

BRONZE RUBBER IMPELLER PUMP

RUBBER IMPELLER PUMPS SERIES 402M



FEATURES

- Bronze Construction - Corrosion Resistance
- Reversible Wearplate
- Polytetrafluoroethylene (PTFE) Barrier Seals Protecting Ball Bearings
- Mechanical Carbon Ring, Ceramic Face Main Pump Seal
- Two Sealed Ball Bearings Spaced for Maximum Load Ability
- Large Vent & Drain Openings Separate Seal & Bearing Areas
- Shaft Slinger for Additional Bearing Protection
- Neoprene Impeller
- High Chrome Nickel Stainless Steel Shaft
- O-Ring Seal Between Body and Cover Eliminates Gasket Problems
- Impeller & Cam Easily Replaced

DRIVE

Select proper belt size to match pulley groove as shown on dimension drawing on back. Belt must run sufficiently tight to prevent slippage. Do not over tighten. Pump will operate satisfactorily when mounted in any position. Special mounting holes are provided as part of extended cover casting.

Direction of shaft rotation determines inlet and outlet ports (see dimension drawing). Prior to installation, rotate the pump manually in direction of rotation to set flexible blades in direction desired.

Rubber impellers generate high rubbing friction unless lubricated by liquid being pumped. **DO NOT RUN DRY.** Lack of liquid will cause impeller to burn up.

The pulley is normally installed at the factory. If field service requires pulley removal and reinstallation, proceed as follows:

Pulley Removal: Loosen and remove the three cap screws in the tapered steel bushing. Thread the three cap screws in the tapped removal holes, and progressively tighten each one until the aluminum pulley is loose on the tapered steel bushing. If the steel bushing won't slip off the pump shaft, wedge screwdriver blade in saw cut to expand and overcome tightness.

Pulley Installation: Align the pulley groove with the belt centerline. Tighten the three bushing cap screws drawing the tapered steel bushing into the aluminum pulley and thereby tightening the steel bushing onto the pump shaft. Tighten the screws evenly and progressively. This insures an even draw down to eliminate pulley wobble. **DO NOT** tighten each screw independently. The ultimate maximum recommended torque is 75 inch-lbs. Note: For two groove pulley, see 402M-06 (7562) - consult factory

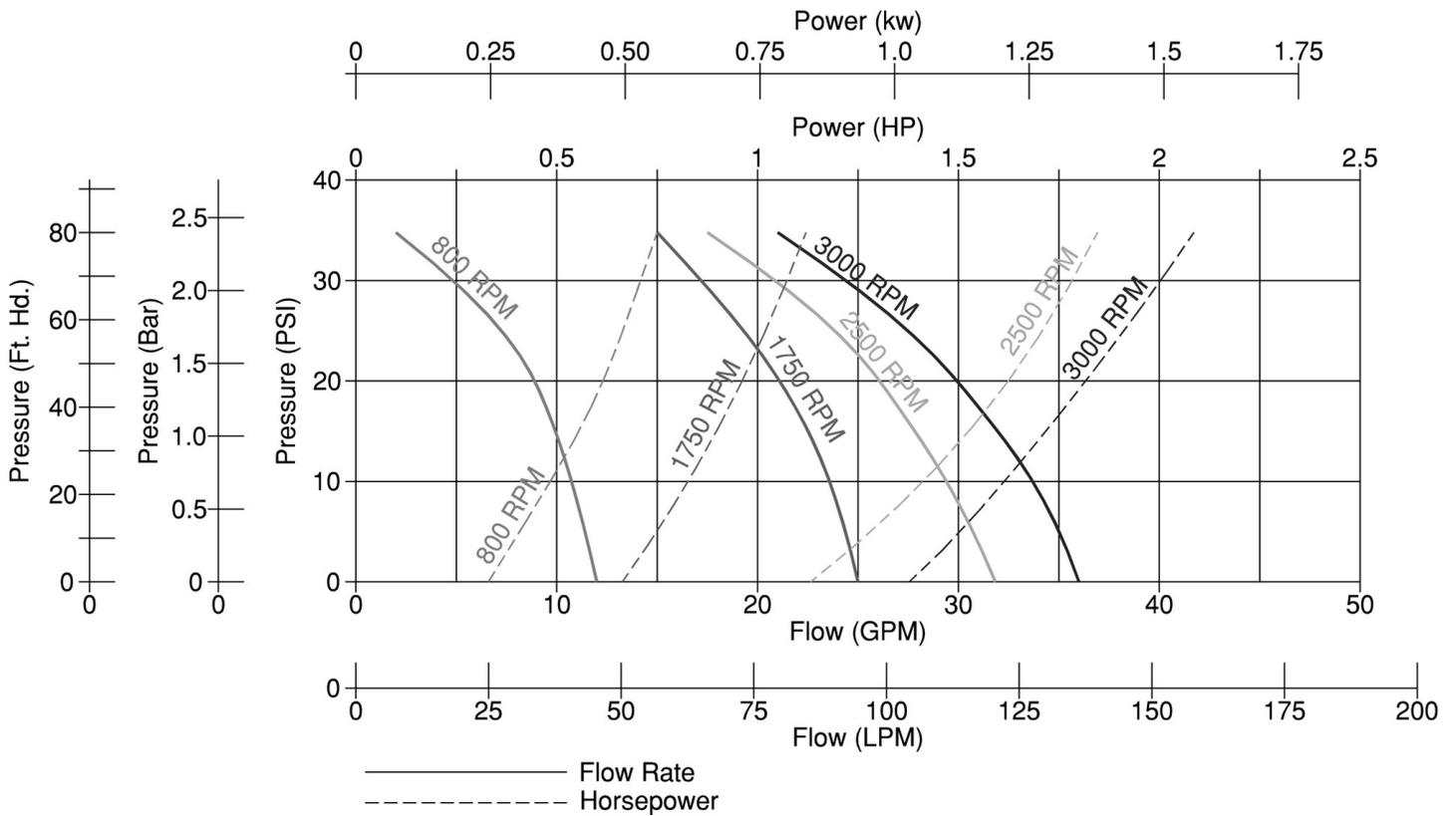
LIQUIDS AND TEMPERATURE

Liquids compatible with neoprene can be pumped including fresh and salt-water solution and mild chemicals. Do not pump severe solvents or acids. When possible, flush pump with fresh water after each usage.

Extremes of cold and heat will affect impeller life. Limits of 40o to 180o F should be observed. Do not allow liquid in pump to freeze. Drain pump by loosening cover screws. Use methyl alcohol based anti-freeze compounds such as Zerex, Shell Zone, Pyro Permanent, Permagard, or Dowgard.

PERFORMANCE

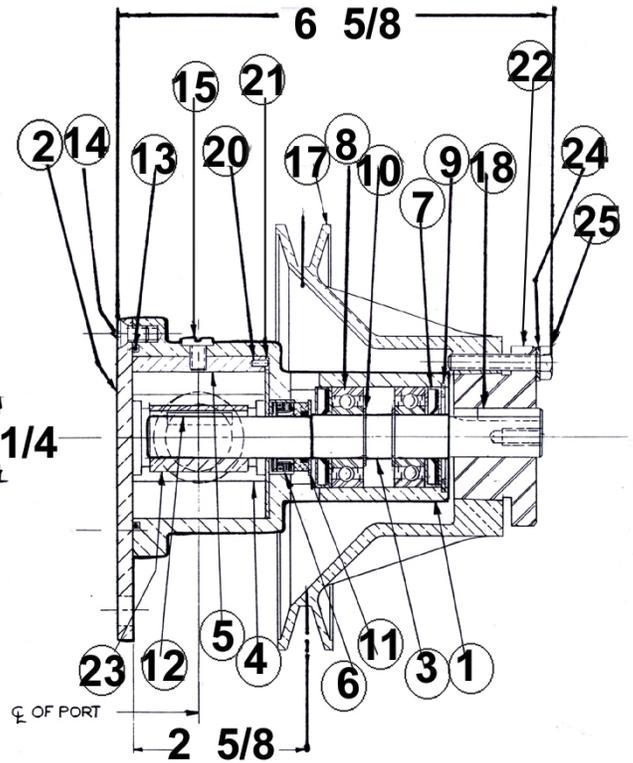
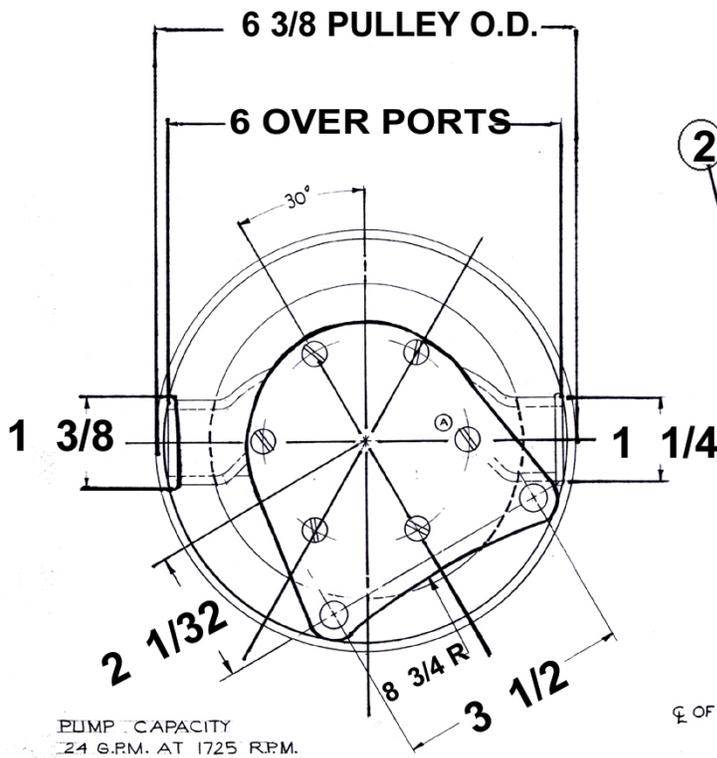
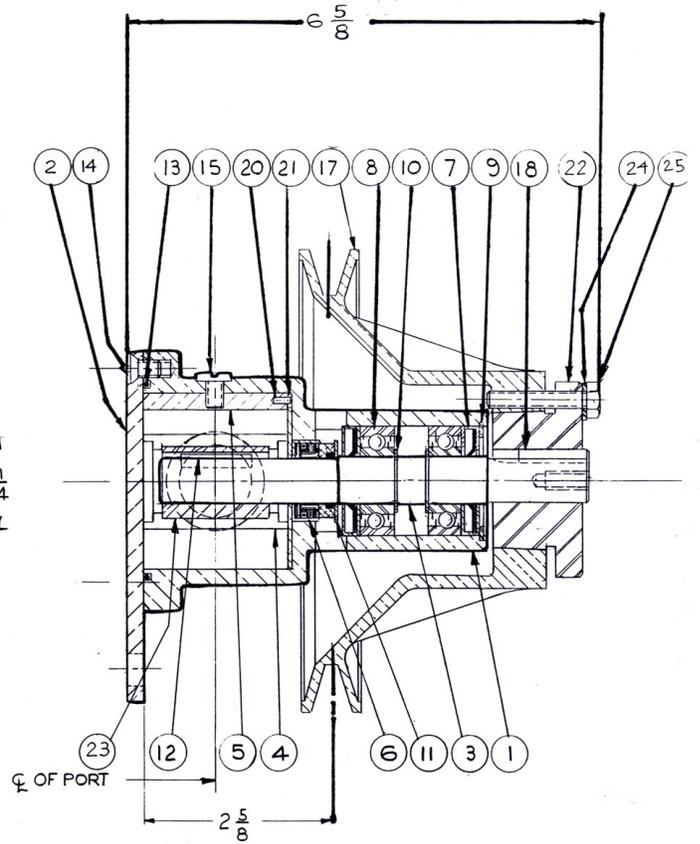
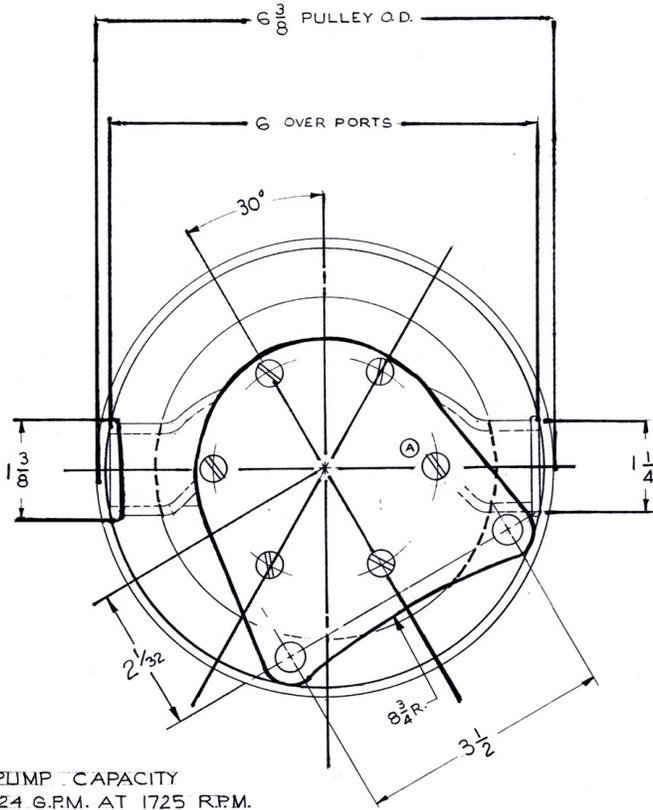
401M/402M Performance
Neoprene Impeller



SUCTION LIFT

Suction lift of 15 ft. is possible when impeller is wet. Suction lines must be air tight in order for pump to self-prime.

EXPLODED VIEW AND PARTS LIST

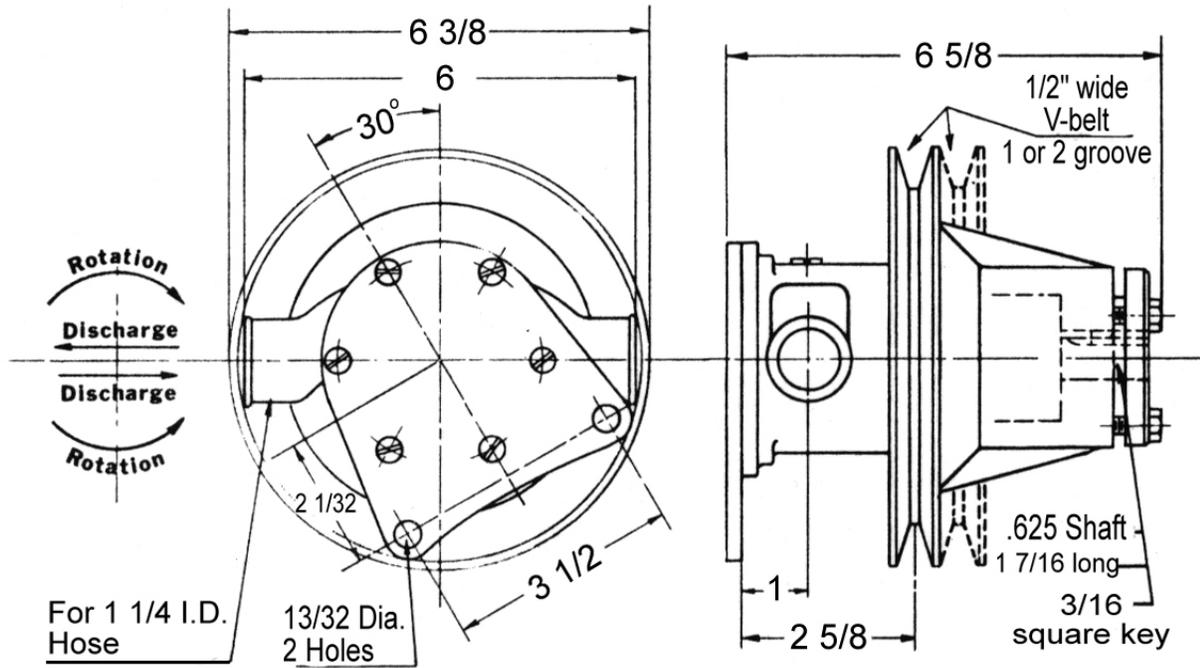


Pump No.	1	2	3	4 ¹	5	6 ¹	7	8	9	10	11	12
	Body	Cover	Shaft	Impeller	Cam	Seal Assy.	Lip Seal	Bear'g	Snap Ring	Snap Ring	Washer	Key
	1 Req'd	1 Req'd	1 Req'd	1 Req'd	1 Req'd	1 Req'd	2 Req'd	2 Req'd	1 Req'd	2 Req'd	1 Req'd	1 Req'd
402M	6658	6659	6637	6603	6606	32230	6609	5928	5925	5926	6631	5475
402M-03	6658	6659	6637	6603	6606	32230	6609	5928	5925	5926	6631	5475

13 ¹	14	15	16	17	18	19	20	21	22	Repair Kit ¹
O-Ring	Screw	Screw	Washer	Pulley	Key	Bush'g	Pin	Plate	Screw	
1 Req'd	6 Req'd	1 Req'd	3 Req'd	1 Req'd	3 Req'd					
6684	6775	7300-62	---	---	6567	---	6685	6635	---	
6684	6775	7300-62	5016	6661	6567	6931	6685	6635	6958	10653

¹ Repair Kit contains items 4, 6 & 13 and seal installation tools: 6751 pin (to occupy keyway and 6752 bushing to protect seal from sharp edges)

DIMENSIONS



ADDITIONAL

Pump	RPM	Feet Hd.	0	20	40	60	80
		PSI	0	8.7	17.3	26.0	34.6
402M 402M-03	800	GPM	12.0	11.0	9.7	7.5	2.0
		HP	1/3	1/3	1/2	1/2	3/4
	1750	GPM	25.0	24.0	22.2	19.1	15.0
		HP	3/4	3/4	3/4	1	1
	2500	GPM	32.5	30.5	27.0	24.0	17.5
		HP	1	1 1/2	1 1/2	2	2
	3000	GPM	36.0	34.5	31.0	27.5	21.0
		HP	1 1/2	1 1/2	1 1/2	2	2