

# Submersible Mixer Type ABS RW 650

50 Hz

The compact submersible mixers have been designed for a wide range of applications. The units are suitable to achieve flow pattern in large tanks and open waters for mixing and stirring applications.

## 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, a flushing system (option) for the mechanical seal and / or a flow ring 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.

## Motor

Squirrel cage, 3-phase, 12-pole 50 Hz, insulation class F (155 °C), max. submergence 20 m.

## Propeller

Technically optimized, axially operating 2- or 3-blade propellers with very good self-cleaning effect for vibration-free operation. The propellers are designed to achieve high thrusts and therefore a high flow capacity in axial direction.

## 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 life time of 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 oil chamber and junction 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, flow ring, seals in viton, cable protection sleeve, PTC or PT 100 in the stator.

**Accessories:** Lifting bracket, vertical angle adjustment, shock absorber, vortex shield, flush system for the mechanical seal.

**Weight:** Without flow ring: 150/180/200 kg. With flow ring: 168/198/218 kg.

## Materials

Part	EC (cast iron)	CR (stainless steel)
Motor housing	EN-GJL-250, painted	1.4571 (AISI 316)
Sliding bracket	EN-GJS-400-18 painted, polyamide	1.4408 / polyamide (CF-8M)
Motor shaft	1.4021 (AISI 420)	1.4404 (AISI 316L)
Propeller	1.4571 (AISI 316)	1.4571 (AISI 316)
Fasteners	1.4401 (AISI 316)	1.4401 (AISI 316)



## Motor data

Motor	A 50/12	A 75/12	A100/12
Rated power (kW)	5.0	7.5	10.0
Rated current at 400 V (A)	18.2	24.5	31.9
Speed (min <sup>-1</sup> )	470	462	470
Motor efficiency (%)	70.4	72.6	75.1
Power factor	0.56	0.61	0.60

## Mixer performance table

Hydraulic No.	Mixer power P <sub>P</sub> in kW	Motor kW
6521	2.1	5.0
6522	2.5	5.0
6523	3.2	5.0
6524	3.9	5.0
6525	4.2	5.0
6531	5.0	7.5
6532	6.4	7.5
6533	8.0	10.0
6541*	2.0	5.0
6542*	2.2	5.0
6543*	2.6	5.0
6544*	2.8	5.0
6545*	3.0	5.0
6551*	3.4	7.5
6552*	5.6	7.5
6553*	6.2	10.0

\*with flow ring

**SULZER**