

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

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)