

Submersible mixers type ABS XRW 330, 480 and 750



Main industries and applications

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.

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



Pulp, paper
and board



General
industry



Water and
wastewater

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 330 and 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

XRW 330 and 480 features and benefits

The following features and benefits apply to the 330 and 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

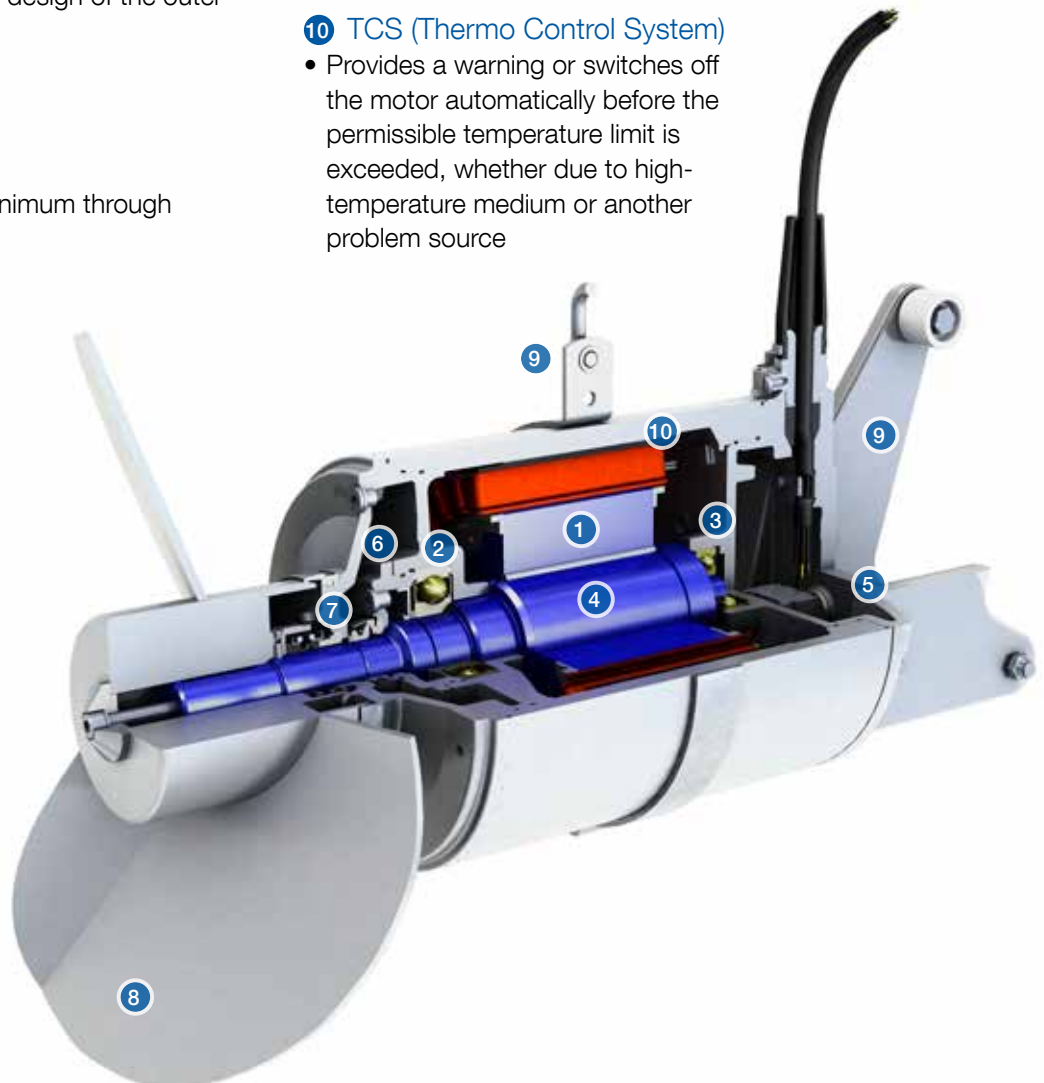
- Reduces the risk of electrochemical corrosion

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



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

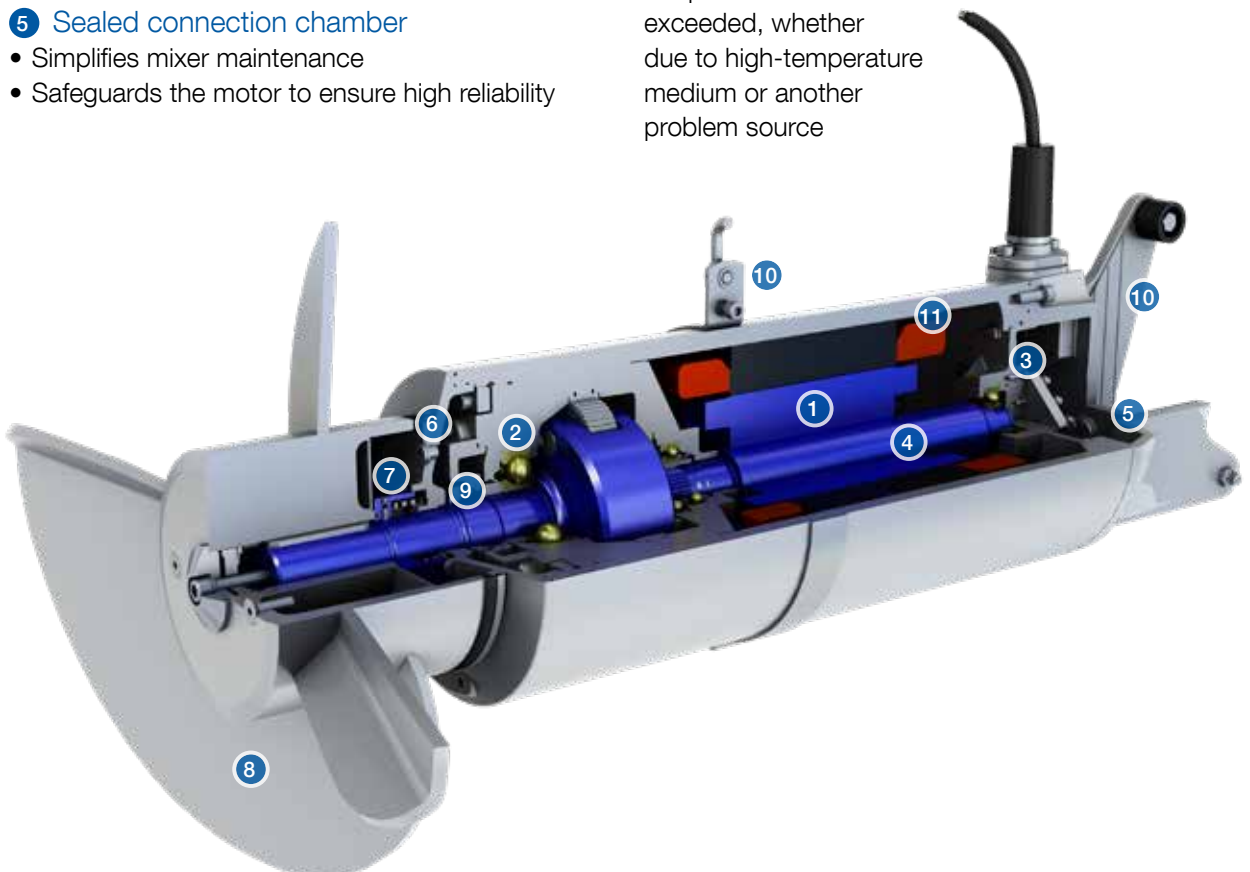
- Secures full protection of motor and gearbox

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



Materials

Mixer part, XRW 330, 480	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)	
Mixer part, XRW 750	CR (stainless steel)	EC (cast iron)
Motor housing	1.4571 (AISI 316)	EN-GJL-250 painted
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)

Operating data

XRW 330	50 Hz (IE3 equivalent)	60 Hz (IE3 equivalent)
Propeller diameter	330 mm	330 mm / 13 in
Motor power	3 – 5 kW	3 – 5 kW / 4 – 6.7 hp
Motor efficiency	up to 88%	up to 88%
Mixing flow	up to 0.28 m³/s	up to 0.28 m³/s / 4'438 USgpm
XRW 480	50 Hz (IE3 equivalent)	60 Hz (IE3 equivalent)
Propeller diameter	480 mm	480 mm / 19 in
Motor power	7.5 - 10 kW	7.5 - 10 kW / 10.1 – 13.4 hp
Motor efficiency	up to 91%	up to 91%
Mixing flow	up to 0.53 m³/s	up to 0.53 m³/s / 8'400 USgpm
XRW 750	50 Hz (IE3)	60 Hz (IE3)
Propeller diameter	750 mm	750 mm / 30 in
Motor power	up to 15 kW	up to 13 kW / 17.4 hp
Motor efficiency	up to 92.3%	up to 92.3%
Mixing flow	up to 1 m³/s	up to 1 m³/s / 15'850 USgpm



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