

# BRONZE CLOSE COUPLED ROTARY GEAR PUMPS

## MODEL N992 - 3/8" NPT PORTS STANDARD



PUMP	DESCRIPTION
N992	Standard Pump w/ 3/8" ports
N992R	Pump w/ 3/8" ports & relief valve
N992S5	Pump w/ Viton® lipseal
N992RS5	Pump w/ Viton® lipseal & relief valve
N992S16	Pump w/ Buna N mechanical seal
N992RS16	Pump w/ Buna N mech. seal & relief valve
N992S17	Pump w/ Viton mechanical seal
N992RS17	Pump w/ Viton mech. seal & relief valve

### FEATURES

- Rugged corrosion resistant bronze construction
- Compact close-coupled design
- Stainless steel shafts
- Durable bronze helical gears provide quiet operation
- Process lubricated carbon graphite bearings
- O-ring cover seal for maximum leak protection
- Lip Seal or Mechanical Seal
- Easy field assembly to a variety of motor frames
  - For typical DC motor pump units - see N992 DC
  - For compact AC motor pump units
    - see Close Coupled Bronze Adapterless Rotary Gear Pumps
  - For Danfoss hydraulic motor driven pump units - see adapter 9960
- For bronze pedestal pumps - see model N2000
- For close-coupled ductile iron pumps - see model C992

### GENERAL DESCRIPTION

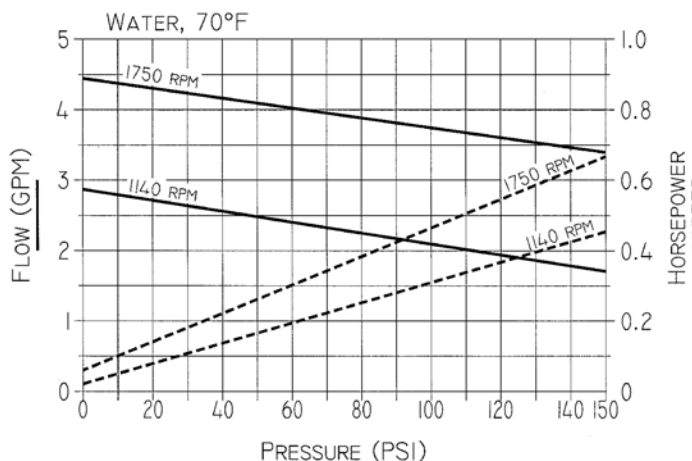
Pump housings and gears are made of top quality bronze, shafts are 303 stainless steel. Bearings are designed of high performance carbon-graphite material selected for wear resistance and long service life.

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. Recommended pressure limits are 100 PSI for water and non-lubricants, 150 PSI for oil and other lubricants. The maximum shaft speed is 1750 RPM.

### SHAFT SEALS

Close coupled gear pumps are normally supplied with a Buna N lip seal. For a Viton® Seal, add S5 to the pump model number. For Buna mechanical add S16. For Viton mechanical add S17.

## PERFORMANCE



### 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.

See pricebook for the recommended liquid temperature range of lip and mechanical seals. If more extreme temperature conditions exist, factory should be consulted. Freezing of water-filled pumps can cause damage and must be avoided. Oils at low 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 should be at least one size or two sizes larger than the pump inlet port.

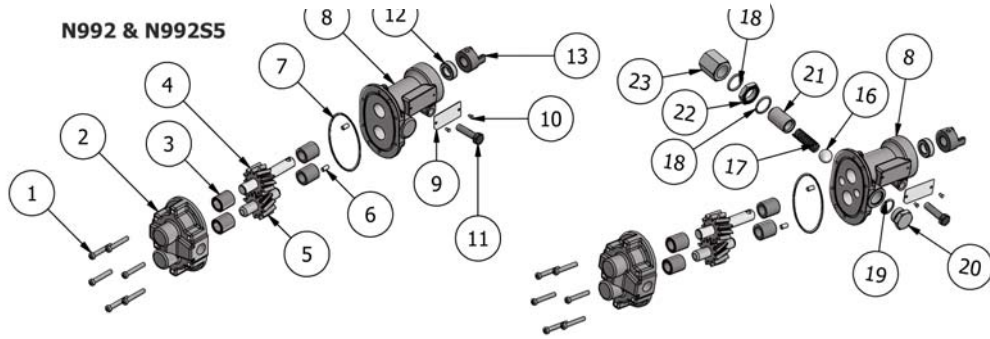
### ROTATION AND RELIEF VALVE

If the discharge line contains any throttling devices such as a shut-off valve, a spray nozzle or other restrictive device, it is necessary to have a relief valve in the system which returns the liquid to the suction side or to the tank. The relief valve is also available as part of the pump itself (R-model pumps). However, built-in relief valves are only good for intermittent service. If used continuously, the pump will overheat. A built-in relief valve is strictly a safety device against overpressure. It will not work successfully as a pressure or flow control device. For this purpose a separate relief valve in the pressure line must be used.

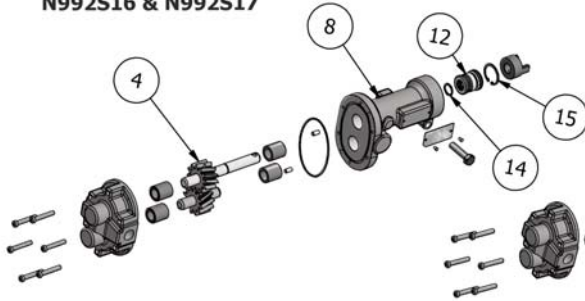
Unless otherwise specified, the pump motor unit is supplied by the factory for shaft rotation counterclockwise from shaft end. Reversing motor will reverse "in" and "out" ports and also requires changing relief valve location. The relief valve is always on the inlet side of this pump series. The factory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

# EXPLODED VIEW AND PARTS LIST

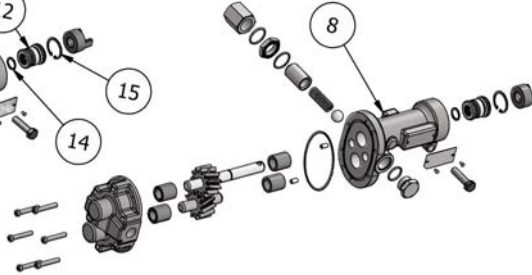
N992R & N992RS5



N992S16 & N992S17



N992RS16 & N992RS17



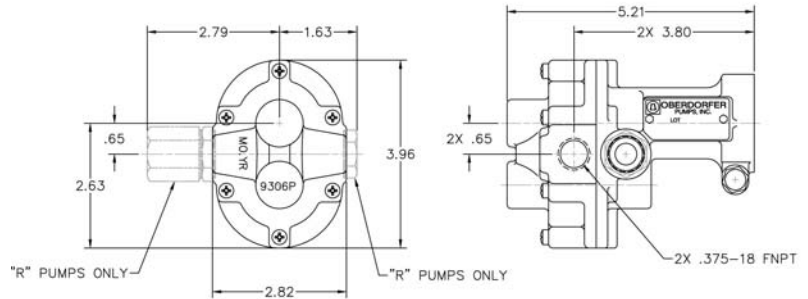
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Repair Kits			
	Screw	Body	Bearing	Drive Gear Assy	Idle Gear Assy	Dowel Pin	O-Ring	Cover	Tag	Tag Screw	Screw	Lip Seal	Mechanical Seal	Coupling Half	Retaining Ring	Retaining Ring	Ball	Spring	O-Ring	O-Ring	Nut Plug	Adjust. Screw	Lock Nut	Nut Bypass			
Pump No.	Qty. 6.00	Qty. 1.00	Qty. 4.00	Qty. 1.00	Qty. 1.00	Qty. 2.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 2.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 2.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 1.00			
N992	7733	9306NCSN	5024	32994	32993	8885	9797-038	9308NH2N	9344	9345	5595	5007	N/A	5604	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10631	
N992R	7733	9306NCSN	5024	32994	32993	8885	9797-038	9308NN3B	9344	9345	5595	5007	N/A	5604	N/A	N/A	5803	1840	9797-019	9797-015	1838	5237	5240D	5239	N/A	11351	
N992S5	7733	9306NCSN	5024	32994	32993	8885	9797-038	9308NH2N	9344	9345	5595	7580	N/A	5604	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11351
N992RS5	7733	9306NCSN	5024	32994	32993	8885	9797-038	9308NN3B	9344	9345	5595	7580	N/A	5604	N/A	N/A	5803	1840	9797-019	9797-015	1838	5237	5240D	5239	N/A	11351	
N992S16	7733	9306NCSN	5024	33341	32993	8885	9797-038	9309PN4N	9344	9345	5595	N/A	32584	5604	5373	7639	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD
N992RS16	7733	9306NCSN	5024	33341	32993	8885	9797-038	9309PN4B	9344	9345	5595	N/A	32584	5604	5373	7639	5803	6302	9797-019	9797-015	1838	5237	5240D	5239	N/A	TBD	
N992S17	7733	9306NCSN	5024	33341	32993	8885	9797-038	9309PN4N	9344	9345	5595	N/A	32585	5604	5373	7639	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD
N992RS17	7733	9306NCSN	5024	33341	32993	8885	9797-038	9309PN4B	9344	9345	5595	N/A	32585	5604	5373	7639	5803	6302	9797-019	9797-015	1838	5237	5240D	5239	N/A	TBD	

Repair Kits contain items 3, 4, 5, 7 & 12.

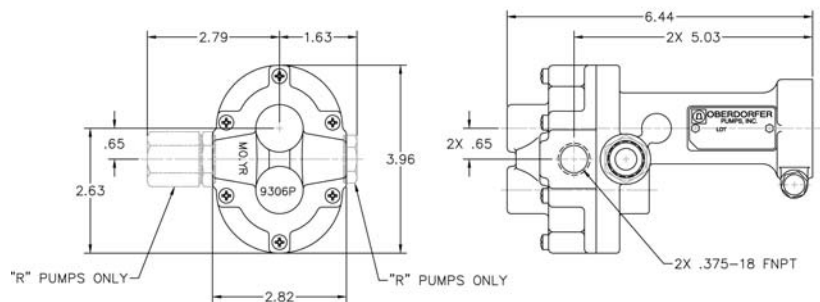
## VARIATIONS

Adapter Kits		
Adapter Kit	Part Number	Description
M	10562	48 Frame
N	10816	56 Frame
P	11722	556 Frame
Q	11331	56C Frame (to 3/4 HP)
C	11331H	56C Frame (above 3/4 HP)
F	11332	IEC71
N/A	N/A	Adapterless - Modified 48

## DIMENSIONS N992(R) & N992(R)S5



## DIMENSIONS N992(R)S16 & N992(R)S17



7/09 Specifications are subject to change without notice.

Sold by: **albany**  
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