

Bronze Close-Coupled Self-Priming Flexible Impeller Pumps

Description

SherTech bronze self-priming, positive displacement, flexible impeller pumps provide a nearly pulseless flow with no metal-to-metal contact. Features bronze pump body, stainless steel cover and wear plates, 303 stainless steel shaft, standard Nitrile lip-type seals and impellers, and carrying handle for portability. Mounted directly to NEMA frame AC Open Drip-Proof (ODP) motors using an easy-installation package, or as pump heads only for custom installations. Single-phase motors are thermally-overload protected.

Uses: Handle a wide range of industrial, marine, agricultural and commercial applications where non-abrasive fluids compatible with pump wet-end construction component materials are pumped. Pumps are suitable for the transfer of non-lubricating fluids, mild abrasives, fluids containing small particles in suspension, and a wide variety of viscous fluids such as petroleum-based oils, silicone greases, and hydraulic fluids. The portable transfer units are ideal for water drainage transfer, barrel emptying, machine coolant recycling, and an assortment of related utility activities.

NOTE: Flexible impeller failure will occur immediately if pump is run dry, and this is not covered under warranty. Use caution to not touch the pump if you have dry run it, because it will be extremely hot.


- Pumps are supplied with 56C face motors and open drip-proof construction.
- Capacities up to 21.2 GPM at 1725 RPM.
- Maximum discharge pressure is 25 PSI (60 ft. of head).
- Max. RPM: 3450 (1725 with supplied motors).
- Suction lift to 10.2 ft.
- Nitrile lip seal and o-rings: Impeller is equipped with a lip seal wear sleeve, providing for a new seal wear surface each time impeller is replaced thus protecting the motor shaft from seal wear.
- Maximum viscosity for pumps with standard electric motors up to 500 SSU and 25 PSI (60 ft. of head) at 1725 RPM or run at reduced speeds to handle a wide range of pump fluid viscosities (up to 2500 SSU) and specific gravity (up to 1.3). DO NOT pump oils or petroleum derivatives with optional neoprene impellers. (Maximum torque loads are found in the performance chart.)
- Pumps can operate bi-directionally (reversible).
- Temperature range with Nitrile impellers is 0°F - 180°F (optional neoprene impeller is 15°F - 130°F).
- NPT ports (1/2" to 1").
- Accessory NPT ports (1/8") for priming, vacuum switch (pump protector) installation (to allow for dry run protection) or pressure gauge installation.

BRONZE MODELS – Excellent for water-based fluids. Feature bronze pump body, stainless steel cover and wear plates, 303 stainless steel shaft, standard Nitrile lip-type seals and impellers, and carrying handle for portability. Wet-end parts are constructed from bronze, brass, Nitrile, and 303 and/or other 300 series stainless steel.

REPAIR IMPELLERS AND OPTIONS – Standard impellers are Nitrile, and they and the optional neoprene impeller can be located in the repair parts list pages of the owner's manual.

Optional Close-Coupled Gear Speed Reducers are available that mount directly between pump and motor to reduce pump speed for high viscosity or high specific gravity applications (See Appendix 2 in the owner's manual).

NOTE: Bronze flexible impeller pumps are also available as pedestal models for custom installation. They are not equipped with motors.

 **WARNING:** Do not use to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do not use in flammable and/or explosive atmospheres. When pumping hazardous or dangerous materials, use only in a room or area designated for that purpose. For your protection, always wear proper clothing, eye protection, etc. in case of any malfunction. For proper handling techniques and cautions, contact your chemical supplier, insurance company and local agencies (fire dept., etc.). Failure to comply with this warning could result in personal injury and/or property damage.

Source: Owner's Manual L-4094 (4/06)

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Model Ordering Codes and Options



Example Model: MRB9901 (1/2 HP ODP motor with >1.15 Service Factor*)

1st	2nd	3rd	4th	5th	6th
Mounting	Type	Material	Impeller Size (Ports)	Impeller Material	AC Motor Options**
M: Motor Mount	R: Flexible (Rubber) Impeller	B: Bronze and/or Brass Body and Cam with Stainless Steel Wear Plates	90 (1/2")*** - 1/3 HP 99 (3/4") - 1/2 HP 150 (1") - 3/4 HP	0: Nitrile 1: Neoprene	0: Pump only 1: 1725 RPM 2: 3450 RPM

NOTE: Not all order code combinations (configurations) are standard models available from the manufacturer. Custom model configurations may require ordering standard components and/or optional parts that will need to be assembled by the customer.

Manufacturer reserves the right to change model order codes, standard models, specifications, and performance without notification. Standard motor speed is 1725 RPM. Maximum motor speed is 3450 RPM.

(*) ODP motors have > 1.15 service factors. Due to service factor, it is recommended TEFC motors are oversized by one HP increment. Pedestal Pumps are not supplied with a motor.

(**) Standard motors are single phase, 1725 RPM, open drip-proof.

(***) Also equipped with external 3/4" male garden hose thread on inlet and outlet ports.

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Performance (with Water)

Model	*Port Size	HP	GPM Pumping Water at 70° F @ Total Feet of Head									
			Max. Input Torque in.-lbs.	RPM	Suction Lift***	Free Flow	10	20	30	40	50	60†
Models with Motors												
MRB9001	1/2**	1/3	28	1725	8.1	7.8	7.1	6.7	6.2	5.5	4.8	3.8
MRB9901	3/4	1/2	37	1725	9.4	12.1	11.9	10.5	9.2	8.6	6.7	5.4
MRB15001	1	3/4	55	1725	10.2	21.2	20.6	19.5	18.1	16.5	14.7	11.0
Models without Motors												
MRB9000	1/2**	1/3	28	1725	8.1	7.8	7.1	6.7	6.2	5.5	4.8	3.8
MRB9900	3/4	1/2	37	1725	9.4	12.1	11.9	10.5	9.2	8.6	6.7	5.4
MRB15000	1	3/4	55	1725	10.2	21.2	20.6	19.5	18.1	16.5	14.7	11.0

Test data taken with water at 70° F (to convert data to PSI, divide feet of head by 2.31).

Pump performance when pump is new. As pump wears, the performance will decrease.

(†) Extended operation beyond 60 feet of head will result in immediate impeller failure.

(*) Female NPT inlet and outlet (in inches).

(**) Also equipped with external 3/4" male garden hose thread on inlet and outlet ports.

(***) Suction lift requires wetted impellers and seal chamber.

NOTES: Consult tables on HP adders and speed recommendations for high viscosity fluids. The pump relationship between volume (GPM), pressure (PSI), speed (RPM) and horsepower is shown on Performance Chart in SherTech Motor Manual form L-4082. When pumping a more viscous liquid, a slower speed, a larger pipe size pump, and possibly a larger motor should be selected.

Max. Viscosity = 500 SSU at 1725 RPM with the motor supplied (at 1.0 specific gravity).

Max. Input Torque = see chart above.

Max. RPM = 1725

Max. Specific Gravity = 1.0 at 25 PSI, up to 1.3 at lower PSI & viscosity.

Do not use optional Neoprene impellers with oil.

Manufacturer reserves the right to change performance without notification.

Price List and Specifications

List Price	AC Motor										PUMP CONSTRUCTION (Wet End)						Ship Wt. (lbs.)			
	Model	Motor HP	Motor Type	NEMA Frame	Motor Voltage	Amps	PH	HZ	Overload Protection**	Motor RPM	Pump Shaft Size	Motor Shaft	Motor Adapter	Port Size (in.)	Pump Body & Cam	Flexible Impeller ****		Wear Plates	Shaft	Seal & O-Rings*
Models with Motors																				
\$	MRB9001	1/3	ODP	56C	115/230	8.2/4.1	1	60	Yes	1725	3/4" Hollow	5/8 Keyed	CI	1/2***	BR & BZ	Nitrile	303 SS	303 SS	Nitrile	27
\$	MRB9901	1/2	ODP	56C	115/230	8.8/4.4	1	60	Yes	1725	3/4" Hollow	5/8 Keyed	CI	3/4	BR & BZ	Nitrile	303 SS	303 SS	Nitrile	31
\$	MRB15001	3/4	ODP	56C	115/230	10.8/5.4	1	60	Yes	1725	3/4" Hollow	5/8 Keyed	CI	1	BR & BZ	Nitrile	303 SS	303 SS	Nitrile	40
Models without Motors																				
\$	MRB9000	-	-	-	-	-	-	-	-	-	3/4" Hollow	-	-	1/2***	BR & BZ	Nitrile	303 SS	303 SS	Nitrile	5
\$	MRB9900	-	-	-	-	-	-	-	-	-	3/4" Hollow	-	-	3/4	BR & BZ	Nitrile	303 SS	303 SS	Nitrile	6
\$	MRB15000	-	-	-	-	-	-	-	-	-	3/4" Hollow	-	-	1	BR & BZ	Nitrile	303 SS	303 SS	Nitrile	7

SS = Stainless Steel CI = Cast Iron ODP = Open Drip-proof BR = Brass BZ = Bronze

(*) Nitrile lip seal with 300 Stainless Steel Series case and garter spring.

(**) Manual or Automatic - Check motor supplied.

(***) Also equipped with external 3/4" male garden hose thread on inlet and outlet ports.

(****) Impeller has bronze and/or brass insert with a 300 Series Stainless Steel Sleeve insert.

NOTES: Driver data is subject to change without notice; see label on driver for actual information.

All dimensions in inches unless otherwise specified.

To prevent dry run operation, a vacuum switch (pump protector) is recommended.

Manufacturer reserves the right to change specifications without notification.

To Order Optional Motors

For custom applications or configurations, select a pump head from above and a 56C Frame motor from the motor section of this catalog.

Source: Owner's Manual L-4094 (4/06)