

Submersible Mixers Type ABS XRW 480 and XRW 750



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Sulzer's premium range of submersible mixers type ABS XRW with special 2-blade mixed-flow propeller. You choose the market's best ongoing energy performance with the best lifecycle cost from initial purchase to ongoing operation.

Main Applications

The submersible mixer type ABS XRW is a compact and versatile mixer with a wide range of applications, including use in aggressive and abrasive liquids.

Its design makes it particularly suitable for mixing and stirring applications in sewage treatment plants and industrial areas such as:

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

Special 2-blade mixed-flow propeller, designed to generate a strong rotating turbulent flow in radial and axial direction for homogenization highly concentrated sludge and slurries such as:

- Primary, secondary and digested sludge in storage and buffer tanks
- Lime and mineral slurries

Hazardous locations:

- Certification for ATEX (Ex II 2G k Ex d IIB T4), FM and CSA available as an option

Key Customer Benefits

Premium Efficiency

- Use of premium-efficiency motor technologies, together with optimized and proven propeller designs, gives the lowest energy consumption for each mixing speed
- Mixers generally operate 24 hours per day, making energy by far the most significant costs
- Improved mixer efficiency regarding ISO 21630

Easy upgrade existing installations

- Our wide range of brackets and adapters make them suitable for existing guide rails and lifting devices without modification to meet customer needs
- Possibility to optimize the mixing performance

Operational flexibility with XRW 480

- Variable speed to match the real mixing need and manage the changes throughout the year
- One size fit all make it simple when spares unit are to be stored
- Provides high overload capacity

Superior Reliability

- Get convinced by our key features and benefits overview

Submersible Mixer Type ABS XRW 480

Features and benefits

The following features and benefits apply to the 480 model of the submersible mixer type ABS XRW, which are used for mixing at medium speeds.

1 Premium-efficiency (IE3-equivalent) sensorless permanent-magnet motor controlled by variable-frequency drive (VFD)

- Ensures the lowest possible energy consumption
- Allows process optimization through fully variable speed
- Keeps operating temperature low for longer product life
- Provides high overload capacity

2 Large, long-lasting bearings

- Offer true reliability with a calculated lifetime of more than 100,000 operating hours
- Need no maintenance – lubricated for life

3 Pre-loaded upper bearing

- Prevents spinning through the design of the outer ring
- Eliminates backlash
- Ensures longer bearing life

4 Large rotor shaft

- Keeps shaft deflection to a minimum through heavy-duty construction

5 Sealed connection chamber with quick-connection block

- Simplifies mixer maintenance
- Safeguards the motor to ensure high reliability

6 Triple seal system with dual oil chamber

- Enhances motor protection for full peace of mind

7 Enhanced mechanical seal protection system

- Keeps the mechanical seal clog-free
- Greatly extends the life of the seal

8 Hydraulic-optimized special 2-blade mixed-flow stainless steel propeller

- Ensures the highest possible mixing performance
- Reduces maintenance through self-cleaning

9 Abrasion-resistant galvanically insulated guide tube and suspension

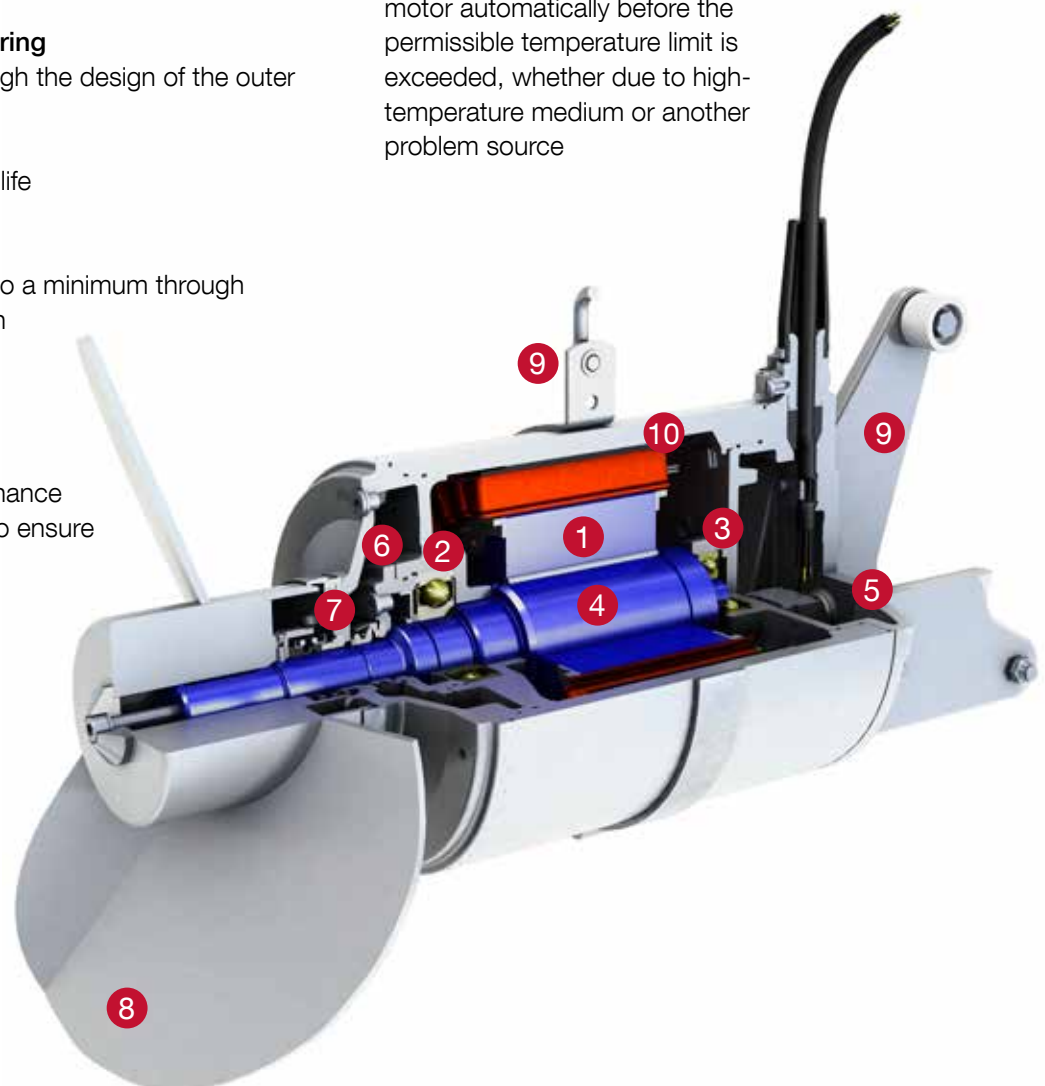
- Reduces the risk of electrochemical corrosion

10 TCS (Thermo Control System)

- 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



VFD



Submersible Mixer Type ABS XRW 750

Features and benefits

The following features and benefits apply to the 750 model of the submersible mixer type ABS XRW, which is used for mixing at medium-low speeds.

1 Energy-saving, premium-efficiency IE3 asynchronous motor

- Ensures the lowest possible energy consumption
- Keeps operating temperature low for longer product life

2 Robust planetary gearbox

- Strongly designed for high reliability
- Provides fatigue strength for long operating life

3 Strong bearing configuration in motor and gearbox

- Offers true reliability with a calculated bearing lifetime of more than 100,000 operating hours
- Needs no maintenance – bearings lubricated for life

4 Large rotor shaft

- Keeps shaft deflection to a minimum through heavy-duty construction

5 Sealed connection chamber

- Simplifies mixer maintenance
- Safeguards the motor to ensure high reliability

6 Triple seal system with dual oil chamber

- Enhances motor and gearbox protection for full peace of mind

7 Enhanced mechanical seal protection system

- Keeps the mechanical seal clog-free
- Greatly extends the life of the seal

8 Hydraulic-optimized special 2-blade mixed-flow stainless steel propeller

- Ensures the highest possible mixing performance
- Reduces maintenance through self-cleaning

9 Multiple moisture sensor (DI) seal monitoring

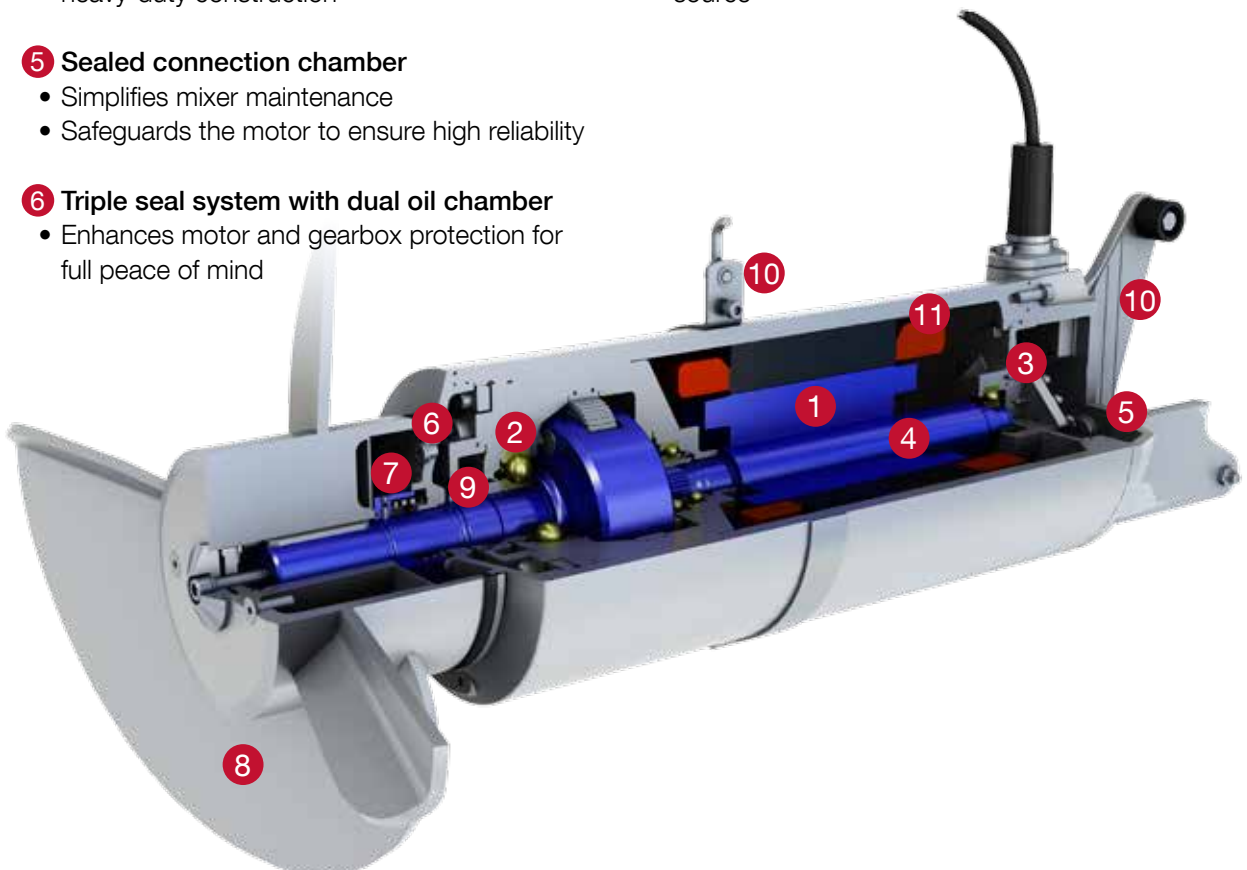
- Secures full protection of motor and gearbox

10 Abrasion-resistant galvanically insulated guide tube and suspension

- Reduces the risk of electrochemical corrosion

11 TCS (Thermo Control System)

- 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



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Oil and gas



Hydrocarbon processing



Power generation



Pulp and paper



General industry



Chemical processing



Water and wastewater

Operating data XRW 480

50 Hz (IE3 equivalent)		60 Hz (IE3 equivalent)
480 mm	Propeller diameter	480 mm 19 in
7.5 - 10 kW	Motor power	3.0 - 10 kW 4 - 13.4 hp
up to 91%	Motor efficiency	up to 91%
up to 0.4 m³/s	Mixing flow	up to 0.58 m³/s up to 9,200 USgpm

Operating data XRW 750

50 Hz (IE3)		60 Hz (IE3)
750 mm	Propeller diameter	750 mm 30 in
up to 15 kW	Motor power	up to 13 kW up to 17.4 hp
up to 92.3%	Motor efficiency	up to 93%
up to 1.0 m³/s	Mixing flow	up to 1.0 m³/s up to 15,850 USgpm

Materials XRW 480

Mixer part	CR (stainless steel)
Motor housing	1.4404 (AISI 316L)
Motor shaft	1.4401 (AISI 316)
Propeller	1.4571 (AISI 316)
Fasteners	1.4401 (AISI 316)

Materials XRW 750

Mixer part	EC (cast iron)	CR (stainless steel)
Motor housing	EN-GJL-250 painted	1.4571 (AISI 316)
Motor shaft / propeller shaft	1.4021 / EN-GJS-700	1.4021 / EN-GJS-700
Propeller	1.4571 (AISI 316)	1.4571 (AISI 316)
Fasteners	1.4401 (AISI 316)	1.4401 (AISI 316)



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