PRODUCT INFORMATION

MAGNETIC-DRIVE CENTRIFUGAL PUMPS
centrifugalPUMP SERIES **M/MP**

INSPIRED. SOLUTIONS. FOR CUSTOMERS.

MAGNETIC-DRIVE CENTRIFUGAL PUMPS

M - SERIES
flooded suction

The standard for hydraulic efficiency and corrosive fluid handling

- Extreme dry run capability
- Designs according to ATEX 2014/34/EU
- PP or PVDF corrosion resistant construction
- Horizontal or vertical installation (with IEC motor only)
- High specific gravity handling over 1.8 kg/dm³

MP - SERIES
self-priming

IThe most innovative and versatile mag-drive centrifugal pump

- Big on power - short on energy consumption
- Deep-lift capabilities - up to 7,6 meters
- Lightning fast priming - 5,5 meters in 90 sec.
- Ease of operation
- No seal replacement and no leaks
- Corrosion-resistant materials handle the most difficult applications

PROPERTIES / APPLICATIONS

PROPERTIES AT A GLANCE M- AND MP-SERIES

- Close-coupled design
- Material PP or PVDF
- Neodymium magnets on every model
- Replaceable shaft and bushing
- ISO 1940 G2.5 balancing
- Mounts to NEMA and IEC motor frames
- Easy Set measurement-free outer drive
- Mounts to motor without disassembly
- Back pullout design
- CE certified
- ATEX 2014/34/EU available (M only)

SPECIFICATIONS

- Up to 70% operating efficiency
- Working pressure up to 6,2 bar (90 psi)
- Maximum viscosity
  M-Series: over 150 cP
  MP-Series: over 50 cP
- Maximum temperature
  PP: up to 82° C (180° F)
  PVDF: up to 104° C (220° F)

TECHNICAL DATA

- MP retains fluid for re-priming when shut off without a check valve
- Lifts up to 25 feet (7.6 meters)**
- MP primes up to 18 feet (5.5 meters) in 90 seconds***

** lift determined on fresh, cold water

*** with maximum diameter impeller

APPLICATIONS M- AND MP-SERIES

- Chemical processes
- Metal plating/working
- Wastewater treatment
- Electronics manufacturing
- OEM equipment supply
- DI & High purity water
- Fume scrubbing
- Mining
- Paper mills
- Pharmaceutical
- Chillers

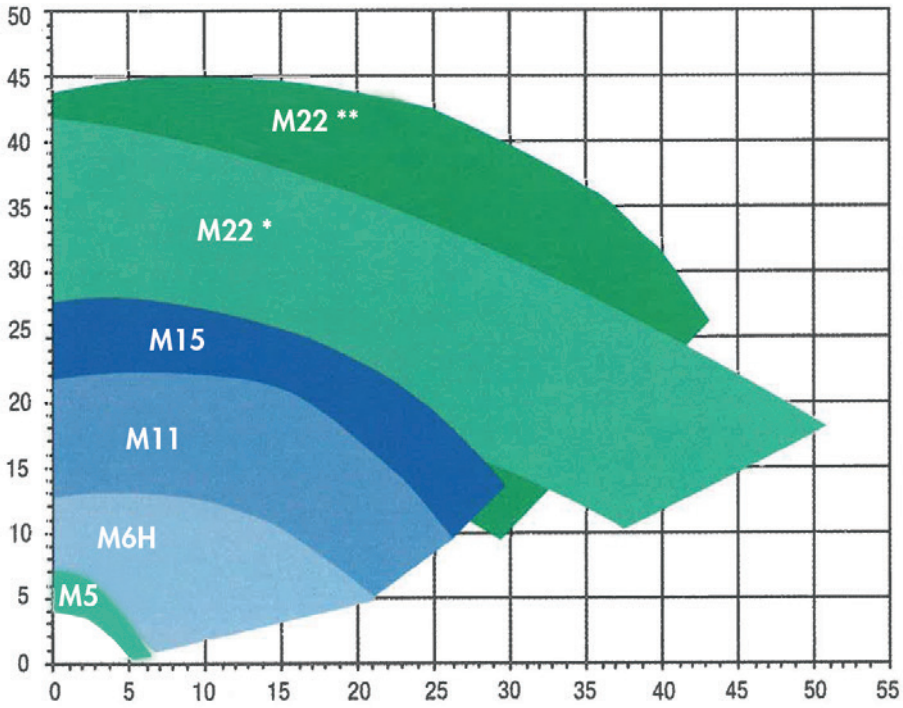
APPLICATIONS MP-SERIES

- Sumps
- Underground storage tanks
- Rail cars and tanker trucks
- Over-the-wall applications
- Double containment tanks
- Piping systems that tend to have trapped or entrained air.

CHARACTERISTIC CURVES

M SERIES

2.900 r.p.m. (50 Hz)



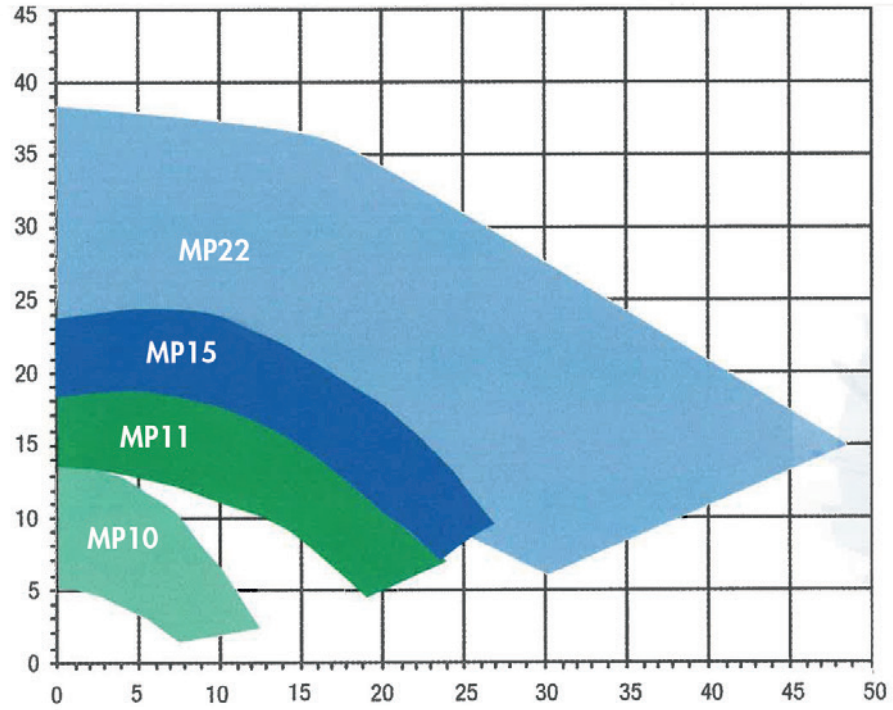
FLOW RATE (m^3/h)

* open impeller
** closed impeller

MP SERIES

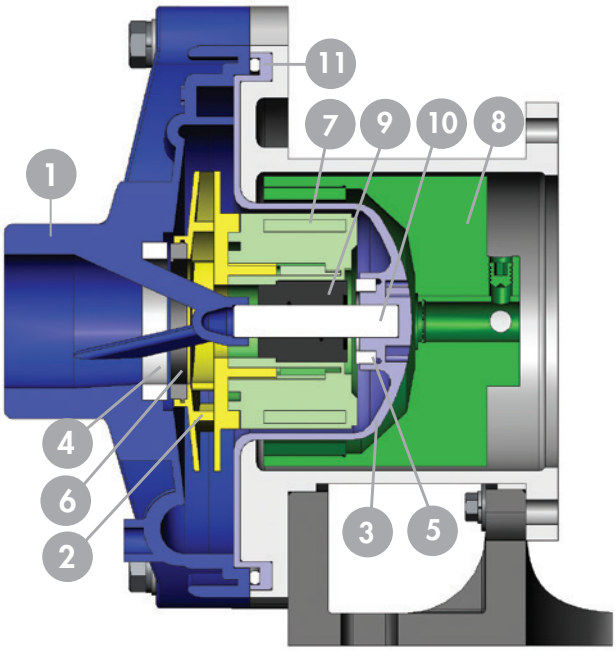
(curves based on flooded suction)

2.900 r.p.m. (50 Hz)

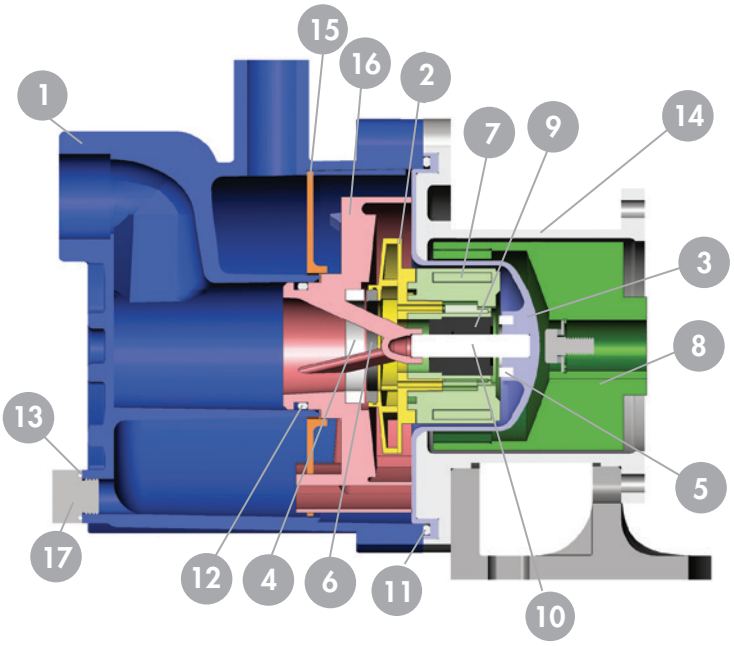


FLOW RATE (m^3/h)

MATERIALS



M SERIES



MP SERIES

POSITION	DESCRIPTION	PP DESIGNS	PVDF DESIGNS
1, 2, 3, 15, 16	Housing, impeller, barrier, separator plate, inner volute	Glass fiber reinforced polypropylene	Carbon-fiber reinforced PVDF
4	Housing thrust ring, inner volute thrust ring	High-purity alumina ceramic, silicon carbide	
5	Barrier thrust ring	High-purity alumina ceramic	
6	Impeller thrust ring	Molybdenum disulfide filled PTFE, silicon carbide	
7	Inner drive magnet	Neodymium iron boron magnets encapsulated in unfilled polypropylene	Neodymium iron boron magnets encapsulated in unfilled PVDF
8	Outer drive magnet	Nickel-plated neodymium iron boron magnets / steel	
9	Slide bearing	Carbon, PTFE, high purity alumina ceramic, silicon carbide	
10	Shaft	High purity alumina ceramic, Hastelloy C, silicon carbide	
11, 12, 13	O-Ring	FKM, EPDM (Simriz®, Kalrez®)	

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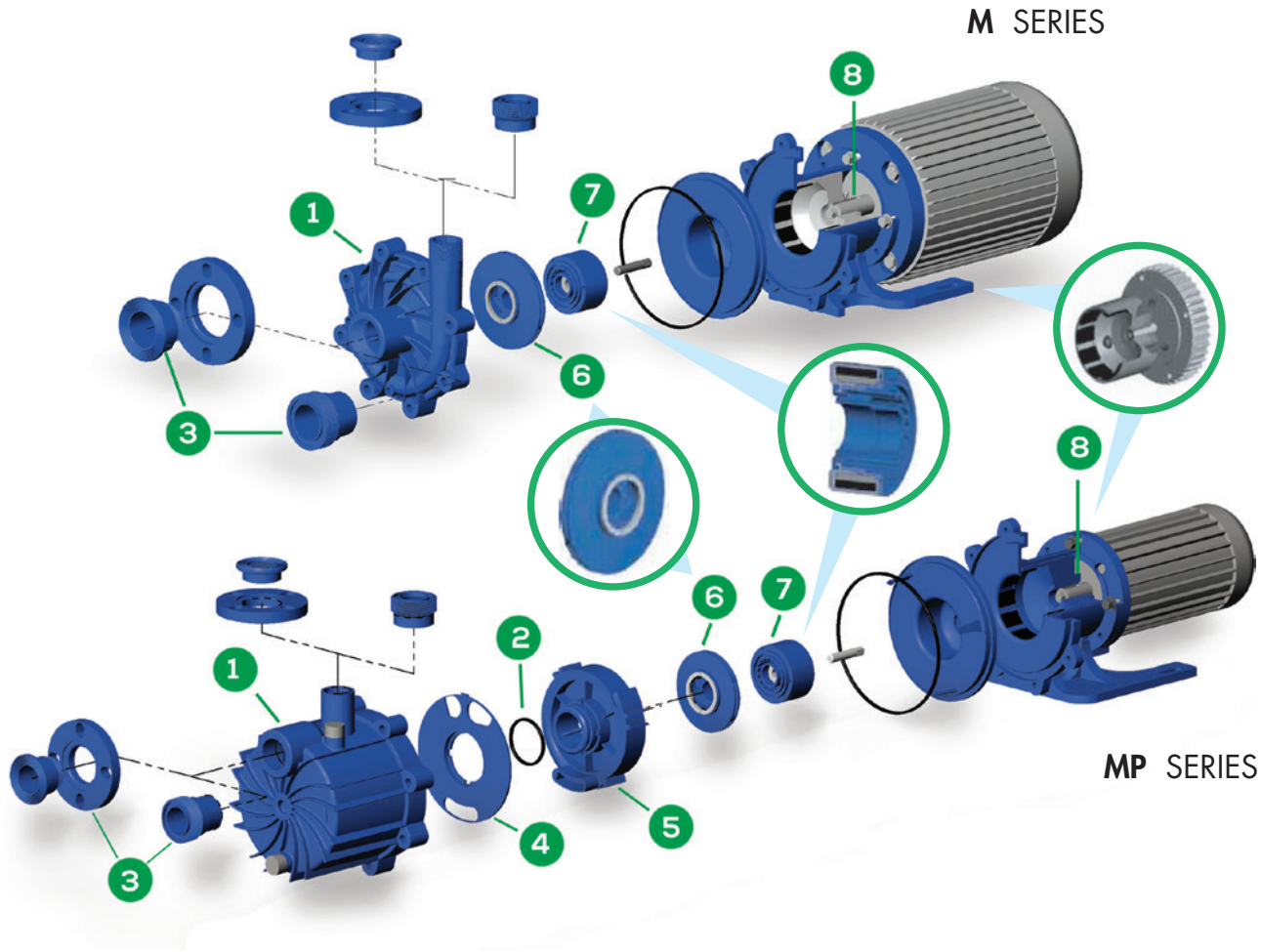
Simriz® Perfluoroelastomer is a registered trademark of the Simrit® division of Freudenberg-NOK
Hastelloy® C is a registered trademark of Haynes International, Inc.

PREMIUM FEATURES



POS	DESCRIPTION	
1	**Thermoplastic Casing**	Produces equivalent pump performance at both 60 Hz and 50 Hz operation. MP casing functions as a fluidreservoir featuring a molded-in "gooseneck" suction passage eliminating the need for internal check valves.
2	**O-Ring**	On MP models, creates airtight seal between the inner volute and "gooseneck" suction passage. Helps maintain vacuum required for proper priming.
3	**Multiple Connections**	NPT or BSP threaded, raised-face adjustable flanges, or union connections.
4	**Separator Plate (MP only)**	Allows liquid to flow to the impeller and discharge the air/liquid mixture created during priming back into the fluid reservoir..
5	**Inner Volute (MP only)**	Allows air to be efficiently removed from the suction passages for fast priming.
6	**Impeller**	Two-piece impeller design allows impeller to be changed without having to replace inner driven.
7	**Run Dry System/ Magnet Technology**	The M and MP can run dry for hours without damage when equipped with a chemical grade carbon bushing. Neodymium magnets are the most powerful and efficient magnets available. Inner magnets are completely encapsulated in unfilled polypropylene or PVDF for superior magnet protection.
8	**Easy Set Outer Drive**	Measurement-free outer drive ensures optimum magnet alignment and easy motor installation.

FUNCTIONAL PRINCIPLE / APPLICATIONS

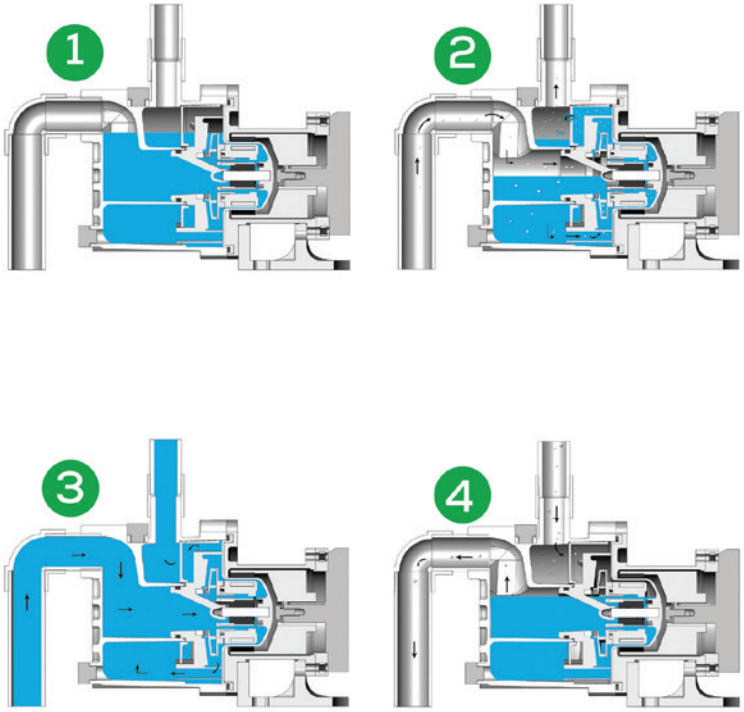
MP SERIES

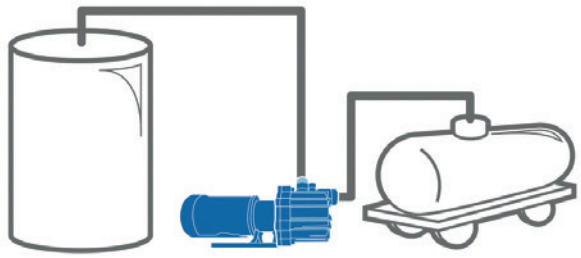
1 During pump installation, the primin housing is filled through the fill port.

2 As priming begins, air in the suction piping mixed with liquid in the priming chamber forms a vacuum in the inner volute. As they separate, the air rises out of the discharge piping while the liquid returns to the priming chamber.

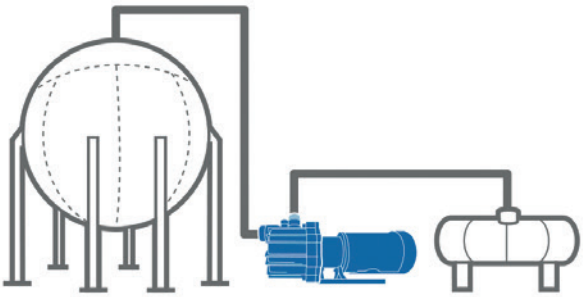
3 The circulation process continues until liquid replaces all the air in the suction piping, beginning the pumping process.

4 When the pump is shut off, the priming chamber's gooseneck design ensures that enough liquid is retained for efficient re-priming.

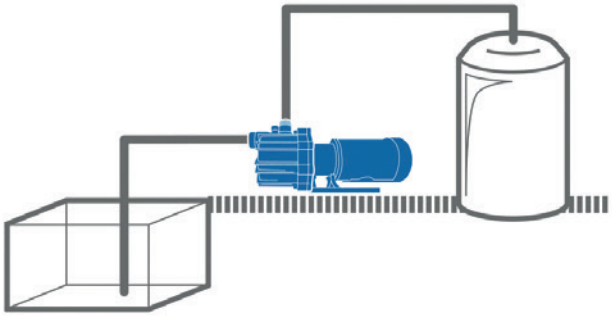




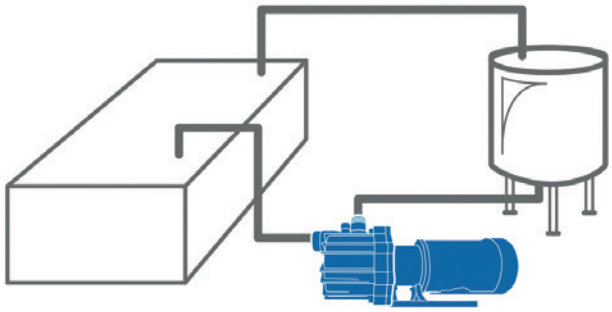
1 Transfer from top of rail cars or tanker trucks to bulk storage.



2 Transfer from bulk storage to process or day tanks.



3 Pump from underground sumps or pits to double containment tanks



4 Pump from surface finishing tank through filters

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