

Submersible Mixer Type ABS XRW 330

SULZER

50 Hz

The compact submersible stainless steel mixer type ABS XRW 330 is specifically designed for the major mixing functions during the homogenization of sludge and slurry.

Construction

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

Motor

Premium Efficiency, IE3 equivalent, sensorless permanent-magnet motor with high overload capacity; 50 Hz; 10-pole; 400 V* using variable frequency drive (VFD) control. Protection type IP68, with stator insulation Class F.

Start-up

Variable frequency drive (VFD). Max. submergence 20 m.

Propeller

The mixer is equipped with a special 2-blade mixed-flow propeller. With this propeller a very strong rotating turbulent flow is produced in a semi-axial flow direction. Therefore this propeller combines all properties for the homogenization of sewage sludge that belong to the intrinsic viscous substances.

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

PTC thermistor in the stator that opens at 140 °C.

Cable

10 m sewage-resistant shielded cable.

Optional lengths (m): 15, 20, 30, 40, 50.

Options

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

Weight

80 kg.

* other voltages available

** not in Ex version.



System data

| Motor | PM 30/10 | PM 50/10 |
|--------------------------------|----------|----------|
| Rated power (kW) | 3.0 | 5.0 |
| Motor efficiency (%) | 90.7 | 88.9 |
| Variable Frequency Drive (VFD) | A | B |
| Rated power (kW) | 4.0 | 5.5 |
| Rated current (A) at 400 V | 9.9 | 12.9 |

Total system efficiency (%) **88.0** **86.5**

Mixer performance

| Hydraulic No. | Mixer power P_p in kW | Motor kW |
|---------------|-------------------------|----------|
| 3311 A | 1.2 | 3.0 |
| 3312 A | 1.5 | 3.0 |
| 3313 A | 2.0 | 3.0 |
| 3311 B | 2.5 | 5.0 |
| 3312 B | 3.0 | 5.0 |
| 3313 B | 3.5 | 5.0 |
| 3314 B | 4.0 | 5.0 |
| 3315 B | 4.5 | 5.0 |

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) |