

Submersible Mixer Type ABS XRW 900

SULZER

50 Hz

The compact submersible mixers have been designed for a wide range 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 the attachment on the square guide tube. Different versions with an open, closed bracket or a flow ring can be chosen. The mixers are available in two standard material versions; cast iron (EC), and stainless steel (CR).

Maximum allowable temperature of the medium for continuous operation is 40 °C.

Motor:

Premium Efficiency IE3, 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 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 life time more than 100 000 h.

Shaft sealing:

Mechanical seal: Silicon carbide / Silicon carbide.

O-Rings / lip seals: NBR.

Seal monitoring:

Leakage sensor (DI) in the junction box, oil chamber*, and motor.

* not in Ex version.

Temperature monitoring:

TCS-Thermo-Control-System with thermal sensors in the stator that open at 140 °C.

Cable:

10 m, sewage-resistant material.

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

Options:

Explosion-proof version, flow ring, seals in viton, PTC in the stator, vibration damper, lifting bracket, additional seal (C-Cr) at motor side, EMC cable.

Weight:

XRW 900-PA 110/4 = 260 kg. With flow ring = 338 kg.

XRW 900-PA 150/4 = 295 kg. With flow ring = 373 kg.

XRW 900-PA 220/4 = 320 kg. With flow ring = 398 kg.

* not in Ex version.



Motor data

Motor	PA 110/4	PA 150/4	PA 220/4
Rated power (kW)	11.0	15.0	22.0
Rated current at 400 V (A)	21.7	29.9	44.8
Speed (min ⁻¹)	246 ¹	246 ¹ /295 ²	295 ²
Motor efficiency (%)	92.1	92.3	92.1
Power factor	0.79	0.78	0.77

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

Mixer performance

Hydraulic No.	Mixer power P _p in kW	Motor kW
9032	7.2	11.0
9033	8.1	11.0
9034	8.9	11.0
9035	10.6	15.0
9033	13.1	15.0
9034	14.6	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 316 L)
Sliding bracket	EN-GJL-250 painted / polyamide (CF-8M)	1.4470 / polyamide (CF-8M)
Motor shaft / Propeller shaft	1.4021 / EN-GJS-700-3	1.4021 / EN-GJS-700-3
Propeller	1.4571 (AISI 316 Ti)	1.4571 (AISI 316 Ti)
Fasteners	1.4401 (AISI 316)	1.4401 (AISI 316)

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