

Bronze Close Coupled Centrifugal Pump 104M Series

by Gardner Denver

Inlet 3/4" NPT, Outlet 1/2" NPT



FEATURES:

- Rugged bronze construction
- A standard in the marine air conditioning industry
- Extremely quiet operation
- O-ring housing seal eliminates gasket problems
- Teflon barrier seal to protect motor bearings
- Handles contaminated liquids
- Discharge port orientation flexibility
- Mechanical seal carbon/ceramic - NBR, FKM, or PTFE options
- Pump heads mount to standard footed NEMA 56J jet pump motors
- Shafts: 416 Stainless, Monel or 316 Passivated Stainless
- Multiple motor options available
- For industrial version see Model 600 series

LIQUIDS:

The special pump alloys used provide corrosion resistance to many liquids including water, water solutions, and a wide range of commercial chemicals. Questions as to the



chemical compatibility of special liquids should be referred to the factory.

12

Gallons per Minute

8

4

16

20

24

Viscous liquids with a maximum viscosity of 2000 Saybolt Seconds Universal can be pumped. However, when pumping viscous liquids as compared with water, a reduction in flow and pressure occurs and the required horsepower rate increases.

Liquids heavier than water require additional horsepower in direct proportion to the increase in specific gravity. Liquids contaminated with small solids or abrasives can be handled, but a reduction in mechanical seal life must be expected.

CHARACTERISTICS:

This close-coupled pump uses a standard NEMA C-Flange Jet Pump Motor with weld-on base and threaded shaft end to accept the pump impeller. Single phase motors are non-reversible and are wired for the proper pump rotation which is counter-clockwise looking at inlet end of pump. See the dimensional drawing on back. Three phase motors must be checked out for proper rotation when pump is installed. Interchanging of any 2 wires in a 3-phase system will reverse motor rotation.

The pump uses a mechanical type shaft seal with a NBR rubber element. It is suitable for water, oils, and some mild solvents and it is limited to 212° F. FKM seals and PTFE seals are available for severe solvents, difficult chemicals, and elevated temperatures. These centrifugal pumps are not self-priming. They must be installed below the liquid level so that the liquid flows to the pump by gravity (flooded suction). However, if a foot valve is used at the beginning of the suction line, and all air is bled from the pump by manual priming, the pump will lift on the suction side up to 15 feet. Such a system relies entirely on the non-leaking foot valve for starting capability.

The flow of a centrifugal pump can be conveniently controlled by a throttling valve in the discharge line without the need for a relief valve. In centrifugal pumps, the horsepower demand will decrease as the pressure increases. Maximum horsepower occurs with a wide open discharge.

	1 2		3* 4*		5A*	5B*	6	7	
	Screw	Cover	O-Ring	Impeller	Seal Head	Seal Wearface/ Seal Seat	Plug	Body	
Model	Qty. 4	Qty. 1	Qty. 2	Qty. 1	Qty. 1	Qty. 1	Qty. 2	Qty. 1	
104M	5385	5168-2	9797-043	6033	2913	601801	7687	7515-2	
104MP	5385	5168-2	9797-043	7432	2913	601801	5395	7515-2	
104M-06	5385	5168-2	9797-043	6033	2913	601801	7687	9738-2	

Parts List

	8	9	10	11*	12	13*	14	
	Screw	Screw	Adapter	Set Screw	Motor	Lip Seal	Name Plate	Repair Kit
Model	Qty. 1	Qty. 4	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	
119MP	5595	5411	6699	NA	See Chart	6683	7736	10720
119MP-01	5595	5411	6699	9849	See Chart	6683	7736	12173
119MPS10	5595	5411	6699	NA	See Chart	6683	7736	10720

 \ast Repair kit contains items 3, 4, 5A, 5B, 11 & 13



Exploded View





Item 11 is used on three phase pump units only.

Model	HP	SF	Enclosure	Phase	Voltage	Shaft Construction	Motor Item 12
104M-F13	1/3	1.75	ODP	single	115	416	5859
104M-06F13	1/3	1.75	ODP	single	155	416	5859
104M-01F26	1/3	1.75	ODP	single	115/230	montel	32273
104M-06F26	1/3	1.75	ODP	single	115/230	montel	32273
104M-F17	1/3	1.75	ODP	single	115/230	316 passivated	3032
104M-06F17	1/3	1.75	ODP	single	115/230	316 passivated	3032
104M-F21	1/3	1.75	XP	single	115/230	416	821
104MP01-F65	1/3	1.75	ODP	three	208 230/460	montel	32355
104MP-F57	1/3	1.75	ODP	three	208 230/460	416	6996
104M-J19	1/2	1.65	ODP	single	115/230	416	5860
104M-J20	1/2	1.65	TEFC	single	115/230	416	7976
104MP01-J58	1/2	1.00	TEFC	three	208 230/460	montel	33035
104MP-J57	1/2	1.60	ODP	three	230/460	416	6998
104M-01J26	1/2	1.65	ODP	single	115/230	montel	32332
104M-J24	1/2	1.65	ODP	single	115/230	316 passivated	3031
104M-J89	1/2	1.00	TENV	DC	12V	416	2386
104MP-M58	3/4	1.15	TEFC	three	230/260	416	7967

104M Series

Dimensions



NBR = Acrylonitrile-Butadiene PTFE = Polytetrafluorethylene FKM = Fluoroelastomer



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Due to ongoing product improvements, data shown here is subject to change without notice. Contact Oberdorfer Pumps for latest specifications.