

Clean Bench (Basic) Series

BC-21B | BC-11B | BC-01B Vertical Laminar Flow Hoods

Product Overview

The MBI Clean Bench (Basic) series provides vertical laminar flow protection for samples and work processes requiring ISO Class 4 (US Federal Standard 209E Class 10) air cleanliness. Three widths are available: BC-21B (2035 mm), BC-11B (1435 mm) and BC-01B (1135 mm). Each unit combines a leak-tight HEPA filter, an energy-efficient electronically ballasted lighting system and a grade 304 stainless steel work surface in a durable, powder-coated steel housing.

Performance

- ISO Class 4 (US Class 10) HEPA filter for optimal protection against cross-contamination.
- 0.3 µm and larger particulates removed with 99.99% efficiency by a leak-tight HEPA filter satisfying Class 10 (US Federal Standard 209E).
- High-quality polyester fiber pre-filter (85% arrestance on the A.F.I. test) traps larger particles and extends the life of the main HEPA filter.
- Exclusive diffusing muffler structure forms high-quality laminar flow.
- Quiet and comfortable working environment (less than 65 dB).

Convenience

- Built-in differential pressure gauge for easy checking of HEPA filter condition.
- Comfortable front access to cartridge-type filters for easy replacement.
- Easy blower speed adjustment from the control panel.
- Highly durable, rust-free, easy-to-clean grade 304 stainless steel work surface.
- Magnetic board on the inner left side holds memos and small tools.

Safety

- UV-blocking, impact-resistant tempered glass door.
- UV lamp turns off automatically if the sash is opened during UV operation.
- 3-position toggle switch (UV / off / fluorescent) prevents harmful UV exposure.
- Smoothly sliding front door stoppable at any height for user safety and easy equipment transport.
- Protection against over-current.

Model Comparison and Specifications

Specification	BC-21B	BC-11B	BC-01B
Catalog Number (120V, 60Hz)	AAHA6033U	AAHA6023U	AAHA6013U
Air Flow Type	Vertical laminar flow	Vertical laminar flow	Vertical laminar flow
Air Volume (min / max)	0 to 2040 cmh 0 to 1200 cfm	0 to 2040 cmh 0 to 1200 cfm	0 to 1020 cmh 0 to 600 cfm
Laminar Air Velocity (m/s / fpm)	0.3 / 59	0.45 / 89	0.3 / 59
Air Cleanliness within Work Space	ISO 14644-1 Class 4, US Federal Standard 209E Class 10	ISO 14644-1 Class 4, US Federal Standard 209E Class 10	ISO 14644-1 Class 4, US Federal Standard 209E Class 10
HEPA Filter	99.99% typical efficiency at 0.3 um (US MIL-STD-282); micro glass fiber media, particle board, AL separator, neoprene gaskets	Same as BC-21B	Same as BC-21B
Pre-Filter	Polyester fibers, 85% efficiency (A.F.I. test); aluminum frame, polyester fiber media	Same as BC-21B	Same as BC-21B
Noise Level	Typically < 65 dB at blower speed	Same as BC-21B	Same as BC-21B
Main Body Material	Steel powder coating	Same as BC-21B	Same as BC-21B
Work Surface	Stainless steel, grade 304, brushed finish	Same as BC-21B	Same as BC-21B
Front / Side Windows	Colorless, transparent, UV-absorbing 5 mm tempered glass	Same as BC-21B	Same as BC-21B
Illumination Intensity	> 650 lux	> 650 lux	> 650 lux
Fluorescent Lamp	32 W x 2 ea, electronically ballasted	30 W x 2 ea, electronically ballasted	30 W x 2 ea, electronically ballasted
UV Lamp	25 W x 2 ea, electronically ballasted	30 W x 1 ea, electronically ballasted	25 W x 1 ea, electronically ballasted
Electric Socket Outlets	230V socket, 120V socket	Same as BC-21B	Same as BC-21B
Interior Dimensions (WxDxH, mm / inch)	1845 x 585 x 670 72.6 x 23.0 x 26.4	1245 x 585 x 670 49.0 x 23.0 x 26.4	945 x 585 x 670 37.2 x 23.0 x 26.4
Exterior Dimensions without Stand (mm / inch)	2035 x 620 x 1150 80.1 x 24.4 x 45.3	1435 x 620 x 1150 56.5 x 24.4 x 45.3	1135 x 620 x 1150 44.7 x 24.4 x 45.3
Exterior Dimensions with Stand (mm / inch)	2035 x 620 x 1860 80.1 x 24.4 x 73.2	1435 x 620 x 1860 56.5 x 24.4 x 73.2	1135 x 620 x 1860 44.7 x 24.4 x 73.2
Net Weight, body (kg / lbs)	225 / 496	185 / 407.9	140 / 308.6
Net Weight, body + stand (kg / lbs)	255 / 562.2	215 / 474	170 / 374.8
Electrical Requirements 230V, 1ph, 60Hz	2.09 A	1.57 A	1.25 A

Specification	BC-21B	BC-11B	BC-01B
Electrical Requirements 230V, 1ph, 50Hz	2.30 A	1.73 A	1.38 A
Electrical Requirements 120V, 1ph, 60Hz	4.36 A	3.27 A	2.62 A

Shaded blue rows indicate specifications that differ between models. All other specifications are identical across the BC-21B, BC-11B and BC-01B.

The MBI Clean Bench (Basic) series is designed for research, pharmaceutical, biotechnology, clinical and industrial laboratories requiring a reliable vertical laminar flow work environment. Optional accessories and voltage configurations are available; contact Montreal Biotech for configuration details.