LORDERAN

TECHNICAL DATASHEET
DS-BBC86-EN · REV. B · NOV 2026

BIOLOGICAL SAFETY CABINET

Cytotoxic **Drug Safety Cabinet**

Hazardous drugs stay inside — **HEPA under the work surface**, ULPA supply and exhaust, and **bag-out** filter change.

MODELS

- 11224BBC86 · 3 ft
- 11234BBC86 · 4 ft
- 11244BBC86 · 5.6 ft



0.53 m/s INFLOW VELOCITY	**0.33** m/s DOWNFLOW VELOCITY	**HEPA + 2 ULPA** THREE-FILTER DESIGN	**99.9995** % ULPA AT 0.12 MM
PVC bag SAFE FILTER CHANGE	**3 · 4 · 5.6** ft WIDTHS	**≤ 67** dB NOISE	**3** years WARRANTY

01 **Filtered at the source**
A HEPA filter beneath the work surface keeps the plenum and fan clean.

02 **Bagged filter change**
Used filters go straight into a sealed PVC bag.

03 **Ready on delivery**
Remote control, motorized window, water and gas taps included.

APPLICATIONS

Hospital pharmacy · Hazardous drug handling · Oncology research · Safe maintenance

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.

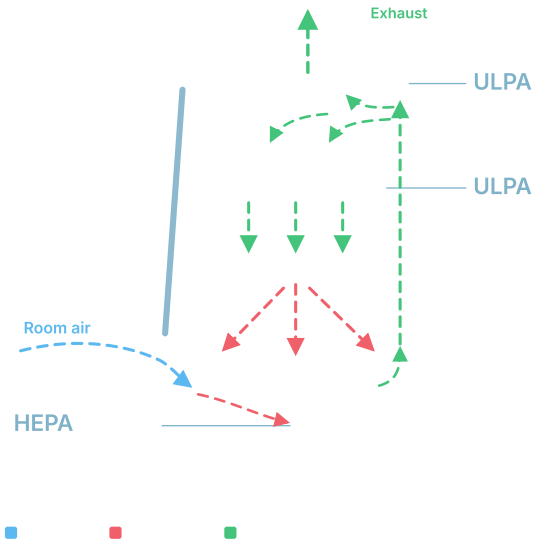
PRODUCT OVERVIEW

Hazardous drugs stay inside the cabinet

A Class II A2 compliant safety cabinet built for cytotoxic, antineoplastic and other hazardous drugs. Supply and exhaust air pass ULPA filters at 99.9995 % at 0.12 µm, and a HEPA filter under the work surface captures contaminated air before it reaches the plenum.

Room air enters at the front grille and shields the operator; ULPA-filtered air falls over the work. Contaminated air is filtered under the work surface, so the rear plenum carries only filtered air. Filters are changed through a **PVC bag**, so nobody touches a contaminated filter.

Contamination control. Hazardous particles reach a filter, never a person: HEPA under the work surface, then the exhaust ULPA.



HOW IT WORKS

01 Inflow barrier
Room air enters the front grille at 0.53 ± 0.025 m/s.

02 Clean downflow
ULPA-filtered air at 0.33 ± 0.025 m/s over the preparations.

03 HEPA under the surface
Contaminated air is captured before the plenum and fan.

04 Exhaust ULPA
Air is filtered again before it leaves the cabinet.

05 Bag-out change
Used filters removed into a sealed PVC bag.

INFLOW
0.53 m/s
± 0.025 m/s

DOWNFLOW
0.33 m/s
± 0.025 m/s

EXHAUST
347–648 m³/h
by width

OPENING
200 mm
tested · max 440 mm

FILTRATION
99.9995 % at 0.12 µm
ULPA efficiency at the most penetrating particle size, about 10× fewer particles through than an H14 HEPA filter (99.995 %).

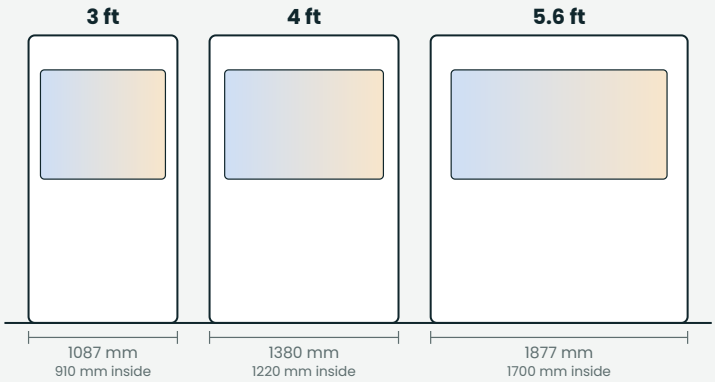
Work at the tested opening
The safety height of the sash is part of the certified configuration.

Keep the grilles clear
Front and rear grilles carry the inflow and the downflow return; never block them.

Certify on site
Verify inflow, downflow and filter integrity after installation, relocation and at least annually.

FEATURES

Everything included as standard



01 Control

- Microprocessor control system
- LCD with humidity and temperature on the panel
- **Remote control** for all functions
- **Motorized front window**
- Automatic air-speed adjustment as the filters load

02 Safety

- ULPA supply filter, **99.9995 % at 0.12 µm**
- **HEPA under the work surface** plus exhaust ULPA
- Negative-pressure surround work area
- Alarms for airflow, filter, window height and filter pressure
- Germicidal UV at 253.7 nm

03 Build

- **304 stainless** work area
- Cold-rolled steel body, anti-bacteria powder coating
- Motorized two-layer laminated toughened glass, anti-UV
- Water tap, gas tap and two waterproof sockets
- Footmaster casters on the base stand

TECHNICAL SPECIFICATIONS

Technical specifications

Parameter	3 ft	4 ft	5.6 ft
Exhaust volume	347 m^3/h	465 m^3/h	648 m^3/h
UV lamp	20W*1	30W*1	40W*1
LED lamp	12W*2	16W*2	16W*2
Consumption	700W	900W	1300W
Gross weight	320kg	371kg	430kg
DIMENSIONS			
External Dims (W*D*H)	1087*760*2100mm	1380*760*2100mm	1877*760*2100mm
Internal Dims (W*D*H)	910*600*630mm	1220*600*630mm	1700*600*630mm
Tested Opening Safety Height	200mm (8")		
Max Opening	440mm (17")		
Package Size (W*D*H)	1240*910*2280mm	1540*910*2280mm	2050*910*2260mm
AIRFLOW AND FILTRATION			
Inflow Velocity	0.53±0.025m/s		
Down Flow Velocity	0.33±0.025m/s		
Air Supply Filter	ULPA filter, efficiency > 99.9995% for particle size at 0.12 μm		
Exhaust Filter	ULPA filter: first exhaust filter: 0.12μm efficiency 99.9995%; HEPA filter: secondary exhaust filter: 0.3μm efficiency 99.995%		
CABINET			
Alarm	Abnormal airflow velocity; Filter replacement; Front window at unsafe height; High filter pressure alarm		
Noise	≤67dB		
Water & Gas Tap	Water Tap*1, Gas tap*1		
Emission	of 253.7 nanometers for most efficient decontamination		
Illumination	≥1000Lux		
Display	LCD display		
Control System	Microprocessor		
Humidity and Temperature	Humidity and temperature can be displayed on the control panel		
Material	Work Area: 304 stainless steel. Main Body: cold-rolled steel with anti-bacteria powder coating		
Front Window	Motorized, two-layer laminated toughened glass ≥6mm, anti-UV		
Caster	Footmaster Caster		
ELECTRICAL			
Waterproof Socket	Two, Total load of two sockets: ≤500W		
Power supply	AC220V±10%, 50/60HZ; 110V±10%, 60Hz		
ACCESSORIES			
Standard Accessory	Base stand, Drain valve, Waterproof sockets*2, Remote control, LED lamp*2, UV lamp*1, Water tap, Gas tap		
Optional Accessory	Armrest, Formalin fumigation sterilizer, Infrared sterilizer, Airflow tester		

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

CLASS II TYPES COMPARED

	Class II A2	Class II B2
Air recirculated in the cabinet	about 70 %	0 %
Air exhausted	about 30 %	100 %
Exhaust connection	room, or canopy (thimble) connection	hard-ducted, dedicated exhaust blower
Minimum average inflow, NSF/ANSI 49	0.51 m/s (100 fpm)	0.51 m/s (100 fpm)
Typical use	biological agents, non-volatile work	biological agents with volatile chemicals

Summary of NSF/ANSI 49 cabinet types; reference values for selection.

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 3	1,000	237	102	35	8
ISO 5	100,000	23,700	10,200	3,520	832

Maximum permitted concentration of particles equal to or larger than each size (ISO 14644-1:2015). Reference values.

APPLICATIONS & SERVICE

Where it works, and what comes with it

Hospital pharmacy
Compounding of chemotherapy and antineoplastic drugs.

Hazardous drug handling
Containment with filtration at the source.

Oncology research
Cytotoxic agents in cell and tissue work.

Safe maintenance
Bag-out filter change protects service staff.

INSTALLATION

Exhaust
347, 465 or 648 m³/h by width; plan room extraction accordingly.

Room
Away from doors and supply diffusers that disturb the air curtain.

Packages
Up to 2050 × 910 × 2260 mm (5.6 ft).

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.

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Laboratory and environmental test equipment