

ABS flow booster XSB 1600 - 2000

The compact ABS 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 ABS flow booster 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)**

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 2-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 life time 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 dual 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 and in the 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 S1BN8-F.

Options: Explosion-proof version, seals in viton, cable protection sleeve, PTC or PT 100 in the stator.

Weight: XSB 1621, 1622, 1623, 1624, 1625 = 260 kg (573 lbs).
XSB 1821, 1822, 1823, 1824, 1825, 1826 = 265 kg (584 lbs).
XSB 2021, 2022, 2023, 2024, 2025 = 270 kg (595 lbs).
Concrete pedestal and coupling device = 490 kg (1080 lbs).

Motor data

| Motor | PA 12/4 | PA 18/4 | PA 25/4 | PA 35/4 | PA 55/4 |
|--------------------------------------|-----------|-------------------|-------------------|--------------|-----------|
| Rated power (kW / hp) | 1.2 / 1.6 | 1.8 / 2.4 | 2.5 / 3.4 | 3.5 / 4.7 | 5.5 / 7.4 |
| Rated current at 480 V (A) | 2.1 | 3.2 | 4.0 | 7.0 | 11.6 |
| Motor efficiency (%) | 88 | 88.3 | 90 | 88.6 | 89.5 |
| Propeller speed (min ⁻¹) | 46 | 42 / 46 / 51 / 56 | 51 / 56 / 59 / 64 | 56 / 59 / 64 | 82 |

60 Hz



Flow booster performance table

| Hydraulic No. | Propeller dia. mm / ft | Mixer power P _p in kW / hp | Motor kW / hp |
|---------------|------------------------|---------------------------------------|---------------|
| XSB 1621 | 1600 / 5.3 | 0.8 / 1.1 | 1.2 / 1.6 |
| XSB 1622 | 1600 / 5.3 | 1.2 / 1.6 | 1.8 / 2.4 |
| XSB 1623 | 1600 / 5.3 | 1.6 / 2.2 | 1.8 / 2.4 |
| XSB 1624 | 1600 / 5.3 | 1.9 / 2.6 | 2.5 / 3.4 |
| XSB 1625 | 1600 / 5.3 | 2.3 / 3.1 | 2.5 / 3.4 |
| XSB 1821 | 1800 / 5.9 | 0.7 / 0.9 | 1.2 / 1.6 |
| XSB 1822 | 1800 / 5.9 | 1.2 / 1.6 | 1.8 / 2.4 |
| XSB 1823 | 1800 / 5.9 | 1.7 / 2.3 | 1.8 / 2.4 |
| XSB 1824 | 1800 / 5.9 | 2.2 / 3.0 | 2.5 / 3.4 |
| XSB 1825 | 1800 / 5.9 | 2.6 / 3.5 | 3.5 / 4.7 |
| XSB 1826 | 1800 / 5.9 | 3.1 / 4.2 | 3.5 / 4.7 |
| XSB 2021 | 2000 / 6.5 | 1.3 / 1.7 | 1.8 / 2.4 |
| XSB 2022 | 2000 / 6.5 | 1.7 / 2.3 | 1.8 / 2.4 |
| XSB 2023 | 2000 / 6.5 | 2.1 / 2.8 | 2.5 / 3.4 |
| XSB 2024 | 2000 / 6.5 | 2.6 / 3.5 | 3.5 / 4.7 |
| XSB 2025 | 2000 / 6.5 | 3.0 / 4.0 | 3.5 / 4.7 |

Material

| Part | Material |
|------------------|--|
| Motor housing | EN1563; EN-GJS-400-18 (GGG-40) |
| Motor shaft | 1.0060 (St 60-2) |
| Propeller shaft | 1.7225 fully encapsulated (42CrMo4) |
| Propeller | Reinforced solid polyurethane |
| Coupling bracket | DIN 17 445; 1.4408 (CF-8M), (AISI 316) |
| Fasteners | 1.4401 (AISI 316) |

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