Clean Air.

Clean Air Techniek B.V.

Clean Air.

Series Clean Lamin AirFlow

Cabinets Series CLF, DLF and DLF/PCR

more than just clean air...

Clean Air

Series CleanLaminAirFlow

Cabinets Series CLF, DLF and DLF/PCR

Clean Air provides a complete range Laminar Airflow Cabinets for handling of non-hazardous materials, which require a clean particle free environment. The cabinets offer the highest product protection. The vertical or horizontal Class 100 (ISO 5) airflow prevents contaminated room air to enter the work-area of the cabinet, ensuring product protection.

These state of the art units have been designed in consultation with a variety of customers to incorporate user-friendly requirements and ergonomics. This has resulted in high quality reliable units, which have a low noise-level and are easy to operate.
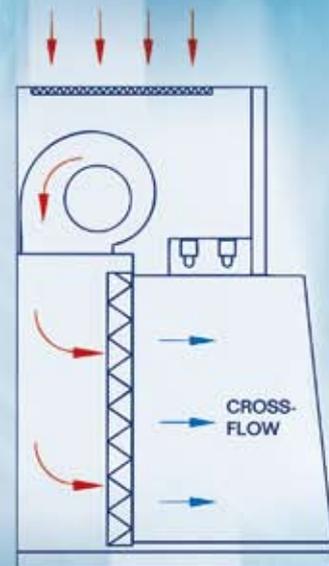
Series CLF
Horizontal Laminar AirFlow cabinets for product protection

Clean Air has developed a versatile range of horizontal laminar airflow cabinets Series CLF for handling of non-hazardous materials that require a clean particle free environment.

HEPA filtered air is directed horizontally across the working surface creating a Class 100 working environment ensuring product protection. The positive pressure inside the cabinet prevents inflow of contaminated room air in the work area. Horizontal laminar AirFlow cabinets are widely applicated in the pharmaceutical industry, biotechnology, pharmacies, hospital and university laboratories as well as in the field of tissue culture and electronic laboratories.

NEW Microprocessor control panel

CLF

→ Ambient Air
→ HEPA Filtered Air
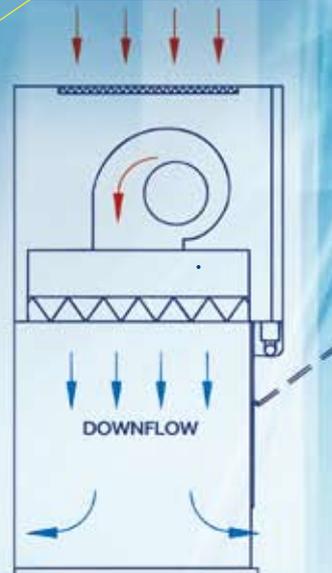
Series DLF and DLF/PCR
Vertical Laminar AirFlow cabinets for product protection

Clean Air has developed a versatile range of vertical laminar airflow cabinets Series DLF and DLF/PCR for handling of non-hazardous materials that require a clean particle free environment.

HEPA filtered air is directed vertically over the working surface creating a Class 100 (ISO 5) working environment ensuring product protection. The positive pressure inside the workstation prevents inflow of contaminated room air in the work area. Vertical laminar AirFlow cabinets are widely applied in the pharmaceutical industry, biotechnology, pharmacies, hospital and university laboratories as well as in the field of tissue culture and electronic laboratories.

NEW Microprocessor control panel

DOWNFLOW

DLF

→ Ambient Air
→ HEPA Filtered Air

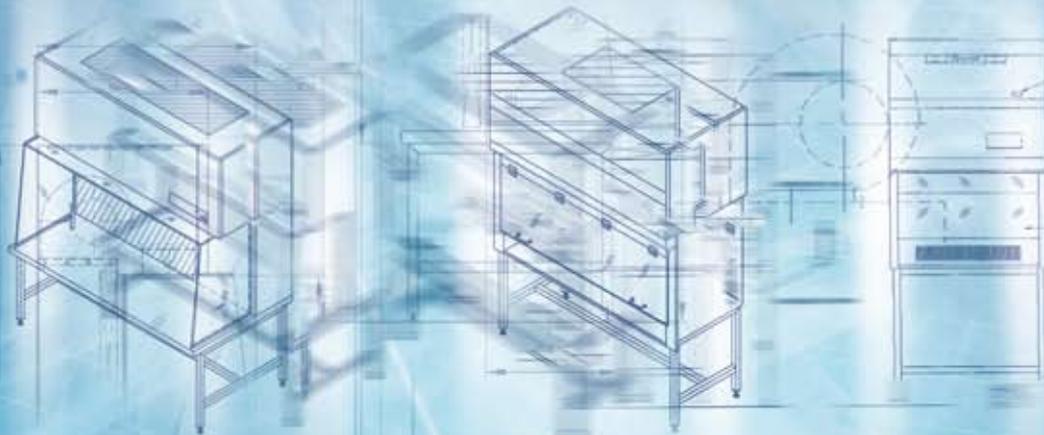## DLF/PCR 360 Vertical Laminar AirFlow Cabinet designed for PCR applications

The DLF/PCR 360 is designed to perform PCR protocols (poly chain reactions) in a particle free environment. The standard built-in UV light ensures the elimination of any nucleic acid to avoid cross-contamination and new amplifications can be started quickly. Because of the UV light, the work area and working surface of DLF/PCR are standard constructed of stainless steel. The cabinet is provided with a UV resistant hinged polycarbonate window.

When the UV-light is switched on, the normal lighting will be switched off for safety reasons. A separate front panel is included to create a barrier for the dangerous UV-rays.

The entire stainless steel working area has smooth rounded corners, which makes cleaning easy and efficient.

Features Series DLF and DLF/PCR:

- Constructed out of 1,5 - 2 mm epoxy coated steel
- Low noise level of ≤58 dB(A)
- Interior work height standard 685 mm
- Worktop standard in stainless steel 304
- Worktop standard at 800 or 900 mm height (when cabinet mounted on a support-frame)

- All interior surfaces of the work area align with the edge of the HEPA filter media to provide true laminar airflow
- Different windows possible: a hinged acrylic, a hinged polycarbonate or safety glass sliding window
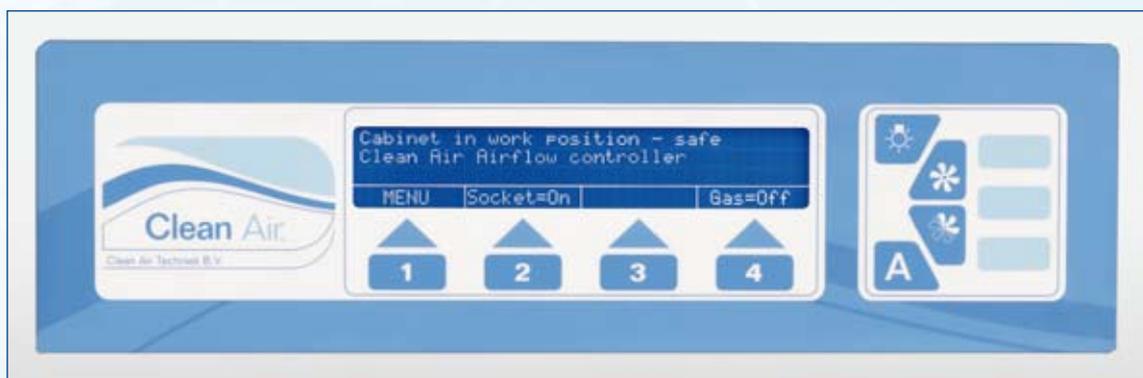
NEW Microprocessor control panel with Electronic Flow Control

Series CLF, DLF and DLF/PCR 360 are equipped with a state of the art control panel with Electronic Flow Control.

Parameters are:

- Independent alarms (red indicator) for:
  - Downflow high / low for Type DLF and DLF/PCR or
  - Crossflow high / low for Type CLF
  Green indicator for safe work mode
- Measurement downflow or crossflow 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 und UV light (option only for
- DLF)
  Control sockets: manual, timer or on 7-days clock
-

- Control for UV light: manual, timer or on 7-days clock
- Gas taps
- Independent hour information on FL, UV and cabinet
- Automatic lock function
- Power supply for (bunsenburners and) feet control switch
- RS 232 and RS 485 connection
- Standard available in three languages: English, German and Dutch
- Redundancy on vital processes (e.g. two microprocessors, two independent audio alarm signals)
- Fan speed will be automatically compensated for main power fluctuations and filter pollution between annual checks / validations

Cabinet in work position - safe
Clean Air Airflow controller

MENU   Socket=On   Gas=Off

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Options and accessories Series CLF, DLF and DLF/PCR

- Support-frame
- Gas taps
- Gas taps with electrical safety valve
- Taps for O2, N2, vacuum and pressed air
- 230 V socket outlets

- UV Light
- Electronic bunsen burners with foot switch
- Stainless steel bar with (6 or 8) hooks
- IQ / OQ Documents

All accessories will be factory installed

CE

Technical Specifications
Clean Air Series Clean*Lamin*AirFlow
Cabinets Series CLF, DLF and DLF/PCR

Type	CLF 475	CLF 675
Part no. (EC)	P0012475	P0012675
Part no. (EC & SS worktop)	P0012475R	P0012675R
Exterior dimensions wxdxh (mm)	1290x890x1350	1900x890x1350
Work area wxdxh (mm)	1190x540x735	1800x540x735
Total height (incl. 810 mm support-frame)	2082	2082
Weight (kg)	225	325
Total air volume (m3/h)	1135	1700
Light intensity (lux)	>800	>800
Noise level dB(A)	56	54
Electrical connection	230V/50Hz/16A	230V/50Hz/16A
Filter classification		
Pre-filter according to EN 779	G3	G3
HEPA filter according to EN 1822	H14	H14
Standards according to		
CE Directive 98/37/EC	Yes	Yes
Electrcal safety EN 61010-01	Yes	Yes
EMC 89/336/EEC	Yes	Yes

Type	DLF 360	DLF 460	DLF 560	DLF 660
Part no. (EC - acrylic hinged window)	P0025360	P0025460	P0025560	P0025660
Part no. (EC - polycarbonate hinged window)	P0026360	P0026460	P0026560	P0026660
Part no. (EC - safety glass sliding window)	P0027360	P0027460	P0027560	P0027660
DLF/PCR 360 (SS work area, polycarbonate hinged window and UV)	P0024360	N/A	N/A	N/A
Exterior dimensions wxdxh (mm)	985x740x1360	1290x740x1360	1595x740x1360	1900x740x1360
Work area wxdxh (mm)	885x600x685	1190x600x685	1495x600x685	1800x600x685
Total height (incl. 800 mm support-frame)	2140	2140	2140	2140
Total height (incl. 900 mm support-frame)	2240	2240	2240	2240
Weight (kg)	150	200	250	300
Total air volume (m3/h)	680	900	1150	1360
Light intensity (lux)	>800	>800	>800	>800
Noise level dB(A)	≤58	≤58	≤58	≤58
Electrical connection	230V/50Hz/16A	230V/50Hz/16A	230V/50Hz/16A	230V/50Hz/16A
Filter classification				
Pre-filter according to EN 779	G4	G4	G4	G4
HEPA filter according to EN 1822	H14	H14	H14	H14
Standards according to				
CE Directive 98/37/EC	Yes	Yes	Yes	Yes
Electrcal safety EN 61010-01	Yes	Yes	Yes	Yes
EMC 89/336/EEC	Yes	Yes	Yes	Yes

Factory testing

Before shipment each Clean Air Cabinet is validated to ensure compliance with standards and regulations. 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.

1 Year Warranty Protection

Clean Air is confident in the quality delivered. Therefore we are able to back our Cabinets with a one-year warranty.

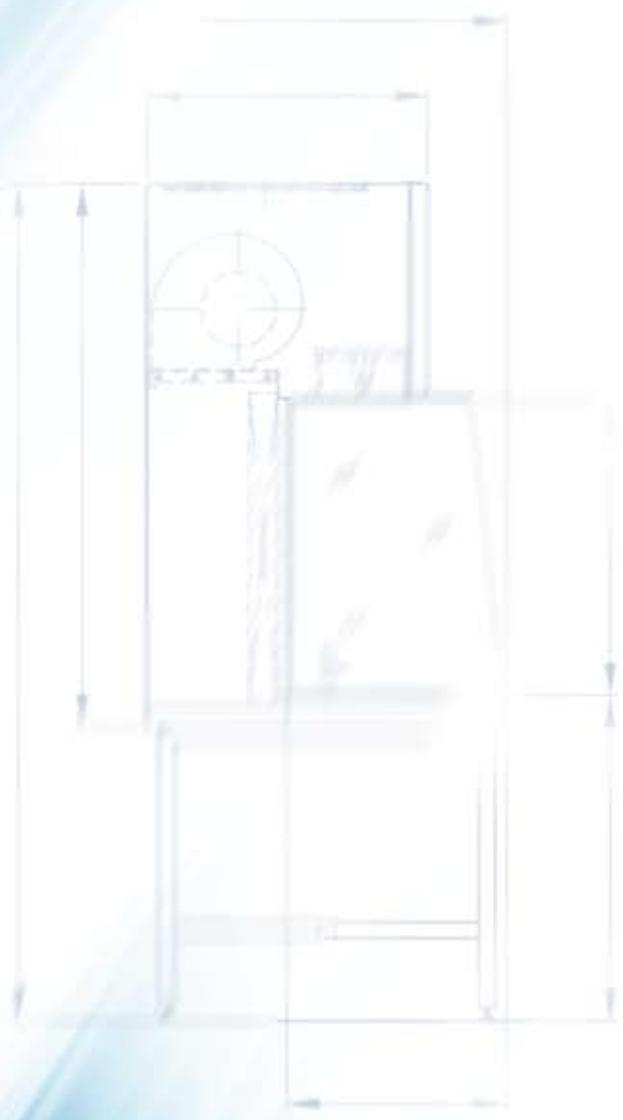# Clean Air

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