



### MB100-Series Centrifugal Pump



Designed for conveying low viscosity fluids in a broad range of applications such as food, dairy, beverage, winery, and brewing markets.

#### Certifications

- 3A approved
- Elastomers meet FDA 21CFR 177.2600 and 3A 18-03 Class I

#### Size

- 1" outlet x 1-1/2" inlet

#### Features

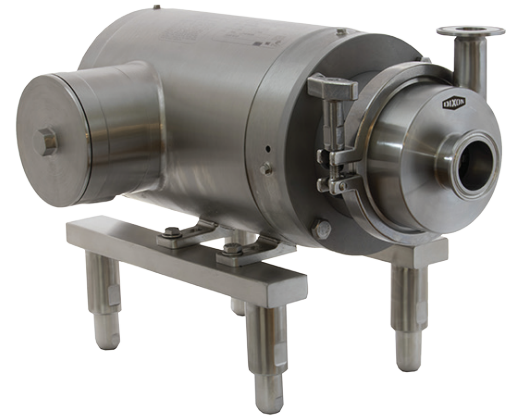
- Standard clamp
  - Uses a standard 4" tube clamp for easy removal and adjustment of the casing
  - Eliminates post and tab construction
- Seal design
  - Robust single mechanical seal design with silicon carbide stationary seal-face and carbon rotary seal-face
- Seal performance
  - Efficient seal path promotes seal cooling and provides less restrictions to adequately clean the seal
- Impeller and shaft design
  - Sealed impeller provides optimal hygienic performance while the split shaft compression collar improves shaft concentricity, reduces vibration, and improves seal life
- Drop-in replacement for other C-100 series pumps
- Wet end mounts to a standard 56C frame motor

#### Materials

- Product contact metal components: AISI 316L stainless steel, FKM, EPDM, PTFE
- Non-product contact components: AISI 304 stainless steel
- Product contact seals: carbon and silicon carbide

#### Specifications

- Standard connection: clamp
- Minimum operating temperature: **32°F (0°C)**
- Maximum operating temperature: **212°F (100°C)**
- Viscosity range: 1 - 500 cP
- Surface Finish
  - Product contact metal components:  $\leq 32$  Ra
  - Non-product contact metal components:  $\leq 63$  Ra
- Seal type: single mechanical
- Performance characteristics
  - Nominal capacity: up to **75 GPM**
  - Nominal speed: up to 3500 RPM - 60 Hz
- Motors and mounting
  - Motor frame size: NEMA 56C C-face
  - Speeds: 1750 and 3500 RPM
  - Enclosure: TENV or TEFC, stainless steel or epoxy white washdown
- Cleaning method
  - CIP: clean-in-place
- Weight: 9 lbs without motor



### MB100-Series Centrifugal Pump - Part Number Key

MB100-Series Centrifugal Pump Part Number Key Example: MB15A01C1EA1A01		Series	Port Size	Finish	Impeller Size	Connections	Seal Type	Elastomer	Frame Size	Motor Type	Electrical	Power and Speed
		MB	15	A	01	C	1	E	A	1	A	01
<b>Series</b>	<b>Code</b>											
MB100	MB	←										
<b>Port Size</b>	<b>Code</b>											
1-1/2" inlet x 1" outlet	15	←	←									
<b>Surface Finish</b>	<b>Code</b>											
32 Ra (I.D. mech. polish)	A			←								
25 Ra (I.D. mech. polish)	B											
20 Ra (I.D. mech. polish)	C											
<b>Impeller Size</b>	<b>Code</b>											
3.68"	01				←							
3.5"	02											
3.25"	03											
3"	04											
<b>Connections</b>	<b>Code</b>											
Clamp	C					←						
Weld	B											
Female I-line	F											
Male I-line	M											
Threaded bevel	T											
Plain bevel	P											
Q-line	Q											
<b>Seal Type</b>	<b>Code</b>											
Single mechanical SC vs carbon	1						←					
<b>Elastomer</b>	<b>Code</b>											
EPDM	E							←				
FKM	V											
<b>Frame Size</b>	<b>Code</b>											
NEMA 56C	A								←			
<b>Motor Type</b>	<b>Code</b>											
Baldor SS washdown	1									←		
Sterling SS washdown	2											
Baldor white epoxy painted washdown	3											
Sterling white epoxy painted washdown	4											
<b>Electrical</b>	<b>Code</b>											
1PH/60Hz 115/230V	A										←	
3PH/60Hz 208-230/460V	B											
3PH/50Hz 190/380V	C											
3PH/50Hz 380/460V	D											
3PH/50Hz 220/380/440V	E											
3PH/50Hz 220/380/415V	F											
<b>Power and Speed</b>	<b>Code</b>											
0.75HP at 3500 RPM	01											←
1.0HP at 3500 RPM	02											
1.5HP at 3500 RPM	03											
0.5HP at 1750 RPM	04											

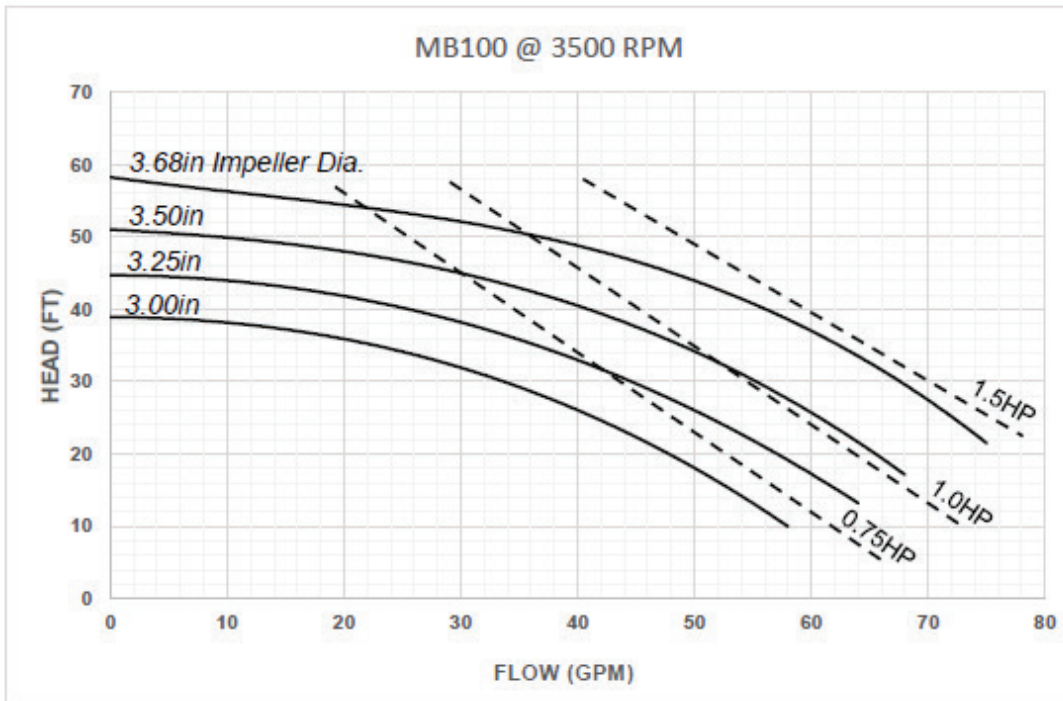
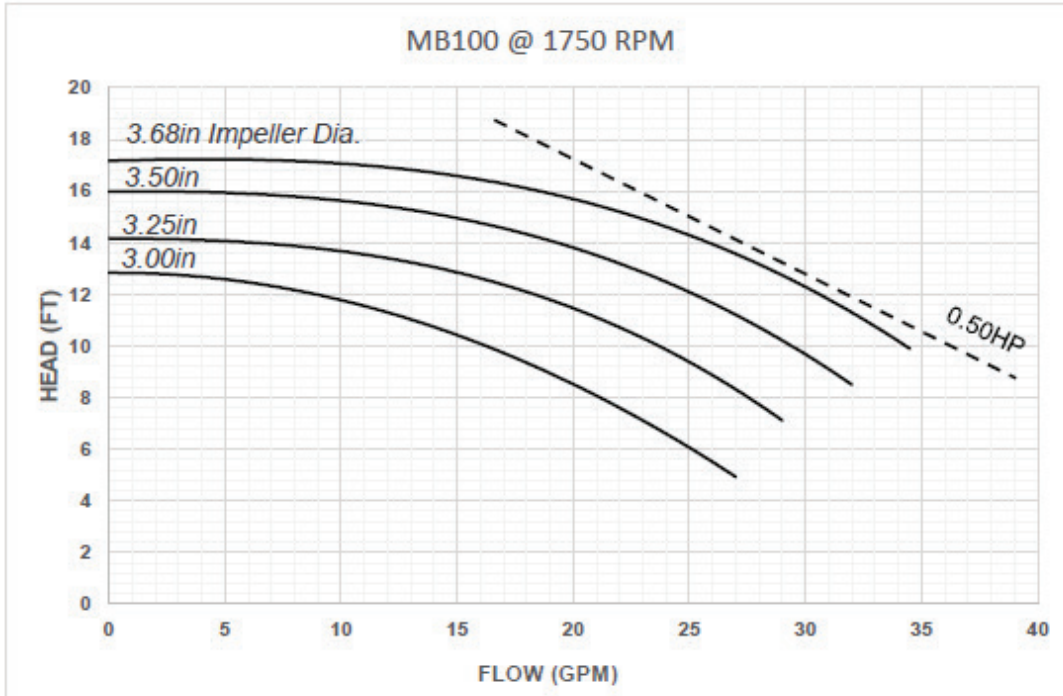
### MB100-Series Centrifugal Pump - Pump Curve

Based on H<sub>2</sub>O at 70°F (21°C)

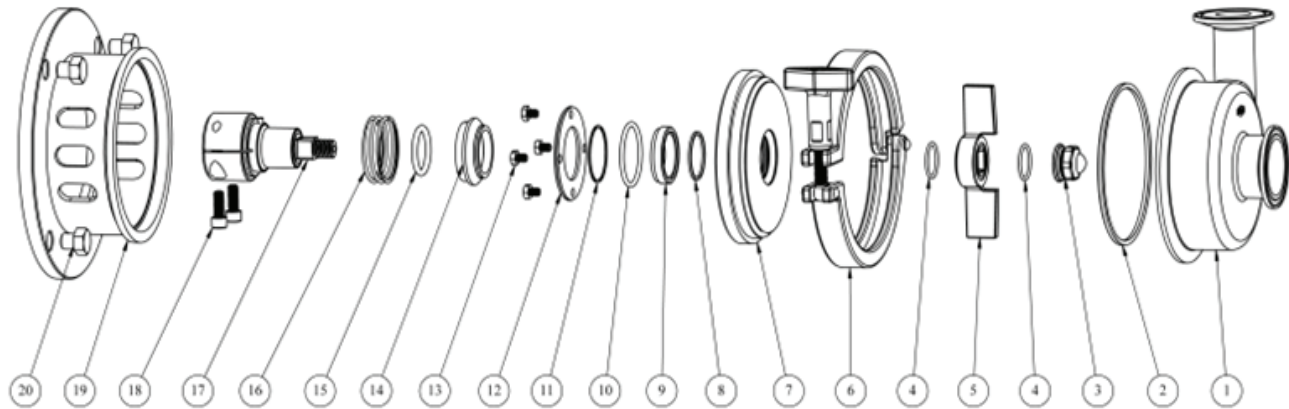
Frequency: 60 HZ

RPM: 1750 and 3500

Size: 1-1/2" x 1" x 3.68"



### MB100-Series Centrifugal Pump - Bill of Materials

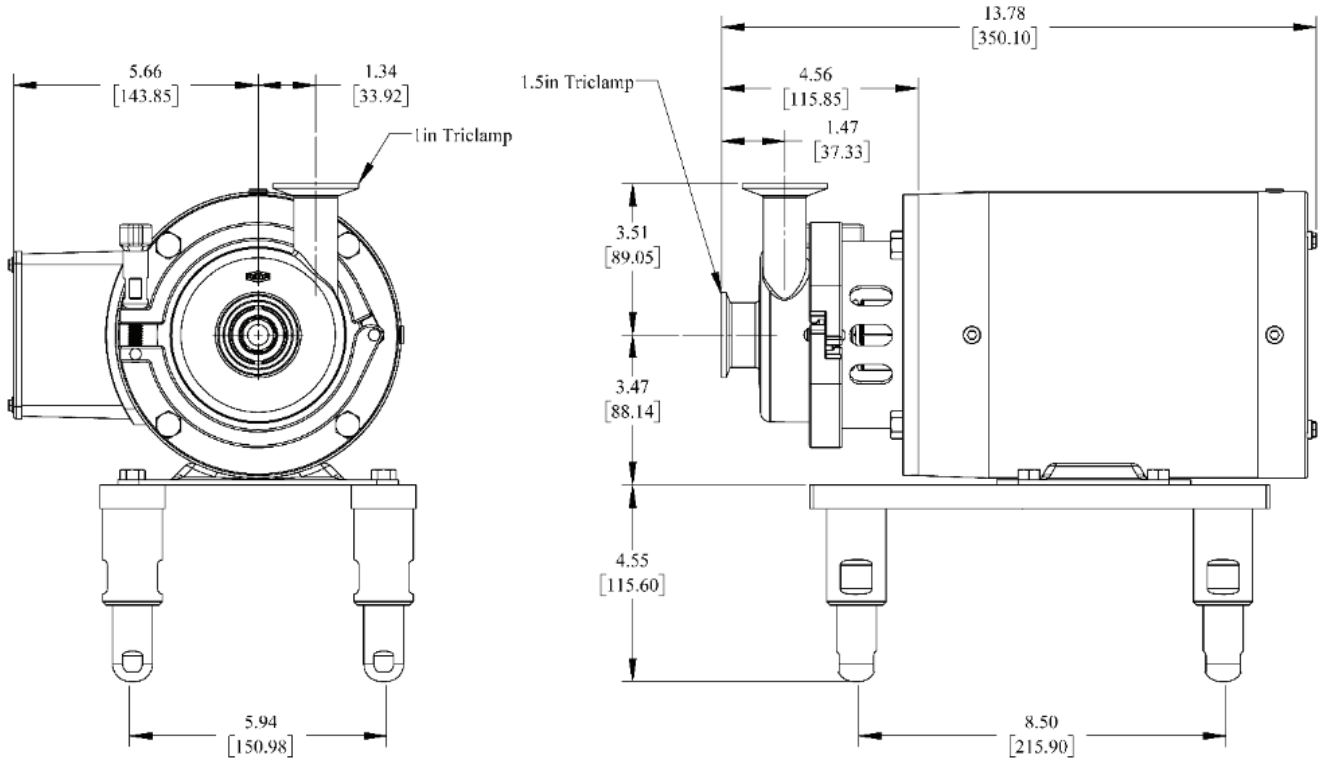


Item #	Description	Part #	Material	Qty
1	casing	MB100-PC-C	316L	1
2	casing seal*	MB100-PCOR-V	FKM	1
3	impeller nut	MB100-IN	316L	1
4	impeller O-ring*	MB100-NOR-V	FKM	2
5	impeller (3.680" diameter)	MB100-IMP-3680	CF3M	1
6	casing clamp	13MHHM400	CF8	1
7	backplate	MB100-BKPL	316L	1
8	stationary seal gasket - inner	MB100-SSIG	PTFE	1
9	stationary seal	MB100-SS-SC	sintered silicon carbide	1
10	stationary seal O-ring*	MB100-SSOR-V	FKM	1
11	stationary seal gasket - outer	MB100-SSOG	PTFE	1
12	backplate seal ring	MB100-SSP	304	1
13	seal plate screw	MB100-SPS	18-8	4
14	rotary seal	MB100-RS-C	carbon	1
15	rotary seal O-ring*	MB100-RSOR-V	FKM	1
16	seal spring	MB100-SPR	304	1
17	stub shaft (56C)	MB100-SHFT	316L	1
18	stub shaft bolt	MB100-SBOLT	18-8	1
19	adapter	MB100-ADP	304	1
20	adapter bolt	P71B-114B-56AB	18-8	4

\*Optional available materials (see table below for component part numbers).

Item #	Description	Part #	Material	Qty
2	casing seal*	MB100-PCOR-E	EPDM	1
4	impeller O-ring*	MB100-NOR-E	EPDM	2
10	stationary seal O-ring*	MB100-SSOR-E	EPDM	1
15	rotary seal O-ring*	MB100-RSOR-E	EPDM	1

MB100-Series Centrifugal Pump - Dimensions



## MB100-Series Centrifugal Pump - Repair Kits

### Complete Rebuild Seal Repair Kits

Pump Model	Soft Seal Material	Rotary Seal Material	Stationary Seal Material	Kit Part #	Kit Includes (item #)	Repair Kit BOM		
						Item #	Part #	Qty
MB100	FKM	carbon	silicon carbide	MB100-SK1-V	2, 4, 8, 9, 10, 11, 14, 15	2	MB100-PCOR-V	1
						4	MB100-NOR-V	1
						8	MB100-SSIG	1
						9	MB100-SS-SC	1
						10	MB100-SSOR-V	1
						11	MB100-SSOG	1
						14	MB100-RS-C	1
						15	MB100-RSOR-V	1

Pump Model	Soft Seal Material	Rotary Seal Material	Stationary Seal Material	Kit Part #	Kit Includes (item #)	Repair Kit BOM		
						Item #	Part #	Qty
MB100	EPDM	carbon	silicon carbide	MB100-SK1-E	2, 4, 8, 9, 10, 11, 14, 15	2	MB100-PCOR-E	1
						4	MB100-NOR-E	1
						8	MB100-SSIG	1
						9	MB100-SS-SC	1
						10	MB100-SSOR-E	1
						11	MB100-SSOG	1
						14	MB100-RS-C	1
						15	MB100-RSOR-E	1

### Soft Seal Repair Kits

Pump Model	Soft Seal Material	Kit Part #	Kit Includes (item #)	Repair Kit BOM		
				Item #	Part #	Qty
MB100	FKM	MB100-SK2-V	2, 4, 10, 15	2	MB100-PCOR-V	1
				4	MB100-NOR-V	1
				10	MB100-SSOR-V	1
				15	MB100-RSOR-V	1

Pump Model	Soft Seal Material	Kit Part #	Kit Includes (item #)	Repair Kit BOM		
				Item #	Part #	Qty
MB100	EPDM	MB100-SK2-E	2, 4, 10, 15	2	MB100-PCOR-E	1
				4	MB100-NOR-E	1
				10	MB100-SSOR-E	1
				15	MB100-RSOR-E	1



## Limited Warranty

DIXON VALVE & COUPLING COMPANY, LLC (herein called "Dixon") warrants the products described herein and manufactured by Dixon to be free from defects in material and workmanship for a period of one (1) year from date of shipment by Dixon under normal use and service. Its sole obligation under this warranty being limited to repairing or replacing, as hereinafter provided, at its option any product found to Dixon's satisfaction to be defective upon examination by it, provided that such product shall be returned for inspection to Dixon's factory within three (3) months after discovery of the defect. The repair or replacement of defective products will be made without charge for parts or labor. This warranty shall not apply to: (a) parts or products not manufactured by Dixon, the warranty of such items being limited to the actual warranty extended to Dixon by its supplier; (b) any product that has been subject to abuse, negligence, accident, or misapplication; (c) any product altered or repaired by others than Dixon; and (d) normal maintenance services and the replacement of service items (such as washers, gaskets, and lubricants) made in connection with such services. To the extent permitted by law, this limited warranty shall extend only to the buyer and any other person reasonably expected to use or consume the goods who is injured in person by any breach of the warranty. No action may be brought against Dixon for an alleged breach of warranty unless such action is instituted within one (1) year from the date the cause of action accrues. This limited warranty shall be construed and enforced to the fullest extent allowable by applicable law.

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### Safety



Safety logos, which appear throughout our catalog, are used as a reminder that the user should carefully review for the appropriateness of the product for the media, application, and environment in which it will be used.

NOTE: Because of the health hazards associated with contamination and lead content in drinking water systems, Dixon couplings, unless otherwise specifically approved, are not recommended for potable water service and should not be used in applications where drinking water will contact the wetted surfaces of the coupling.

All Dixon products are shipped in cartons with the following warning:

**"WARNING:** This product contains lead, a chemical known to the State of California to cause cancer and birth defects or other reproductive harm."

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