

# VERTICAL LAMINAR AIRFLOW CABINET

# VS

## Proven Safety in Laboratory



# VS Vertical Laminar Airflow Cabinet according to ISO 14644-1 Proven Safety in Laboratory

## FOREWORD

**VS** cabinets provide vertical laminar-flow. Most of the air is recirculated through the HEPA filter, with part being expelled into the environment through the exhaust outlet.

VS cabinets operate under negative pressure after sterilisation through the HEPA filter and provide Class 100 air according to Federal Standard 209e. They therefore protect the product from micro-organisms and air borne contaminants. The balanced, perforated work surface and design of the working aperture provide an excellent flow laminarity at the work level.



## APPLICATIONS

**These cabinets have been specifically designed to meet the demands of modern industrial laboratories, primarily for handling cell cultures and no-hazardous VS logical agents, when it is necessary to ensure product protection.**

VS cabinets have applications in a wide range of disciplines, including:

- **Quality control of pharmaceuticals and food industries**
- **Microbiology**
- **Cell culture**
- **Sterile handling**



# TECHNICAL SPECIFICATIONS

## Construction:

corrosion resistant epoxy powder painted steel.

## Work surface:

Glazed AISI 304-stainless steel completely perforated to ensure flow laminarity and air recycling at the work surface level.

## Transparent side walls:

Safety glass.

## Absolute filters:

H14 HEPA filter, tested with D. O. P. aerosol. Their efficiency, higher than 99.999% at 0.3 micron particle size -0.001% penetration (99,995 % MPPS )- ensures performance exceeding requirements of EN-1822.

## Motor blower:

Direct coupled motor, electronic speed controlled to maintain a constant air flow of 0.45 m/sec, and compensate for a partially clogged filter up to a maximum plenum pressure of 40 mm of water.

## Power Supply:

220 V, 50 Hz, single phase. Other voltages available on request.

## Lighting:

Remote mounted fluorescent light, outside sterile area.

## Front window:

safety glass window with camlock.

## Spillage tray:

A painted spillage tray beneath the work surface collects spilt liquid.

## Additional Features:

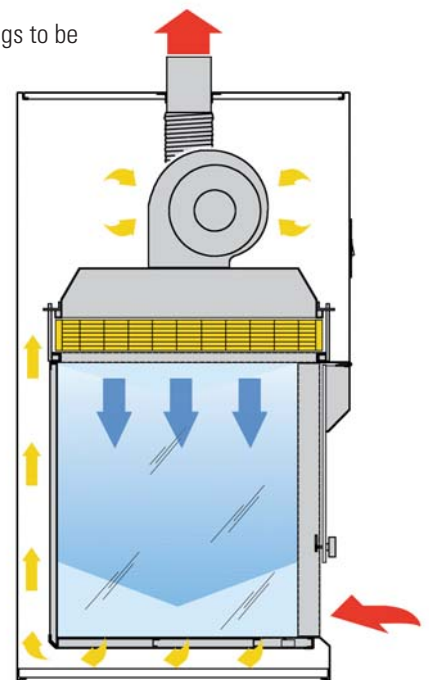
the work area is equipped with a manual gas tap and IP-44 electrical socket.

# OPTIONS

- Stainless steel modular stand for VS
- Castors for stainless steel modular stand
- Epoxy powder painted modular stand
- Castors for epoxy powder painted modular stand
- 3-Drawers unit on pivotting Castors and removable epoxy powder painted vessels
- UV lamp
- Additional service connection for gas/vacuum (1 tap), factory fitted
- Additional service connection for electrical power, factory fitted
- Hour counter, factory fitted
- Differential pressure gauge, factory fitted
- Stainless steel front closure for VS
- Digital anemometer, factory fitted
- Automatic regulator with digital anemometer, factory fitted
- Set of 2 gas springs for frontal glass
- Exhaust HEPA filter
- Exhaust charcoal filter
- D.O.P. inlet
- Stainless steel bar for bags to be fitted on VS
- UV timer

## VS Cabinets operational principles

External air  
Recirculated air  
Sterile air

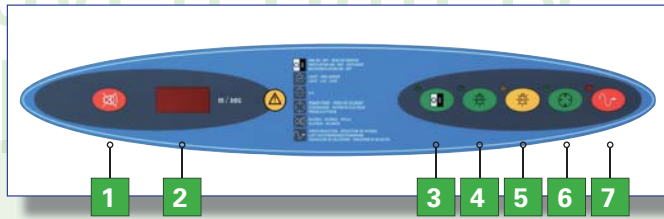


*The ambient air is drawn in through the slots of the stainless-steel base at the front opening and it then passes under the work surface, from where it is drawn up and partially blown and channelled through a HEPA filter back into the work chamber in a 'down-draught' of an even and laminar air flow pattern - whilst also partially exhausted back into the room.*

*The extracted air generates and continually aids a constant intake-draught of the ambient air in order to maintain an adequate and balanced exchange with fresh air - maintaining the lowest possible thermal drift.*

# VS CONTROL PANEL

Proven Safety  
in



- 1 Silence button
- 2 Display (optional)
- 3 Fan ON/OFF
- 4 Light
- 5 U.V. Light (optional)
- 6 Power point
- 7 Speed reduction

## TECHNICAL FEATURES

Code	Model	Useful dimensions (mm)			Overall dimensions (mm)			Power	Weight
		W	H	D	W	H	D	Kw	Kg
072700350	VS 4	1220	640	580	1312	1430	765	0,6	150
072700370	VS 5	1525	640	580	1617	1430	765	0,7	180
072700360	VS 6	1830	640	580	1922	1430	765	0,8	200

Model	Exhausted air (m <sup>3</sup> /H)	Temperature rise (°C)	Noise (dBA)	Lighting (lux)	Vibration (mm RMS)
VS 4	150	< 3	< 59	> 900	< 0,006
VS 5	160	< 3	< 59	> 900	< 0,006
VS 6	300	< 3	< 59	> 900	< 0,006