

## LAMINAR AIRFLOW CABIN

### TECHNICAL SPECIFICATIONS

The LAF cabin is constructed around a basic module.

Depending on the actual use and where the unit is to be installed, it can be equipped various options. The LAF cabin is bespoke designed to meet your specific requirements by the addition of the various available options: Perforated table top, waste bag fitting, electric power points, special lighting, gas supply, extra sound insulation, weighing scales, fixed solid side-walls and/or transparent plastic strip curtains, etc.

It is essential that the air is laminar over the whole downflow area. This is obtained by using our specially designed laminator that covers the entire downflow area. This specifically ensures that there are no "dead" areas or turbulence. The average air velocity/downflow is specified as 0.45 m/s  $\pm$  0.05 m/s (all measured points are within  $\pm$  20% of this average) in the entire working area. This is essential to achieve particle free working conditions.

A flowsensor automatically adjusts the downflow velocity to ensure compliance with the specified velocity at all times.

Soft-touch operating panel: Full speed - half speed - full light - emergency stop - visual downflow alarm.

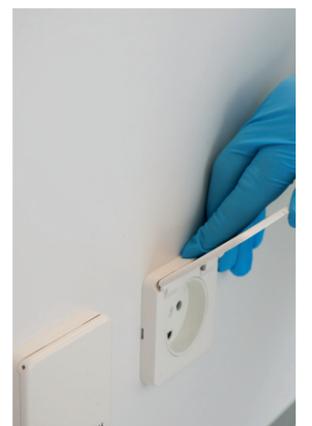
HEPA filter: EU 14 according to EN 1822, i.e. 99.995% efficiency against most penetrating particles size (MPPS). Class 100 according to Federal Standard 209D, 1988 (Sterile Working Conditions).

Product code	Dimensions (mm)	Depth	Width	Height
40-LAF-1313-ST	External	1818	1320	2600
	Internal	1325	1320	2100
40-LAF-1316-ST	External	1818	1625	2600
	Internal	1325	1625	2100
40-LAF-1319-ST	External	1818	1930	2600
	Internal	1325	1930	2100
40-LAF-1613-ST	External	2123	1320	2600
	Internal	1630	1320	2100
40-LAF-1616-ST	External	2123	1625	2600
	Internal	1630	1625	2100
40-LAF-1619-ST	External	2123	1930	2600
	Internal	1630	1930	2100
40-LAF-1913-ST	External	2428	1320	2600
	Internal	1935	1320	2100
40-LAF-1916-ST	External	2428	1625	2600
	Internal	1935	1625	2100
40-LAF-1919-ST	External	2428	1930	2600
	Internal	1935	1930	2100

### FURTHER INFORMATION

You can obtain further information and guidance as to which Laminar Airflow Cabin meets your exact requirements by contacting your local Area Manager, calling us direct +45 56 86 56 10 or sending us an email [info-technology@scanbur.eu](mailto:info-technology@scanbur.eu)

# LAMINAR AIRFLOW CABIN



## LAMINAR AIRFLOW CABIN

The purpose of our laminar airflow (LAF) cabin is to meet the growing need for essential protection of personnel, animals and environment during handling procedures.

Within the LAF cabin, cage changing or other animal procedures may be confidently and safely performed under particle free conditions.

### THE LAF CABIN

The LAF cabin combines ergonomically correct working conditions with optimal safety and protection for animals, personnel and environment.

The increased use of valuable transgenic animals imposes strict SOPs on staff. Aseptic procedures should always be followed to maintain the status of the animals.

Increasing numbers of people suffer from work related allergies (L.A.A.). To achieve high levels of protection and maintain pleasant working conditions, all the items involved in specific procedures should be kept at hand within the protection of the LAF cabin e.g. dirty cages, clean cages, new bedding, fresh water, diet, etc.

### CAGE CHANGE

*A time saving and safe procedure*

Whether using the ventilated Scantainer<sup>CLASSIC</sup> with open cages, the ventilated Scantainer<sup>PLUS</sup> with individually ventilated filtertop cages or another type of IVC system; the rack is simply wheeled to the LAF cabin where it is aligned to the front of the LAF cabin.

It is now simple and easy to carry out cage changing safely under particle free conditions without the awkward restrictions that a LAF bench imposes on the procedures. It is also possible to use, for example, a Scantainer with open non-filtertop cages with no cross-contamination risk between cabinets - as long as all procedures take place under the LAF cabin.



### SAFETY

*Animals, staff and environment*

- Protects animals from possible contamination
- Prevents cross-contamination between cages
- Protects staff from exposure to allergens (L.A.A.)
- Protects surroundings: Eliminates spread of dust particles, allergens and pathogens back into the room during animal handling and cage stacking

### TEST REPORT

Upon installation the following parameters are tested:

- Functional test
- Air velocity in downflow area
- Sound levels
- DOP leakage test (photometer test)

A test report is issued with each LAF cabin.

### ERGONOMICS

*A spacious unit*

- Large working area allows staff to work swiftly, accurately and safely in an ergonomically correct way
- Staff are unrestricted by limited work space and openings (as in a cage changing station)
- Plenty of room for auxiliary equipment needed to carry out the various procedures
- The LAF cabin is easy to keep clean as all surfaces are smooth and easily accessible. The pre-filter is fitted at floor level and easily changed

## LAMINAR AIRFLOW CABIN

### VARIOUS APPLICATIONS

The LAF cabin is ideal as:

- cage changing area
- cage cleaning out area
- reception intake area for new animals
- washing area
- weighing of animals
- blood sampling
- minor operations
- handling of larger animals
- autoclaving area

### HOW DOES THE LAF CABIN WORK?

Inside the LAF cabin all air is forced downwards through a HEPA filter. The HEPA filtered downflow air passes through the perforated working table and is then extracted through the pre-filter at floor level.

The air is partly re-circulated and partly exhausted. The exhaust air ensures that the LAF cabin is a "containment" area.

For optimal safety it is extremely important that the airflow is laminar, and that there are no "dead" areas where turbulence could occur. Our specially designed laminator ensures an extremely uniform and laminar airflow.

Air is pulled into the unit through pre-filters. Approximately 1620 m<sup>3</sup>/hour per m<sup>2</sup> of air is forced into the pressure plenum by the ventilators and through the HEPA filters. Approximately 80% of the air is lead through the main HEPA filter, 20% is lead through the exhaust HEPA filter. The laminator is located below the main HEPA filter.

### SMOKE TEST (VIDEO CLIP AVAILABLE ON CD-ROM)

In the first 11 seconds smoke is introduced into the LAF cabin. The LAF cabin is now switched on. During the following 9 seconds, all smoke is quickly and efficiently removed from the cabin area.

All particles move with a high and uniform velocity towards floor level.

