

Submersible Mixer Type ABS RW 900

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 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 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 sensor in the junction box and motor.

Temperature monitoring

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

Cable

10 m (33 ft) sewage resistant material.
Optional lengths: 10 m (33 ft), 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.

Weight

Without flow ring	With flow ring
180 kg / 397 lbs	258 kg / 569 lbs
185 kg / 408 lbs	263 kg / 580 lbs
210 kg / 463 lbs	288 kg / 635 lbs



60 Hz

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 460 V (A)	21.9	29.4	41.7
Speed (rpm)	238 ¹	238 ¹ / 285 ²	285 ²
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 = 5

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
9045*	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)		CR (stainless steel)	
	Europe	USA	Europe	USA
Motor housing	EN-GJL-250; EN 1563 painted	ASTM A48, Class 38 B	1.4404	ASTM / AISI 316L
Sliding shaft	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 /	1.4021 /	ASTM - AISI 420 /
	EN-GJS-700-3	ASTM A536, 100-70-03	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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