



## GreenFumeHood®-3

The 3rd generation of advanced ductless filtration fume hood

**The green alternative to ducted fume hoods**

Unique powerful  
Neutrodine  
Unisorb filter

**100%**  
energy &  
engineering  
savings (vs  
ducted fume  
hoods)

**100%**  
environmental  
friendly

**100%**  
flexible



## What can you do in a GreenFumeHood®-3?




A **very wide range** of chemicals experiments with solvents, acids, bases, etc..., which can be retained very efficiently in one single filter, the **NEUTRODINE UNISORB** - the result of over 50 years of continuous research in the laboratories of Erlab in France.

## How do you know if a GreenFumeHood® 3 is suitable for your applications?



Connected to the R&D servers of Erlab in France, the online **eValiquet** questionnaire, **easy to fill**, will allow you to know right away whether your intended chemical application can be performed in a GFH-3 and filter lifetime. Over 70% of the chemical applications are approved with a full commitment of Erlab.

## When appropriate, you can enjoy the unrivaled benefits of the GreenFumeHood®-3

-  **SAFETY:** Full compliance with the NFX 15-211, the most stringent safety standard in the world for ductless fume hoods guaranteeing a very high safety at the front sash level, and at the filtration level.
-  **ECONOMY:** Neither costly nor complicated HVAC infrastructure required and few aircon air consumption, Installed and operational in 2 hours. Proven filters life of up to 48 months.
-  **ENVIRONMENT:** No pollution of the environment as all chemicals being handled in the GFH 3.

**GFH® 3- 5300**  
(3 filtration columns)



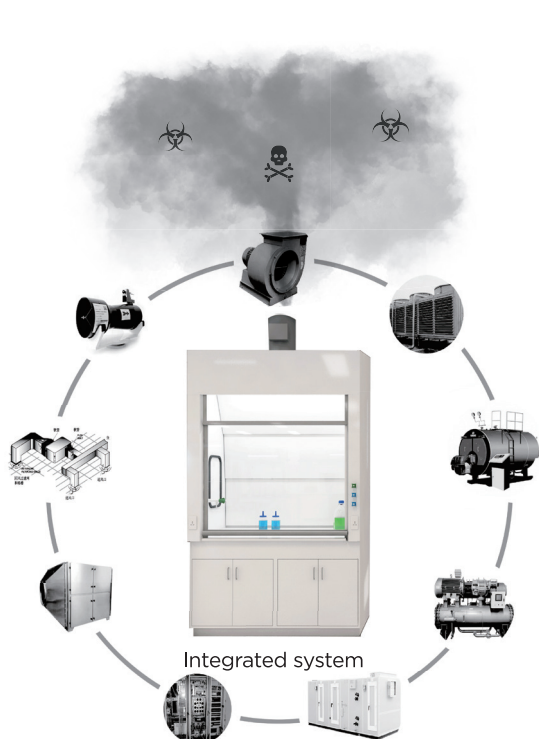
Dimensions (mm)	L	D	H
External	1433	968	1571-1661
Internal	1200	762	1126
Air volume	660 m³/h		
Voltage	outside 110-220 V- inside : 48 V		
Consumption	200 Watts		
Noise level	< 67dBA		

**GFH® 3- 6400**  
(4 filtration columns)



Dimensions (mm)	L	D	H
External	1849	968	1571-1661
Internal	1600	762	1126
Air volume	880 m³/h		
Voltage	outside 110-220 V- inside : 48 V		
Consumption	280 Watts		
Noise level	< 67dBA		

## Conventional ducted hood VS GreenFumeHood®-3



- + General purpose hood.  
Can be used for most chemicals without limitations in chemicals evaporations!



- Suitable for a large range of chemical applications
  - Since a few chemicals are not filtered and can't be used in a GreenFumeHood-3
  - It is not suitable for large chemical evaporation, filter life would be too short and not economical!
- + About 70% of common chemical experiments can be performed in the GreenFumeHood-3
- + Can protect instruments and Automation equipment using chemicals where they are located!



- Installation design need to be considered during initial stage
- Difficult to make it safe
- Can't be moved
- Consume very large quantities of aircon air
- Pollute the environment

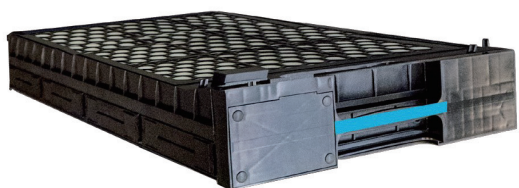


- + Very easy and fast to install anywhere in the lab. Just connected to an electrical socket!
- + Excellent safety due to airflow concept!
- + Fully flexible, can be moved easily anytime!
- + Reduce aircon air consumption and high energy savings.
- + No pollution, environmental friendly!



## THE GFH®-3 FILTRATION TECHNOLOGY

### Powerful NEUTRODINE UNISORB filter ∞



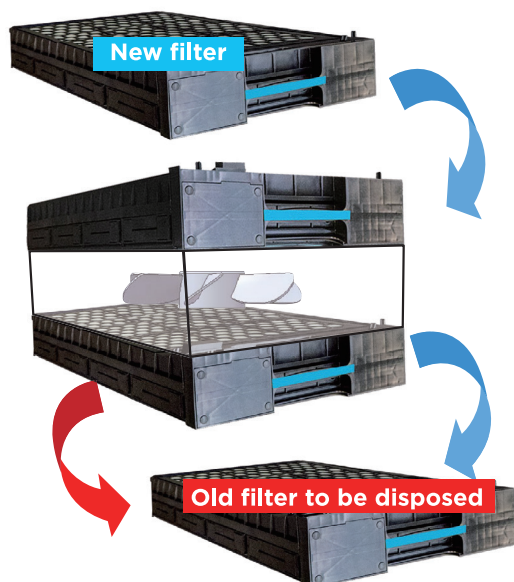
Result from 55 years of R&D in Erlab laboratories, the **Neutrodine Unisorb®** filter is the only one of its kind in the world which can filter **solvents, acids and bases, separated or combined**, making this filter appropriate for a very wide variety of chemical experiments. Filtration efficiency acc. to the NFX 15-211 standard.

### High HEPA H14 particle filter ∞



When powders are used during the experiments, they will be retained in an optional HEPA H14 filter placed above the light box offering a filtration efficiency of 99,995% for particles above 0,3 µm. Filtration efficiency acc. to EN 1822-1 : 1988 standard.

### Full safety with the FILTERS REVOLVING SYSTEM ∞



In each column, a Neutrodine Unisorb filter is placed below the ventilation box and serves as **operational filter**, another one is placed above the ventilation box to serve as **safety filter**. When the sensor (s) - placed inside the ventilation box - detect (s) the saturation of the operational filters, it will to be disposed and replaced by the safety filter, itself replaced by a new filter. (While filter isn't changed, GFH can keep working.) **As a result no chemical can go back to the lab room, even when the operational filter is saturated .**

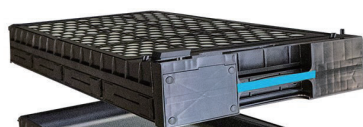


## Flexible filtration columns

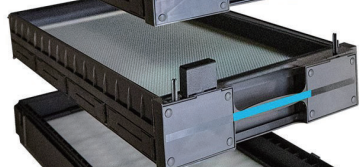
### Modular filtration columns



**VENTILATION  
&  
DETECTION BOX**



**Safety NEUTRODINE  
UNISORB filter**



**LIGHT  
&  
PREFILTER BOX**



**Main NEUTRODINE  
UNISORB filter**



**HEPA H14 particle filter**

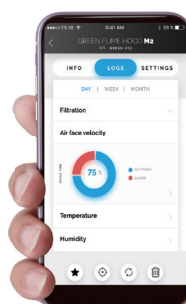


### Command module

to control all the functions  
of the **GreenFumeHood®-3**

### Vertically sliding sash

slanted for an ergonomic  
working position



**eGuard APP**  
For **Greenfumehood**

safety criteria of  
the GFH-3

## Comprehensive Equipment



### Standard Equipment



**Molecode S**  
(solvents detector)

- 1** Intelligent filter's handles to register date of filters installation
- 2** Temperature sensor
- 3** LED lighting  $\geq 500$  lux
- 4** Command module
- 5** Inside ports for gas nozzles
- 6** Sliding sash opening sensor
- 7** Trespa Toplab resin worktop
- 8** Outside ports for gas handles, electrical sockets,...
- 9** Entry ports for cables and hoses

### Optional Equipment



**gStation** (supporting table)



**Molecode A** (acid detector)



**Molecode F**  
(formaldehyde detector)



**Electrical sockets**



**Gas handles**



**Gas nozzles**



**Sink or cupsink**

## How does GreenFumeHood®-3 guarantee your safety?

**Full compliance with the AFNOR NFX 15-211 standard and a range of comprehensive services to guarantee the total safety of the chemist**

### ✂ The Erlab Chemical Listing:

Required by the NFX 15-211, the supplier of filtration fume hoods must publish the retention capacity of the chemicals tested at a filtration efficiency of 1% of their PEL (Permissible Exposure Limits). The Erlab chemical listing contains more than 700 chemicals tested in a GFH-3 at the Erlab R&D laboratories, showing the retention capacities in a filter's column at 1% of their PEL, the proof of over 55 years of expertise and commitment to safety!



### ✂ Official tests reports from a qualified third party

Required by the NFX 15-211 from an independent testing lab, specialized in fume hoods testing.

Erlab has updated independent tests reports from ICT2 Shanghai, official testing laboratory specialized in testing fume hoods and delivering China government official tests "CMA" (China Inspection Body and Laboratory Mandatory Approval) which tested:

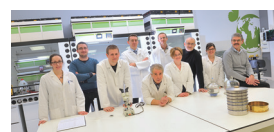


- The safe operation for the chemist at the sash opening level of the fume hood through face velocity (0.4 to 0.6 m/s) and containment tests (SF6 tracer gas)
- The concentration of chemicals at the exhaust of the filters by measuring the quantity of chemicals retained in the filter for 3 leading chemicals (Isopropyl alcohol & Cyclohexane as organic vapors and Hydrochloric acid as an acid vapor) when the exhaust concentration reaches 1% of their Permissible Exposure Limit, i.e 100 times below their authorized concentration).



### ✂ Prevalidation of the chemical experiments by Erlab expert's team

Required by NFX 15-211, Erlab must first approve the handling and storage of chemical products. The chemist has access to an online validation questionnaire, the eValiquet, directly connected to R&D servers of Erlab in France, delivering an immediate result in the majority of the cases and within 48 hours for the other cases.



### ✂ Highly professional after sales service

Designed to guarantee the chemist's safety after they get an Erlab safety enclosure, they take benefit of a free online follow-up service during all the years they use the product and can sign an on site charged service contract performed by qualified service engineers to maintain the product on site, change the filters, perform IQ, PQ, OQ services, using all the professional testing equipment.





# Erlab's Chemical Filtration Ecosystem

Combining the GreenFumeHood®-3 and Captair Smart Fume Hoods ranges!

Safe and Flexible solutions for **most** of your chemical applications



## Erlab Asia

The Asian Headquarter of the Erlab Group  
**Kunshan Erlab D.F.S Co.,Ltd**

No. 886, Jujin Road,  
German Industrial Park, Zhangpu,  
Kunshan 215321,  
Jiangsu Province P.R.CHINA

+86(0)512 5781 4085  
export.asia@erlab.com.cn

[www.erlab.com/apac/](http://www.erlab.com/apac/)