

Submersible Mixer Type ABS RW 900

SULZER

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 attachment on the 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.

Motor

Squirrel cage, 3-phase, 4-pole 50 Hz, insulation class F (155 °C), max. submergence 20 m.

Propeller

Technically optimized, axially operating 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 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.

Cable

10 m sewage-resistant material.

Optional lengths (m): 15, 20, 25, 30.

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.

Weight

Without flow ring: 180/185/210 kg.

With flow ring: 258/263/288 kg.



Motor data

Motor	A 110/4	A 150/4	A 220/4
Rated power (kW)	11.0	15.0	22.0
Rated current at 400 V (A)	22.8	31.3	43.9
Speed (min ⁻¹)	238 ¹	238 ¹ / 285 ²	285 ²
Motor efficiency (%)	84.9	84.0	85.4
Power factor	0.86	0.82	0.85

¹ gear ratio i = 6; ² gear ratio i = 5

Mixer performance table

Hydraulic No.	Mixer power P _p in kW	Motor kW
9032	7.0	11.0
9033	7.8	11.0
9034	8.4	11.0
9035	10.2	15.0
9033	11.5	15.0
9034	14.4	22.0
9035	18.5	22.0
9052*	5.6	11.0
9053*	6.3	11.0
9054*	6.8	11.0
9055*	8.2	15.0
9053*	9.0	15.0
9054*	11.3	22.0
9055*	13.9	22.0

*with flow ring

Materials

Part	EC (cast iron)	CR (stainless steel)
Motor housing	EN-GJL-250 painted	1.4404 (AISI 316L)
Sliding bracket	EN-GJS-400-18 painted / polyamide	1.4408 / polyamide (CF-8M)
Motor shaft / Propeller shaft	1.4021 / EN-GJS-700-3	1.4021 / EN-GJS-700-3
Propeller	1.4571 (AISI 316Ti)	1.4571 (AISI 316Ti)
Fasteners	1.4401 (AISI 316)	1.4401 (AISI 316)

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