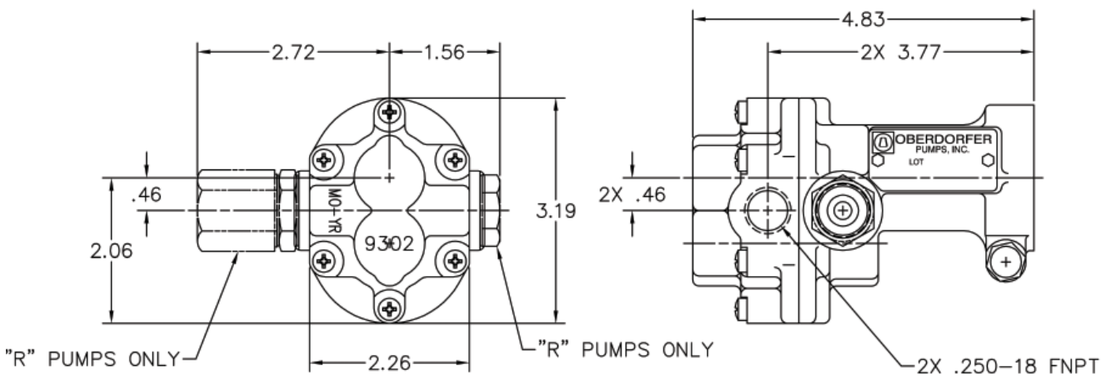
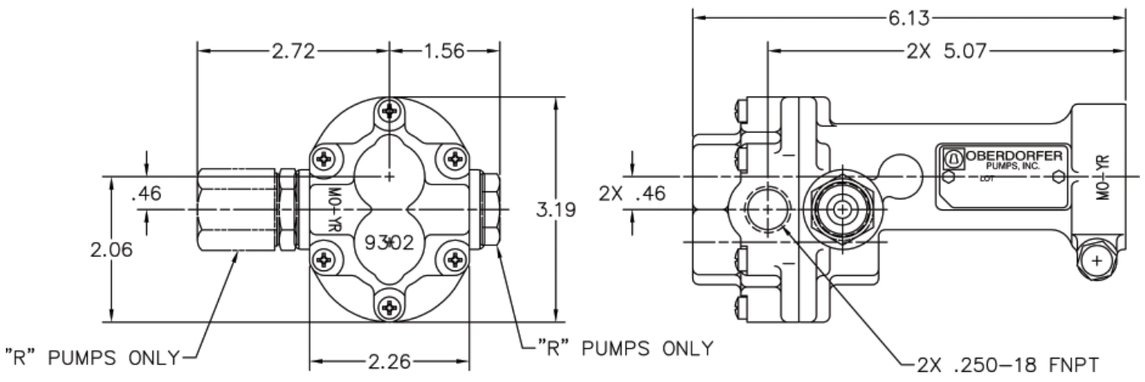
Bronze Close Coupled Rotary Gear Pumps
Model N999 Series

Dimensions

N999(R) & N999(R)S5



N999(R)S16, N999(R)S17, N999(R)S18 & N999(R)S8



NBR = Acrylonitrile-Butadiene PTFE = Polytetrafluorethylene FKM = Fluoroelastomer

OBERDORFER PUMPS
by Gardner Denver

5900 Firestone Drive, Syracuse, NY 13206
Phone: (800) 448-1668; (315) 437-0361 • Fax: (315) 463-9561

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.

N999.112014

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Model N999 Series

Model N999 Series
(1/4" NPT Ports Standard)

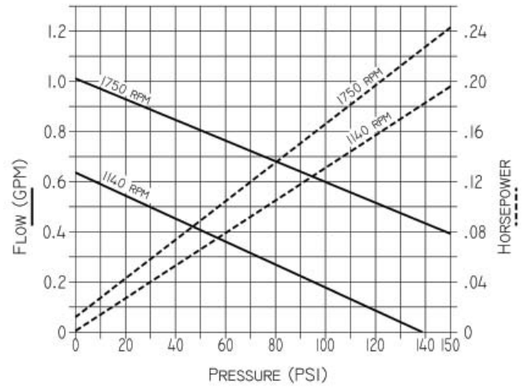
Pump	Description
N999	Standard Pump with 1/4" ports
N999R	Pump with 1/4" ports & relief valve
N991S5	Pump with FKM lipseal
N999RS5	Pump with FKM lipseal & relief valve
N999S16	Pump with NBR mechanical seal
N999RS16	Pump with NBR mech. seal & relief valve
N999S17	Pump with FKM mechanical seal
N999RS17	Pump with FKM mech. seal & relief valve
N999S18	Pump with PTFE mechanical seal
N999RS18	Pump with PTFE mech. seal & relief valve
N999S8	Pump with EPDM mechanical seal
N999RS8	Pump with EPDM mech. seal & relief valve

FEATURES:
- Rugged corrosion resistant bronze construction
- Compact close-coupled design
- Stainless steel shafts
- Durable bronze spur gears
- 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 compact AC motor pump units - *see Close Coupled Bronze Adapterless Rotary Gear Pumps*
- For carbonator styles see N95 series

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.

PERFORMANCE:
Water, 70° F



SHAFT SEALS:
Close coupled gear pumps are normally supplied with a NBR lip seal. For a FKM Seal, add S5 to the pump model number. For NBR Mechanical add S16 and for FKM Mechanical add S17.

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. 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.

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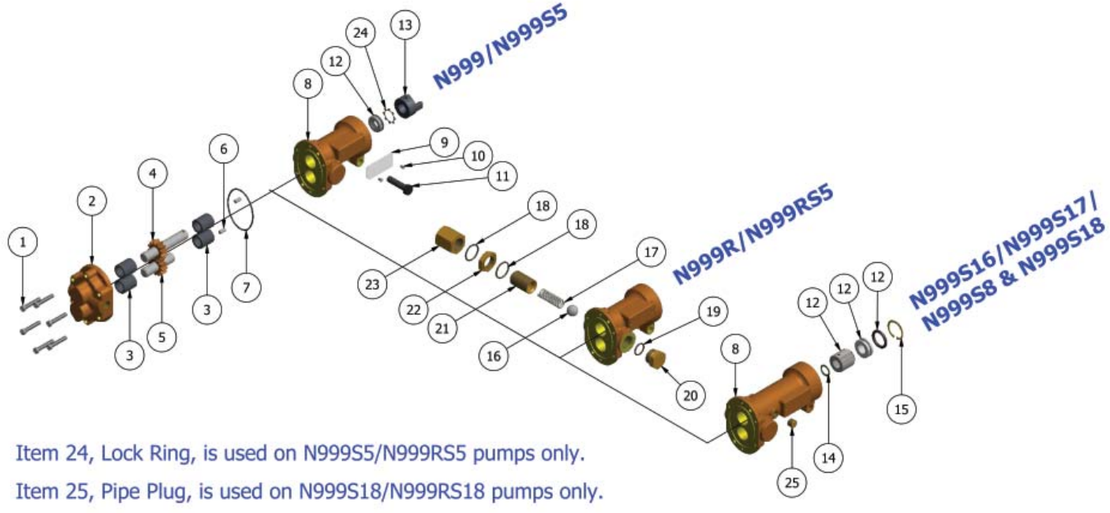
SUCTION LIFT:
As a general rule, the suction lift should be kept at an absolute minimum by placing the pump as close to the liquid source as possible. A gear pump in new condition can lift 20 feet of water in the suction line. A foot valve (preferably with built-in strainer) is recommended at the beginning 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



Item 24, Lock Ring, is used on N999S5/N999RS5 pumps only.

Item 25, Pipe Plug, is used on N999S18/N999RS18 pumps only.

Adapter Kits		
Adapter Kit	**Part Number**	**Description**
M	10562	48 Frame
N	10816	56 Frame
P	11722	S56 Frame
Q	11331	56C Frame (to 3/4 HP)
F	11332	IEC71
N/A	N/A	Adapterless - Modified 48

Parts List

	1	2	3	4	5	6	7	8	9	10	11	12		13
	Screw	**Body**	**Bearing**	**Drive Gear Assy**	**Idle Gear Assy**	**Dowel Pin**	**O-Ring**	**Cover**	**Tag**	**Tag Screw**	**Screw**	**Lipseal**	**Mechanical Seal**	**Coupling Half**
Pump No.	Qty. 6	Qty. 1	Qty. 4	Qty. 1	Qty. 1	Qty. 2	Qty. 1	Qty. 1	Qty. 1	Qty. 2	Qty. 1	Qty. 1	Qty. 1	Qty. 2
N999	5013	9302NB5N	5024	32198	32199	8885	9797-033	9303NN2N	9344	9345	5595	5007	N/A	5604
N999R	5013	9302NB5N	5024	32198	32199	8885	9797-033	9303NN2B	9344	9345	5595	5007	N/A	5604
N999S5	5013	9302NB5N	5024	32198	32199	8885	9797-033	9303NN2N	9344	9345	5595	7580	N/A	5604
N999RS5	5013	9302NB5N	5024	32198	32199	8885	9797-033	9303NN2B	9344	9345	5595	7580	N/A	5604
N999S16	5013	9302NB5N	5024	33291	32199	8885	9797-033	9304PN4N	9344	9345	5595	N/A	32584	5604
N999RS16	5013	9302NB5N	5024	33291	32199	8885	9797-033	9304PN4B	9344	9345	5595	N/A	32584	5604
N999S17	5013	9300NB5N	5024	33291	32199	8885	9797-033	9304PN4N	9344	9345	5595	N/A	32585	5604
N999RS17	5013	9302NB5N	5024	33291	32199	8885	9797-033	9304PN4B	9344	9345	5595	N/A	32585	5604
N999S18	5013	9302NB5N	5024	33291	32199	8885	9355-033	9304PN6N	9344	9345	5595	N/A	32335	5604
N999RS18	5013	9302NB5N	5024	33291	32199	8885	9355-033	9304PN6B	9344	9345	5595	N/A	32335	5604
N999S8	5013	9302NB5N	5024	33291	32199	8885	9999-033	9304PN4N	9344	9345	5595	N/A	32754	5604
N999RS8	5013	9302NB5N	5024	33291	32199	8885	9999-033	9304PN4B	9344	9345	5595	N/A	32754	5604

* Repair kit contains 3, 4, 5, 7 12, 14, 15 & 24

	14	15	16	17	18	19	20	21	22	23	24	25	
	Retaining Ring	**Retaining Ring**	**Ball**	**Spring**	**O-Ring**	**O-Ring**	**Nut Plug**	**Adjust. Screw**	**Lock Nut**	**Nut Bypass**	**Lock Ring**	**Pipe Plug**	**Repair Kits**
Pump No.	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 2	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	
N999	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10873
N999R	N/A	N/A	5803	1840	9797-019	9797-015	1838	5237	5240D	5239	N/A	N/A	
N999S5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7626	N/A	12109
N999RS5	N/A	N/A	5803	1840	9797-019	9797-015	1838	5237	5240D	5239	7626	N/A	
N999S16	5373	7639	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12392
N999RS16	5373	7639	5803	1840	9797-019	9797-015	1838	5237	5240D	5239	N/A	N/A	
N999S17	5373	7639	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12393
N999RS17	5373	7639	5803	1840	9797-019	9797-015	1838	5237	5240D	5239	N/A	N/A	
N999S18	5373	7639	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6052	TBD
N999RS18	5373	7639	5803	1840	9797-019	9797-015	1838	5237	5240D	5239	N/A	6052	
N999S8	5373	7639	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBD
N999RS8	5373	7639	5803	1840	9999-019	9999-015	1838	5237	5240D	5239	N/A	N/A	