SULZER

Flow boosters type ABS XSB

Main industries and applications

The flow booster type ABS XSB is the perfect choice for gently circulating and mixing fluids in sewage treatment plants and industrial areas. It is suitable for all low-speed wastewater mixing and circulating applications, including:

- Equalization of sewage
- Biological processes (aerobic, anoxic and anaerobic)
- Selector (contact zone)

Water and wastewater

Using Premium Efficiency IE3 motors ranging from 1.0 to 7.5 kW (1.3 to 10.1 hp) and a high-efficiency propeller, the XSB reduces energy consumption by up to 25%.

Pulp, paper and board

Also, the superior thrust provided by the XSB means it can often replace two other mixers, reducing your need for investment and maintenance.

The flow booster type ABS XSB combines the market's best energy performance with the best lifecycle economy. By choosing it you also contribute to a healthier environment and reduce your plant's carbon footprint.

Hazardous locations:
Certification for ATEX (Ex II 2G Ex h db IIB T4 Gb), FM and CSA available as an option

Features and benefits

1 Energy-saving, Premium Efficiency IE3 asynchronous motor

- Provides the highest energy efficiency available on the market (classification in accordance with IEC 60034-30)
- Reduces energy consumption by up to 25% over other mixer models – and carbon footprint along with it

2 Robust 3-stage helical gearbox with strong bearing configuration

- Allows numerous reduction ratios via fatigue-strength helical gears
- Provides high efficiency and a calculated lifetime of more than 100 000 hours for the oil-lubricated bearings
- Enables compact and lightweight drives, even where high performance is required

3 Highly efficient and easy-to-mount propeller

- Produces high thrust and high flow capacity in an axial direction with performance-optimized 2- and 3-blade designs
- Self-cleans effectively due to the blade profile and special curved propeller edge
- Reduces strain on the drive unit through extreme smoothness and vibration damping – the result of highly elastic design and geometry
- Transports and installs easily, with blade-by-blade attachment for larger 3-blade models

4 Patented concrete pedestal with heavy-duty, fully lockable coupling device

- Eliminates turbulence with its streamlined shape and thus improves propeller efficiency
- Suppresses all damaging vibration through its mass and material characteristics
- Resists corrosion and provides a robust, reliable connection to the tank floor
- Allows raising and lowering of the unit for inspection – even in filled tanks

5 TCS (Thermo Control System) with bimetallic contacts as thermal sensors

- Provides a warning or switches off the motor automatically before the permissible temperature limit is exceeded, whether due to high-temperature medium or another problem source

6 DI system with sensors in the junction box, oil chamber, motor and gearbox

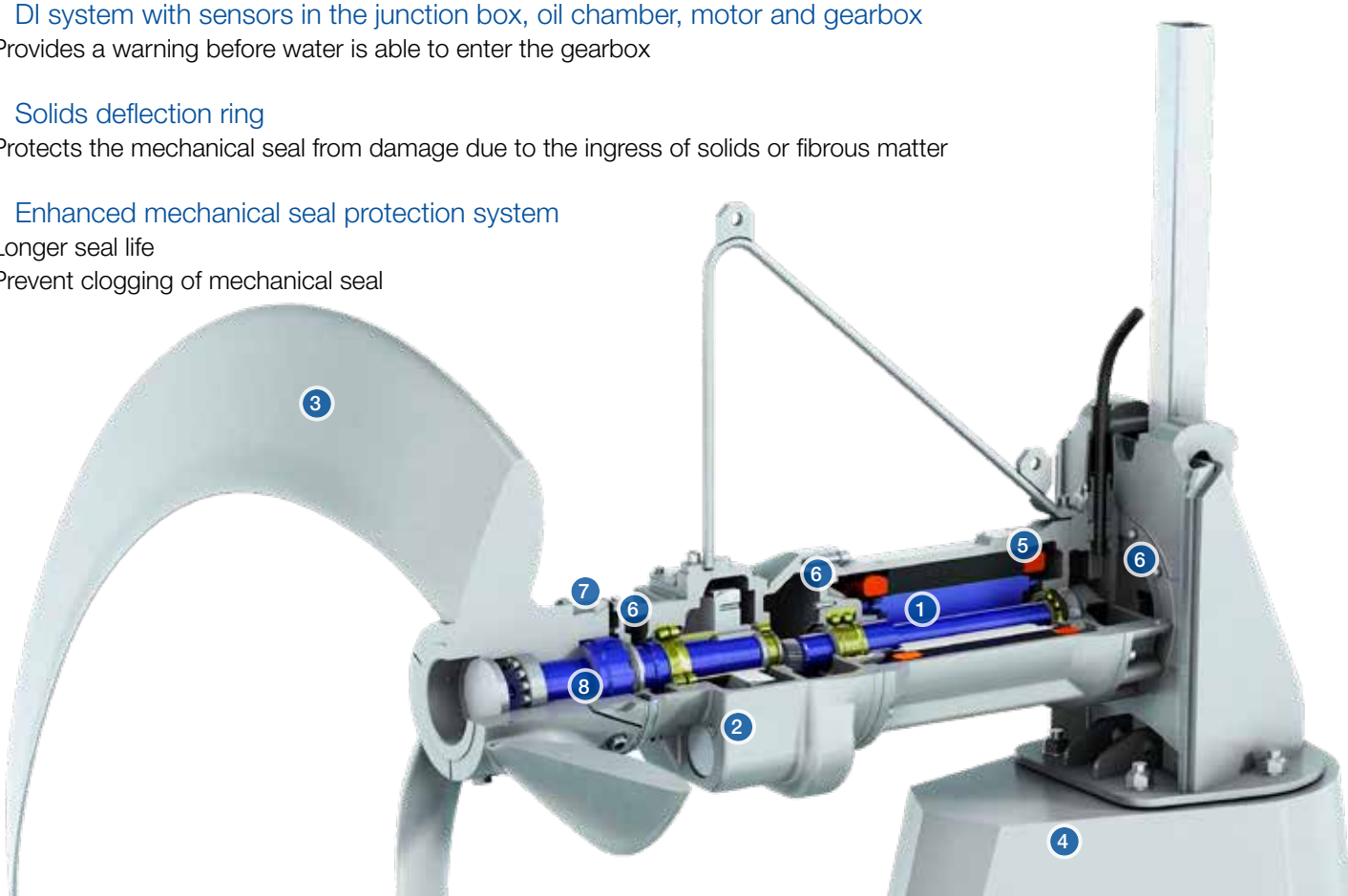
- Provides a warning before water is able to enter the gearbox

7 Solids deflection ring

- Protects the mechanical seal from damage due to the ingress of solids or fibrous matter

8 Enhanced mechanical seal protection system

- Longer seal life
- Prevent clogging of mechanical seal



Materials

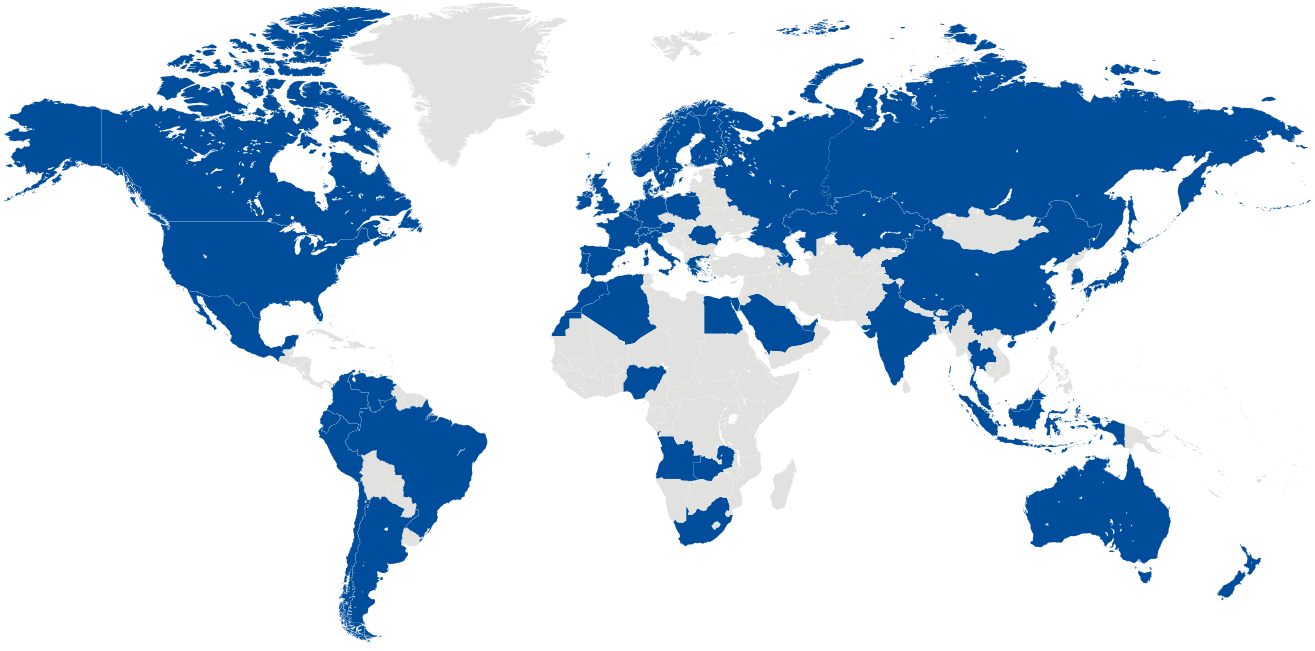
Flow booster part	EC (cast iron)
Motor housing	EN1563; EN-GJS-400-18 (GGG-40)
Motor shaft / propeller shaft	1.0060 (St 60-2) / 1.7225 (42CrMo4) encapsulated
Propeller	Composite (fiberglass, resin, gel coat / reinforced solid polyurethane / 1.4571 (AISI 316Ti)
Coupling bracket	DIN 17 445; 1.4408 (CF-8M), (AISI 316)

Operating data

	50 Hz (IE3)	60 Hz (IE2/IE3)
Propeller diameter	900 – 2'750 mm	900 – 2 750 mm 35 – 108 in.
Motor power	up to 7.5 kW	up to 7.5 kW up to 10.1 hp
Motor efficiency	up to 90%	up to 90.7%
Mixing flow	up to 6.2 m^3/s	up to 6.0 m^3/s up to 95'200 USgpm

A global specialist at your doorstep

Sulzer serves clients worldwide through a network of over 180 production and service sites and has a strong footprint in emerging markets.



www.sulzer.com