

# Submersible Mixer Type ABS RW 480

# SULZER

## 50 Hz

The 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 attachment to the square guide tube. The mixers are available in cast iron version with stainless steel propeller. Maximum allowable temperature of the medium for continuous operation is 40 °C.

#### 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 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 helical gearbox, fatigue strength with a calculated lifetime 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 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 material.

#### Options

Explosion-proof version, seals in viton, shielded cable, PTC or PT 100 in the stator.

#### Accessories

Lifting bracket, vibration damper.

#### Weight

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



### 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 efficiency 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	A 75/4	A 110/4
Rated power (kW)	7.5	11.0
Rated current at 400 V (A)	14.8	21.8
Speed (min <sup>-1</sup> )	446 - 493	517 - 539
Motor efficiency (%)	86.9	84.9
Power factor	0.84	0.86

### Mixer performance table

Hydraulic No.	Mixer power P <sub>p</sub> 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-GJS-400-18 painted / polyamide (CF-8M)
Motor shaft / Propeller shaft	1.4021 / 1.4418
Propeller	1.4571 (AISI 316Ti)
Fasteners	1.4401 (AISI 316)