

# 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 attachment on the square guide tube. A different version with a bracket for vertical angle adjustment 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 leakage sensor in the junction box.

### Temperature monitoring

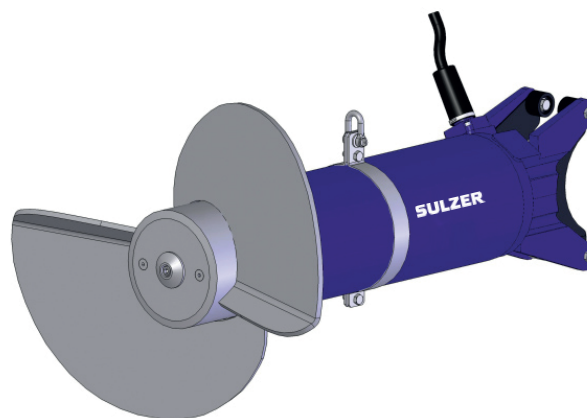
TCS-Thermo-Control-System with thermal sensors in the stator which open at 140 °C (284 ° F).

### Cable

10 m (33 ft.) sewage resistant material.

### Options

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



### Accessories

Lifting bracket.

### Weight

202 kg (446 lbs.).

## 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 because of high or varying dry matter content.
- Reduced mixing times
- Blockage-free 2-blade propeller reduces LCC.

## Motor data

Motor	A 130/4
Rated power (kW / hp)	13.0 / 17.4
Rated current at 480 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	1.4404 / ASTM / AISI 316L
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	1.4021 / ASTM - AISI 420 EN-GJS-700-3 / ASTM A536, 100-70-03	1.4021 / ASTM - AISI 420 EN-GJS-700-3 / ASTM A536, 100-70-03
Propeller	1.4571; DIN 17 440 / ASTM / AISI 316Ti	1.4571; DIN 17 440 / ASTM / AISI 316Ti
Fasteners	1.4401 / ASTM / AISI 316	1.4401 / ASTM / AISI 316

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