

# Submersible Mixer Type ABS RW 480

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 (104 °F).

## Motor

Squirrel cage, 3-phase, 4-pole, 60 Hz, insulation class F, max. submergence 20 m (66 ft).

## 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 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 000h.

## Gearbox

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

## Shaft sealing

Mechanical seal: Silicon carbide / Silicon carbide.  
O-Rings / lip seals: NBR.

## Seal monitoring

DI-system with leakage sensors in the oil, motor, and cable connection chambers.

## Temperature monitoring

Thermal sensors in the stator which open at 140 °C (284 °F).

## Cable

10 m (33 ft) sewage resistant material.

Optional lengths: 15 m (49 ft), 20 m (66 ft), 30 m (98 ft), 40 m (131 ft), 50 m (164 ft).

## Options

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

## Accessories

Lifting hoop, vibration damper.

## Weight

163 kg (359 lbs) A 90/4, 169 kg (373 lbs) A130/4.



**60 Hz**

## 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.

## Mixer performance table

Hydraulic No.	Mixer power P <sub>p</sub> in kW/hp	Motor kW/hp
4811	6.7 / 9.0	9.0 / 12.0
4812	7.6 / 12.2	9.0 / 12.0
4813	9.4 / 12.6	13.0 / 17.4

## Motor Data

Motor	A 90/4	A 130/4
Rated power (kW/hp)	9.0 / 12.0	13.0 / 17.4
Rated current at 460 V (A)	15.3	21.9
Speed (rpm)	507 - 536	563
Motor efficiency (%)	88.0	86.9
Power factor	0.84	0.86

## Materials

Part	Material (Europe)	Material (USA)
Motor housing	EN-GJL-250; EN 1561	ASTM A48, Class 35 B
Sliding bracket	EN-GJS-400-18 EN 1563 painted / polyamide (CF-8M)	ASTM A536; 60-40-18 painted, polyamide (CF-8M)
Motor shaft	1.4021	ASTM / AISI 420
Propeller shaft	1.4418	ASTM / AISI S165M
Propeller	DIN 17 440; 1.4571	ASTM / AISI 316 Ti
Fasteners	1.4401	ASTM / AISI 316

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