

ABS flow booster SB 1200 KA

50 Hz

The special flow booster 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**

Motor

Squirrel cage, 3-phase, 8-pole 50 Hz, insulation class F (155 °C), max. submergence 20 m.

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 patented 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 life time of more than 100,000 h.

Gearbox: High efficiency planetary gearbox, fatigue strength with a calculated life time 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: TCS-Thermo-Control-System with thermal sensors in the stator which open at 140 °C.

Cable: 10 m sewage resistant CSM material. Type: H07RN.

Options: Seals in viton, cable protection sleeve, PTC or PT 100 in the stator.

Accessories: Lifting bracket, vertical angle adjustment, flush system for the mechanical seal.

Weight: 176/179 kg.



Motor data

Motor	A 30/8	A 40/8
Rated power (kW)	3.0	4.0
Rated current at 400 V (A)	9.3	10.9
Speed (min ⁻¹)	100*	100*
Motor efficiency (%)	72	71
Power factor	0.65	0.74

* = gear ratio i = 7

Flow booster performance table

Hydraulic No.	Mixer power P _p in kW	Motor kW
1236	1.4	3.0
1237	2.6	4.0

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-600-3
Propeller	1.4571 (AISI 316 Ti)
Fasteners	1.4401 (AISI 316)