



Clean Air.

Series EuroFlow Type EF/S

Biological Safety Cabinets Class II

NEW model

NEW electrical sliding window
NEW electrical adjustable support-frame



more than just clean air...

NEW model

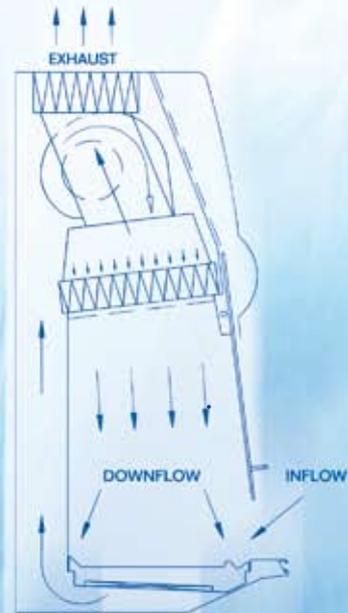
Clean Air.

Series EuroFlow Type EF/S Biological Safety Cabinets Class II

Clean Air provides a complete range Biological Safety Cabinets offering the highest personnel and/or product and environmental protection. These state of the art cabinets have been designed in consultation with a variety of customers to incorporate user-friendly requirements and ergonomics. This has resulted in high quality reliable cabinets that comply with the highest standards for biological safety which have low noise-levels and are easy to operate. Series Euroflow is enlarged with a new model, Type EF/S.



NEW electrical adjustable support-frame



EF/S

New design: slope front window

Clean Air proudly presents Type EF/S, a complete new model of class II Biological Safety Cabinets.

One of the new topics is the slope design of the front window. Type EF/S guarantees an excellent ergonomic working position. From now on also available with electrical sliding window.

NEW model
Type EF/S

Biological Safety Cabinets	Type	Size mm (ft.)	Safety	According to
Class II	EF/S	1373/1678/1983 (4/5/6)	Personnel, product and environmental protection	EN 12469 & NSF & AFNOR

Clean Air EuroFlow Biological Safety Cabinets are appreciated for their solid construction, while providing the highest safety and maximum convenience. These cabinets can be used for applications that require the highest protection and safety. Examples are applications assigned to bio-safety levels 1,2 or 3 and production of (cyto-toxic) medicines.

Features, Advantages and Technical Specifications Clean Air Series EuroFlow Type EF/S

Biological Safety Cabinets Class II

Series EuroFlow Biological Safety cabinets Class II Type EF/S provide personnel, product, cross-contamination and environmental protection.

Series EuroFlow Type EF/S is certified in accordance with EN 12469

Multi-Shell construction: safety beyond minimum requirements

Clean Air exceeds the norm with the safe multi-shell construction by creating a negative pressure surrounding the wall of the working area.



Interior mono-construction

The standard stainless steel working area of Series EuroFlow Type EF/S is a mono-construction, therefore seamless and easy to clean. The outer shell surrounds the interior and creates a negative pressure environment.



Cleaning and decontamination

Due to the interior mono-construction the inside of the cabinet is very easy to clean. For service applications it might be necessary to decontaminate the cabinet, for example by using the Formalin Ammonium System FAS2000. The overall tightness of the cabinet also makes a VHP® biodecontamination (vaporized hydrogen peroxide) possible without the use of plastic bags. A big contribution to this fact is the laminated safety glass window, which can be hermetically closed by a dedicated locking system. A decontamination set is optional available.

Ergonomics

The slope ergonomic design of the cabinet guarantees an excellent working position. The integrated epoxy-coated armrest delivers a great contribution to comfort and safety. Series EuroFlow Type EF/S is optional equipped with an ergonomic designed support-frame with integrated footrest. The combined sliding and hinged window construction creates more space for loading / unloading and simplifies cleaning.



Pre-filter and drip tray

To increase the lifetime of the HEPA filters, the cabinets are standard installed with a pre-filter type G3 (according to EN 779) and integrated drip tray construction underneath the worktop.

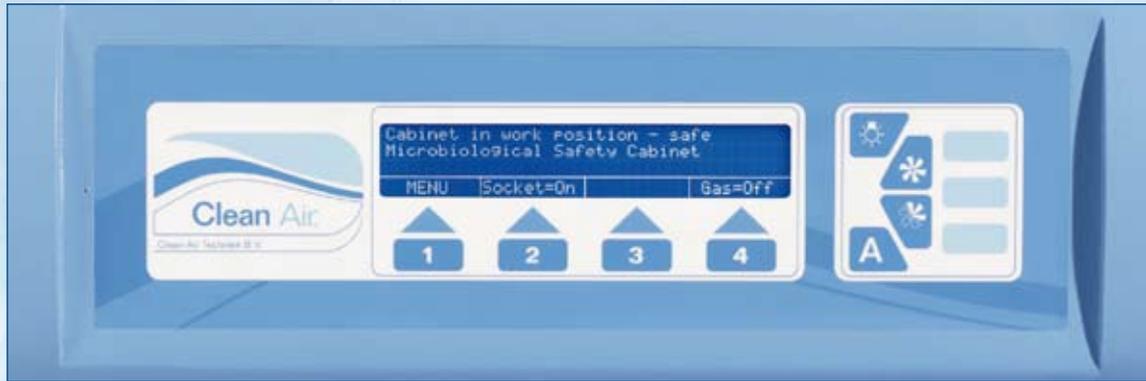


NEW Microprocessor safety control panel

Series EuroFlow Type EF/S is equipped with a state of the art control panel with Electronic Flow Control. This control panel is directed to the user to optimise the view on the relevant functions and alarms.

Parameters are:

- Independent alarms (red indicator) for:
 - Downflow high / low
 - Inflow high / low
 - Window position
- Green indicator for safe work mode
- Measurement downflow velocity
- Realtime clock
- Timer to switch on the cabinet according to programmed time
- LCD display for information according airflow and alarm status
- Safety switch work light and UV light
- Indicator for UV operation
- Control sockets: manual, timer or on 7-days clock
- Control for UV light: manual, timer or on 7-days clock
- Gas taps and electrical safety valve
- Independent hour information on FL, UV and cabinet
- Automatic lock function
- Power supply for (bunsen burners and) feet control switch
- Independent potential free alarm output contact
- RS 232 and RS 485 connection
- Available in English and two other languages, Dutch and German.
- Redundancy on vital processes (e.g. two microprocessors, two independent audio alarm signals, window switches)
- Built-in disinfection program

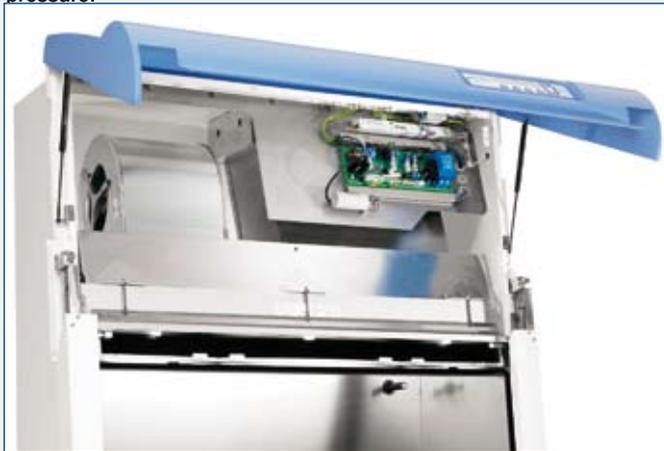


Clean Air Superior Safety (C.A.S.S.)



Rigid Negative Pressure Design

The durable "fail-safe" filter-plenum is surrounded by negative pressure to prevent contaminated air to escape into the laboratory. All contaminated components are surrounded by negative pressure.



Electronic Flow Control and Air Velocity Compensating Microprocessor

NEW The Air Velocity Compensating Microprocessor provides superior safety by regulating the fan speed to compensate for main power fluctuations and filter pollution.

For rapid, continuous and accurate measuring of air velocity all series EuroFlow cabinets are equipped with electronic heat-wired flow sensors. This ensures a superior safety of personnel and product protection due to the faster response time.

Worktop with V-shaped air slits

The stainless steel, single piece worktop with V-shaped air slits on the front, provides a superior safety compared to flat slits. Sleeves will be less contaminated and blocking of the inflow is almost impossible. Optional a segmented worktop is available.



Everlasting quality

Robust design, cabinet constructed out of 1,5 - 2 mm epoxy coated steel or stainless steel.

Options and accessories

- Support-frame
- Electrical in height adjustable support-frame
- Gas taps with electrical safety valve (acc. EN 12469)
- Taps for CO₂-O₂-N₂-H₂O and vacuum
- 230 V socket outlets
- UV Light with hour counter
- Electrical sliding window
- Segmented worktop
- Double exhaust HEPA filter kit
- Exhaust transition
- Thimble connection
- Anti blow back valve
- Decontamination set
- Connections for VHP decontamination
- FAS2000
- Bunsen burner sockets
- Electronic bunsen burners with foot switch
- IQ / OQ Documents

Technical Specifications

Clean Air Series EuroFlow Type EF/S

Biological Safety Cabinets Class II

Type	EF/S-4E	EF/S-5E	EF/S-6E
Part no. (EC & SS workarea)	H071001	H081001	H091001
Exterior dimensions wxdxh (mm)	1373x794x1597	1678x794x1597	1983x794x1597
Work area wxdxh (mm)	1180x550/470x660	1485x550/470x660	1790x550/470x660
Total height incl. 900 mm support-frame	2365	2365	2365
Total height incl. 800 mm support-frame	2265	2265	2265
Weight (kg)	215	235	282
Exhaust volume (m³/h)	400	500	600
Exhaust transition, dia (mm)	250	250	250
Light intensity (lux)	1150	1150	1150
Noise level dB(A)	53	<57	<57
Electrical connection	230V/50Hz/16A	230V/50Hz/16A	230V/50Hz/16A
Filter classification			
Pre-filter according to EN 779	G3	G3	G3
Downflow HEPA filter according to EN 1822	H14	H14	H14
Exhaust HEPA filter according to EN 1822	H14	H14	H14
Standards according to			
EN 12469	Certified	Certified	Certified
NSF 49	Yes	Yes	Yes
AFNOR	Yes	Yes	Yes
CE Directive 98/37/EC	Yes	Yes	Yes
Electrical Safety EN 61010-01	Yes	Yes	Yes
EMC 89/336/EEC	Yes	Yes	Yes

Factory testing

Before shipment each Clean Air Biological Safety Cabinet is validated to ensure safety as well as compliance with standards and regulations (EN 12469). These tests include visual inspection, electrical safety, unit performance, HEPA filter efficiency, airflow patterns and volumetric airflow rates.

The test certificate is supplied with each cabinet.

3 Year Warranty Protection

Clean Air is confident in the quality delivered. Therefore we are able to back our Biological Safety Cabinets with a full three year warranty. Ask for our warranty conditions.

