

Submersible Mixer Type ABS XRW 750

SULZER

50 Hz

The compact submersible mixer type ABS XRW 750 is specifically designed for the major mixing functions during the homogenization of sludge and slurry.

Construction

The submersible mixer is designed as a compact, water-pressure-tight unit, including propeller and integrally casted installation bracket for attachment to a square guide tube.

The mixers are available in two standard material versions:

EC = cast iron version, CR = stainless steel version

Maximum allowable temperature of the medium for continuous operation is 40 °C.

Motor

Premium Efficiency IE3, squirrel cage, 3-phase, 4-pole, 50 Hz, insulation Class F (155 °C), max. submergence 20 m.

Propeller

The mixer is equipped with a special 2-blade mixed-flow propeller. With this propeller a very strong rotating turbulent flow is produced in semi-axial flow direction. Therefore this propeller combines all properties for the homogenization of sewage sludge which belongs to the intrinsic viscous substances.

Solids deflection ring

Enhanced solids deflection ring design. The patented solids deflection ring protects the mechanical seal from damage by ingress of solid or fibrous matter.

Bearings

All bearings are lubricated-for-life and maintenance-free, with a calculated lifetime of more than 100 000 h.

Gearbox

High-efficiency planetary gearbox, fatigue strength with a calculated life time more than 100 000 h.

Shaft sealing

Mechanical seal: Silicon carbide / Silicon carbide.

O-Rings / lip seals: NBR.

Seal monitoring

DI-system with a sensor in the junction box, oil chamber (not in Ex version), motor, and gearbox.

Temperature monitoring

TCS-Thermo-Control-System with thermal sensors in the stator which open at 140 °C.

Cable

10 m sewage-resistant material.

Optional lengths: 15 m, 20 m, 25 m, 30 m.



Features

- Highly efficient submersible mixer for the homogenisation of high concentrated sewage sludge.
- Reduced energy cost due to a unique drive unit design including a high efficient gear box.
- No risk to motor overloading due to high or varying dry matter content.
- Reduced mixing times
- Blockage-free, 2-blade propeller reduces LCC.

Motor data

Motor	PA 150/4
Rated power (kW)	15.0
Rated current at 400 V (A)	29.9
Speed (min ⁻¹)	296 ¹
Motor efficiency (%)	92.3
Power factor	0.78

¹ = gear ratio i = 5

Mixer performance table

Hydraulic No.	Mixer power P _p in kW	Motor kW
7511	9.7	15.0

Options: explosion-proof version, viton seals, additional seal (C-Cr), shielded cable, PTC or PT 100 in the stator, insulation Class H.

Accessories: lifting bracket.

Weight: 390 kg.

Materials

Part	EC (cast iron)	CR (stainless steel)
Motor housing	EN-GJL-250 painted	1.4571 (AISI 316 Ti)
Sliding bracket	EN-GJL-250 painted / polyamide (CF-8M)	1.4470 / polyamide (CF-8M)
Motor shaft / Propeller shaft	1.4021 / EN-GJS-700-3	1.4021 / EN-GJS-700-3
Propeller	1.4571 (AISI 316 Ti)	1.4571 (AISI 316 Ti)
Fasteners	1.4401 (AISI 316)	1.4401 (AISI 316)

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