LORDERAN

TECHNICAL DATASHEET
DS-V1300-V1800-EN · REV. B · NOV 2026

CLEAN AIR EQUIPMENT

# Full-Size **Vertical Laminar Flow Hood**

Sample protection you can see — HEPA air at **99.995 %** sweeping down at **0.3–0.5 m/s**, a **motorized** front window and glass on both sides.

MODELS V1300 V1800



| | | | |
|---|---|---|---|
| **99.995 %** HEPA AT 0.3 MM | **0.3–0.5 m/s** AVERAGE AIRFLOW | **Motorized** FRONT WINDOW | **1200 / 1700** INTERNAL WIDTH, MM |
| **< 65 dB** NOISE | **430 mm** MAX OPENING | **2 × 500 W** WATERPROOF SOCKETS, TOTAL | **253.7 nm** GERMICIDAL UV |

**01** **Glass on three sides**
Light in, clear view of the work.

**02** **LCD at a glance**
Airflow velocity, UV timer, UV and system work time.

**03** **Built for long days**
Durable parts, washable pre-filter, rare maintenance.

APPLICATIONS
Cell and tissue culture · Microbiology media · Pharmaceutical QC · Electronics

**Warranty**
Major defects: full refund or replacement.

**Free DDP shipping**
Duties paid, no surprise import charges.

**30-day returns**
Most new, unopened items.

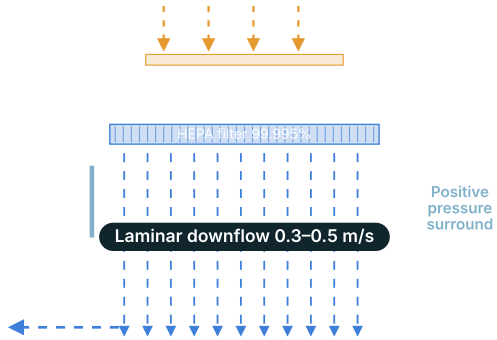
PRODUCT OVERVIEW

# Sample protection you can see

A full-size vertical laminar flow hood with a motorized front window and toughened glass on both sides. HEPA-filtered air at 99.995 % efficiency at 0.3 µm sweeps down across the work surface at an average **0.3–0.5 m/s**, protecting samples from room contamination.

Purified air travels vertically across the working zone and out through the front, so the sample always sits in clean air. Transparent side windows let light in, and the LCD shows airflow velocity, UV time and system time.

**Vertical flow.** Section through the cabinet. The motorized window opens up to 430 mm.




## HOW IT WORKS

**01 Pre-filter**
Washable polyester-fibre pre-filter extends HEPA life.

**02 HEPA filter**
99.995 % at 0.3 µm above the work zone.

**03 Vertical flow**
Average 0.3–0.5 m/s down over the work surface.

**04 Motorized window**
Opens up to 430 mm.

**05 UV decontamination**
Germicidal UV at 253.7 nm with timer and work-time record.

AIRFLOW
**0.3–0.5 m/s**
average, vertical

FILTER
**99.995 %**
HEPA at 0.3 µm

OPENING
**430 mm**
motorized window

NOISE
**< 65 dB**
work surface 750 mm

### 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.

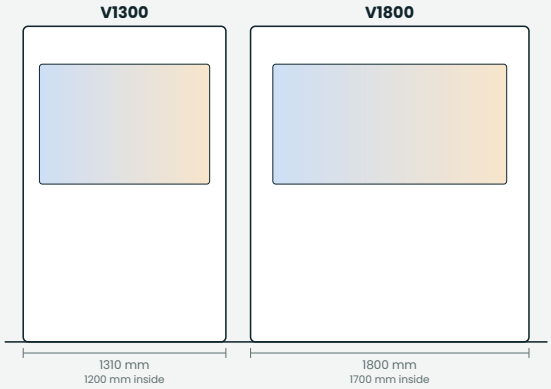
**Sample protection only**
A laminar flow cabinet protects the work, not the operator. Use a biosafety cabinet for hazardous material.

**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

# Built for long-term reliability




## 01 Control

- **LCD** of airflow velocity and timers
- UV timer and UV work-time record
- System work-time record and real-time clock
- **Motorized** front window
- Germicidal UV lamp at 253.7 nm

## 02 Clean air

- HEPA filter, **99.995 % at 0.3 µm**
- Washable polyester-fibre pre-filter
- Average **0.3–0.5 m/s** vertical airflow
- Noise below 65 dB
- Gas tap included

## 03 Build

- Cold-rolled steel, anti-bacteria powder coating
- **304 stainless** work table
- 5 mm toughened anti-UV side and front windows
- Base stand with universal casters and levelling feet
- Two waterproof sockets, ≤ 500 W total

TECHNICAL SPECIFICATIONS

# Technical specifications

| Parameter | V1300 | V1800 |
|---|---|---|
| External | 1310*750*2040 mm | 1800*750*2040 mm |
| Internal | 1200*645*610 mm | 1700*645*610 mm |
| LED lamp | 12W*1 | 16W*1 |
| UV lamp | 30W*1 | 40W*1 |
| Consumption | 400W | 450W |
| Gross weight | 228kg | 306kg |
| **DIMENSIONS** | | |
| External Size (W*D*H) | 1310*750*2040 mm | 1800*750*2040 mm |
| Internal Size (W*D*H) | 1200*645*610 mm | 1700*645*610 mm |
| Work Surface Height | 750 mm | |
| Max Opening | 430 mm | |
| Package Size (W*D*H) | 1460*1070*1650 mm | 1960*970*600 mm |
| **AIRFLOW AND FILTRATION** | | |
| Airflow Velocity | Average of 0.3~0.5 m/s | |
| Pre-filter | Polyester fiber, washable | |
| HEPA Filter | 99.995% efficiency at 0.3um | |
| **CABINET** | | |
| Display | LCD Display | |
| Front Window | Motorized | |
| Noise | <65 dB | |
| Material | Main Body: Cold-rolled steel with anti-bacteria powder coating. Work Table: 304 stainless steel. Side and Front Windows: 5mm toughened glass anti-UV | |
| Caster | Universal caster with leveling feet | |
| **ELECTRICAL** | | |
| Waterproof socket | Two, total load ≤500W | |
| Power Supply | AC220V±10%, 50/60Hz; 110V±10%, 60Hz | |
| **ACCESSORIES** | | |
| Standard Accessory | LED lamp, UV lamp*2, Gas tap, Base stand, Waterproof socket*2 | |

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

## AT A GLANCE

MODEL
### V1300

External size
**1310 × 750 × 2040 mm**

Internal size
**1200 × 645 × 610 mm**

Consumption
**400 W**

Gross weight
**228 kg**

MODEL
### V1800

External size
**1800 × 750 × 2040 mm**

Internal size
**1700 × 645 × 610 mm**

Consumption
**450 W**

Gross weight
**306 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 and tissue culture**
Sterile handling in vertical clean air.

**Microbiology media**
Plate pouring and aseptic transfers.

**Pharmaceutical QC**
Clean preparation of non-hazardous samples.

**Electronics**
Particle-free assembly and inspection.

## INSTALLATION

**Supply**
AC 220 V ±10 %, 50/60 Hz; 110 V ±10 %, 60 Hz.

**Height**
2040 mm overall; check door and ceiling clearance.

**Room**
Away from doors and air diffusers.

## WARRANTY & SERVICE

**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