

# Submersible Mixer Type ABS RW 650

The compact submersible mixers have been designed for a widerange of applications. The units are suitable to achieve a 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 attachment on a square guide tube. Different versions with a bracket for vertical angle adjustment, 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 (104 °F).

## Motor

Squirrel cage, three phase, twelve pole, 60 Hz, insulation class F (155 °C / 311 °F), max. submergence 20 m (66 ft).

## 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 thrust and therefore a high flow capacity in an axial direction.

## 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 100 000 h.

## Shaft sealing

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

## Seal monitoring

DI system with a sensor in the oil chamber (not in Ex version) and connection chamber.

## Temperature monitoring

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

## Cable

10 m sewage resistant material.  
Optional lengths: 10 m (33 ft), 15 m (49 ft), 20 m (66 ft), 30 m (98 ft), 40 m (131 ft), 50 m (164 ft).

## Options

Explosion-proof version, flow ring, seals in viton, EMC cable, double MS, PTC or PT 100 in the stator.

## Accessories

Lifting hoop, vertical angle adjustment, vibration damper, vortex shield.

## Weight

Without flow ring: 150 / 180 / 200 kg (331 / 397 / 441 lbs).  
With flow ring: 168 / 198 / 218 kg (370 / 437 / 481 lbs).



60 Hz

## Mixer performance

Hydraulic No.	Mixer power $P_p$ in kW (hp)	Motor kW (hp)
6521	3.6 (4.8)	6.0 (8.0)
6522	4.3 (5.8)	6.0 (8.0)
6531	5.5 (7.4)	9.0 (12.0)
6532	6.7 (9.0)	9.0 (12.0)
6533	7.3 (9.8)	9.0 (12.0)
6534	9.0 (12.0)	12.0 (16.0)
6535	11.5 (15.4)	12.0 (16.0)
6541*	2.7 (3.6)	6.0 (8.0)
6542*	3.3 (4.4)	6.0 (8.0)
6551*	4.1 (5.5)	9.0 (12.0)
6552*	5.0 (6.7)	9.0 (12.0)
6553*	5.5 (7.4)	9.0 (12.0)
6554*	6.7 (9.0)	12.0 (16.0)
6555*	8.6 (11.5)	12.0 (16.0)

\* with flow ring

## Motor Data

Motor	A 60/12	A 90/12	A 120/12
Rated power (kW / hp)	6.0 / 8	9.0 / 12	12.0 / 16
Rated current at 480 V (A)	17.5	24.0	31.4
Speed (rpm)	571	567	569
Motor efficiency (%)	75.2	77.6	78.3
Power factor	0.57	0.61	0.61

## Materials

Part	EC (cast iron)	CR (stainless steel)
Motor housing	EN-GJL-250, painted	Stainless steel 1.4571 (AISI 316)
Sliding bracket	EN-GJL-250/EN-GJS-400-18 painted, polyamide	Stainless steel 1.4408 / polyamide (CF-8M)
Motor shaft	Stainless steel 1.4021 (AISI 420)	Stainless steel 1.4404 (AISI 316L)
Propeller	Stainless steel 1.4571 (AISI 316Ti)	Stainless steel 1.4570 (AISI 329)
Fasteners	Stainless steel 1.4401 (AISI 316)	Stainless steel 1.4401 (AISI 316)

## Material comparison

Europe	USA
EN 1561; EN-GJL-250	ASTM A48; Class 35 B
EN 1563; EN-GJS-400-18	ASTM A536, 60-40-18
1.4021	ASTM / AISI 420
1.4401	ASTM / AISI 316
1.4404	ASTM / AISI 316 L
DIN 17 445; 1.4408	ASTM / AISI CF-8M
1.4470	ASTM / AISI 329i

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