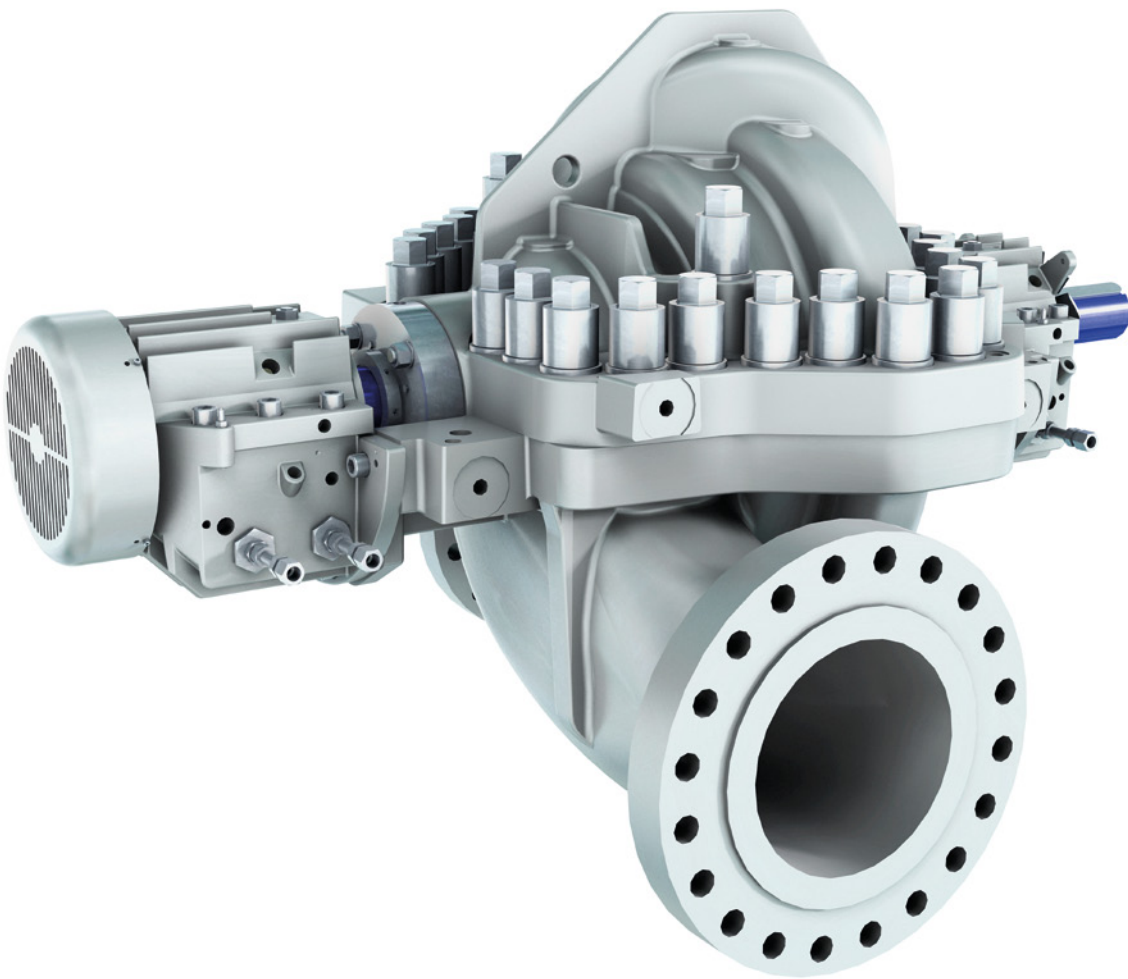


## **MSD-RO Axially Split Multistage Pump**



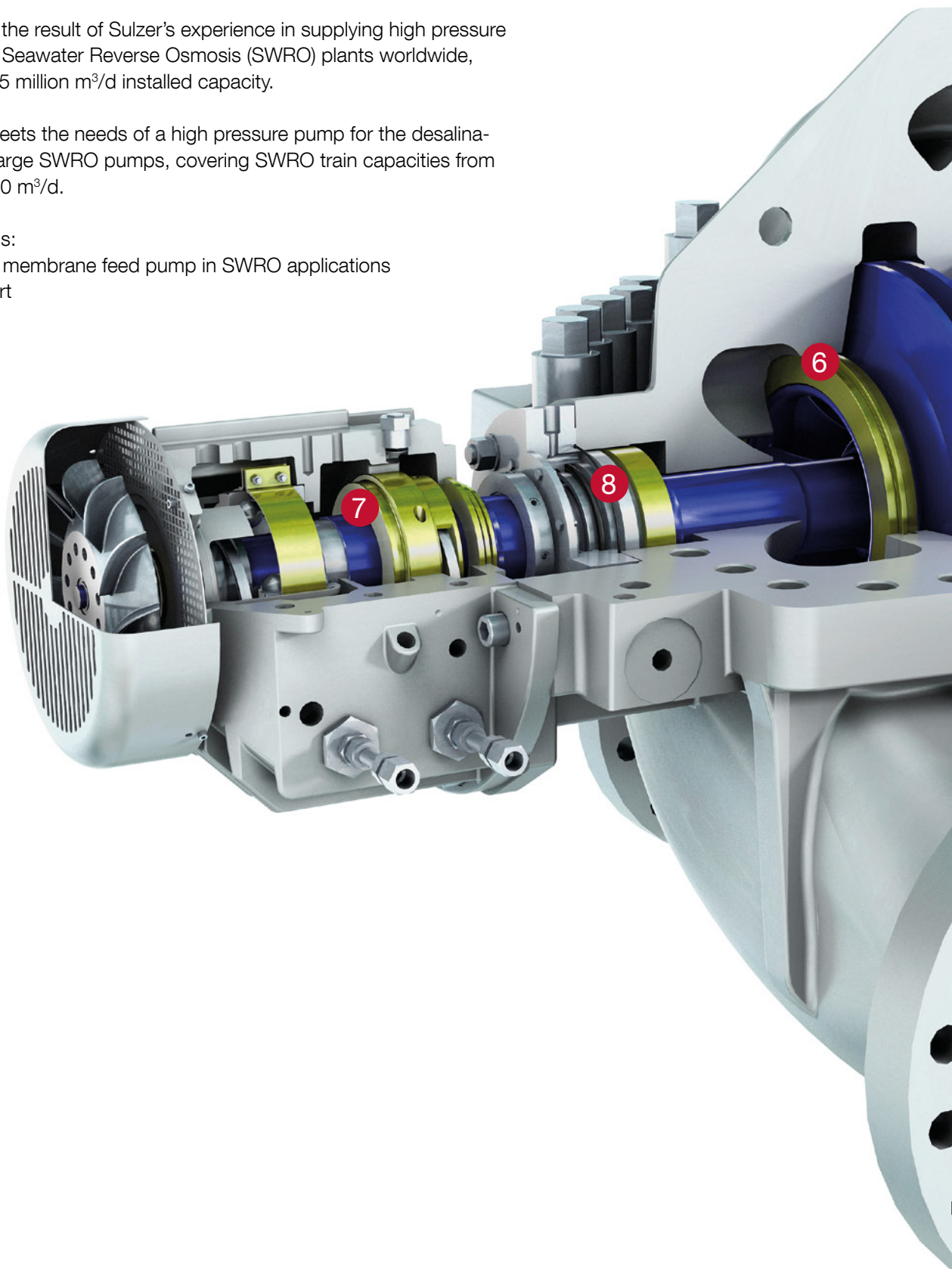
## Main Applications

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 m<sup>3</sup>/d installed capacity.

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 m<sup>3</sup>/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

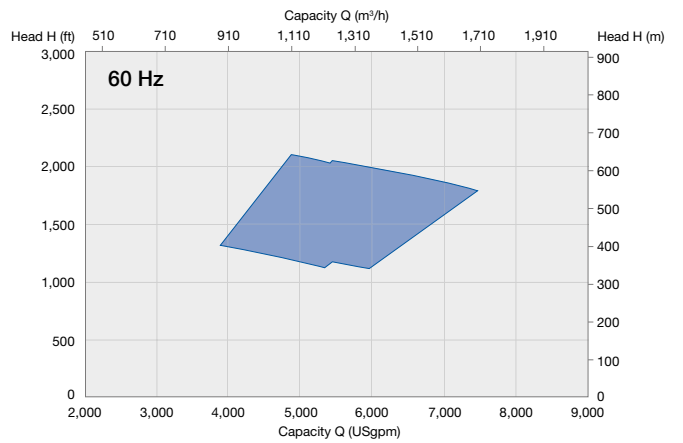
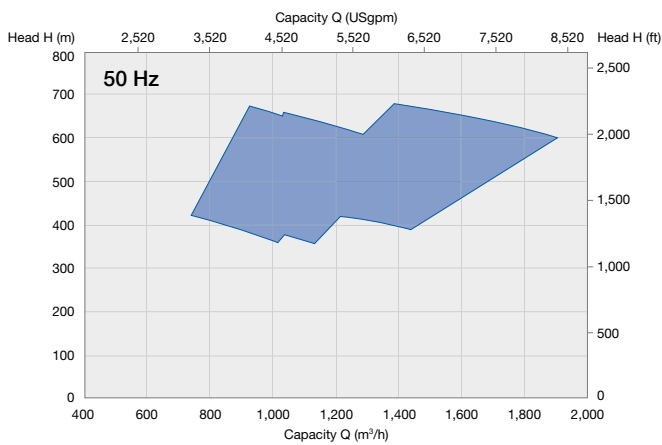
# MSD-RO Axially Split Multistage Pump



## Operating data

50 Hz		60 Hz
200 to 300 mm	<b>Pump sizes</b>	8 to 12 in
1,000 to 1,600 m <sup>3</sup> /h	<b>Capacities</b>	4,400 to 7,000 USgpm
up to 650 m	<b>Heads</b>	up to 2,150 ft
up to 90 bar	<b>Pressures</b>	up to 1,305 psi
up to 60°C	<b>Temperatures</b>	up to 140°F

## Performance ranges



## Materials

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

# We Do What We Say

## Customer partnership

- We are a **reliable partner**
- We provide a **high level of service**
- We **make our customers more competitive**



## Committed people

- We drive **accountability**
- We are **open and transparent**
- We are **team players**



## Operational excellence

- We **focus on results**
- We take **initiative** and work within **established processes**
- We **act safely**



# A Global Specialist at Your Doorstep

Sulzer serves clients worldwide through a network of over 150 production and service sites and has a strong footprint in emerging markets.



● Sulzer headquarters,  
Winterthur, Switzerland



[www.sulzer.com](http://www.sulzer.com)

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