

ABS flow booster XSB 1400 - 2750

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- and 6-pole, 60 Hz, insulation class F (155 °C / 311 °F). Max. submergence 20 m (66 ft).

Propeller: Technically optimized, axially operating 2- and 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 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.

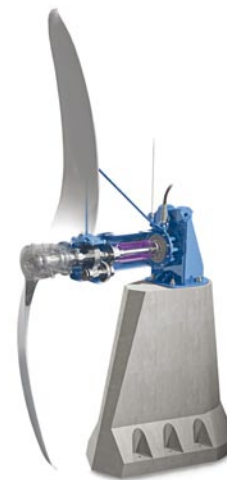
Weight of flow booster:

XSB 1431 = 278 kg (613 lbs).
 XSB 2231, 2531, 2731 = 315 kg (695 lbs).
 XSB 2232, 2233, 2532, 2533, 2732, 2733 = 320 kg (706 lbs).
 XSB 142.. = 268 kg (590 lbs).
 XSB 1621 = 270 kg (595 lbs).
 XSB 222.. = 275 kg (606 lbs).
 XSB 252.. = 278 kg (613 lbs).
 XSB 272.. = 280 kg (617 lbs).

Weight of concrete pedestal and coupling device:

XSB 1431, 223.., 253.., 273.. = 980 kg (2160 lbs).
 XSB 142.., 1621 = 490 kg (1080 lbs).
 XSB 222.., 252.. = 625 kg (1378 lbs).
 XSB 272.. = 965 kg (2127 lbs).

60 Hz



Identification Code: e.g. XSB 2721-PA55/4

XSB Product range
 27 Propeller diameter (dm)
 2 Propeller type: 2 = two-blade, 3 = three-blade
 1 Identity number
 PA Motor designation
 55 Motor power (P₂ [kW] x 10)
 4 Number of poles

Materials

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	Composite (glass fibre, resin, gel coat)
Coupling bracket	DIN 17 445; 1.4408 (CF-8M), (AISI 316)
Fasteners	1.4401 (AISI 316)

Motor data

Propeller type	2-blade	2-blade	2-blade	2-blade	2-blade	3-blade	3-blade
Motor	PA 10/6	PA 18/4	PA 25/4	PA 35/4	PA 55/4	PA 55/4	PA 75/4
Rated power (kW / hp)	1.0 / 1.3	1.8 / 2.4	2.5 / 3.4	3.5 / 4.7	5.5 / 7.4	5.5 / 7.4	7.5 / 10.1
Rated current at 480 V (A)	1.7	3.2	4.0	7.0	11.6	11.6	13.3
Motor efficiency (%)	86.1	88.3	90.0	88.6	89.5	89.5	90.7
Propeller speed (min ⁻¹)	28/31/34	42	46/51	51/56	56/59/64	51	56/59/64

Flow booster performance data (2-blade)

Hydraulic No.	Propeller dia. mm / ft	Mixer power P _p kW / hp	Motor kW / hp
XSB 1421	1400 / 4.6	1.5 / 2.0	1.8 / 2.4
XSB 1422	1400 / 4.6	1.7 / 2.3	1.8 / 2.4
XSB 1423	1400 / 4.6	3.1 / 4.2	3.5 / 4.7
XSB 1621	1600 / 5.3	4.5 / 6.0	5.5 / 7.4
XSB 2221	2200 / 7.2	1.3 / 1.7	1.8 / 2.4
XSB 2222	2200 / 7.2	1.6 / 2.2	1.8 / 2.4
XSB 2223	2200 / 7.2	2.3 / 3.1	2.5 / 3.4
XSB 2224	2200 / 7.2	3.0 / 4.0	3.5 / 4.7
XSB 2225	2200 / 7.2	3.5 / 4.7	5.5 / 7.4
XSB 2226	2200 / 7.2	4.4 / 5.9	5.5 / 7.4
XSB 2521	2500 / 8.2	1.6 / 2.2	1.8 / 2.4
XSB 2522	2500 / 8.2	2.0 / 2.7	2.5 / 3.4
XSB 2523	2500 / 8.2	2.8 / 3.8	3.5 / 4.7
XSB 2524	2500 / 8.2	3.7 / 5.0	5.5 / 7.4
XSB 2525	2500 / 8.2	4.3 / 5.8	5.5 / 7.4
XSB 2721	2750 / 9.0	0.5 / 0.7	1.0 / 1.3
XSB 2722	2750 / 9.0	0.6 / 0.8	1.0 / 1.3
XSB 2723	2750 / 9.0	0.9 / 1.2	1.0 / 1.3
XSB 2724	2750 / 9.0	1.7 / 2.3	1.8 / 2.4
XSB 2725	2750 / 9.0	2.2 / 3.0	2.5 / 3.4
XSB 2726	2750 / 9.0	3.7 / 5.0	3.5 / 4.7
XSB 2727	2750 / 9.0	3.9 / 5.2	5.5 / 7.4

Flow booster performance data (3-blade)

Hydraulic No.	Propeller dia. mm / ft	Mixer power P _p kW / hp	Motor kW / hp
XSB 1431	1400 / 4.6	5.0 / 6.7	5.5 / 7.4
XSB 2231	2200 / 7.2	4.6 / 6.2	5.5 / 7.4
XSB 2232	2200 / 7.2	5.5 / 7.4	7.5 / 10.1
XSB 2233	2200 / 7.2	6.5 / 8.7	7.5 / 10.1
XSB 2531	2500 / 8.2	4.6 / 6.2	5.5 / 7.4
XSB 2532	2500 / 8.2	5.6 / 7.5	7.5 / 10.1
XSB 2533	2500 / 8.2	6.7 / 9.0	7.5 / 10.1
XSB 2731	2750 / 9.0	4.8 / 6.4	5.5 / 7.4
XSB 2732	2750 / 9.0	5.8 / 7.8	7.5 / 10.1
XSB 2733	2750 / 9.0	7.0 / 9.4	7.5 / 10.1