

# Flow Booster Type ABS XSB 900 M

# SULZER

## 60 Hz

The compact flow boosters have been designed for a wide range of applications. The units are suitable to achieve flow pattern in large tanks and open waters for mixing and stirring applications.

## Construction

The flow booster type ABS XSB is designed as a compact, water pressure-tight unit including propeller and integrally lockable coupling system. The flow boosters are available in the material version:

### Cast iron (EC).

Maximum allowable temperature of the medium for continuous operation is 40 °C (104 °F).

### Motor:

Premium Efficiency IE3, squirrel cage, 3-phase, 4-pole, 60 Hz, insulation class F (155 °C/311 °F), max. submergence 20 m (66 ft).

### 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:

Robust fatigue strength gearbox of high efficiency and very long operating life, oil lubricated.

### Shaft sealing:

Motor side radial seal, medium side silicon carbide mechanical seal independent of direction of rotation. O-Rings / lip seals: NBR.

### Seal monitoring:

DI-system with a sensor in the junction box, oil chamber, motor and gearbox.

### Temperature monitoring:

TCS-Thermo-Control-System with bimetallic contacts as thermal sensors in every phase of the stator give a timely warning or switch off the motor automatically before the permissible temperature limit e.g. due to overloading, high temperature medium, or other problem sources, has been exceeded.

### Cable:

10 m (33 ft) sewage resistant material.

### Optional lengths (m):

15 (49 ft), 20 (66 ft), 25 (83 ft), 30 (98 ft).

### Options:

Explosion-proof version, Insulation class H, seals in viton, EMC cable, cable protection sleeve, PTC or PT 100 in the stator.

### Weight of flow booster:

XSB 900 = 270 kg (597 lbs)

### Weight of concrete pedestal and coupling device:

XSB 900 = 225 kg (496 lbs)



## Motor data

Motor	PA 12/4	PA 19/4	PA 25/4	PA 35/4
Rated power P <sub>2</sub> (kW/hp)	1.2/1.6	1.9/2.5	2.5/3.4	3.5/4.7
Rated current at 480 V (A)	2.0	3.3	4.0	7.0
Motor efficiency (%)	88.0	88.3	89.7	88.6
Propeller speed (min <sup>-1</sup> )	82	104	130	146

## Flow booster performance table

Hydraulic No.	Propeller dia. in mm / ft	Mixer power P <sub>p</sub> in kW / hp	Motor kW / hp
XSB 931	900 / 3	0.5 / 0.7	1.2 / 1.6
XSB 932	900 / 3	1.1 / 1.5	1.9 / 2.5
XSB 933	900 / 3	2.2 / 3.0	2.5 / 3.4
XSB 934	900 / 3	2.75 / 3.7	3.5 / 4.7

## Materials

Part	Material
Motor housing	EN-GJS-400-18/ASTM A536, 60-40-18
Motor shaft	1.0060/ASTM/AISI A276 Gr. 65
Propeller shaft	1.7225 fully encapsulated (42CrMo4)
Propeller shaft (double mech.seal)	1.4418
Propeller	1.4571 (AISI 316 Ti)
Coupling bracket	DIN 17 445; 1.4408 / ASTM/AISI 316L
Fasteners	1.4401 / ASTM/AISI 316