

MAGNETIC-DRIVE CENTRIFUGAL PUMPS

centrifugalPUMP SERIES M/MP



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

The 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

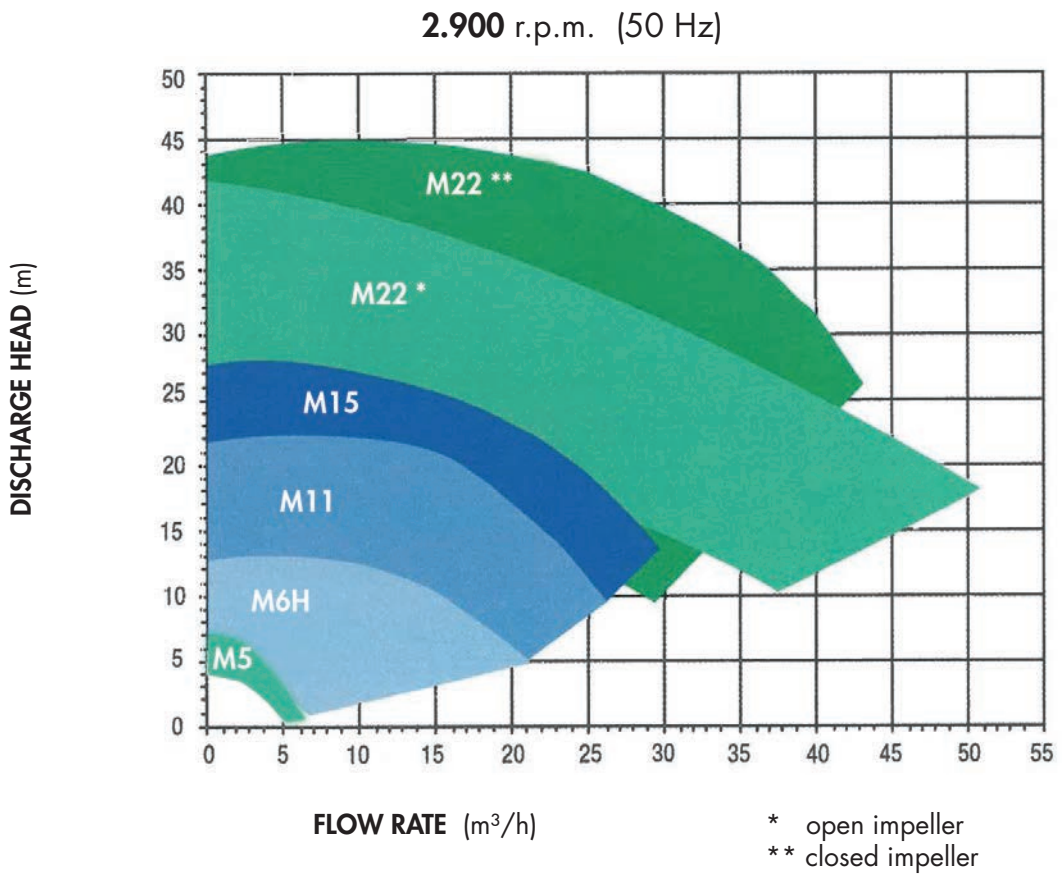
- Chemical processes
- Metal plating/working
- Wastewater treatment
- Electronics manufacturing
- OEM equipment supply
- DI & High purity water
- Fume scrubbing
- Mining
- Paper mills
- Pharmaceutical
- Chillers

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.

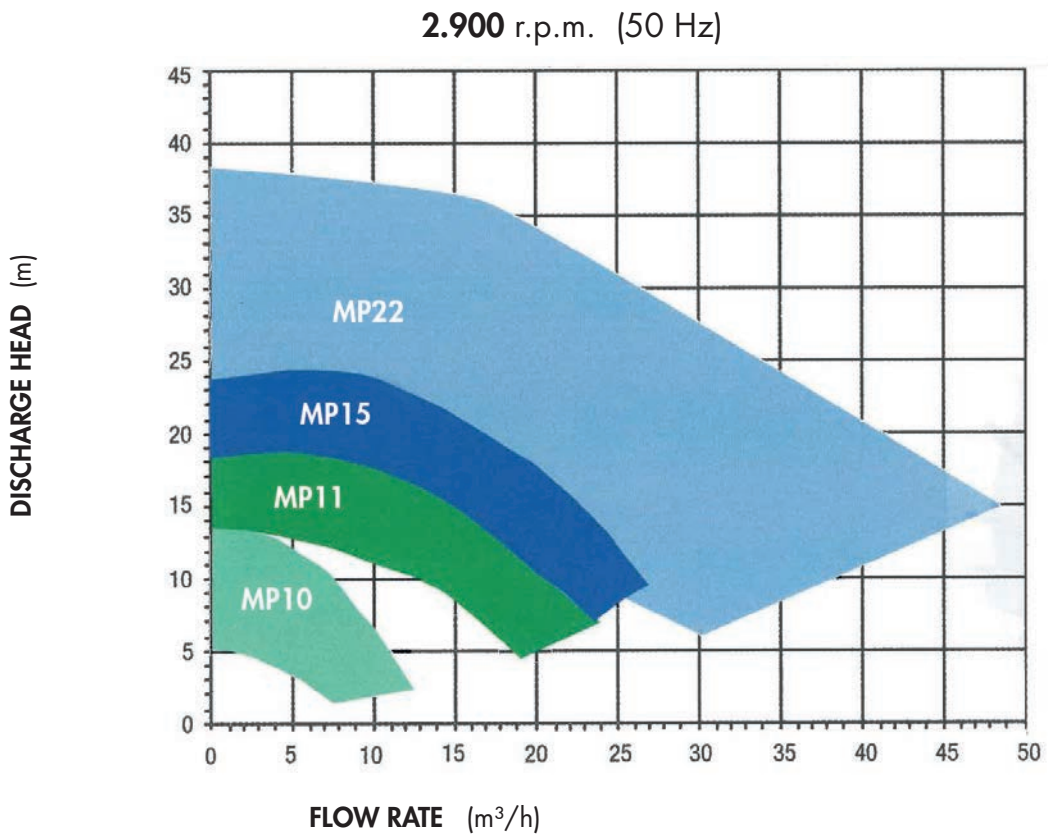
CHARACTERISTIC CURVES

M SERIES

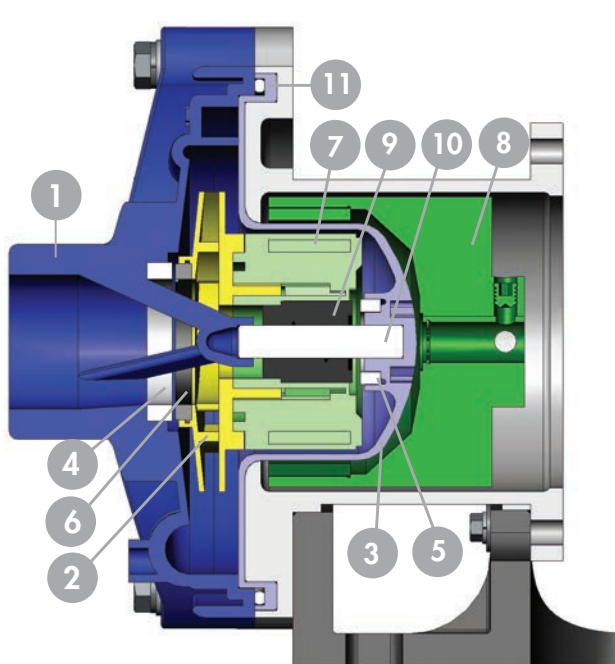


MP SERIES

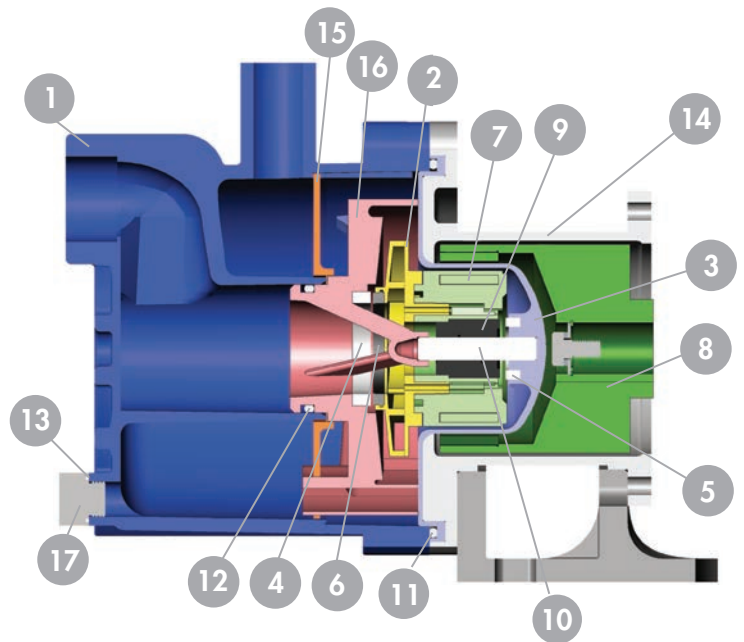
(curves based on flooded suction)



MATERIALS



M SERIES

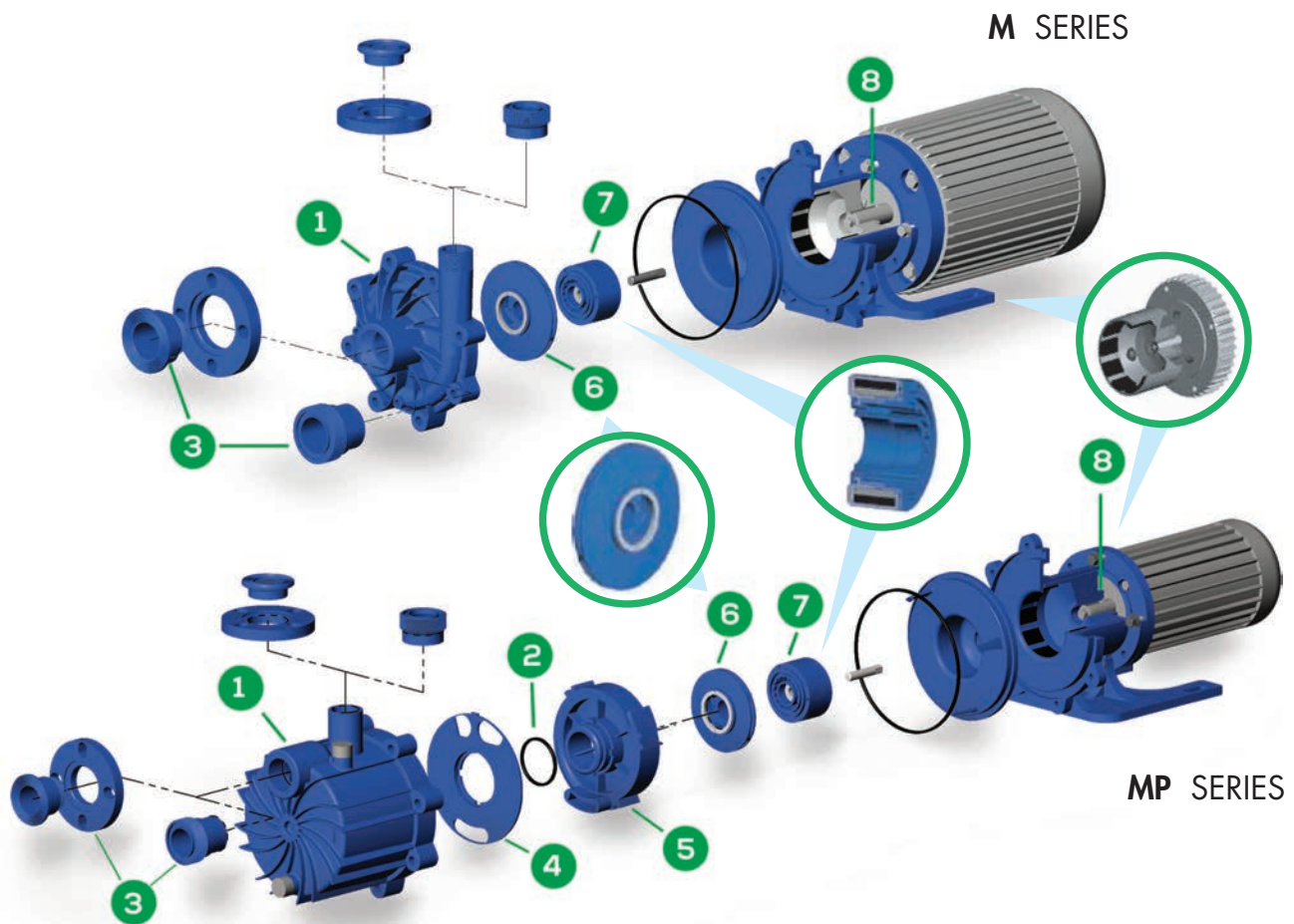


MP SERIES

| 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®) | |

Kalrez® is a registered trademark of DuPont Performance Elastomers
 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

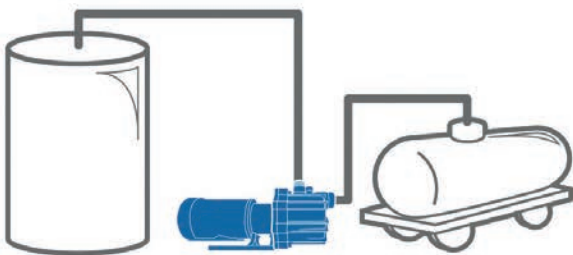
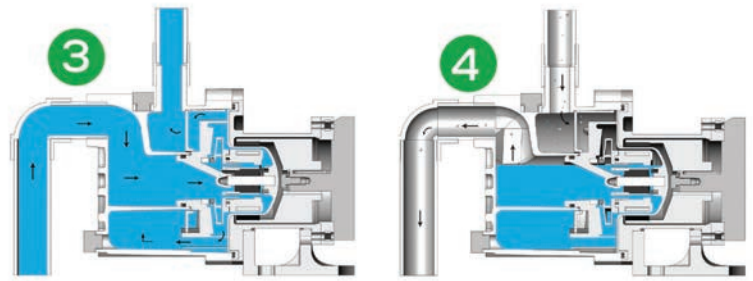
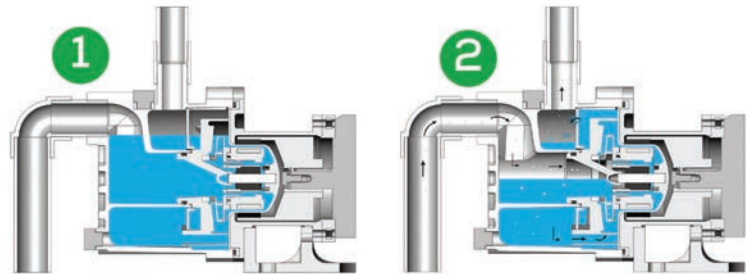


| POS | DESCRIPTION | |
|-----|--|---|
| 1 | Thermoplastic Casing | Produces equivalent pump performance at both 60 Hz and 50 Hz operation. MP casing functions as a fluidreservoir featuring a molded-in "gooseneck" suction passage eliminating the need for internal check valves. |
| 2 | O-Ring | On MP 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. |

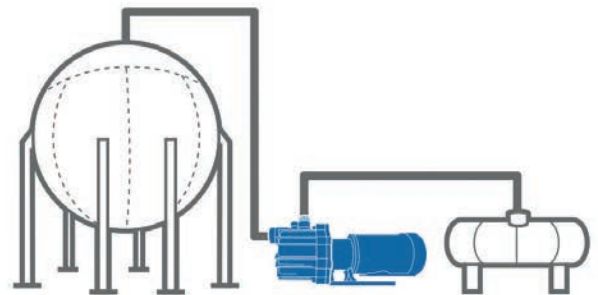
FUNCTIONAL PRINCIPLE / APPLICATIONS

- 1 During pump installation, the priming 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.

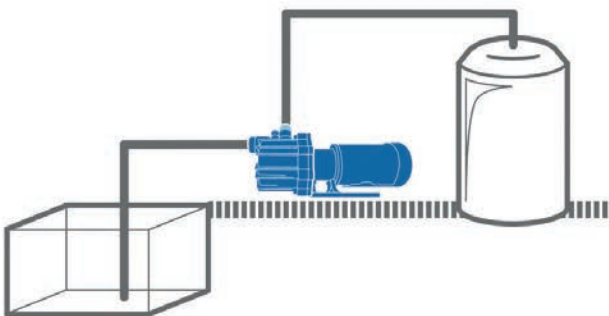
MP SERIES



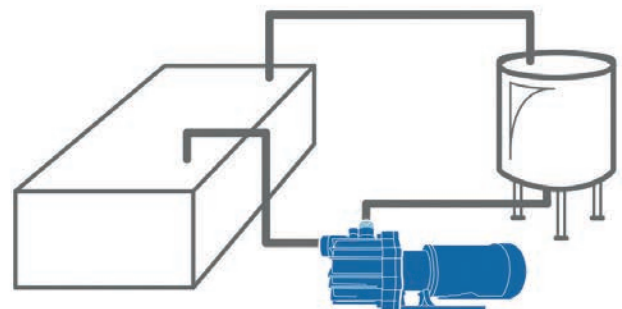
- 1 Transfer from top of rail cars or tanker trucks to bulk storage.



- 2 Transfer from bulk storage to process or day tanks.

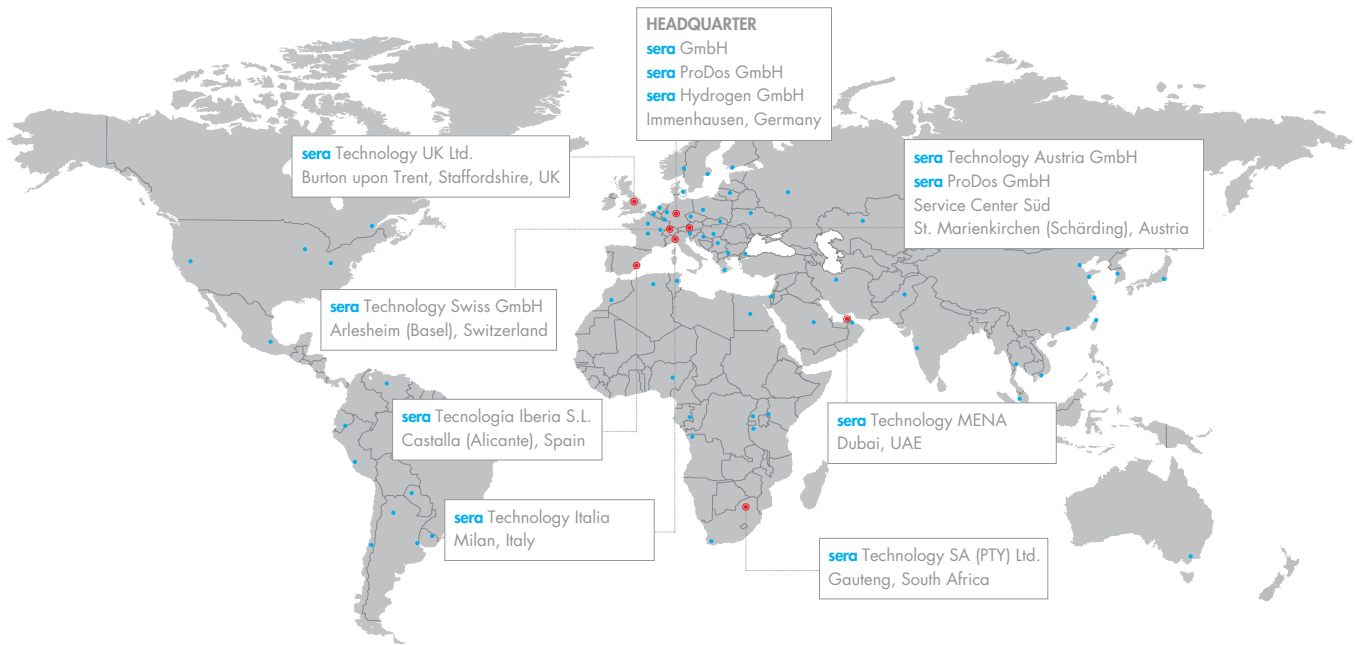


- 3 Pump from underground sumps or pits to double containment tanks



- 4 Pump from surface finishing tank through filters

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