

Submersible Mixer Type ABS XRW 480

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

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

Rearings

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

Shaft sealing

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

Seal monitoring

Leakage sensors (DI) in the oil $\ensuremath{^{**}}$, motor and cable connection chambers.

Temperature monitoring

Thermal sensors in the stator which open at 140 °C.

Cable

10 m sewage resistant material. 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.



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)	В	С
Rated power (kW)	7.5	11.0
Rated current (A) at 400 V	15.8	24.2
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

^{*} other voltages available.

^{**} not in Ex version.

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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