



**oberdorfer**<sup>®</sup>

An Ingersoll Rand Business



## Model 109MB Bronze Close Coupled Centrifugal Pump



### Features

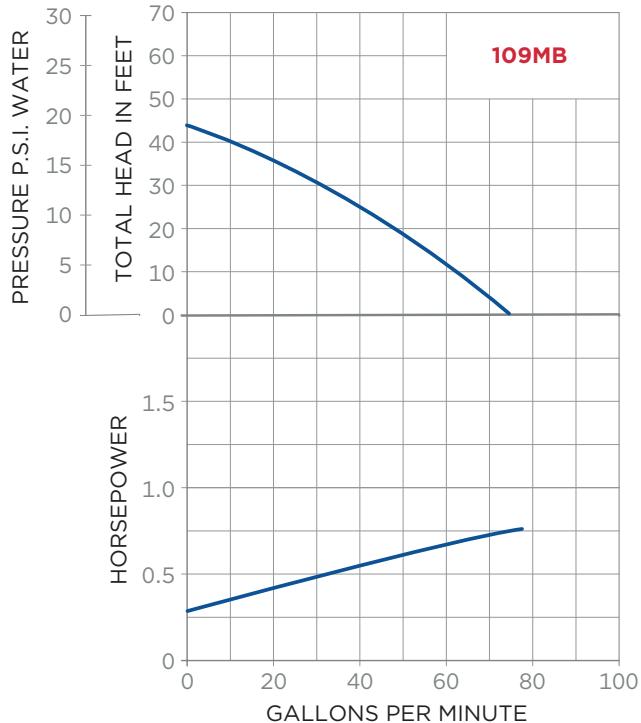
- Inlet 1/4" NPT, Outlet 1" NPT
- Rugged bronze construction
- A standard in the marine air conditioning industry
- Extremely quiet operation
- O-ring housing seal eliminates gasket problems
- Teflon barrier seal to protect motor bearings
- Handles contaminated liquids
- Discharge port orientation flexibility
- Mechanical seal: carbon/ceramic  
- NBR, FKM, or PTFE options
- Pump heads mount to standard footed NEMA 56J jet pump motors
- Monel Shaft Options Available - OB109MB-01
- Multiple motor options available
- For industrial version, see Model 700 series

### 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.

### Performance

CAPACITY, WATER 70°F



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 and 75 PSI.

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.





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## Liquids

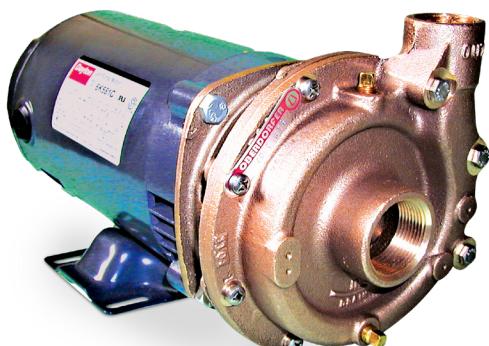
The special pump alloys used provide corrosion resistance to many liquids including water, water solutions, and a wide range of commercial chemicals. Questions as to the chemical compatibility of special liquids should be referred to the factory.

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.

## Motor Options

MODEL	HP	SF	ENCLOSURE	PHASE	VOLTAGE	SHAFT CONSTRUCTION	MOTOR ITEM 15
OB109MB-J19	1/2	1.65	ODP	Single	115/230	416 SST	OB5860
OB109MB-J20	1/2	1.65	TEFC	Single	115/230	416 SST	OB7976
OB109MB-01J26	1/2	1.65	ODP	Single	115/230	Monel	OB32332
OB109MBP-01J58	1/2	1	TEFC	Three	208-230/460	Monel	OB33035
OB109MBP-M58	3/4	1.15	TEFC	Three	230/460	416 SST	OB7967



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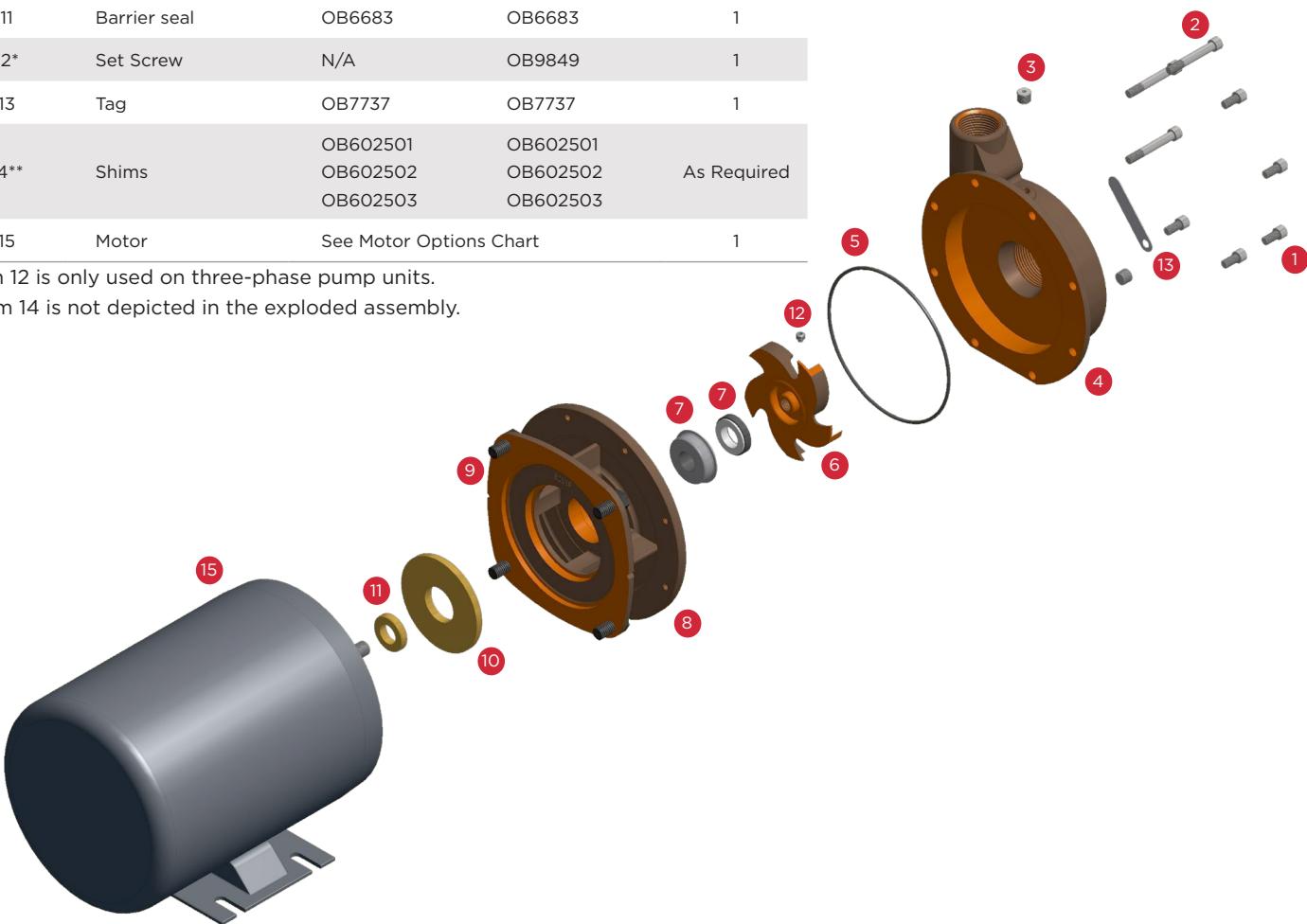
## Exploded View and Parts List

ITEM NO.	DESCRIPTION	COMPONENT NO. OB109MB	COMPONENT NO. OB109MBP	QTY.
1	Screw	OB978304	OB978304	5
2	Screw	OB978314	OB978314	3
3	Pipe Plug	OB7687	OB5395	2
4	Body	OB5266	OB5266	1
5	O-Ring	OB9797-157	OB9797-157	1
6	Impeller	OB6297	OB7196	1
7	Seal Assy	OB32155	OB32155	1
8	Adapter	OB5251	OB5251	1
9	Screw	OB5411	OB5411	4
10	Insert	OB6832	OB6832	1
11	Barrier seal	OB6683	OB6683	1
12*	Set Screw	N/A	OB9849	1
13	Tag	OB7737	OB7737	1
14**	Shims	OB602501 OB602502 OB602503	OB602501 OB602502 OB602503	As Required
15	Motor	See Motor Options Chart		1

\*Item 12 is only used on three-phase pump units.

\*\*Item 14 is not depicted in the exploded assembly.

REPAIR KIT	
OB109MB	OB10721
OB109MBP	OB11065
Items Included	5, 6, 7, 11, 12 & 14





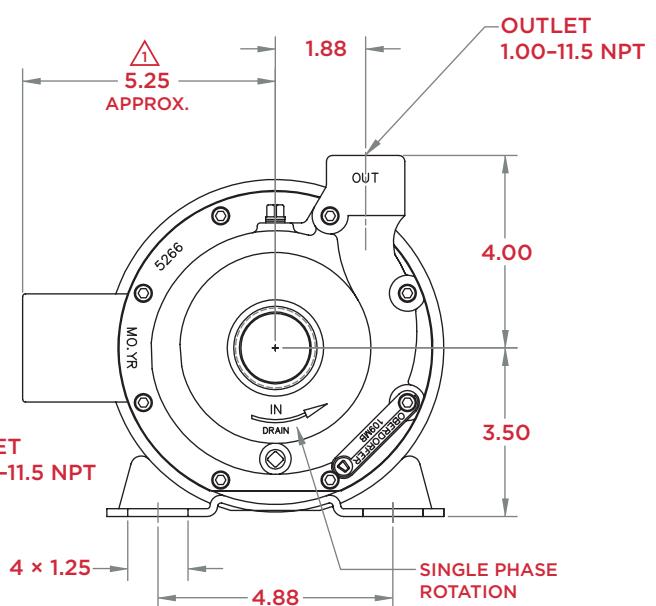
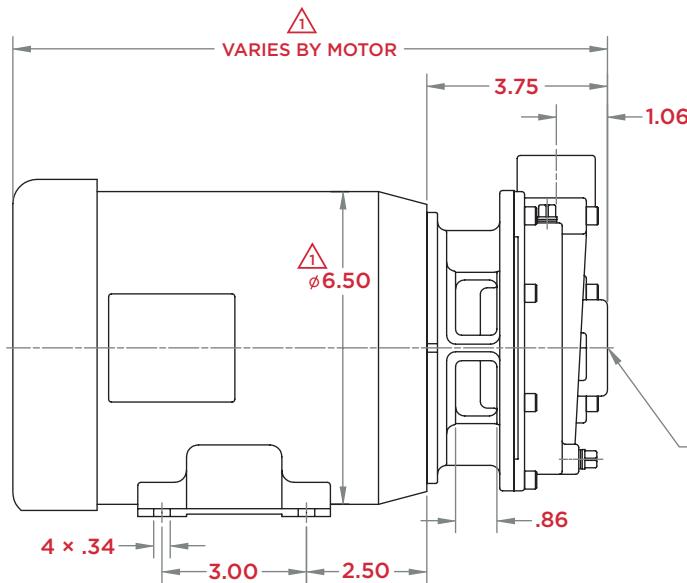
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## Dimensions

**⚠ DIMENSIONS VARY BY MOTOR.**



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