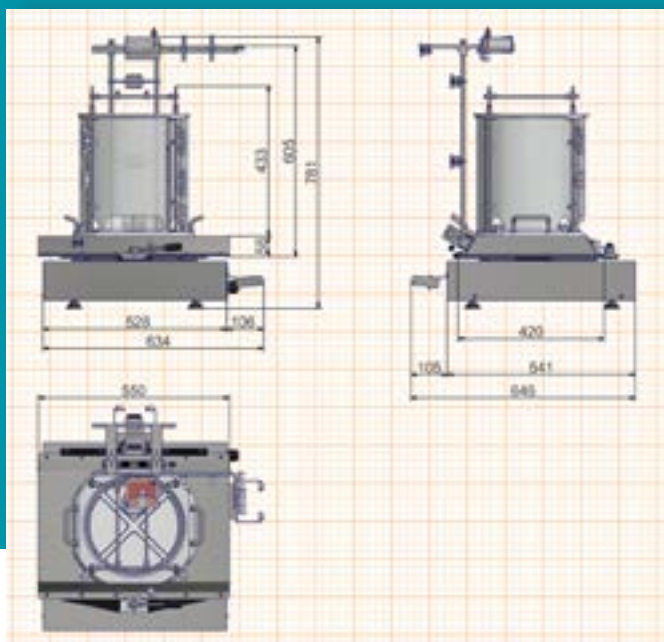
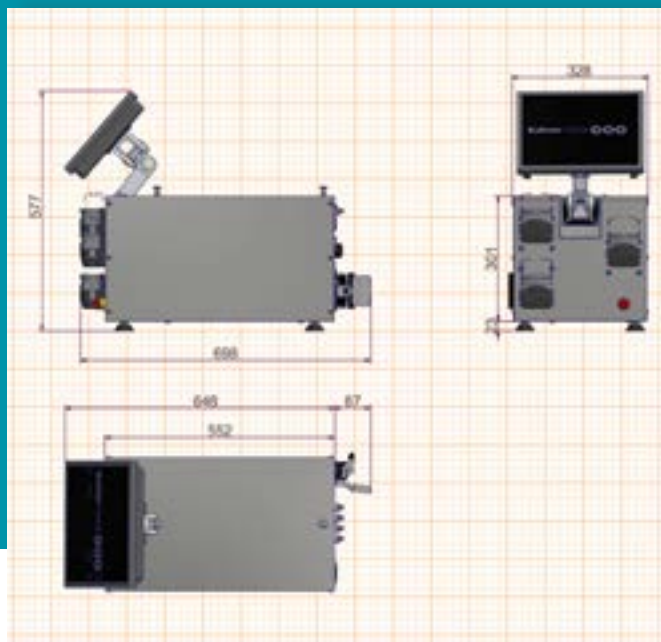


Dimensions (mm) SB10-X Shaken bioreactor



Dimensions (mm) Control unit



Technical data

SB10-X Order number: 106857

includes 6 modules:

- Shaker module ES-X

Bioreactor:

- Tray module
- Vessel module
- Cable and tube management module
- Filter heater
- Control unit

Shaken bioreactor

Working volume	4 L - 12 L (1.5 - 4.5 L)*
Total bag volume	approx. 24 L (approx. 6 L)*
Weight (bioreactor incl. shaker)	approx. 75 kg without liquid
Required footprint (excl. control unit)	669 mm x 646 mm

*with option 3L-vessel module

Shaker module ES-X

Motor	modified ES-X benchtop shaker
Shaking diameter	50 mm (orbital motion)
	shaking diameter is adjustable (12.5 mm, 25 mm, 50 mm)
Shaking speed	20 rpm - 140 rpm (when used with SB10-X)
Loading, maximum	25 kg
Setting, digital	1 rpm
Accuracy, absolute	± 0.5 rpm
Active brake	adjustable
Ambient temperature	5°C - 40°C
Casing	stainless steel

Mains connection

102023	110 - 120 V / 50-60 Hz
102024	95 - 105 V / 50-60 Hz

Temperature control

Heating	resistance heater (100 W), integrated in tray module
Temperature max.	40 °C
Temperature min.	approx. ambient temperature (no cooling)
Temperature accuracy	± 0.25 °C (at 37 °C)
Temperature distribution	8 mm thick aluminium plate provides homogenous temperature distribution of resistance heater

pH and DO control Integrated in tray module

pH measurement	principle: optical chemosensor
Range	pH 5.5 - pH 8.5
Accuracy (chemosensor)	± pH 0.05 at pH 7 with one point calibration ± pH 0.10 at pH 7 with pre-calibration
Drift	< pH 0.005 per day
Temperature range	up to 50 °C
DO measurement	principle: optical chemosensor
Range	0 % - 100 % DO
Accuracy (chemosensor)	± 0.1 % O ₂ at 20.9 % O ₂
Accuracy (system)	± 10 % DO
Drift	< 0.015 % O ₂ per day
Temperature range	up to 50 °C

Filter heater

Capacity	1 exhaust filter
Casing	polycarbonate
Heating	resistance heater (6 W)
Max. temperature	approx. 40 °C at 23 °C ambient temperature
Control	orange LED light indicates that filter heater is active and working