

Submersible Mixer Type ABS XRW 480

SULZER

50 Hz

The compact submersible stainless steel mixer type ABS XRW 480, 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.

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

Motor:

Premium Efficiency, IE3 equivalent, sensorless permanent-magnet motor with high overload capacity; 50 Hz; 24-pole; 400 V* using variable frequency drive (VFD) control. Protection type IP68, with stator insulation Class F.

Start-up: variable frequency drive (VFD)

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 a 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 caused by the 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.

Shaft sealing:

Sic-Sic, covered mechanical seal at medium side. NBR O-rings and lip seals.

Seal monitoring:

Leakage sensors (DI) in the oil**, motor and cable connection chambers.

Temperature monitoring:

Overtemperature protection using a PTC thermistor in the stator at 140 °C.

Cable:

10 m sewage-resistant EMV-FC S1BC4N8-F ..G.. 0,6/1 kV.

Optional lengths (m):

15, 20, 30, 40, 50.

Options:

Explosion-proof version, additional seal (SiC-C) at motor side, seals in viton, vibration damper, lifting hoop.

Weight:

148 kg.

* other voltages available, ** not in Ex version.



System data

Motor	PM 75/24	PM 100/24
Rated power (kW)	7.5	10.0
Motor efficiency (%)	93.3	91.7
Variable Frequency Drive (VFD)	B	C
Rated power (kW)	7.5	11.0
Rated current (A) at 400 V	15.8	26.4

Total system efficiency (%) **90.9** **89.3**

Mixer performance

Hydraulic No.	Mixer power P_p in kW	Motor kW
4811 B	5.0	7.5
4812 B	5.5	7.5
4813 B	6.0	7.5
4814 B	6.5	7.5
4811 C	7.0	10.0
4812 C	7.5	10.0
4813 C	8.0	10.0
4814 C	8.5	10.0
4815 C	9.0	10.0
4816 C	9.5	10.0

Materials

Part	Material
Motor housing	1.4404 (AISI 316 L)
Sliding bracket	1.4470 (AISI 329) / polyamide (CF-8M)
Motor shaft	1.4401 (AISI 316)
Propeller	1.4571 (AISI 316 Ti)
Fasteners	1.4401 (AISI 316)
Lifting band	1.4571 (AISI 316 Ti)

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