erlab
You can breathe.

CaptairStore 632A Midcap

Ductless filtering chemical storage cabinets

Instructions & User's Manual

Contents

General

By choosing CaptairStore Midcap ductless filtration chemical storage cabinets you have chosen an efficient and responsible way to ensure safety.

Your CaptairStore Midcap is the ideal cabinet to accommodate respiratory protection of users and environmental protection with a unique filtered air recycling system in the laboratory. This is made possible by the use of very highly-effective molecular and HEPA H13 filters which trap molecules and toxic particles. This filtering process makes it possible to blow purified air out of the filter, free from chemical pollution. The Erlab exclusive filtration technology can be adapted according to the stored chemicals.

Safety notices

The effectiveness of your device is directly dependent upon it being used correctly and monitored by its users. Your laboratory may also benefit from ergonomic, economic and ecological advantages provided by the CaptairStore chemical storage cabinet throughout its life cycle.

The **Erlab Safety Program (ESP)*** was set up to guarantee your safety. We would remind you that it is important to have the safety parameters validated before using the device for the first time and whenever it is used for a different application.

***** **erlab.evaliquest.com**

The equipment provided is not intended to be used in an explosive atmosphere.

The filters delivered with this device must be removed from their packaging and positioned correctly; they must also be suitable for the type of chemicals being handled in order to guarantee user safety.

Erlab recommends that filter breakthrough tests are regularly carried out.

New filters must be stored in their packaging, kept in a dry location and laid flat. (see Pg. 14- recommendations for storing and using the filters).

Erlab recommends keeping a logbook which is specific to the device and shows the chemical agents handled, how often they are used and the maintenance operations carried out on it.

Organization of your storage

Prior to handling or storing a chemical product, it is mandatory to consult your label; this label provides information on the dangers associated with chemical substances as well as on the basic principles of protection during handling and storage.

This information includes pictograms, some special instructions are reproduced below:

EXPLOSIVE

Contact with an energy source (flame) or an incompatible product may cause an explosion.
Example: Ammonium Nitrate (responsible for the nitrogen fertilizer explosion in Toulouse in 2001)

COMBUSTIVE

Substance which will cause a fire on contact with a combustible product
Example: Hydrogen Peroxide

CORROSIVE

Product which may attacck tissues or certain materials (glass, metal, etc.)
Example: Acids (Hydrochloric Acid) or Concentrated Bases (Soda)

SENSITIZING

Substance dangerous to health
Example: Formaldehyde, Benzène

DANGEROUS FOR THE ENVIRONMENT

Substance which when it is dispersed into the environment may cause damage to the fauna or flora.
Example: Hydrocarbons

TOXIC / IRRITANT

Substance wich may cause a health risk.
Example: Citric Acid

GAS BOTTLE UNDER PRESSURE

Product which can cause an explosion or burns
Example: Hydrogen

TOXIC

Substance presenting serious health risks (Carcinogenic, Mutagenic or Toxic for reproduction)
Example: hydrocyanic acid

FLAMMABLE

Contact with an energy source (flame) or an incompatible product (combustive) may cause a fire.
Example: Methanol

Before inserting any new product into the cabinet, the user must check its chemical compatibility with the products it already contains. For example, in the category of corrosive products, it is necessary to distinguished between Acids and Bases. In every case, Acids and Bases must be separated: the reaction of a strong acid with a strong base is highly exothermic (releases heat), which may cause serious accidents.

We give a non-exhaustive list below of some examples of known chemical incompatibilities:

- Do not store acids and bases together
- Do not store oxidants and reductants together
- Do not store combustive products and flammable products together
- Do not store corrosive products and flammable products together

In a cabinet, glass bottles containing liquids should be stored as low as possible so as to limit the height of a spill if they are accidentally turned over.

The storage cabinets are intended to contain small quantities of products necessary for daily work.

Inventories must be stored in stock rooms provided for this purpose outside of the laboratory.

In order to facilitate the organization of your storage, the eValiQuest Cabinets tool will allow you to visualise the storage in line with your stored products. **evaliquest.erlab.com**

IMPORTANT :

Cabinets are not capable of resisting consequences of a fire in the laboratory.

Therefore, any storage of flammable products in this type of cabinet is under the sole responsibility of the user.

Cabinet must be used indoors, at a vertical position on its carrying feet.

Use or storage temperature: 15 to 30° C

Maximum rate of humidity: 75 %

Storage: noxious and odorous chemical products.

The Erlab Guarantee

Erlab Warranty Information:

Erlab will offer a free Lifetime Warranty for all products sold. The Lifetime Warranty is valid on all Captair products with regards to mechanical parts as long as genuine Erlab parts and filters are used in compliance with the Captair Brand specifications, and replacement of the filters and sensors occur as recommended through the ValiQuest completion for each product sold.

Consumable items (including filters) and Captair Pyramid remain under warranty only until the first use. Erlab Inc. is the Sole US Distributor of Captair products and is not responsible for damage that occurs as a result of failure to follow instructions that are included with the original product.

This Limited Lifetime Warranty does not apply from the result of an accident, misuse, abuse, contamination, modification, normal wear and tear or other external causes. This section constitutes Clients sole and exclusive remedy and Erlab Inc.'s sole and exclusive responsibility with respect to any alleged breach of this limited warranty. A one-year warranty is offered on the enclosure of the unit.

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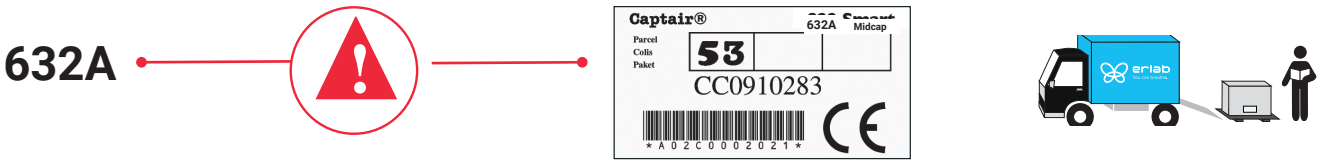
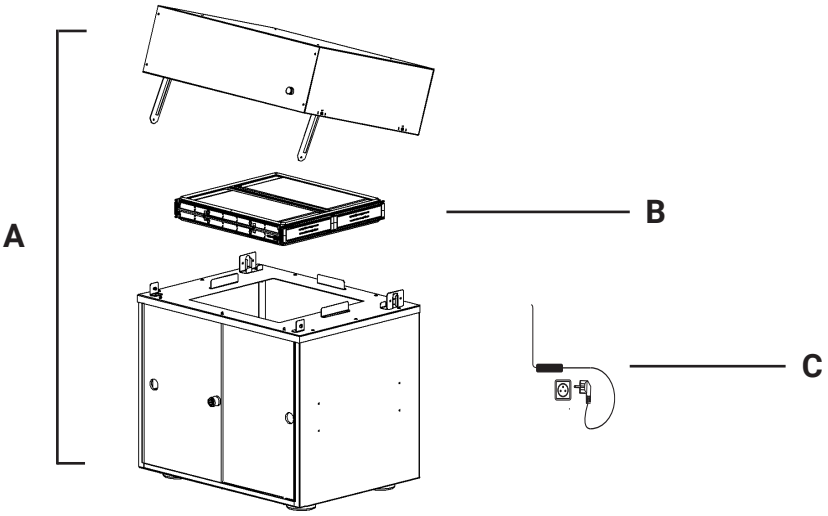
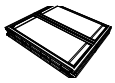
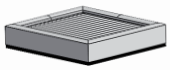


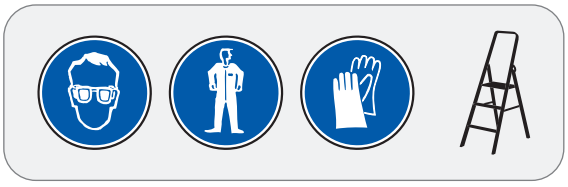
Underbench storage cabinet sliding doors



Parts list

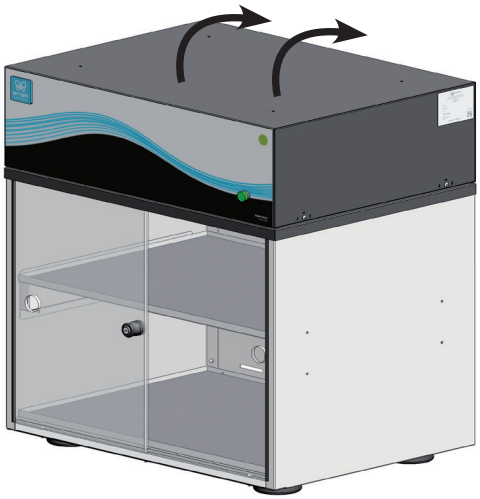
A	**Underbench storage cabinet**		x1	AB072
B	**Molecular filter**		x1	H11012102 (AS) H11012202 (BE) H11012302 (F) H11012402 (K)
	Particulate filter*		x1	WDI8031 (HEPA H13)
C	**External power supply**		x1	EU = PIDEL076 USA = PIDEL080 GB = PIDEL090 CH = PIDEL106

* *Option*



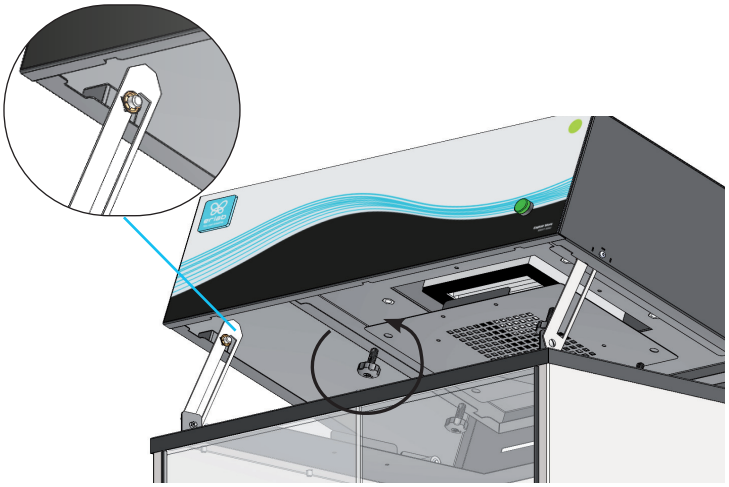
Assembling the unit

1



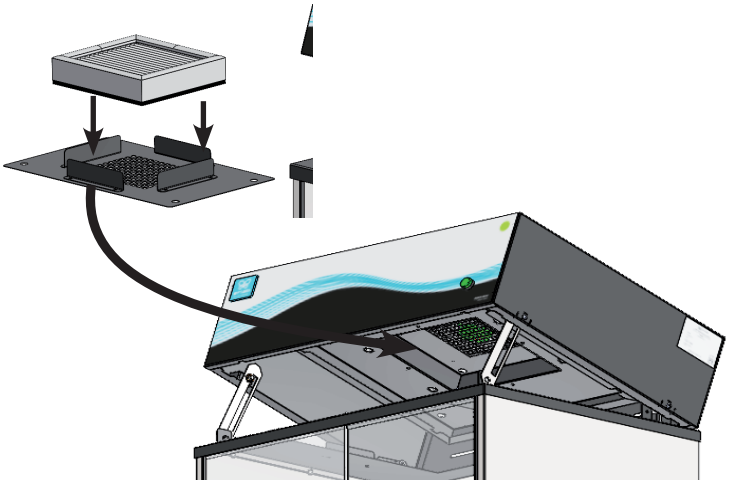
Lift the protective cover up

2 *



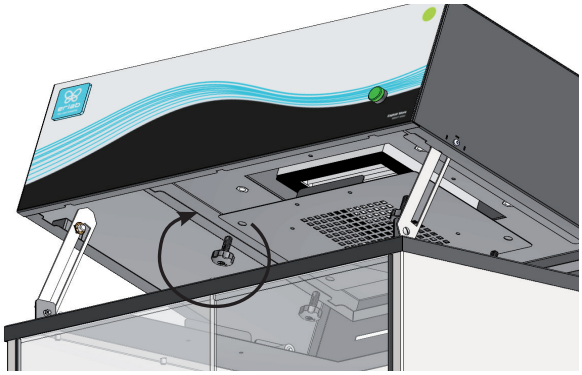
Unscrew the four screws of the HEPA filter support hatch

3 *



Install the HEPA filter in the support hatch

4 *



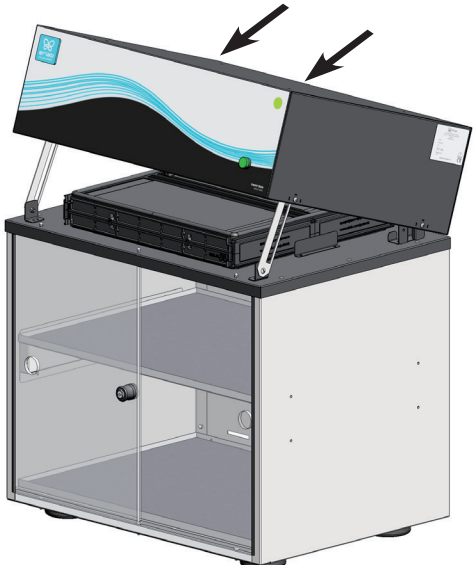
Screw in the four screws of the HEPA filter support hatch

* *Steps for HEPA filter only*

5

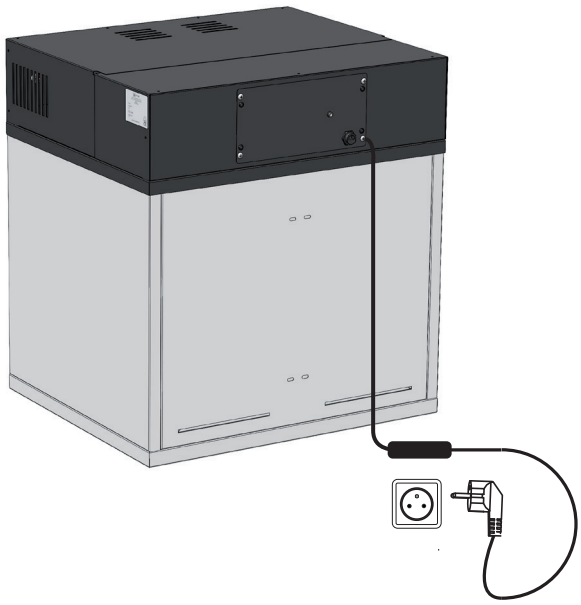
Insert the carbon filter at the bottom of the storage and place it

6



Close the protective cover

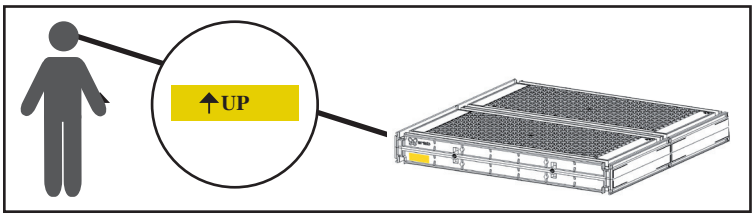
7



Connecting your device to a power supply

Replacing the filters

Each molecular filter is labelled as follows.



Please observe these markings.

The table below summarises the different types of carbon filters that Erlab® offers along with their fields of application.

Type AS	For organic vapors
Type BE	For acid vapors
Type K	For ammonia vapors
Type F	For formaldehyde vapors
HEPA H13*	For powders

* *Option*

HEPA H13 filters*

Pre-requisites

- The operator in charge of the filter replacement must be informed by users about the complete list of stored chemicals to allow to select its PPE
- The laboratory is empty when the operation is carried out
- The laboratory is ventilated by mechanical or natural means while the operation is carried out

Minimum protective equipment

- One-piece overall + overshoes + bouffant cap
- Laboratory gloves (latex or nitrile)
- Protective glasses
- Breathing mask with particle filter (P3)

This procedure is applicable to HEPA/ULPA filters located at the bottom of the filtration columns and designed to trap powders handled.

<u>Strict chronological order to follow :</u>

1- Switch off and disconnect the unit from the power supply
2- Carefully remove the molecular filter
3- Carefully unpack the new HEPA filter
Keep the plastic film and the cardboard box for later repackaging of the used filter
This film must be prepared and spread out on a flat surface in the immediate vicinity of the work area
4- Carefully remove the used HEPA filter and immediately place it face down on the plastic film
5- Clean the filter area
6- Re-pack the used filter with the soiled material
Seal the plastic film tightly
7- Repackage the unit in the new filter box and seal it with adhesive

Have the filter disposed of via a suitable disposal process in accordance with the applicable regulations.
To find out more, please contact your usual advisor.

8- Replace the new HEPA filter, the molecular filter
9- Reconnecting the unit electrically

***** *Option*

Filter Replacement Procedure

For these operations, we strongly recommended that the user or maintenance technician wear the necessary safety equipment, including: safety glasses, lab coat and gloves.

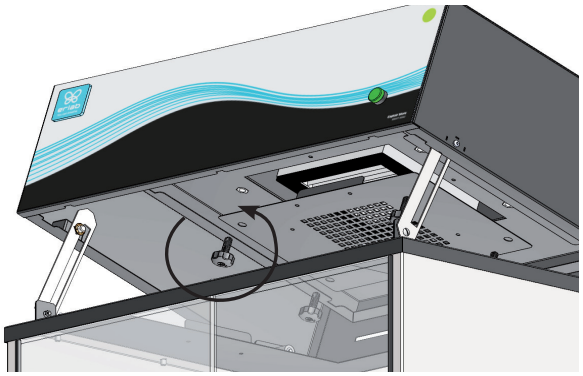
1

Unplug your appliance from the power supply and lift the protective cover up

2

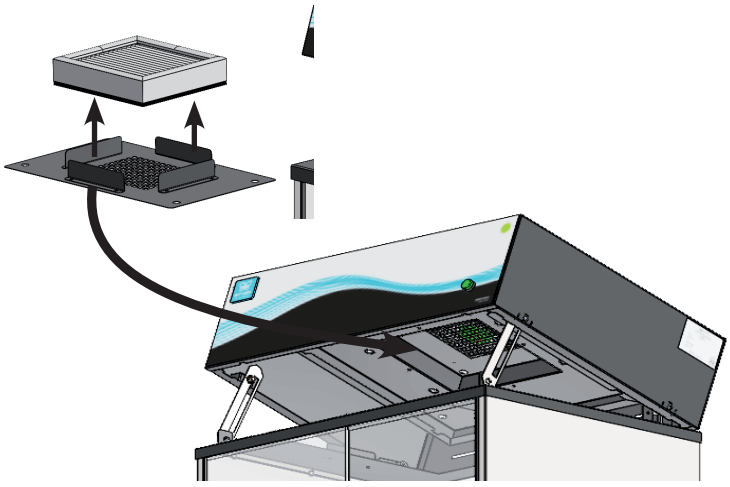
Remove the carbon filter from the storage

3 *



Unscrew the four screws of the HEPA filter support hatch

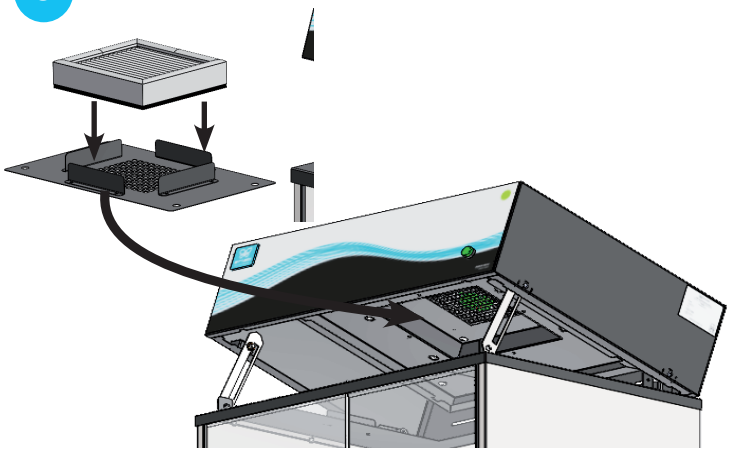
4 *



Remove the HEPA filter from the support hatch

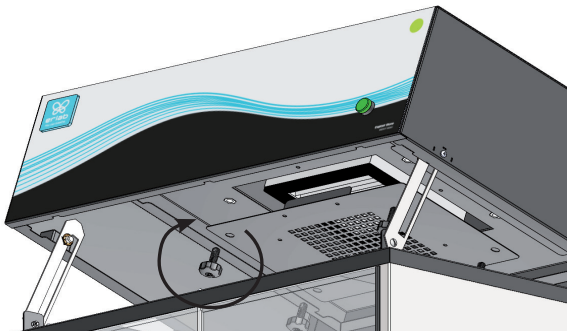
* *Steps for HEPA filter only*

5 *



Install the HEPA filter in the support hatch

6 *

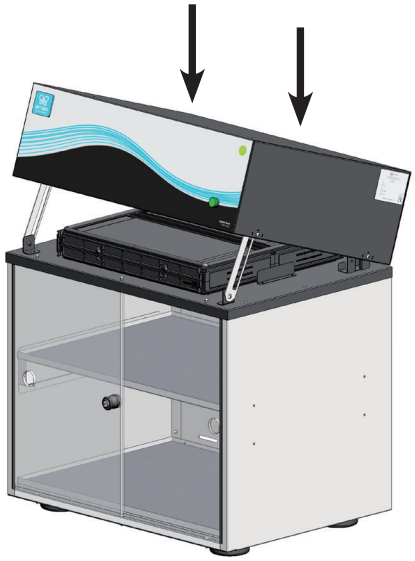


Screw in the four screws of the HEPA filter support hatch

7

Insert the carbon filter at the bottom of the storage and place it

8



Close the protective cover and reconnect your appliance to a power supply

* *Steps for HEPA filter only*

Recommendations for the use of filters

We recommend replacing the filter annually (if used 24/7).

ERLAB offers 3-point validation of your handling operations based on a scientific analysis carried out by its laboratory specialists via the global **Erlab Safety Program (E.S.P)** which includes the **eValiQuest** questionnaire: :

- Organization of storage
- Type(s) of filter(s) to use and filtration column configuration (if required)
- Predicted service life of the activated carbon molecular filters

How does the E.S.P service work ?

- The customer registers these chemicals by logging on to **www.evaliquest.erlab.com**
- The Erlab laboratory specialists analyze the questionnaire and issue a **Valipass** certificate

The Valipass certificate is affixed to the new devices at the factory. If the chemical processes in the hood change, a new valiquest is completed and is sent by email after revalidation.
The certificate contains the following: a list of the products handled in the fume hood, the type of filter required for these chemicals, the serial number, the life of the filter, the traceability information used to track the use of the device and the methods of detecting filter failure of the molecular filter.

To ensure their safety, we invite users who have not had registered their products in the **eValiQuest** interface or whose device is not covered by a **Valipass** usage certificate, to contact ERLAB or their usual distributor to arrange a new usage validation for the device in question.

Failing that and/or in the absence of information regarding device usage:
ERLAB is unable to provide any guidance as to the predicted service life of the filter(s)..

In such cases, we strongly recommend:

• Replacement of molecular and particulate* filters at least every 12 months and implementation of a regular filter fault monitoring protocol.

***** *Option*

Shelves : maximum permissible mass (kg)

Shelves
36 kg

Cleaning and maintenance

Mechanical item checks

Acrylic Parts:
These parts must be clean; white streaks or spatters indicate rather heavy use of acid (hydrochloric acid) or products handled at a high temperature. Ensuring the transparency of the walls is a part of regular maintenance for the enclosure.

Cleaning the appliance:

Cleaning the dividers is mandatory and must be done regularly. It may be done in several ways:

- With soapy water followed by rinsing with clear water and drying with a soft; nonabrasive;B32 absorbent paper towel,
- Or with a commercial PH neutral neutralizing product followed by drying with a soft; non-abrasive; absorbent paper towel,
- Or with a commercial glass cleaning product.

Coated Metallic Parts:

- They must be inspected and free from any traces of corrosion.
- Check that no liquid stagnates in the shelves with a retention tank.
- Clean retention tanks if necessary

The Erlab Research and Development laboratory

About Erlab

Since 1968, **Erlab** has been a specialist, inventor and world leader in **ductless, zero-emission filtering fume hoods for laboratories** to provide total safety in chemical handling.

1 Erlab filtration

We provide technologies to protect laboratory staff from inhaling chemicals. This is made possible thanks to our **Research and Development (R&D) department,** which has continuously improved our filtration technology **for more than 50 years.** That's why, in 2009, we invented the **ERLAB ABOVE** label for tried and tested filtration technology.

2 The AFNOR NF X 15-211: 2009 standard

Erlab's filtration technology conforms to the **NF X 15-211: 2009 standard,** the industry's most demanding standard for molecular filtration, developed by a committee of independent scientists and specialized manufacturers.

This text imposes performance criteria linked to:

- Filtration efficiency
- Containment efficiency
- Air face velocity
- Documentation: **chemical listing**

3 The ESP program

A set of three services included with the purchase of each device designed to ensure your safety.

eValiQuest	Risk analysis – Determination of protection needs – Determination of ergonomic needs.
ValiPass	Certified installation – Total safety for handling.
ValiGuard	Ongoing monitoring – Preventative and maintenance inspections – Device reconfiguration based on protection needs – Development of handling.

4 Flex technology

The combination of molecular and particulate filtration technologies allows a single device to meet laboratories' protection needs. This innovation from Erlab's R&D department offers unprecedented **flexibility, versatility and value.** A single device can be reconfigured over time and easily reassigned to other applications.

5 Smart technology

Smart technology is a **simple and innovative** means of communication that improves safety. This technology uses a light and sound signal to indicate the user's level of protection. The advantages of the technology are:

1/ Light pulsation: Real-time communication via LED light pulses intuitively alerts the user to the device's operating status.

2/ Simplicity: One-touch activation.

3/ Detection system: The exclusive detection system continuously monitors filtration performance.

4/ Built-in monitoring: This service provides direct access to the **status, settings and history** of your device.

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