

The ABS submersible mixer RW 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 the attachment on the square guide tube. Different versions with a bracket for vertical angle adjustment can be chosen. The mixers are available in cast iron version with stainless steel propeller.

Motor

Squirrel cage, 3-phase, 4-pole 50 Hz, insulation class F (stator wound and impregnated according to class H), max. submergence 20 m.

Propeller

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

Solids deflection ring

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

Bearings

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

Gearbox: High efficiency 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 and gear box.

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

Cable: 10 m sewage resistant CSM material. Type: H07RN.

Options: Explosion-proof version, seals in viton, cable protection sleeve, PTC or PT 100 in the stator.

Accessories: Vertical angle adjustment, vibration damper.

Weight: 163 kg (A 75/4), 169 kg (A110/4).



- 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 reduce LCC

Motor data

Motor	A 75/4	A110/4
Rated power (kW)	7.5	11.0
Rated current at 400 V [A]	14.84	21.85
Speed (min ⁻¹)	446 - 493	517 - 554
Motor efficiency (%)	86.6	84.7
Power factor	0.842	0.858

Mixer performance table

Hydraulic No.	Mixer power P _p in kW	Motor kW
4811	4.8	7.5
4812	5.9	7.5
4813	6.5	7.5
4814	7.0	11.0
4815	8.8	11.0

Materials

Part	Material
Motor housing	EN-GJL-250
Sliding bracket	EN-GJL-250 painted, polyamide
Motor shaft/Propeller shaft	1.4021 / 1.4418
Propeller	1.4571 (AISI 316)
Fasteners	1.4401 (AISI 316)