

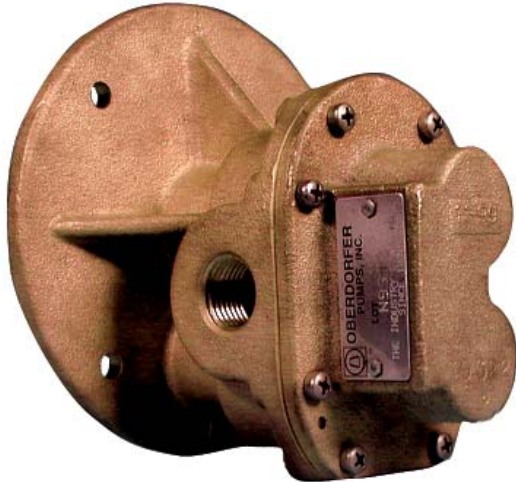


OBERDORFER PUMPS

by Gardner Denver

Bronze Close Coupled Rotary Gear Pumps N970 Series

3/4" NPT Port Standard



FEATURES:

- Bronze Construction with Stainless Steel Shafts
- Helical gears for quiet operation
- Easy Field Assembly to Motors
- Self-Lubricating Carbon Bearings
- O-ring seal for maximum leak protection
- For clutch driven version, see N970-38

GENERAL DESCRIPTION:

Pump housings and gears are made of top quality bronze, shafts are stainless steel 303. Bearings are made of high performance carbon-graphite material selected for wear resistance and long service life.

Gear pumps are positive displacement pumps. Each shaft revolution displaces a definite amount of liquid relatively unaffected by the back pressure in the discharge line. Shaft speed and flow are directly proportional.

DRIVE:

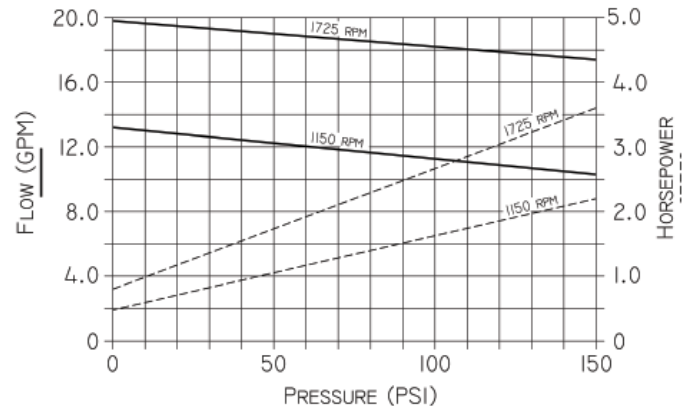
Close coupled pumps are mounted directly to the electric motor by means of a suitable adapter bracket. The pump drive shaft is connected to the motor shaft by a flexible coupling.

LIQUIDS AND TEMPERATURE:

These pumps are suitable for all liquids that are compatible with bronze. Most common liquids are water, oil, and mild chemicals in the pH-range of 4 to 11. Viscous liquids require reduced shaft speeds of 1150 RPM or lower. Consult factory. Liquids containing solids, abrasives, powders or paint pigments are definitely not recommended for gear pumps. If abrasives are unavoidable, use a very low shaft speed. The recommended liquid temperature range is 32° to 140° F for longest pump life. If more extreme temperature conditions exist, our factory should be consulted. Freezing of water-filled pumps can cause damage and must be avoided. Oils at low

PERFORMANCE:

CAPACITY WATER AT 70°F



temperatures are very viscous requiring a lower speed or extra power.

SUCTION LIFT:

As a general rule, the suction lift should be kept at an absolute minimum by placing the pump as close to the liquid source as possible. A gear pump in new condition can lift 20 feet of water in the suction line. A foot valve (preferably with built-in strainer) is recommended at the beginning of the suction line. For a first start-up, the pump should be primed to avoid dry running. Minimum size of the suction pipe is the size of the pump inlet port. For longer suction lines (over 3 feet), or for viscous liquids, the pipe size should be at least one size or two sizes larger than the pump inlet port.

ROTATION AND RELIEF VALVE:

The relief valve is not intended to be a metering or flow control device. Its main purpose is to function as a discharge pressure relief when spring tension is exceeded by the discharge pressure. Overheating can occur within 5-10 minutes if the discharge line is completely shut off for extended periods.

Unless otherwise specified, the pump motor unit is supplied by the factory for shaft rotation clockwise from shaft end. Reversing the motor rotation will reverse the "in" and "out" ports and also requires changing the relief valve location. The relief valve is always on the discharge side in this pump series. The factory pressure setting is 50 PSIG. To increase pressure, turn the relief valve adjusting screw in a clockwise direction.

To reverse single phase motors, find instructions on the inside of the junction box cover or on the name plate of the motor.

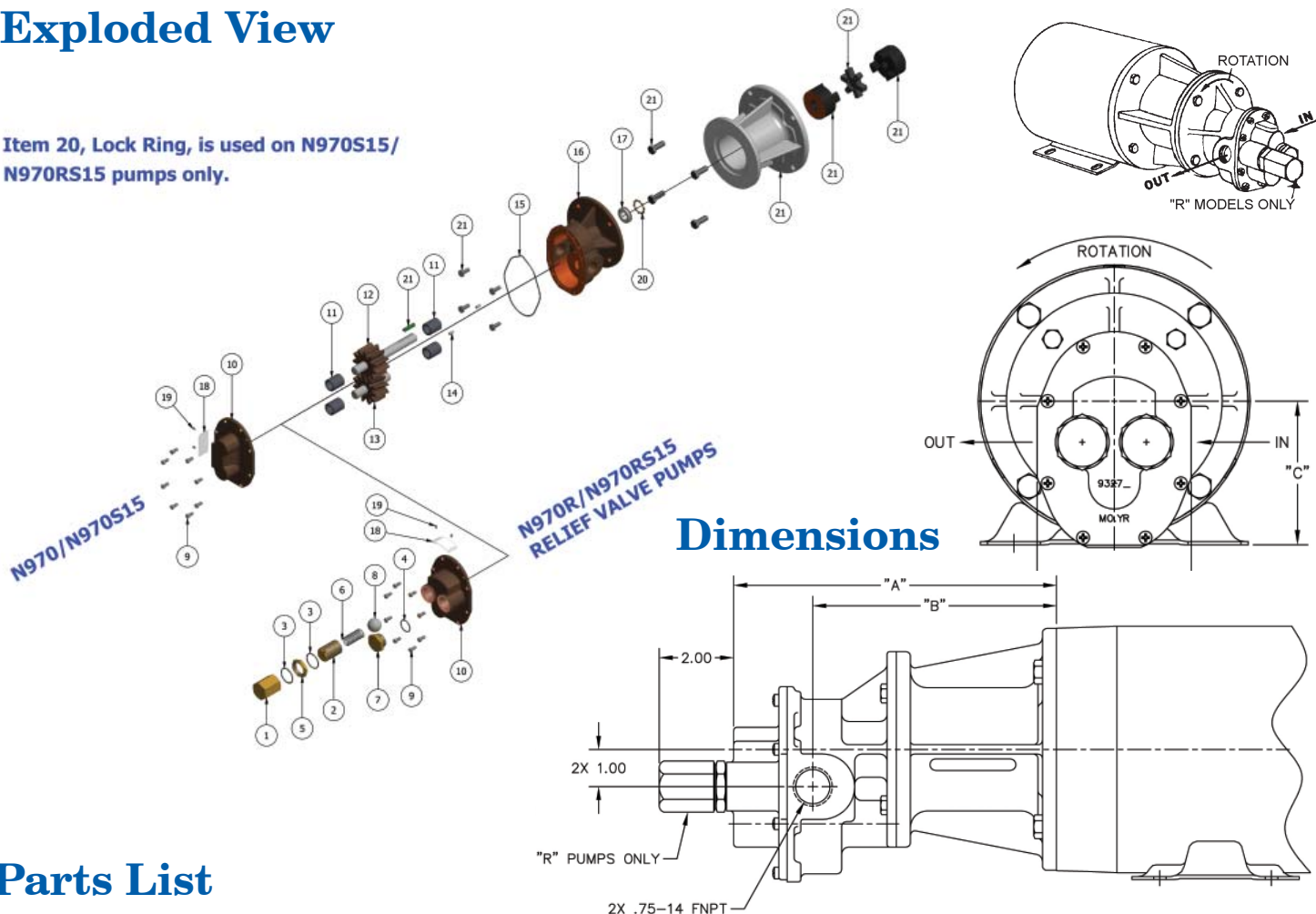
Three phase motors are not wired for any particular rotation. They can be reversed by interchanging any two (2) wires of the three (3) wire leads.

Bronze Close Coupled Rotary Gear Pumps

N970

Exploded View

Item 20, Lock Ring, is used on N970S15/
N970RS15 pumps only.



Dimensions

Parts List

	1	2	3	4	5	6	7	8	9	10	11
	Bypass Nut	Adj. Screw	O-Ring	O-Ring	Locknut	Spring	Plugnut	Ball	Screw	Cover	Bearing
Model	Qty. 1	Qty. 1	Qty. 2	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 8	Qty. 1	Qty. 4
N970	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5385	9326NN5N	5091
N970R	5276	5275	9797-022	9797-019	1642D	5277	5278R	6217	5385	9327NN5B	5091
N970S15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5385	9326NN5N	5091
N970RS15	5276	5275	9797-022	9797-019	1642D	5277	5278R	6217	5385	9327NN5B	5091

	12	13	14	15	16	17	18	19	20	21	Repair Kits
	Drive Gear Assy	Idle Gear Assy	Dowel Pin	O-Ring	Body	Lipseal	Tag	Tag Screw	Lock Ring	Adapter Kits	
Model	Qty. 1	Qty. 1	Qty. 2	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 2	Qty. 1	See table (H Kit Shown)	12085
N970	32958	32959	8885	9797-045	9328NE2N	5463	9344	9345	N/A		
N970R	32958	32959	8885	9797-045	9328NE2N	5463	9344	9345	N/A		
N970S15	32958	32959	8885	9797-045	9328NE2N	9997	9344	9345	3033		
N970RS15	32958	32959	8885	9797-045	9328NE2N	9997	9344	9345	3033		

Adapter Kits

Adapter Kits		
Adapter Kit	Part Number	Description
H	11299	56C Frame
J	11300	143TC/145TC
K	11301	182TC/184TC
L	11302	213TC/215TC

Motor/Adapter Kit Dimensions (inches)				
Model	Motor Frame	"A"	"B"	"C"
N970(R)H & N970(R)HS15	56C	8.68	6.56	3.50
N970(R)J & N970(R)JS15	143TC/145TC	8.68	6.56	3.50
N970(R)K & N970(R)KS15	182TC/184TC	9.50	7.38	4.50
N970(R)L & N970(R)LS15	213TC/215TC	9.50	7.38	5.25

* Repair kit contains 11, 12, 13, 15, 17 & 20

NBR = Acrylonitrile-Butadiene

PTFE = Polytetrafluorethylene

FKM = Fluoroelastomer



OBERDORFER PUMPS

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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.

N970.112014