

Submersible Mixer Type ABS RW 900

SULZER

60 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 onto 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 / 104 °F.

Motor: Squirrel cage, 3-phase, 4-pole 60 Hz, insulation class F (155 °C / 311 °F), max. submergence 20 m (66 ft).

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 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 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.

Optional lengths: 15 m (49 ft), 20 m (66 ft), 25 m (83 ft), 30 m (98 ft)

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

Accessories: Lifting bracket.

Weight: Without flow ring: 180/185/210 kg (397/408/463 lbs).

With flow ring: 258/263/288 kg (569/580/635 lbs).



Motor data

Motor	A 130/4	A 170/4	A 250/4
Rated power (kW/hp)	13 / 17.4	17 / 22.8	25 / 33.5
Rated current at 480 V (A)	21.9	29.4	41.7
Speed (min ⁻¹)	238 ²	238 ² / 285 ¹	285 ¹
Motor efficiency (%)	86.9	85.8	86.8
Power factor	0.86	0.84	0.87

¹ gear ratio i = 6; ² gear ratio i = 7

Mixer performance table

Hydraulic No.	Mixer power P _p in kW/hp	Motor kW/hp
9032	7.0 / 9.3	13.0 / 17.4
9033	7.8 / 10.5	13.0 / 17.4
9034	8.4 / 11.3	13.0 / 17.4
9035	10.2 / 13.7	17.0 / 22.8
9033	11.5 / 14.1	17.0 / 22.8
9034	14.4 / 19.3	25.0 / 33.5
9035	18.5 / 24.8	25.0 / 33.5
9052*	5.6 / 7.5	13.0 / 17.4
9053*	6.3 / 8.4	13.0 / 17.4
9054*	6.8 / 9.1	13.0 / 17.4
9055*	8.2 / 11.0	17.0 / 22.8
9053*	9.0 / 12.1	17.0 / 22.8
9054*	11.3 / 15.2	25.0 / 33.5
9055*	13.9 / 18.6	25.0 / 33.5

*with flow ring

Materials

Part	EC (cast iron) Europe	USA	CR (stainless steel) Europe	USA
Motor housing	EN-GJL-250; EN 1563 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 / EN-GJS-700-3	ASTM - AISI 420 / ASTM A536, 100-70-03	1.4021 / EN-GJS-700-3	ASTM - AISI 420 / 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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