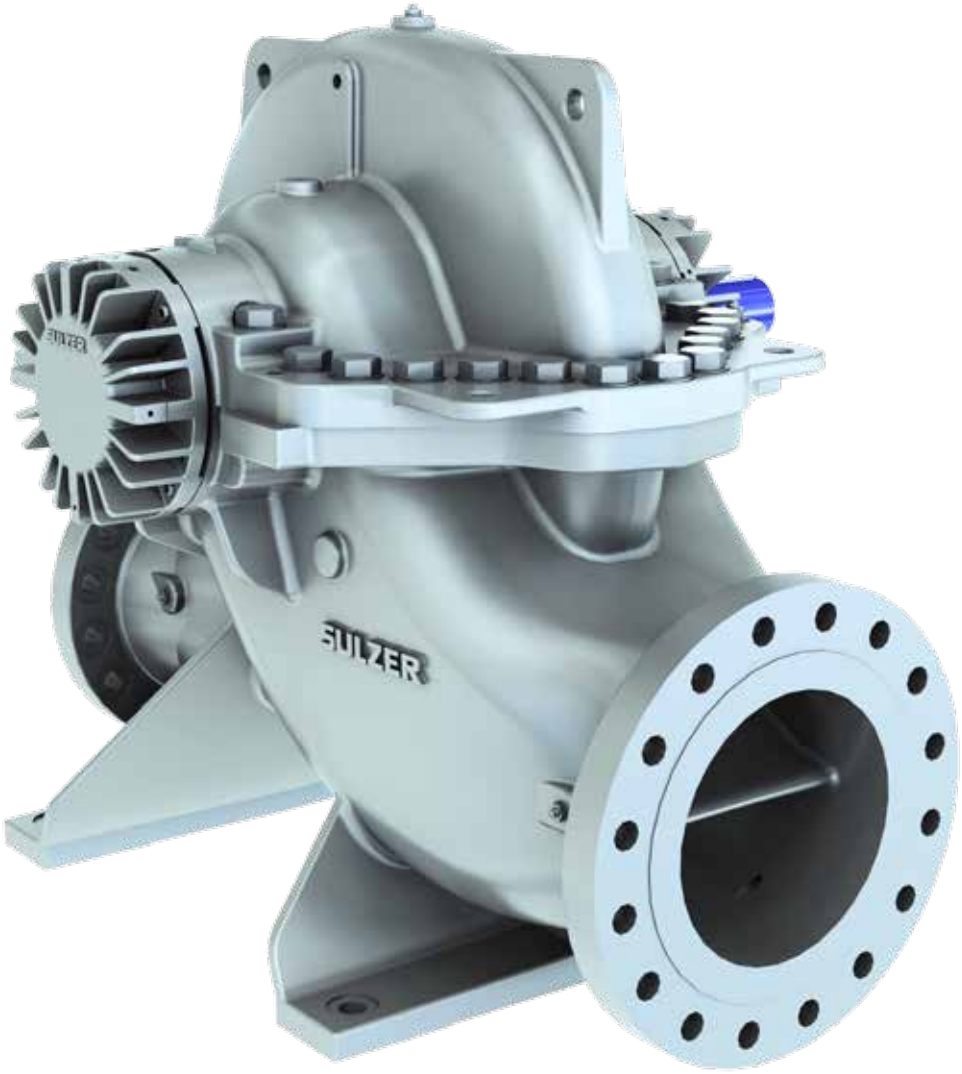
SULZER

SMD Axially Split Casing, Double Suction Pump



Main Applications

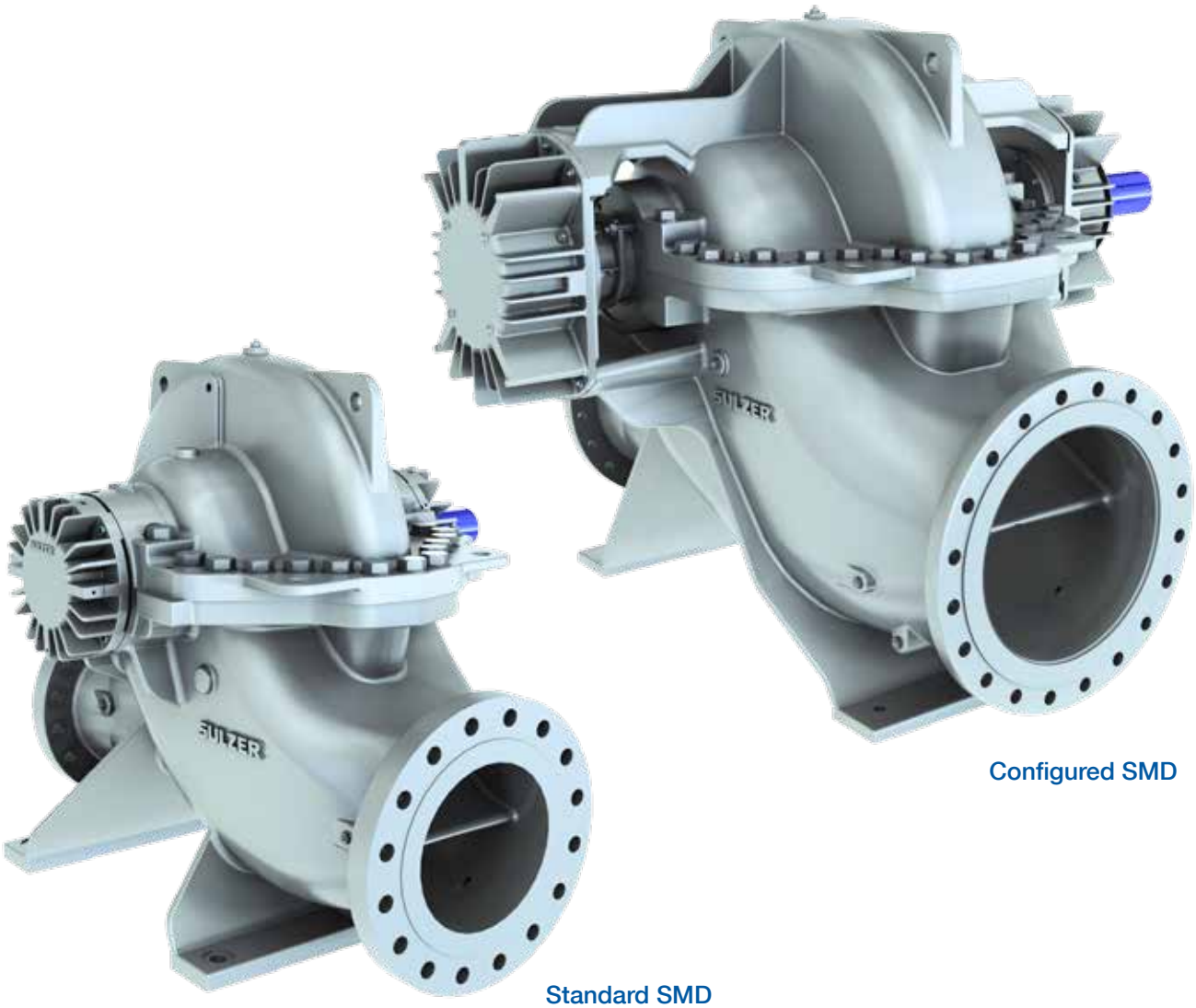
SMD single stage, double suction, axial split casing pumps are designed to meet the needs of the water market for a wide range of raw, clean, sea and brackish water applications:

- Water abstraction
- Water transport
- Desalination
- Water treatment
- Water supply and distribution
- Irrigation, drainage and flood control
- District cooling/heating

Suitable for drinking water applications. ACS, NSF 61 and WRAS certificates available upon request.

To meet the demands of the individual applications, the SMD benefits from a best-in-class hydraulic design that is combined with two specific mechanical envelopes:

- Standard SMD, focused on municipal water treatment, supply and distribution where typically a higher level of standardization is required, allowing the most cost effective solutions and shortest lead times.
- Configured SMD combines standardization and modularization to offer a number of configurable options to meet the most common requirements of the water abstraction, transport and desalination industries.



Configured SMD

Standard SMD

Features and Benefits, Standard SMD

1 Double suction impeller
- With inherent hydraulic balance of axial thrust
- Exceptional efficiency over a wide range of flows
- Excellent Net Positive Suction Head Required (NPSHR) also in flow run out conditions

2 Double volute casing
- Radial load balancing
- Innovative cut-water design for minimum radial load pulses and reduced vibrations
- Self-draining
- Compact dimensions for reduced bearing span and improved shaft stiffness

3 360° bearing bracket
- Generously sized for life cycle higher than 100,000 hours
- 360° fixation for enhanced stiffness
- Greased for life, deep groove single ball bearings at both drive and non-drive ends

4 Easy maintenance
- Full dry-shaft design prevents rusting
- Single, balanced mechanical seal as standard shaft sealing
- Dowel pins for alignment of the casing halves
- Precision register fits, adjustment of rotor assembly in the casing is not needed
- Bearings, bearing nuts, bearing isolators, mechanical seal, shaft seal sleeves are replaceable without removing the upper casing

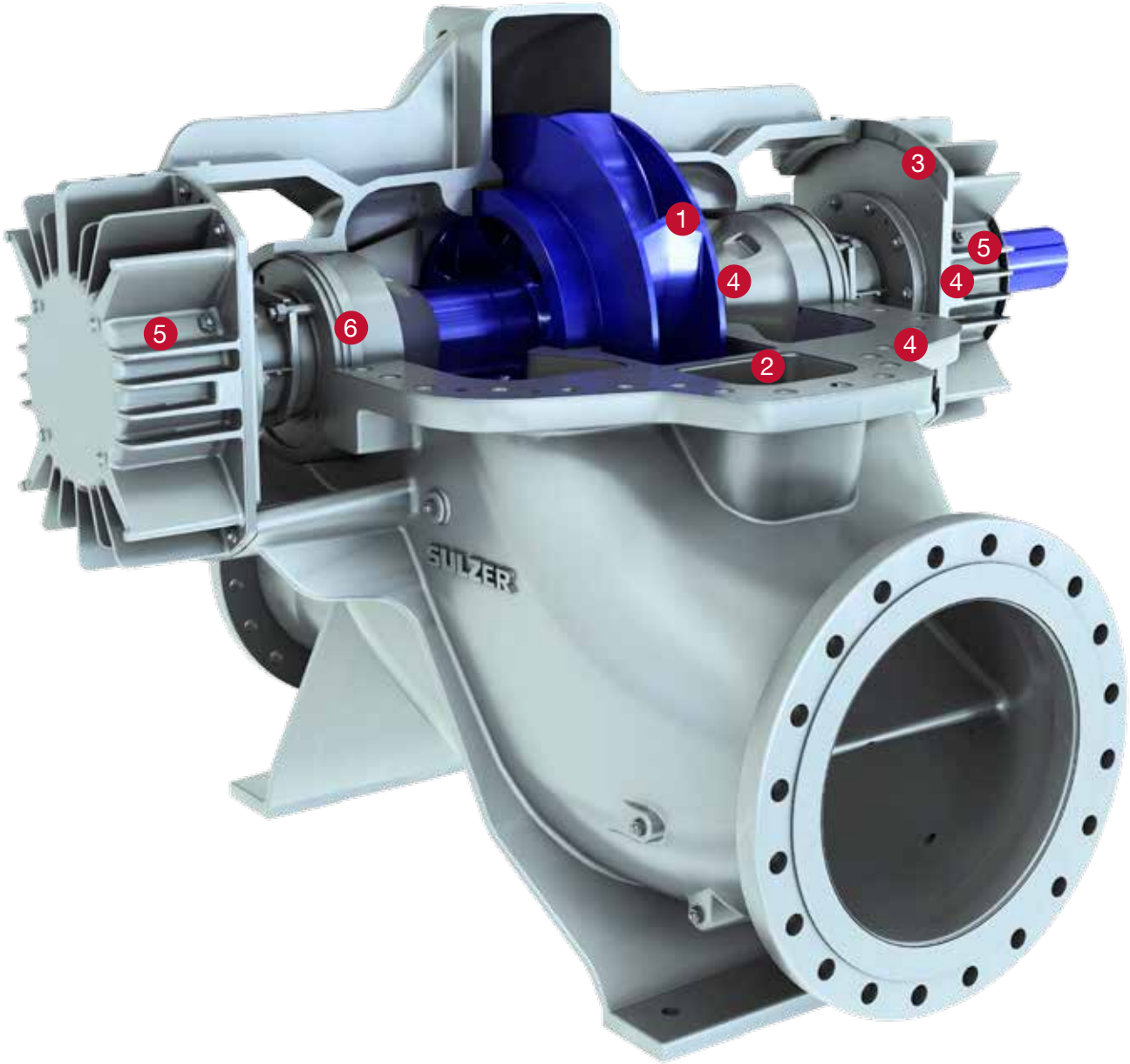
Features and Benefits, Configured SMD

5 Heavy duty bearing design

- For higher power requirements, typically in large water transport applications
- With angular contact, double ball bearing at drive end and single radial ball bearing at the non-drive end
- Grease or oil lubricated bearings available

6 Shaft sealing

- Gland packing available as an option
- Other mechanical seal configurations available upon request



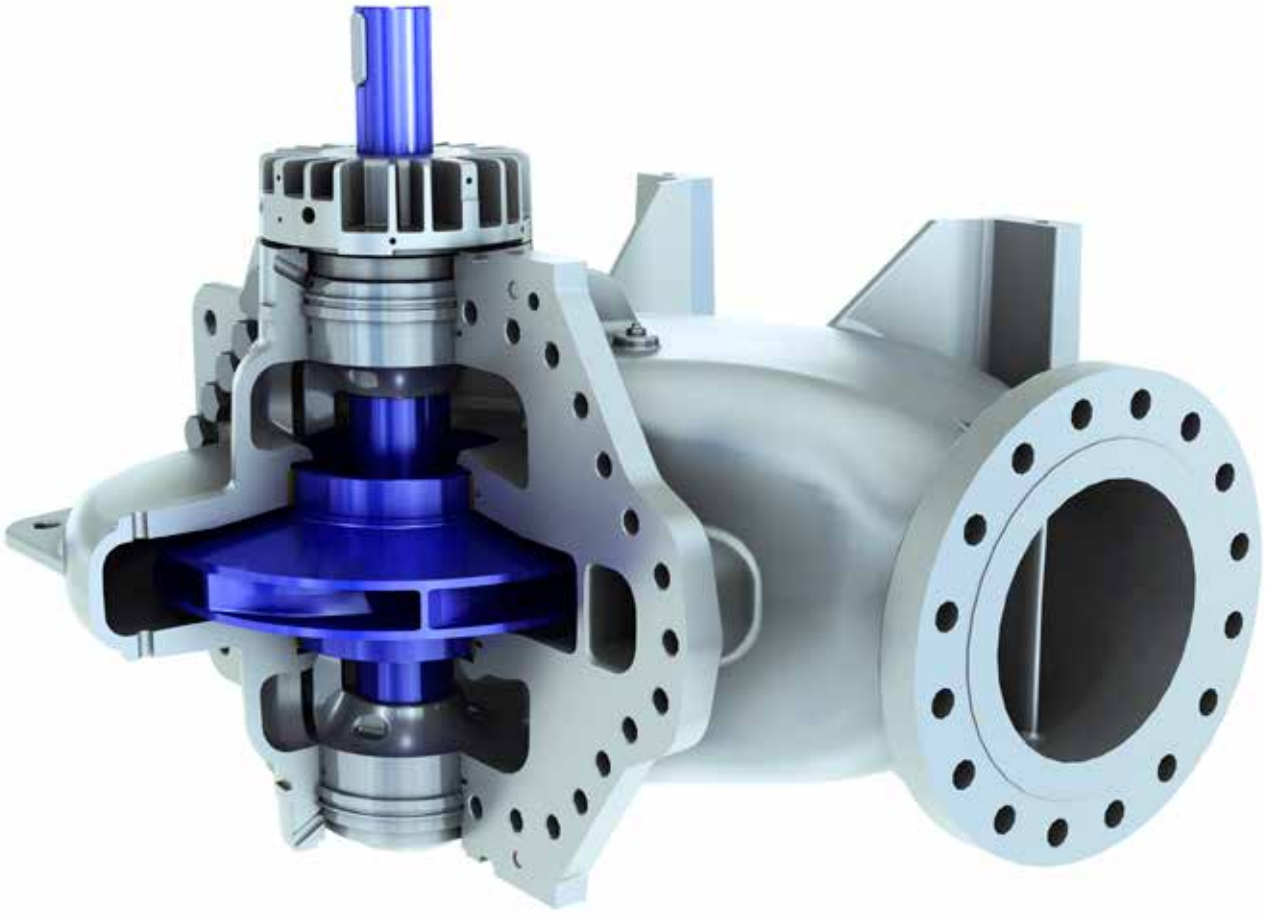
SMD Optional Features

1 Vertical arrangement
- With grease lubricated thrust bearing at the drive end and product lubricated proven design bearing at the non-drive end
- Interchangeable casing with the horizontal arrangement

2 Bearings
- Cooling fan in thrust bearing for heavy duty applications such as high speed, high ambient temperature, provides effective cooling without need of cooling water
- Connection for temperature and vibration monitoring instruments

3 Impeller wear ring
- Shrink fit and axially secured
- Offers additional impeller protection
- Reduced maintenance cost in heavy duty applications

4 Seal plan options
- Plan 11 as standard, with seal plans 31 and 32, with cyclon separator or with external flushing source



SMD in vertical arrangement (SMDV)

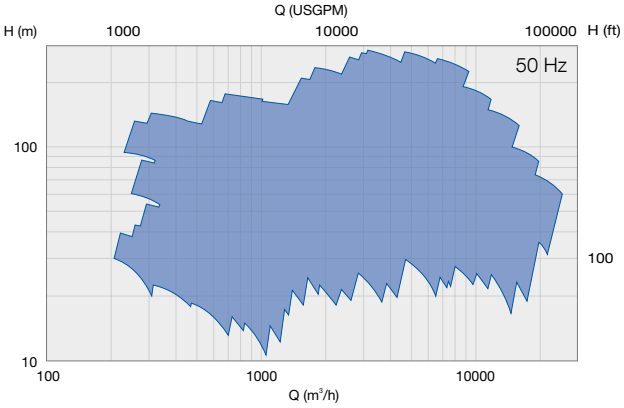
SMD Axially Split Casing, Double Suction Pump

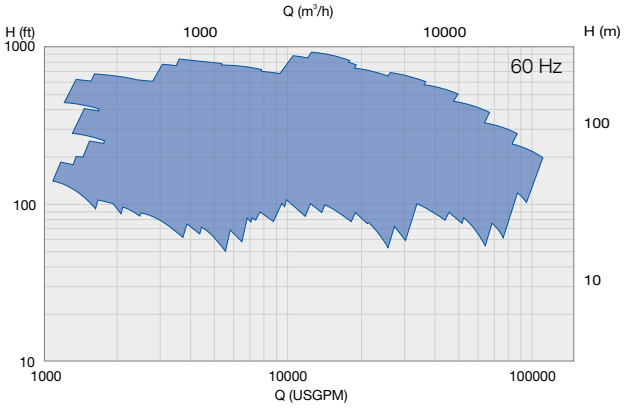
Oil and gas	Hydrocarbon processing	Power generation	Pulp and paper	General industry	Chemical process industry	Water and wastewater
		✓		✓		✓

Operating data

50 Hz		60 Hz
150 to 1,000 mm	Pump sizes	6 to 40 in
200 to 25,000 m³/h	Capacities	1,100 to 110,000 USgpm
up to 260 m	Heads	up to 850 ft
up to 34 bar	Pressures	up to 490 psi
up to 140°C	Temperatures	up to 280°F

Performance ranges





Materials

Pump part	Material combination					
Casing	Ductile iron		Carbon steel	Duplex	Super Duplex	
Impeller	Duplex		Carbon steel	Duplex	Super Duplex	
Shaft	Chromium steel			Duplex	Super Duplex	
Seal housing	Ductile iron		Carbon steel	Duplex	Super Duplex	
Stationary ring	Aluminum bronze	Duplex	Aluminum bronze	Duplex	Super Duplex	
Impeller ring*	Duplex	Duplex + Stellite 6	Carbon steel	Duplex + Stellite 6	Super Duplex + Stellite 6	

* optional

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