

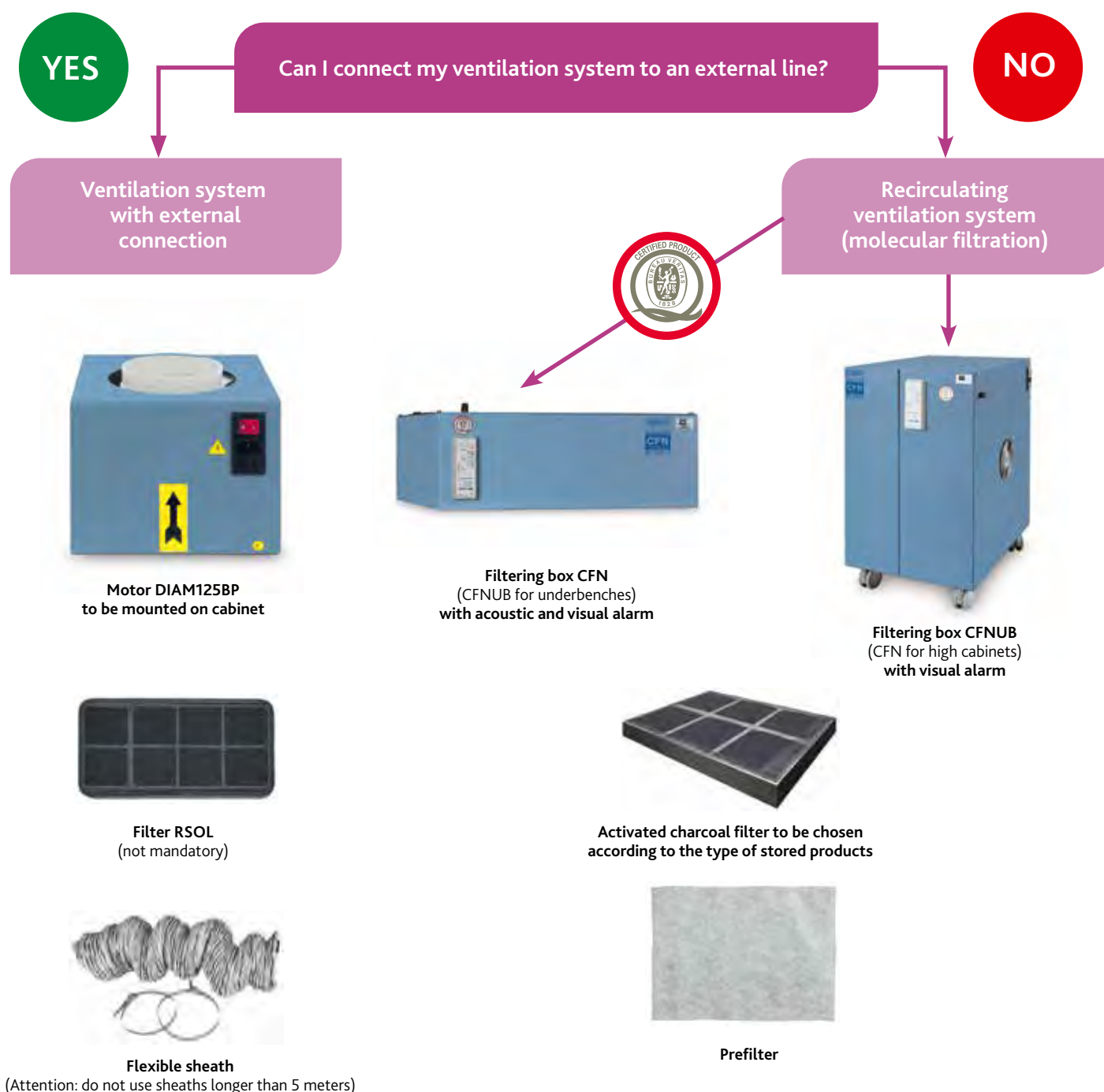
Ventilation Choice Guide

The importance of filter replacement

→ THE CHOICE OF VENTILATION

In order to ensure the utmost safety of workers and to preserve the safety cabinets for corrosive substances, we recommend to provide them with a ventilation system.

For networks longer than 5 metres, please contact us:
we will provide you with a customized study



→ REPLACEMENT OF ACTIVATED CHARCOAL FILTERS

Activated charcoal is a microporous absorbent substance belonging to a network of fissures and pores connected to each other, which is present throughout the whole material.

Contaminant gas molecules contained in an air flow penetrate through the largest pores situated on the surface of the activated charcoal by means of a process called diffusion and move towards the inner surface of the narrowest pores. When a gas molecule hits the surface of the activated charcoal in a suitable point, an attraction occurs and the molecule gets entrapped.

Therefore, a filter is saturated when all the pores are filled with the substance to be filtrated. It becomes then inefficient and worse, **the first entrapped molecules are released by the pressure of the new molecules.**

The role of the filters inside fresh air boxes of cabinets is to hold noxious vapours that are released by the stored products inside the cabinet itself.

It is extremely important to **replace filter on a regular basis**, or at least to check their saturation level.

Ventilation system with connection



Ventilation system with recirculation



→ REFERENCES:

- **For cabinets containing solvents:**
Motor DIAM125BP + filter RSOL + connection kit GFKIT100
- **For cabinets containing chemicals:**
Motor DIAM125BP + filter RSOL + connection kit GFKIT125
- **In a system with external connection, the filter is not mandatory, his purpose is basically to protect the environment.**
- **WE RECOMMEND TO REPLACE THE FILTER 2 TO 3 TIMES A YEAR AND TO PERFORM MAINTENANCE MONTHLY**
(cleaning of cabinet, dust-removal of the filter)

→ REFERENCES:

- Motor CFN or CFNL + filter CSAS/CSBE/CSMP according to the type of stocked products
- **WE RECOMMEND TO REPLACE THE FILTER 2 TO 3 TIMES A YEAR**
- **It is also possible to check the filter saturation through a colorimetric check carried out using a suction pump. Please feel free to contact us.**

A saturated filter is an inefficient filter

In order to protect workers and environment, replace the filters on a regular basis!

It is also possible to check the filter saturation through a colorimetric check carried out using a suction pump. Please feel free to contact us.

REPLACE FILTERS ON A REGULAR BASIS AND CHECK THEIR SATURATION

VENTILATION UNITS with external connection

For cabinets containing
non-flammable chemicals



CSF120MY11

→ TECHNICAL FEATURES:

- Chamber made of reinforced fiberglass and polyamide resin
- Filter holding box included in the motor body
- Flameproof
- Antistatic
- Corrosion resistant
- Internal thermal protection IP44 according to standard DIN40050
- Extraction rate: 260 m³/h
- Electrical power supply: 220-230V/50HZ single phase
- Supplied with power supply cable
- Neoprene gasket to ensure
- Outlet diameter: 100 mm

Clogged filter = no efficient filtration of chemicals = lack of protection for workers

**As safety and health have no price,
check and replace filters on a regular basis**

The filtration box should include an activated charcoal filter

→ SERIES

CODE	DESCRIPTION	DIMENSIONS (WxDxH) mm	Weight (kg)
DIAM125BP	Fresh air box with filter holding box for high cabinet with 1 or 2 doors - outlet Ø: 125 mm (filter excluded)	290x290x270	10
CSF120MY11	Fresh air box with paneling for cabinet with 2 doors - outlet Ø 100 mm	1200x510x300	18

→ OPTIONS

CODE	DESCRIPTION	DIMENSIONS (WxDxH) mm
RE1000	Fan flow controller (to be ordered with the fan DIAM125BP)	-
RSOL	Activated charcoal filter for motor DIAM125BP - (to replace at least twice a year)	235x110x15
GFKIT125	Connection kit: 1 metre of flexible sheath Ø 125 mm and 2 clamps	Ø 125 mm - W1000 mm
GF125	1 metre of flexible sheath Ø 125 mm	Ø 125 mm - W1000 mm
SERMET125	Clamp Ø 125 mm	Ø125 mm
AC409	Rigid PVC pipe Ø 125 mm	Ø 125 mm - W1000 mm
AC419	Rigid PVC 90° elbow Ø 125 mm	Ø 125 mm
AC429	Rigid PVC 45° elbow Ø 125 mm	Ø 125 mm
AC440	Rigid PVC T-connection Ø 125 mm	Ø 125 mm
AC489	Rigid PVC manual butterfly valve Ø 125 mm	Ø 125 mm
AC457	Expulsion section with anti-bird grid Ø 125 mm	Ø 125 mm
AUM100125	Reduction 125 mm/100 mm	Ø 125 mm - Ø 100 mm
TIM24	Daily counter	-

For cabinets containing inflammable chemicals

→ TECHNICAL FEATURES:

- Steel compartment with aluminium rotor
- Filter holding box included in the motor body
- Flameproof & antistatic
- Corrosion resistant
- Internal thermal protection IP55 according to standard DIN40050
- Extraction rate: 200m³/h
- Electrical power supply: 220-230V/50HZ single phase
- Integrated filtered compartment
- Supplied with power supply cable
- Neoprene gasket to ensure tightness
- Outlet diameter: 125 mm



DIAM125BP

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When a gas molecule hits the surface of the activated charcoal in a suitable point, an attraction occurs and the molecule gets entrapped.

Therefore, a filter is saturated when all the pores are filled with the substance to be filtrated. It becomes then inefficient and worse, the first entrapped molecules are released by the pressure of the new molecules.

The role of the filters inside fresh air boxes of cabinets is to hold noxious vapours that are released by the stored products inside the cabinet itself.

It is extremely important to replace filter on a regular basis, or at least to check their saturation level.

→ SERIES

CODE	DESCRIPTION	DIMENSIONS (WxDxH) mm	Weight (kg)
DIAM125BP	Fresh air box with filter holding box for high cabinet with 1 or 2 doors- inlet/outlet Ø: 125 mm (filter excluded)	290x290x270	11
CSF100BPAMY11	Fresh air box ATEX with power cable and filter box - outlet diam. 125 mm	350x370x500	11

→ OPTIONS

CODE	DESCRIPTION	DIMENSIONS (WxDxH) mm
RE1000	Fan flow controller (to be ordered along with fan DIAM125BP)	-
RSOL	Activated charcoal filter for motor DIAM125BP - (to replace at least twice a year)	235x110x15
GFKIT100	Kit for external connection (1 metre of flexible sheath Ø 100 mm and 2 clamps)	Ø 100 - W1000 mm
GF100	1 metre of flexible sheath Ø 100 mm	Ø 100 mm - W1000 mm
SERMET100	Clamp Ø 100 mm	Ø 100 mm
AC408	Rigid PVC pipe Ø 100 mm	Ø 100 mm - W1000 mm
AC425	Rigid PVC 90° elbow Ø 100 mm	Ø 100 mm
AC428	Rigid PVC 45° elbow Ø 100 mm	Ø 100 mm
AC488	Rigid PVC manual butterfly valve Ø 100 mm	Ø 100 mm
AC456	Expulsion section with anti-bird grid Ø 100 mm	Ø 100 mm
AC443	Rigid PVC T-connection Ø 100 mm	Ø 100 mm
AUM100125	Reduction 125 mm/100 mm	Ø 125 mm - Ø 100 mm
TIM24	Daily counter	-

Fresh air box with filtration

Certified according to standard NFX15-211



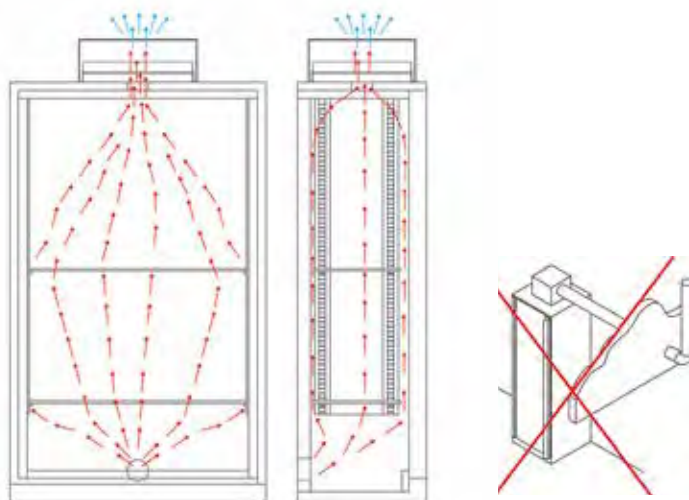
All toxic vapours released by the storage of chemicals are removed, thus ensuring cleaned air inside the lab.

Easier and cheaper to implement, this system allows the ventilation of cabinets with no need of external connections and with no issue relating to air compensation in the room.

Therefore this ventilated cabinet can be installed in any place of the lab and in close proximity to the work area.

→ WORKING PRINCIPLE OF A FILTERING VENTILATED CABINET

Noxious vapours remaining inside the storage cabinet are extracted by the fresh air box and cleaned when passing through the activated charcoal filter before being released into the atmosphere. The filtration of vapours should be performed in a specific manner by choosing the suitable activated charcoal filter.



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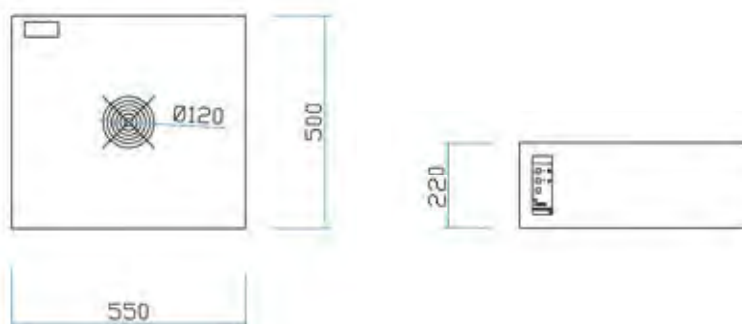
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Technical drawings

- Sizes: W550 x D500 x H220 mm
- Weight: 13 Kg



→ TECHNICAL FEATURES:

Cabinet ventilation

- Electrogalvanized steel structure 10/10 mm, covered in a light blue epoxy paint
- Axial fan
- Flow rate: 100 to m³/h
- Voltage/frequency: 220 volts/50Hz, protection IP44
- Acoustic level 45dB
- Complying with the standard ISO 3744
- Retention capacity CCL4 on a 7000 g-filter (in compliance with the efficiency level defined by the standard AFNOR NFX 15-211) or maximum rejection of 50% of the average exposure value of the product)

Control Microprocessor AC5500

- ON/OFF switch with light indicators for motor proper working
- LED visual and acoustic working hour meter
- Alarm indicator of filter saturation every 60 working hours
- Speed measurement of the air passing through the filter
- Possibility of programming the suction time (12h or 24h)



Manual sampling pump (optional)

- It allows air sampling and the colorimetric analysis in order to assess the activated charcoal filter saturation.

**Clogged filter = no efficient filtration of chemicals
= lack of protection for workers**

**As safety and health have no price,
check and replace filters on a regular basis**

The filtration box should include an activated charcoal filter



→ FRESH AIR BOX WITH FILTRATION

CODE	DESCRIPTION	DIMENSIONS (WxDxH) mm
CFN	Fresh air box with molecular filtration according to standard NFX15-211, with visual and acoustic alarm	550x500x220
CFNL	Molecular filtration box manufactured, without alarm	550x500x220
CFNCO	Hour counter for CFN	
CFNUB	Certified box with filtration certified according to standard NFX15-211 for underbench cabinets, provided with wheels, 2 ventilation outlets, with acoustic and visual alarm.	400x500x650
CFNUBL	Box with filtration built for underbench cabinets, provided with wheels, 2 ventilation outlets	400x500x650
ADMY11CFN	Adapter for CFN box for cabinet C3 and C4 (CS343-342-344MY11)	-
CSAS	Activated charcoal filter for solvents (pre-filter included)	510x405x60
CSBE	Activated charcoal filter for acids (pre-filter included)	510x405x60
CSMP	Activated charcoal filter for solvents and acids (pre-filter included)	510x405x60
CSSP	Activated charcoal filter on request	510x405x60
CSPF	Prefilter	510x405x15
CSPO	Suction manual pump for colorimetric check	-
CSPO/AA	Kit of 10 colorimetric tubes - for corrosion test*	-
CSPO/AC	Kit of 10 colorimetric tubes - for organic test*	-

*There are other colorimetric tubes available: please feel free to contact us