

CLUTCH-DRIVEN ROTARY GEAR PUMP



OBERDORFER PUMPS
A Subsidiary of Thomas Industries Inc.

MODELS
N994-38
N970-38
N990-38



FEATURES

- Bronze Body & Gears, Stainless Shaft
- Self-lubricating Internal Carbon Bearings
- External Ball Bearings for Heavy Belt Drive
- N994-38 has 1/2" NPT Ports
- N970-38 has 3/4" NPT Ports
- N990-38 has 1" NPT Ports

GENERAL DESCRIPTION

Pump housings 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. Viton(R)* lip seal is suitable for fuel oils and the external ball bearings are for heavy belt drive loads.

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.

LIQUIDS AND TEMPERATURE

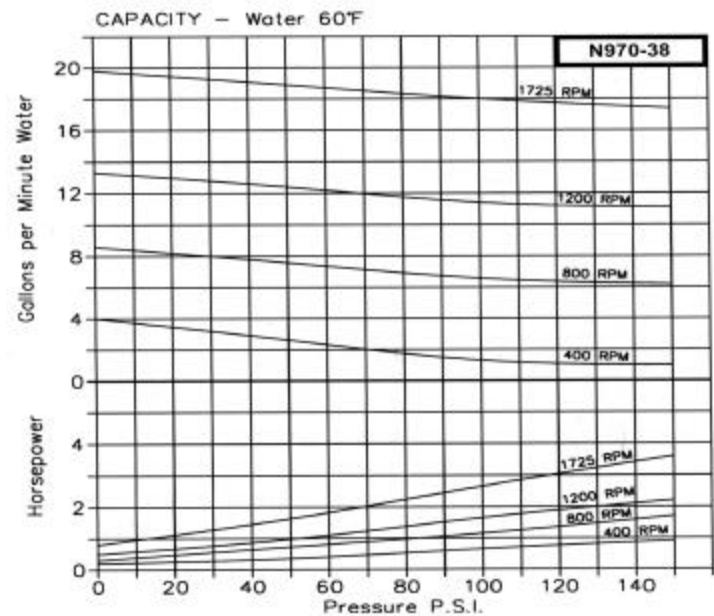
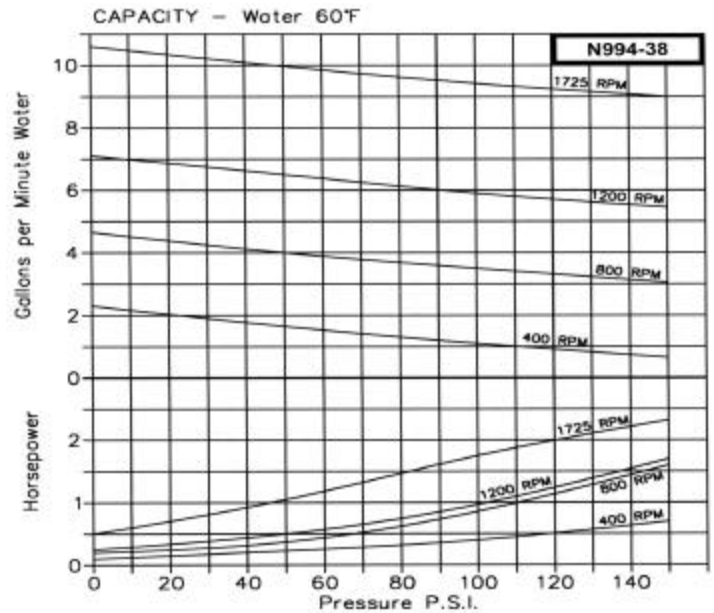
These pumps are suitable for all liquids that are compatible with bronze. Most common liquids are water, oil, and mild chemicals in the pH-range of 4 to 11. Viscous liquids require reduced shaft speeds of 1150 RPM or lower. Consult factory.

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 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 as possible. A gear pump in new condition can lift 20 feet of water in the suction line. A foot valve (preferably with a built-in strainer) is recommended at the beginning of the suction line. For a

PERFORMANCE



(Continued on back)

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.

*Viton(R) is a registered trademark of DuPont Dow Elastomers. Viton(R) or equivalent FKM will be used.
Teflon(R) is a registered trademark of DuPont. Teflon(R) or equivalent PTFE will be used.

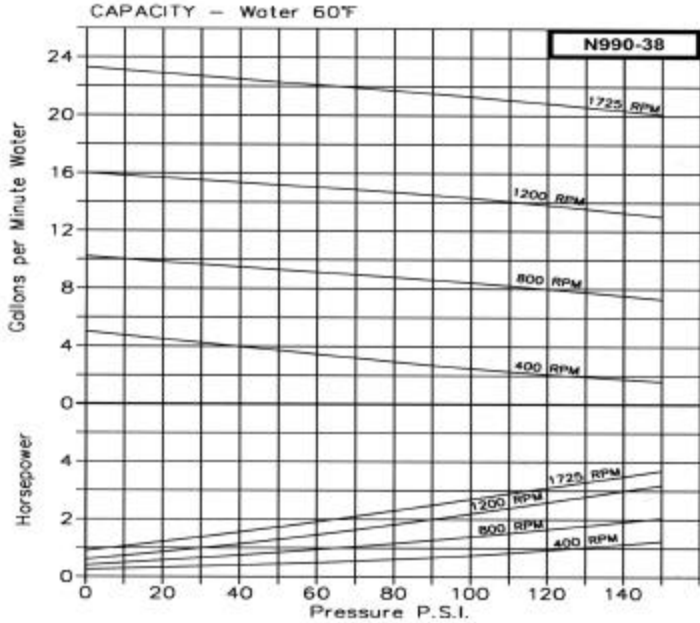
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PERFORMANCE (continued from front)

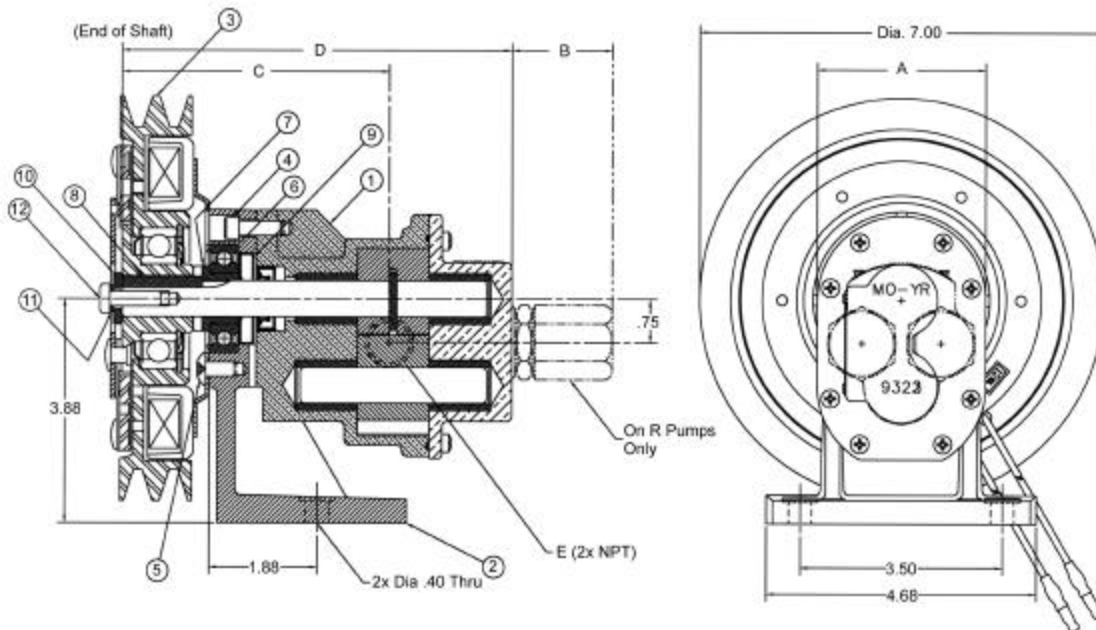


ROTATION AND RELIEF VALVE

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 the 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 clutch driven pump is supplied by the factory for shaft rotation clockwise from shaft end. Reversing the 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.

Model	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E (PORT SIZE)
N994-38	2.94	1.75	4.63	6.75	.50-14 NPT (.50-14 BSPT, .75-14 NPT & .75-14 BSPT) ALSO AVAILABLE.
N970-38	3.75	2.00	4.69	6.81	.75-14 NPT (.75-14 BSPT)
N990-38	3.75	2.00	4.75	7.06	1.00-11.5 NPT (1.00-11.5 BSPT)
N994R-38	3.00	1.75	4.63	6.75	ALSO AVAILABLE
N970R-38	3.78	2.00	4.69	6.81	ALSO AVAILABLE
N990R-38	3.78	2.00	4.75	7.06	ALSO AVAILABLE



Clutch Driven Pump No.	1	2	3	4	5	6	7	8	9	10	11	12
	Gear Pump No.	Bracket	Clutch w/ coil	Screw	Screw	Ball Bearing	Sleeve	Key	Lipseal Teflon(R)*	Washer	Lock Washer	Screw
	1 Reqd	1 Reqd	1 Reqd	3 Reqd	3 Reqd	1 Reqd	1 Reqd	1 Reqd	1 Reqd	1 Reqd	1 Reqd	1 Reqd
N994-38	N994-39	2106	9991	6165	6437	5884	2107	7042	6609	6904	5016	7735
N994R-38	N994R-39											
N970-38	N970-39											
N970R-38	N970R-39											
N990-38	N990-39											
N990R-38	N990R-39											

11/00