

# Submersible Mixer Type ABS XRW 400

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.

**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 IP 68, with stator insulation Class F. Start-up: variable frequency drive (VFD)  
Max. submergence 20 m.  
\* 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:** PTC thermistor in the stator which opens at 140 °C.

**Cable:** 10 m sewage-resistant EMV-FC S1BC4N8-F ..G.. 0,6/1 kV  
Optional lengths (m): 15, 20, 30, 40, 50.

**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. With flow ring add 10 kg.

\*\* not in Ex version.

## Materials

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

## 50 Hz



## System data

| Motor                | PM 30/10 | PM 50/10 |
|----------------------|----------|----------|
| Rated power (kW)     | 3.0      | 5.0      |
| Motor efficiency (%) | 93.0     | 91.0     |

| Variable Frequency Drive (VFD) | A   | B   |
|--------------------------------|-----|-----|
| Rated power (kW)               | 3.0 | 5.5 |
| Rated current (A) at 400 V     | 6.2 | 9.5 |

|                                    |      |      |
|------------------------------------|------|------|
| <b>Total system efficiency (%)</b> | 89.1 | 86.6 |
|------------------------------------|------|------|

## Mixer performance

| Hydraulic No. | Mixer power P <sub>p</sub> in kW | Motor kW |
|---------------|----------------------------------|----------|
| 4031A         | 1.2                              | 3.0      |
| 4032A         | 1.5                              | 3.0      |
| 4033A         | 1.8                              | 3.0      |
| 4034A         | 2.2                              | 3.0      |
| 4035A         | 2.6                              | 3.0      |
| 4031B         | 3.0                              | 5.0      |
| 4032B         | 3.5                              | 5.0      |
| 4033B         | 4.0                              | 5.0      |
| 4034B         | 4.5                              | 5.0      |
| 4051A*        | 1.2                              | 3.0      |
| 4052A*        | 1.5                              | 3.0      |
| 4053A*        | 1.8                              | 3.0      |
| 4054A*        | 2.2                              | 3.0      |
| 4055A*        | 2.6                              | 3.0      |
| 4051B*        | 3.0                              | 5.0      |
| 4052B*        | 3.5                              | 5.0      |
| 4053B*        | 4.0                              | 5.0      |
| 4054B*        | 4.5                              | 5.0      |

\* with flow ring

# SULZER