

Submersible Mixer Type ABS XRW 400

SULZER

60 Hz

Compact, submersible, stainless steel mixer, designed to achieve an optimum flow pattern in a wide range of mixing and stirring applications, in large tanks and open waters.

Construction

The submersible mixer is designed as a compact, water-pressure-tight unit, including propeller and integrally casted installation bracket for attachment to a square guide tube. Maximum allowable temperature of the medium for continuous operation is 40 °C (104 °F).

Motor:

Premium Efficiency, IE3 equivalent, sensorless permanent-magnet motor with high overload capacity; 60 Hz; 10-pole; 480 V* using variable frequency drive (VFD) control. Protection type IP 68, with stator insulation Class F. Start-up: variable frequency drive (VFD) Max. submergence 20 m (66 ft). *other voltages available

Propeller:

Technically optimized, axially operating 3-blade propeller, designed to achieve high thrust and therefore a high flow capacity in an axial direction. The propeller is self-cleaning and so ensures vibration-free operation.

Solids deflection ring:

Enhanced solids deflection ring design. 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.

Shaft sealing:

Sic-Sic, covered mechanical seal at medium side. NBR O-rings and lip seals.

Seal monitoring:

DI-system with sensors in the oil, motor and cable connection chambers.

Temperature monitoring:

Overtemperature protection using a PTC thermistor in the stator at 140 °C (284 °F).

Cable:

10 m (33 ft) sewage-resistant, shielded, VFD power cable type 37-102VFD.

Optional lengths:

15 m (49 ft), 20 m (66 ft), 30 m (98 ft), 40 m (131 ft), 50 m (164 ft).

Options:

Explosion-proof version, additional seal (Sic-C) at motor side, flow ring, seals in viton, vertical angle adjustment, vortex shield, vibration damper, lifting hoop.

Weight:

80 kg (176 lbs). With flow ring add 10 kg (22 lbs).

Materials

Part	
Motor housing	1.4404 (AISI 316 L)
Sliding bracket	1.4470 (AISI 329) / polyamide (CF-8M)
Motor shaft	1.4401 (AISI 316)
Propeller	1.4571 (AISI 316 Ti)
Fasteners	1.4401 (AISI 316)
Lifting band	1.4571 (AISI 316 Ti)



System data

Motor	PM 30/10	PM 50/10
Rated power (kW/hp)	3.0 / 4.0	5.0 / 6.7
Motor efficiency (%)	90.7	88.9
Variable Frequency Drive (VFD)	A	B
Rated power (kW/hp)	4.0 / 5.4	5.5 / 7.4
Rated current (A) at 480 V	8.1	10.9
Total system efficiency (%)	88.0	86.5

Mixer performance

Hydraulic No.	Mixer power P _p in kW/hp	Motor kW/hp
4031 A	1.2 / 1.6	3.0 / 4.0
4032 A	1.5 / 2.0	3.0 / 4.0
4033 A	1.8 / 2.4	3.0 / 4.0
4034 A	2.2 / 3.0	3.0 / 4.0
4035 A	2.6 / 3.5	3.0 / 4.0
4031 B	3.0 / 4.0	5.0 / 6.7
4032 B	3.5 / 4.7	5.0 / 6.7
4033 B	4.0 / 5.4	5.0 / 6.7
4034 B	4.5 / 6.0	5.0 / 6.7
4051 A*	1.2 / 1.6	3.0 / 4.0
4052 A*	1.5 / 2.0	3.0 / 4.0
4053 A*	1.8 / 2.4	3.0 / 4.0
4054 A*	2.2 / 3.0	3.0 / 4.0
4055 A*	2.6 / 3.5	3.0 / 4.0
4051 B*	3.0 / 4.0	5.0 / 6.7
4052 B*	3.5 / 4.7	5.0 / 6.7
4053 B*	4.0 / 5.4	5.0 / 6.7
4054 B*	4.5 / 6.0	5.0 / 6.7

*with flow ring

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