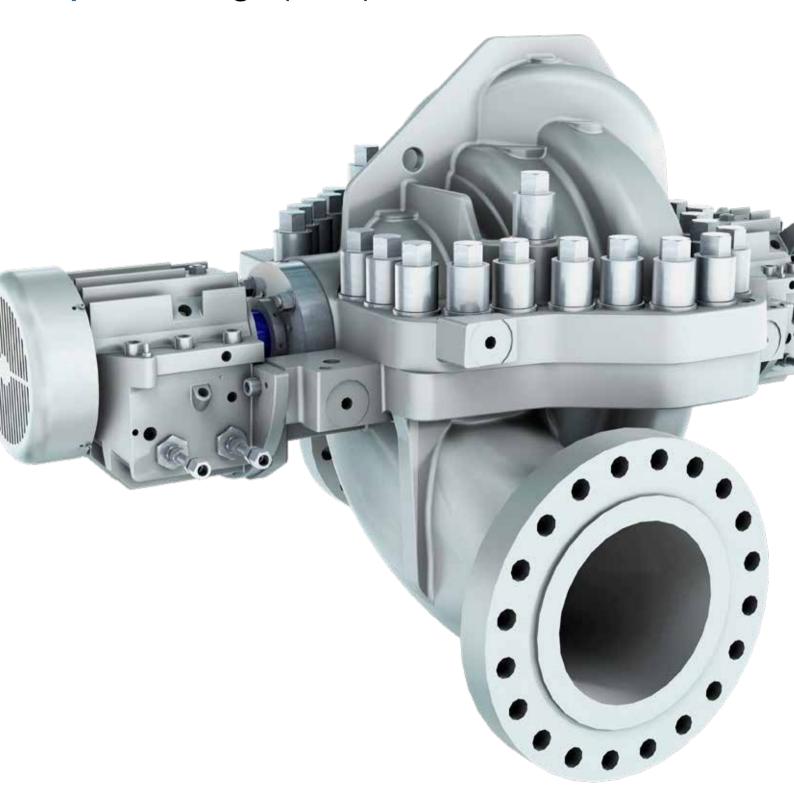


MSD-RO axially split multistage pump



Main industries and applications

The MSD-RO is the result of Sulzer's experience in supplying high pressure pumps for large Seawater Reverse Osmosis (SWRO) plants worldwide, with a total of 2.5 million m³/d installed capacity.

Water a

water and wastewater

The MSD-RO meets the needs of a high pressure pump for the desalination market for large SWRO pumps, covering SWRO train capacities from 20'000 to 30'000 m³/d.

Main applications:

- High pressure membrane feed pump in SWRO applications
- Water transport



Features and benefits

- 1 Axial split casing design
- Maintenance easiness: disassembling top casing without removing suction and discharge flanges is possible
- 2 Two stages, single suction impeller
- Compact design and top of its class efficiency
- 3 Special opposed, dynamically balanced impellers design
- Ideal axial thrust balance, increasing the overall pump efficiency by avoiding a balancing line that causes flow recirculation
- 4 Specific cross-over design
- Reduces internal pressure losses maximizing efficiency and allows shorter bearing span

- 5 Double volute construction
- Radial thrust balance
- 6 Reduced wear parts clearances by using PEEK
- To increase pump efficiency
- 7 Sleeve journal and duplex angular contact thrust bearing as standard
- Sleeve journal and pivot shoe thrust bearing with force oil lubrication system is available when required
- 8 Single, balanced, cartridge mechanical seal
- Option for API 682 mechanical seal is available



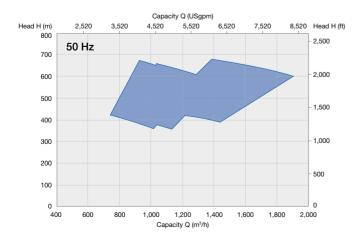
Materials

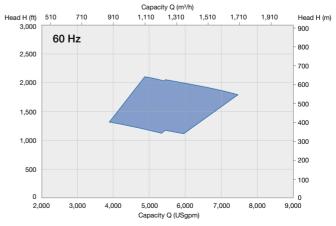
| Pump part | Material |
|-----------------|--------------|
| Casing | Superduplex |
| Impeller | Superduplex |
| Wear rings | PEEK |
| Bearing housing | Carbon steel |

Operating data

| | 50 Hz | 60 Hz |
|--------------|---------------------|----------------------|
| Pump sizes | 200 to 300 mm | 8 to 12 in. |
| Capacities | 1'000 to 1'600 m3/h | 4'400 to 7'000 USgpm |
| Heads | up to 650 m | up to 2'150 ft. |
| Pressures | up to 90 bar | up to 1'305 psi |
| Temperatures | up to 60°C | up to 140°F |

Performance ranges

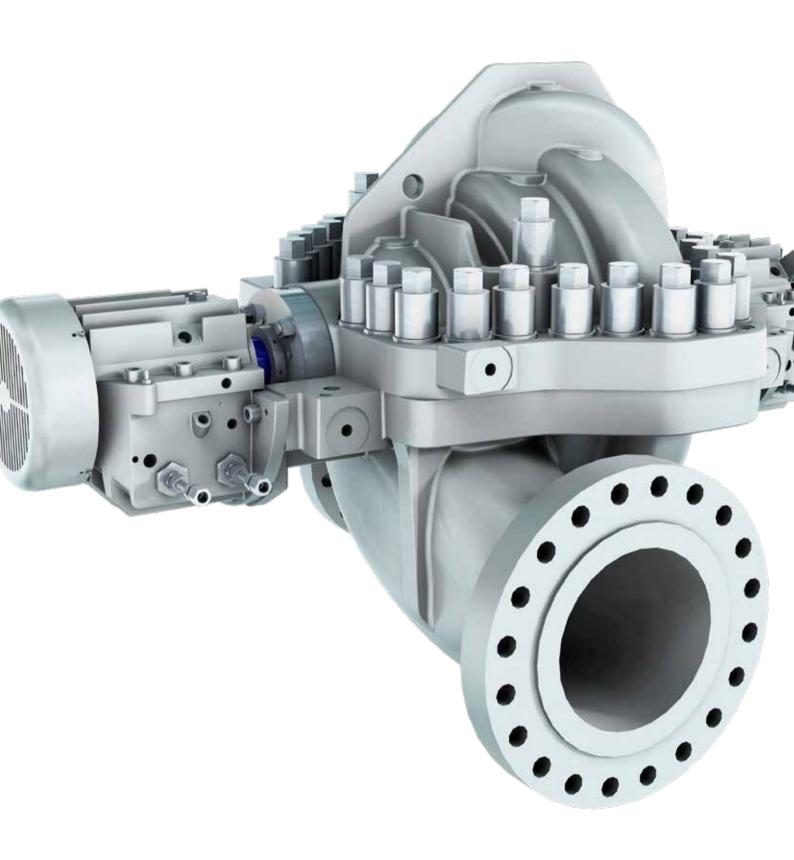




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