LORDERAN

TECHNICAL DATASHEET
DS-CB-V-EN · REV. B · NOV 2026

CLEAN AIR EQUIPMENT

ISO Class 5 **Vertical Laminar Flow Hood**

A clean room the size of a bench — **H14 HEPA**, **ISO Class 5**, a 7-inch touch screen and positive pressure on **four sides**.

MODELS

CB-V1100 | CB-V1300 | CB-V1500





CB-V1100



CB-V1500

ISO 5	**99.995 %**	**0.2–0.45 m/s**	**1–2**
CLASS 100 CLEAN GRADE	H14 HEPA AT 0.3 MM	VERTICAL AIRFLOW	OPERATORS
≤ 65 dB(A)	**≥ 300 lx**	**≤ 0.5 CFU**	**3 years**
NOISE	LIGHTING	PER 30 MIN PLATE	WARRANTY

01 Positive-pressure surround
Left, right, rear and bottom kept at positive pressure.

02 Interlocked for safety
Fan–window and UV–window–lamp interlocks.

03 Three widths
1100, 1300 and 1500 mm; one or two operators.

APPLICATIONS

Cell culture · PCR set-up · Precision assembly · Media and plates

3-year warranty
Major defects: full refund or replacement.

Free DDP shipping
Duties paid, no surprise import charges.

30-day returns
Most new, unopened items.

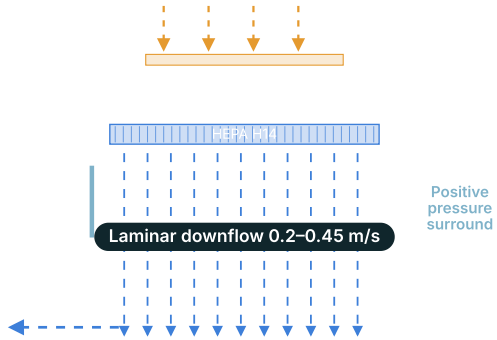
PRODUCT OVERVIEW

A clean room the size of a bench

A floor-standing vertical laminar flow clean bench with an ISO Class 5 work zone, an H14 HEPA filter and a 7-inch color touch screen. Three widths from 1100 to 1500 mm suit one or two operators.

Air is drawn through the initial-effect filter and the H14 HEPA filter, then flows vertically across the work surface. The left, right, rear and bottom are kept at **positive pressure**, so room air cannot leak into the work zone. ISO 14644-1 Class 5 allows no more than **3,520 particles** of 0.5 µm or larger per cubic metre.

Section. Vertical HEPA downflow with a positive-pressure surround.



HOW IT WORKS

01 Initial-effect filter
Catches large particles first.

02 H14 HEPA
≥ 99.995 % at the most penetrating particle size.

03 Vertical flow
0.2–0.45 m/s down over the work surface.

04 Positive-pressure surround
Four sides kept above room pressure.

05 Monitoring
Alarms for window height, filter over-pressure and filter replacement.

CLEAN GRADE
ISO 5
Class 100

AIRFLOW
0.2–0.45 m/s
vertical

SAFETY HEIGHT
200 mm
max opening 350 mm

VIBRATION
≤ 5 µm
rms

CLEAN-AIR VOLUME

$$Q = v \times A$$

Air volume = face velocity × filter face area. 1 m/s across 1 m² moves 3,600 m³/h of HEPA-filtered air.

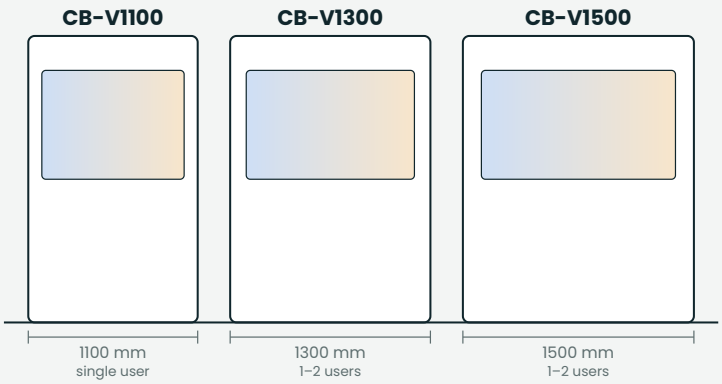
Sample protection only
A laminar flow cabinet protects the work, not the operator. Use a biosafety cabinet for hazardous material.

Keep upstream clean
Nothing should sit between the filter and the sample; hands and tools go downstream.

Purge before work
Run the fan for several minutes before starting so the zone is flushed with filtered air.

FEATURES

Designed around the operator



01 Control

- **7-inch color touch screen**
- Real-time running status
- Appointment (scheduled) timing
- **One-key** disinfection
- Window and filter monitoring

02 Safety

- Fan and front window **interlock**
- UV lamp, front window and lamp interlock
- Front window height alarm
- Filter over-pressure and replacement alarms

03 Build

- Cold-rolled steel body, **304 stainless** work surface
- **Positive-pressure surround** on four sides
- 5 mm tempered front and side glass
- Hidden counterweight, manual front window
- Integrated base stand and casters

TECHNICAL SPECIFICATIONS

Technical specifications

Parameter	CB-V1100	CB-V1300	CB-V1500
DIMENSIONS			
External Size (W*D*H)	1100*630*1860mm	1300*630*1860mm	1500*630*1860mm
Internal Size (W*D*H)	1000*610*650mm	1200*610*650mm	1400*610*650mm
Front Window Safety Height	200mm		
Max Opening	350mm		
Work Surface Height	750mm		
Net Weight	190kg	225kg	235kg
Gross Weight	248kg	289kg	308kg
Package Size (W*D*H)	1250*840*1420mm	1450*840*1420mm	1650*840*1420mm
AIRFLOW AND CLEANLINESS			
Flow Mode	Vertical Flow		
Airflow Velocity	0.2 m/s~0.45 m/s		
Clean Grade	ISO Level 5 (100 levels)		
Filtration Efficiency	HEPA (H14) high efficiency filter, filtration efficiency for 0.3μm particle≥99.995%		
Safety	Colonies Number ≤ 0.5CFU/30min		
PERFORMANCE			
Number of Users	Single	1~2	1~2
Noise	≤65dB(A)		
Lighting	≥300lx		
Vibration	≤5μm(rms)		
Rated Power	700VA (including operating area socket load 500VA)	700VA (including operating area socket load 500VA)	850VA (including operating area socket load 500VA)
ACCESSORIES			
Standard Accessory	LED lamp*2, UV lamp*2, Base stand, Waterproof socket*2		
Optional Accessory	Armrest*2		

Specifications from the LORDERAN product documentation. Subject to change without notice for product improvement.

AT A GLANCE

MODEL
CB-V1100

External size
1100 × 630 × 1860 mm

Internal size
1000 × 610 × 650 mm

Users
Single

Net weight
190 kg

MODEL
CB-V1300

External size
1300 × 630 × 1860 mm

Internal size
1200 × 610 × 650 mm

Users
1–2

Net weight
225 kg

MODEL
CB-V1500

External size
1500 × 630 × 1860 mm

Internal size
1400 × 610 × 650 mm

Users
1–2

Net weight
235 kg

AIR CLEANLINESS · ISO 14644-1 LIMITS, PARTICLES PER M³

Class	≥ 0.1 µm	≥ 0.2 µm	≥ 0.3 µm	≥ 0.5 µm	≥ 1 µm
ISO 5 (Class 100)	100,000	23,700	10,200	3,520	832
ISO 6	1,000,000	237,000	102,000	35,200	8,320
ISO 7	—	—	—	352,000	83,200
ISO 8	—	—	—	3,520,000	832,000

Maximum permitted concentration of particles equal to or larger than each size (ISO 14644-1:2015). A HEPA unidirectional work zone is typically ISO Class 5.

WHICH CLEAN-AIR CABINET?

	Laminar flow cabinet	Class II biosafety cabinet	Fume hood
Protects the sample	Yes	Yes	No
Protects the operator	No	Yes	Yes
Protects the room	No	Yes (filtered exhaust)	Yes (ducted exhaust)
Typical work	Sterile, non-hazardous preparation	Infectious or hazardous biological material	Volatile chemicals

General guidance; choose by the hazard of the material, not only by the cleanliness you need.

APPLICATIONS & SERVICE

Where it works, and what comes with it

Cell culture
ISO 5 sterile work zone for open handling.

PCR set-up
Particle-free preparation upstream of contamination.

Precision assembly
Clean, low-vibration work surface.

Media and plates
Aseptic dispensing and pouring.

INSTALLATION

Supply
700 or 850 VA rated, including 500 VA for the work-area sockets.

Room
Away from doors and air diffusers.

Packages
1250–1650 × 840 × 1420 mm

WARRANTY & SERVICE

3-year warranty
Major defects under warranty: full refund or replacement.

30-day returns
Return most new, unopened items within 30 days.

Free DDP shipping
Delivered duty paid, no surprise import charges.

Formal quotation
PDF quote on request, with a confirmed ship date.

Request a quotation

Send your application, model and quantity through www.lorderan.com and we will reply with a formal PDF quotation.

DS-CB-V-EN · Rev. B · Nov 2026 · Calculated values are reference figures.
Specifications may change without notice for product improvement.

LORDERAN

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Laboratory and environmental test equipment