

# Submersible Mixer Type ABS RW 7511

# SULZER

## 60 Hz

The submersible mixer RW 7511 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 and /or a flushing system (option) for the mechanical seal can be chosen. The mixers are available in two standard material versions:

**EC = cast iron version, CR = stainless steel version**

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 (155° C/311° F), max. submergence 20 m (66ft.).

### 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 lifetime of more than 100,000 h.

### Gearbox:

High efficiency planetary 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:

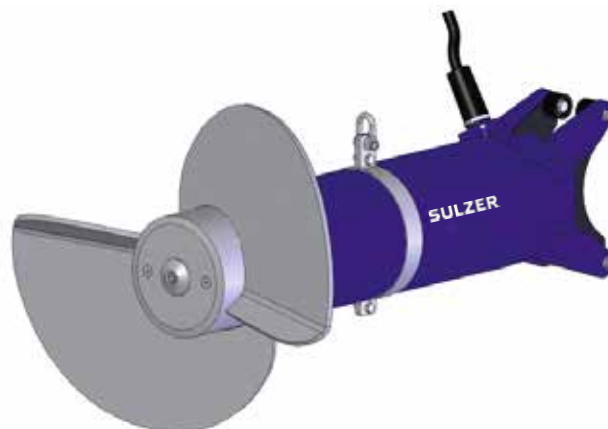
DI-system with a sensor in the junction box.

### Temperature monitoring:

TCS-Thermo-Control-System with thermal sensors in the stator which open at 140°C (284° F).

### Cable:

10 m (33 ft.) sewage resistant material.



### Options:

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

### Accessories:

Lifting bracket, vertical angle adjustment, flush system for the mechanical seal.

**Weight:** 202 kg (446 lbs.).

- 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 130/4
Rated power (kW / hp)	13.0 / 17.4
Rated current at 460 V (A)	21.9
Speed (min <sup>-1</sup> )	285 <sup>1</sup>
Motor efficiency (%)	86.9
Power factor	0.86

<sup>1</sup> = gear ratio i = 6

## Mixer performance table

Hydraulic No.	Mixer power P <sub>p</sub> in kW/hp	Motor kW/hp
7511	9.5 / 12.7	13.0 / 17.4

## Materials

Part	EC (cast iron) Europe / USA	CR (stainless steel) Europe / USA
Motor housing	EN-GJL-250; EN 1561 painted / ASTM A48, Class 38 B	1.4571; DIN 17 440 / ASTM / AISI 316 Ti
Sliding bracket	EN-GJS-400-18; EN 1563 painted / ASTM A536, 60-40-18	1.4408; DIN 17 445 polyamide (CF-8M) / ASTM / AISI A351
Motor shaft / Propeller shaft	St 60 (1.0060) / ASTM / AISI A276 Gr.65 EN-GJS-600-3; EN 1563 / ASTM A536, 80-55-06	St 60 (1.0060) / ASTM / AISI A276 Gr.65 EN-GJS-600-3; EN 1563 / ASTM A536, 80-55-06
Propeller	1.4571; DIN 17 440 / ASTM / AISI 316 Ti	1.4571; DIN 17 440 / ASTM / AISI 316 Ti
Fasteners	1.4401 / ASTM / AISI 316	1.4401 / ASTM / AISI 316

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