

# Flow Booster Type ABS SB 1200 KA

The special flow booster type ABS SB-KA has been developed to meet the specific requirements of those treatment processes in which the biomass is not freely floating in the wastewater as "flakes", but builds a "bio film" that is bound to the surface by bio film carriers.

## Construction

The SB-KA is designed as a compact, water pressure-tight unit including propeller and integrally casted installation bracket for the attachment on the square guide tube. A special bracket which enables a simple, clearance free and cost-effective installation in every required alignment is available as these treatment processes require that the units are installed in a severe downward slope close to the surface. The flow boosters are available in the standard material version: CR = stainless steel version. Maximum allowable temperature of the medium for continuous operation is 40 °C (104 °F).

## Motor

Squirrel cage, 3-phase, 8-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. Smooth rounded propeller front edge to reduce friction losses.

## Solids deflection ring

The solids deflection ring protects the mechanical seal from damage by ingress of solids or fibrous matter and penetration of plastic carrier in the hub is effectively avoided.

## Bearings

All bearings are lubricated-for-life and maintenance-free, with a calculated lifetime of more than 100 000 h.

## Gearbox

High efficiency planetary gearbox, fatigue strength with a calculated lifetime more than 100 000 h.

## Shaft sealing

Mechanical seal: Silicon carbide / Silicon carbide.  
O-Rings / lip seals: NBR.

## Seal monitoring

DI-system with a sensor in the junction box.

## Temperature monitoring

Thermal sensors in the stator which open at 140 °C (284 °F).

## Cable

10 m (33 ft) sewage resistant material.  
Optional lengths: 15 m (49 ft), 20 m (66 ft), 25 m (82 ft), 30 m (98 ft).

## Options

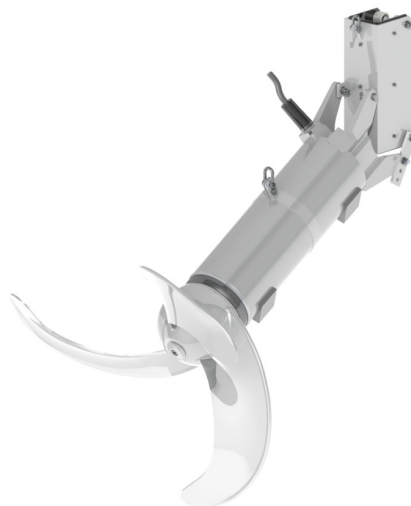
Seals in viton, PTC in the stator, insulation Class H.

## Accessories

Vertical angle as standard.

## Weight

170 kg (375 lbs).



60 Hz

## Materials

Part	CR (stainless steel)
Motor housing	1.4571 (AISI 316 Ti)
Sliding bracket	1.4408 / polyamide (CF-8M)
Motor shaft/Propeller shaft	St 60/EN-GJS-700-3
Propeller	1.4571 (AISI 316 Ti)
Fasteners	1.4401 (AISI 316)

## Material comparison: Europe / USA

EN 1563; EN-GJS-600-3	ASTM A536, 80-55-06
St 60/1.0060	ASTM / AISI A276 Gr. 65
1.4401	ASTM / AISI 316
DIN 17 445; 1.4408	ASTM / AISI CF-8M
DIN 17 440; 1.4571	ASTM / AISI 316 Ti

## System Data

Motor	A 35/8	A 46/8
Rated power (kW)	3.5 / 4.7	4.6 / 6.2
Rated current at 460 V (A)	8.7	10.3
Speed (rpm)	100*	100*
Motor efficiency (%)	76.0	76.5
Power factor	0.66	0.74

\* = Gear reduction ratio i = 8

**Flow booster performance table**

Hydraulic No.	Mixer power $P_p$ in kW / hp	Motor kW / hp
1236	1.4 / 1.9	3.5 / 4.7
1237	2.6 / 3.5	4.6 / 6.2

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