

\*\*Data sheet for old style

pumps with 8 cover screws.

**MODEL** 104M

# BRONZE CLOSE COUPLED CENTRIFUGAL PUMP

#### PIPE SIZE: INLET 3/4", OUTLET 1/2"



#### 104M-06F26 Pictured

#### **FEATURES**

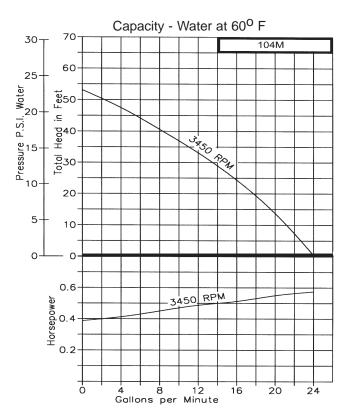
- Rugged bronze construction
- A standard in the marine air conditioning industry
- Extremely quiet operation
- O-ring housing seal eliminates gasket problems
- Teflon barrier seal to protect motor bearings
- Handles contaminated liquids
- Discharge port orientation flexibility 8 positions
- Mechanical seal carbon/ceramic
  - Buna standard
  - Viton (S10) optional
  - Teflon (S11) optional
- 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.

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 Buna rubber element. It is suitable for water, oils, and some mild solvents and it is limited to  $212^{0}$  F. Viton® seals and Teflon® 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.

\* Viton® is a registered trademark of DuPont Dow Elastomers. Viton® or equivalent FKM will be used. Teflon® is a registered trademark of DuPont. Teflon® or equivalent PTFE will be used. **MODEL** 104M

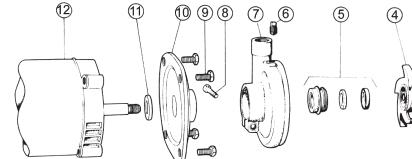
\*\*Data sheet for old style pumps with 8 cover screws.



A Gardner Denver Product

# BRONZE CLOSE COUPLED CENTRIFUGAL PUMP

# **EXPLODED VIEW AND PARTS LIST**



## \*These parts are only for the old style pump with 8 cover screws.\*\*

1	2	31	41	51	6	7	8	9	10	111	12	131*	
Screw	Cover	O-Ring	Impeller	Seal	Plug	Body	Screw	Screw	Adapter	Lip Seal	Motor	Set	Repair
				Assy.								Screw	Kit
8 Reqd	1 Reqd	1 Reqd	1 Reqd	1 Reqd	2 Reqd	1 Reqd	1 Reqd	4 Reqd	1 Reqd	1 Reqd	1 Reqd	1 Reqd	1 Reqd
5385	5168	9797-042	6033	32155	7687	7515	5595	5411	6699	6683			10720 (Single Phase)
5385	5168	9797-042	6033	32155	7687	9738	5595	5411	6699	6683			10720 (Single Phase)
5385	5168	9797-042	7432	32155	5395	7515	5595	5411	6699	6683		9849	12173 (Three Phase)
8	8 Reqd 5385 5385 5385	8 Reqd 1 Reqd   5385 5168   5385 5168   5385 5168   5385 5168	Screw Cover O-Ring   8 Reqd 1 Reqd 1 Reqd   5385 5168 9797-042   5385 5168 9797-042   5385 5168 9797-042	Screw Cover O-Ring Impeller   8 Reqd 1 Reqd 1 Reqd 1 Reqd   5385 5168 9797-042 6033   5385 5168 9797-042 6033	Screw Cover O-Ring Impeller Seal Assy.   8 Reqd 1 Reqd 1 Reqd 1 Reqd 1 Reqd   5385 5168 9797-042 6033 32155   5385 5168 9797-042 6033 32155   5385 5168 9797-042 7432 32155	Screw Cover O-Ring Impeller Seal Assy. Plug Assy.   8 Reqd 1 Reqd 1 Reqd 1 Reqd 1 Reqd 2 Reqd   5385 5168 9797-042 6033 32155 7687   5385 5168 9797-042 6033 32155 7687   5385 5168 9797-042 7432 32155 5395	Screw Cover O-Ring Impeller Seal Plug Body   8 Reqd 1 Reqd 1 Reqd 1 Reqd 1 Reqd 2 Reqd 1 Reqd   5385 5168 9797-042 6033 32155 7687 7515   5385 5168 9797-042 6033 32155 7687 9738   5385 5168 9797-042 7432 32155 5395 7515	Screw Cover O-Ring Impeller Seal Plug Body Screw   8 Reqd 1 Reqd	Screw Cover O-Ring Impeller Seal Plug Body Screw Screw   8 Reqd 1 Reqd 4 Reqd   5385 5168 9797-042 6033 32155 7687 7515 5595 5411   5385 5168 9797-042 6033 32155 7687 9738 5595 5411   5385 5168 9797-042 7432 32155 5395 7515 5595 5411	Screw Cover O-Ring Impeller Seal Plug Body Screw Screw Adapter   8 Reqd 1 Reqd	Screw Cover O-Ring Impeller Seal Plug Body Screw Screw Adapter Lip Seal   8 Reqd 1 Reqd	Screw Cover O-Ring Impeller Seal Plug Body Screw Screw Adapter Lip Seal Motor   8 Reqd 1 Reqd 1 Reqd 1 Reqd 1 Reqd 2 Reqd 1 Reqd	ScrewCoverO-RingImpellerSealPlugBodyScrewScrewAdapterLip SealMotorScrew8 Reqd1 Reqd1 Reqd1 Reqd1 Reqd2 Reqd1 R

1 Repair kit contains items 3, 4, 5, 11 & 13.

Not shown - Impeller set screw for Three Phase motors only.

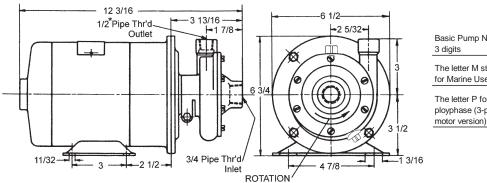
# PUMP & MOTOR OPTIONS

Note: These are the most frequently used pump and motor combinations. If you have other needs, our sales reps can recommend a pump and motor for your application.

Pump No.	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	115	416	5859
104M-01F26	1/3	1.75	ODP	single	115 / 230	monel	32273
104M-06F26	1/3	1.75	ODP	single	115 / 230	monel	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	8214
104MP01-F65	1/3	1.75	ODP	three	208 230 / 460	monel	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	monel	33035
104MP-J57	1/2	1.60	ODP	three	230 / 460	416	6998
104M-01J26	1/2	1.65	ODP	single	115 / 230	monel	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 / 460	416	7967

#### **DIMENSIONS**

\*3/4" External Thread also available (104M-06)

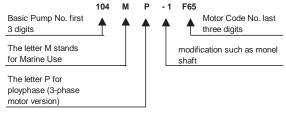


## NUMBERING

3

(2)

(1)



5/06

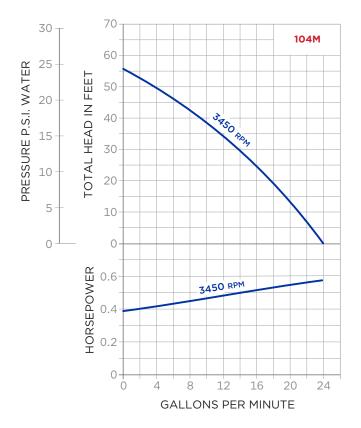
Specifications are subject to change without notice. All motor dimensions are subject to variations among motor manufacturers.

# \*\*Data sheet for new style pumps with 4 cover screws.\*\*

BRONZE CLOSE-COUPLED CENTRIFUGAL PUMP INLET 3/4" NPT, OUTLET 1/2" NPT

# Model 104M

#### PERFORMANCE CAPACITY, WATER 70°F





- 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 options
- Pump heads mount to standard footed NEMA 56J jet pump motors
- 300 Series Stainless Steel standard also optional Monel
- 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.

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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	Monel	32273
104M-06F26	1/3	1.75	ODP	single	115/230	Monel	32273
104MP-F57	1/3	1.75	ODP	three	208 230/460	416	6996
104M-J19	1⁄2	1.65	ODP	single	115/230	146	5860
104M-J20	1⁄2	1.65	TEFC	single	115/230	416	7976
104MP01-J58	1⁄2	1.00	TEFC	three	208 230/460	Monel	33035
104MP-J57	1⁄2	1.60	ODP	three	230/460	416	6998
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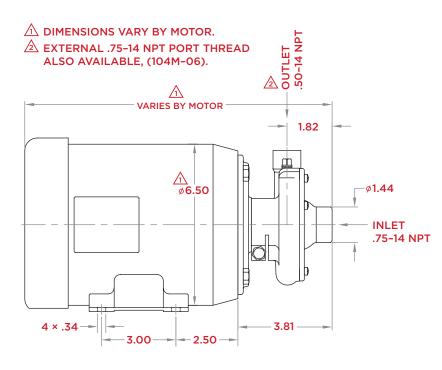


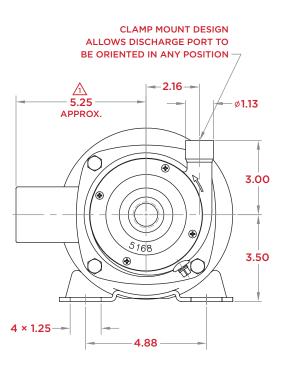
This picture is the old style 104M-06 pump with 8 cover screws. This old style pump is no longer available. The parts list on the page below is only for the new style pump with 4 cover screws. \*\*These parts are only for the new style pump with 4 cover screws.\*\* PARTS LIST - MODEL 104M

ITEM	DESCRIPTION	C	OMPONENT N	D.	QTY.	REPAIR KIT		
NO.	DESCRIPTION	104M	104MP	104M-06		104M	10720	
1	Screw	5385	5385	5385	4	104MP	12173	
2	Cover	5168-2	5168-2	5168-2	1	104M-06	10720	
3	O-Ring	9797-043	9797-043	9797-043	2	Itoma Included	3, 4, 5A,	
4	Impeller	6033	7432	6033	1	Items Included	5B, 11 & 13	
5A*	Seal Head	2913	2913	2913	1			
5B*	Seal Wearface/ Seal Seat	601801	601801	601801	1			
6	Plug	7687	5395	7687	2			
7	Body	7515-2	7515-2	9738-2	1			
8	Screw	5595	5595	5595	1			
9	Screw	5411	5411	5411	4			
10	Adapter	6699	6699	6699	1			
11	Set Screw	NA	9849	NA	1			
12	Motor	See Chart	See Chart	See Chart	1		•	
13	Lip Seal	6683	6683	6683	1		1 🖉	
14	Name Plate	7736	7736	7736	1	14		

\*\*Data sheet for new style pumps with 4 cover screws.\*\* \*\*Data sheet for new style pumps with 4 cover screws.\*\*

### DIMENSIONS







#### Gardner Denver, Inc.

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NBR = Acrylonitrile-Butadiene, PTFE = Polytetrafluorethylene, FKM = Fluoroelastomer

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