SmartFAST and SmartFAST MINI
Vertical Laminar Airflow Cabinets
**SmartFast**

*Vertical Laminar Airflow Cabinet*

**BEYOND MINIMUM SAFETY REQUIREMENTS**

**APPLICATIONS**

The **SmartFAST cabinet** is a compact Class ISO 3 vertical laminar flow cabinet which guarantees excellent decontaminated working area and particle-free conditions, especially designed for molecular biology applications.

The SmartFAST cabinet is fitted with a H14 HEPA/ULPA filter (air cleanless in Class ISO 3, according to ISO 14644-1) with efficiency better than 99,995% MPPS (EN-1822).

SmartFAST cabinet can be easily set to operate in two alternative modes: it can work in “positive pressure” and under “negative pressure”.

**Faster SmartFAST cabinet** is “ISO Class 3” vertical laminar flow cabinet which guarantees excellent decontaminated working area and particle-free conditions.

The cabinet is suitable to handle nucleic acids used in thermocycling, DNA amplifications, PCR applications, non-pathogenic microbiological and cell cultures applications.
UV STERILIZING LAMP
Optional UV sterilizing lamp with manual on/off switch.
UV timer is available installing the “Digital UV Timer and Hour Counter” option. Full programmable UV light including timer and delayed start-up, is available installing the option “Automatic regulator with Digital Display and Anemometer”.

SAFETY WINDOW
The frontal glass is hinged and can be folded upwards for cleaning and transfer material purposes.

CONSTRUCTION
Epoxy cold rolled steel painted with antimicrobial ALESTA® coating. AISI 304L work and back surface with rounded edge corners.

KIT BIOHAZARD
The cabinet can be optionally outfitted with a special Biohazard Kit which enables the unit to work with pathogens as defined in the appropriate International Standards.
The cabinet can be transformed in a real biohazard unit in accordance with the airflow performances required by EN-12469:2000.

UTILITIES
SmartFAST cabinet is supplied, as standard, with one electrical socket and DEHS test port.
SmartFAST cabinet is also supplied as standard with four side holes and caps for optional taps installation.
**SmartFAST KEYBOARD**
Membrane keyboard with LCD screen and touch sensitive buttons for: main on/off switch, light, electrical outlet, half speed reduction and UV light (if installed). Airflow speed visualization is enabled installing the option “Automatic regulator with Digital Display and Anemometer”.

**OPERATIONAL PRINCIPLES**

**POSITIVE PRESSURE**
The air stream flowing down in laminar airflow pattern from the H14 HEPA/ULPA filter passes through the perforated work surface. An air intake from the top side creates a slight positive pressure in the cabinet, which causes some of the air to be exhausted from the front aperture.

**NEGATIVE PRESSURE**
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 channeled after filtration through a H14 HEPA/ULPA filter in laminar air flow condition (about 90%) and exhausted outside (about 10%) from the upper side of the cabinet.

Detail of the closing panel on the top of the cabinet to switch from positive to negative pressure.
**BEYOND MINIMUM SAFETY REQUIREMENTS**

**SmartFAST mini cabinet** is a small work-station suitable for handling products that need to be protected against non-pathogenic airborne contamination.

The compact, portable cabinet can be easily moved and positioned on bench tops of a variety of different laboratories. It is suitable for various requirements such as: not pathogenic microbiology and cell cultures manipulation.

The SmartFAST mini cabinet is fitted with a H14 HEPA/ULPA filter (air cleanless in Class ISO 3, according to ISO 14644-1) with an efficiency better than 99.995% MPPS (EN-1822) as well as a synthetic fibre pre-filter with minimum efficiency of 80%-90% ASHRAE.

**OPERATIONAL PRINCIPLES**

The ambient air is drawn in through the pre-filter fitted in the upper side of the cabinet and it then filtered through the HEPA filter into the work-area in laminar air flow conditions. The same volume of air is exhausted outside from the frontal aperture and under the work surface.
## TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>SmartFAST</th>
<th>SmartFAST MINI</th>
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<tbody>
<tr>
<td>Overall Dimensions (WxDxH) mm</td>
<td>mm</td>
<td>830x652x925</td>
<td>642x340x830</td>
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<td>Useful Dimensions (WxDxH) mm</td>
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<tr>
<td>Light Lux</td>
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<td>Noise Level dB (A)</td>
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<tr>
<td>Weight kg</td>
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## OPTIONS AND ACCESSORIES FOR SmartFAST CABINET ONLY

- FX0012146000 UV lamp for SmartFAST with aluminium front closure
- FX0012146100 Stainless steel front closure for SmartFAST
- FX0012149600 Service connection for electrical power, factory fitted
- FX0012147100 Service connection for vacuum
- FX0012147200 Service connection for compressed air
- FX0012147300 Service connection for nitrogen
- FX0012150000 Digital UV Timer and Hour Counter
- FX0012149800 Automatic Regulator with Digital Display and Anemometer
- FX0012140200 Exhaust HEPA Filter with relevant housing (for negative pressure unit)
- FX0012140300 Exhaust A/C Filter with relevant housing (for negative pressure unit)
- FX0012149900 Differential pressure gauge, factory fitted (on the rear panel)
- FX0012149700 DOP/DEHS 100% port
- FX0012145000 Epoxy powder painted modular stand for SmartFAST
- FX0012145100 Epoxy powder painted modular stand for SmartFAST with castors
- FX0000064810 3-Drawers unit on pivoting Castors and removable epoxy powder painted vessels
- Kit Biohazard