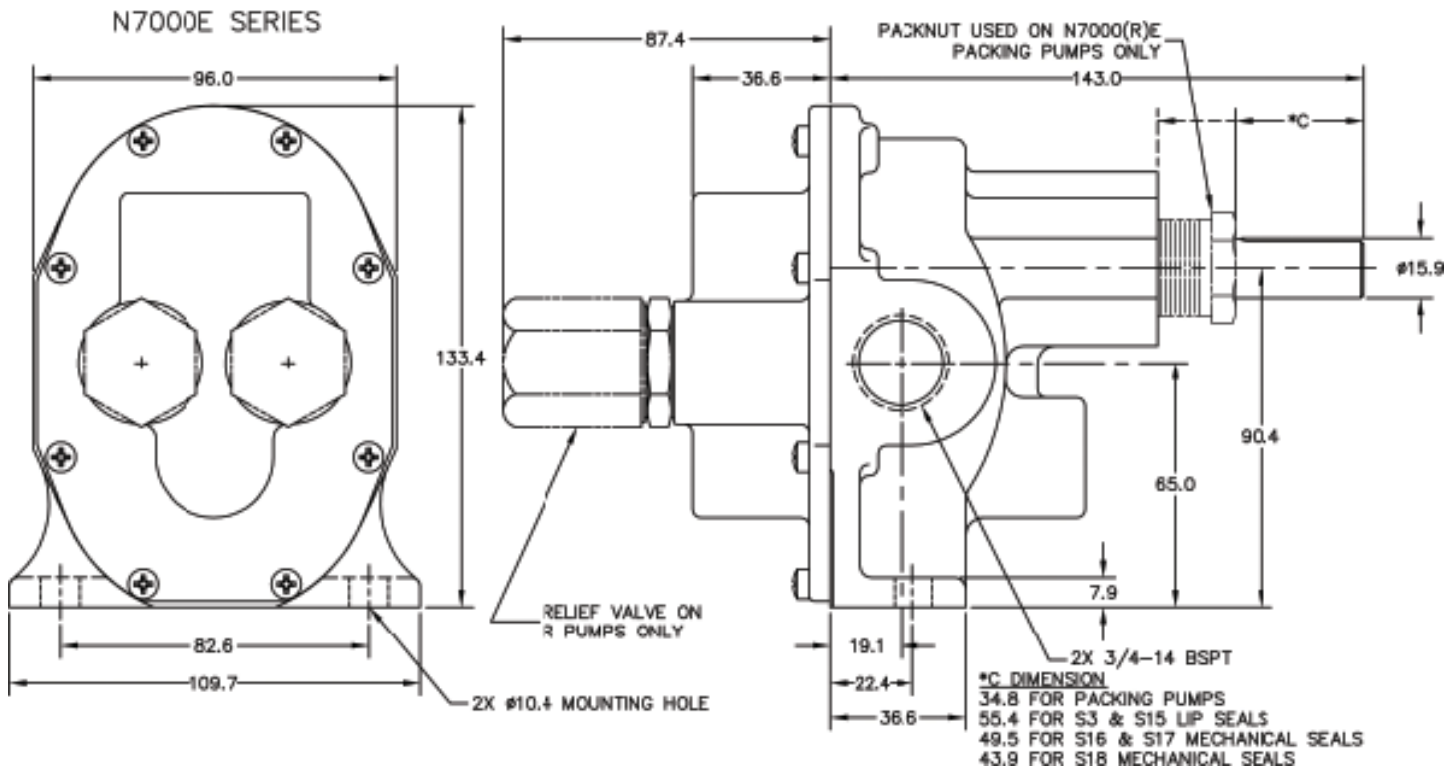
Drive

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.

Dimensions



IR Ingersoll Rand

12500 South Pulaski Road
Alsip, IL 60803, USA
Phone (800) 448.1668



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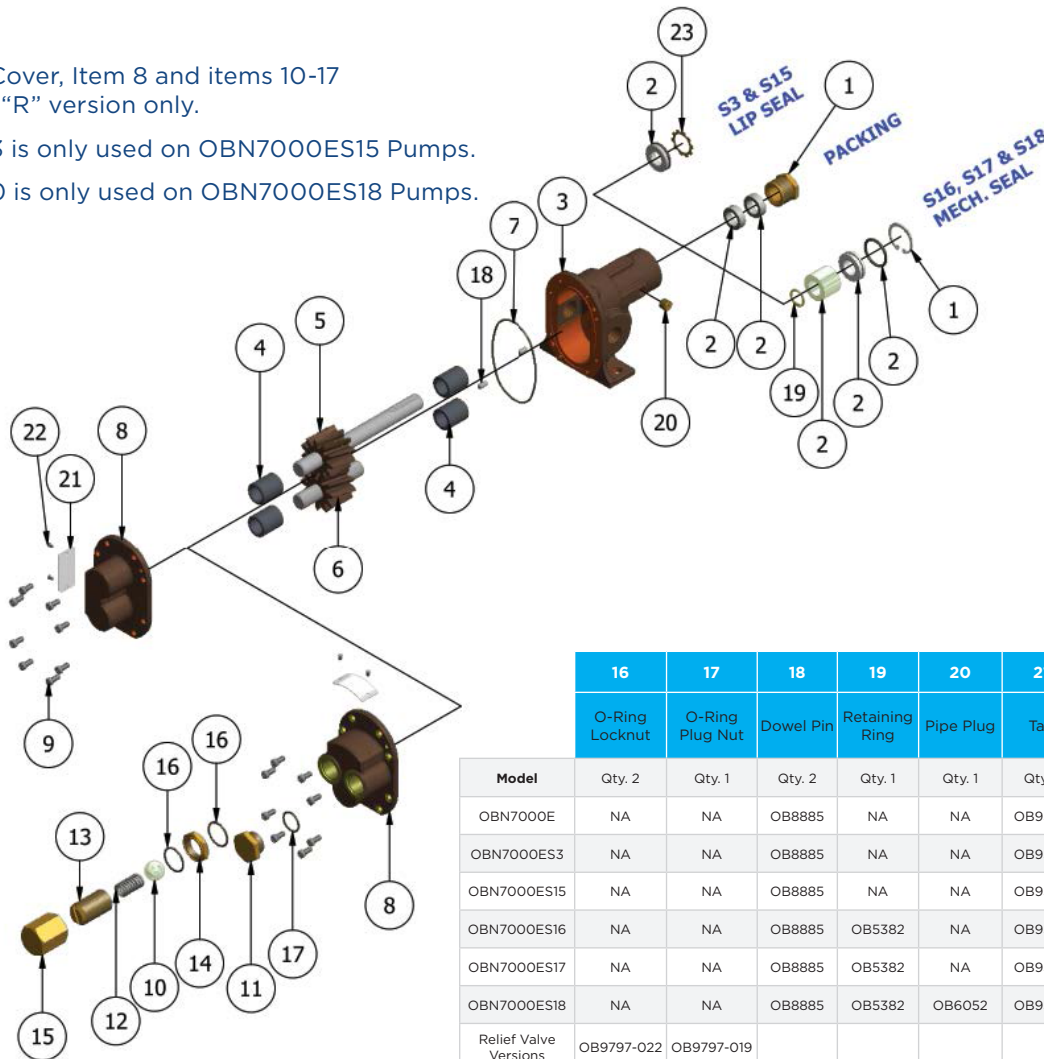
Parts List

| | Seal Arrangement | 1 | 2 | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | |
|---|---------------------|---------------------------|---------|---------|------------|---------|-----------------|----------------|------------|------------|--------|--------|----------|---------|------------|---------|------------|--------|
| | | 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 | |
| Model | | Qty. 1 | Qty. 2 | Qty. 1 | Qty. 1 | Qty. 4 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 8 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 1 | |
| OBN7000E | Packing | OB1762 | OB5479 | NA | OB9324NE1N | OB5091 | OB33015 | OB32959 | OB9797-045 | OB9326NN5N | OB5385 | NA | NA | NA | NA | NA | NA | |
| OBN7000ES3 | Buna Lip | NA | NA | OB5463 | OB9324NE2N | OB5091 | OB33015 | OB32959 | OB9797-045 | OB9326NN5N | OB5385 | NA | NA | NA | NA | NA | NA | |
| OBN7000ES15 | Viton Lip | NA | NA | OB9997 | OB9324NE2N | OB5091 | OB33015 | OB32959 | OB9797-045 | OB9326NN5N | OB5385 | NA | NA | NA | NA | NA | NA | |
| OBN7000ES16 | Buna Bellows Mech. | OB5374 | NA | OB32202 | OB9374NE9N | OB5091 | OB33043 | OB32959 | OB9797-045 | OB9326NN5N | OB5385 | NA | NA | NA | NA | NA | NA | |
| OBN7000ES17 | Viton Bellows Mech. | OB5374 | NA | OB32235 | OB9374NE9N | OB5091 | OB33043 | OB32959 | OB9797-045 | OB9326NN5N | OB5385 | NA | NA | NA | NA | NA | NA | |
| OBN7000ES18 | Teflon Wedge Mech. | OB5374 | NA | OB32923 | OB9374NE6N | OB5091 | OB33043 | OB32959 | OB9355-045 | OB9326NN5N | OB5385 | NA | NA | NA | NA | NA | NA | |
| Relief Valve Versions: OBN7000RE, OBN7000RES3, OBN7000RES15, OBN7000RES16, OBN7000RES17, OBN7000RES18 | | | | | | | | | | OB9327NN5B | | OB6217 | | OB5278R | OB5277 | OB5275 | OB1642D | OB5276 |

Relief Cover, Item 8 and items 10-17 for the "R" version only.

Item 23 is only used on OBN7000ES15 Pumps.

Item 20 is only used on OBN7000ES18 Pumps.



| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Repair Kit* |
|-----------------------|----------------|-----------------|-----------|----------------|-----------|--------|-----------|-----------|-------------|
| | O-Ring Locknut | O-Ring Plug Nut | Dowel Pin | Retaining Ring | Pipe Plug | Tag | Tag Screw | Lock Ring | |
| Model | Qty. 2 | Qty. 1 | Qty. 2 | Qty. 1 | Qty. 1 | Qty. 1 | Qty. 2 | Qty. 1 | |
| OBN7000E | NA | NA | OB8885 | NA | NA | OB9344 | OB9345 | NA | OB10638 |
| OBN7000ES3 | NA | NA | OB8885 | NA | NA | OB9344 | OB9345 | NA | OB11258 |
| OBN7000ES15 | NA | NA | OB8885 | NA | NA | OB9344 | OB9345 | OB3033 | OB12107 |
| OBN7000ES16 | NA | NA | OB8885 | OB5382 | NA | OB9344 | OB9345 | NA | OB12128 |
| OBN7000ES17 | NA | NA | OB8885 | OB5382 | NA | OB9344 | OB9345 | NA | OB12129 |
| OBN7000ES18 | NA | NA | OB8885 | OB5382 | OB6052 | OB9344 | OB9345 | NA | OB12130 |
| Relief Valve Versions | OB9797-022 | OB9797-019 | | | | | | | |

* Repair kit contains 2, 4, 5, 6 and 7



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