Adsorb These Facts...

Setting the record straight on filtered ductless fume hood misconceptions.

EH&S – Ductless hoods are only good for low volume use.

While, this is true for some manufactures, Erlab has dedicated 50 years of R&D to continuously improve upon their filter's retention capacity and in fact has filters today that are able to retain high volumes of solvents and acids. This is proven with our test data which is provided to all of our customers, showing the retention capacities. To date we have seen release no greater than 1% of the TLV past the filters exhaust.

Competition says ducted hoods are cheaper, amounting to half the cost of ductless hoods.

We are not comparing apples to apples when it comes to cost. With ducted hoods we must consider the cost of infrastructure (what it cost to connect the hoods to the building). If we are to compare the overall cost from install to startup of the hoods, ductless (filtered) hoods are on average ~40% less. The complete install of each product must be factored into the cost.

Filter replacements are too costly, difficult to dispose of, and need to be replaced often.

Due to our years of research and improvement of our filter retention capacities, our filters are changed on an average of every 2 years, reducing the overall total cost of ownership. As for disposal, used filters are either disposed of through the companies environmental services program, or shipped back to Erlab for disposal.

Our experience in filtration provides the most advanced molecular air filtration in the industry, providing the versatility and efficiency of molecular adsorption necessary to provide a solution to a wide variety of laboratory applications.

There is no way a filtered hood can handle our application.

Let the experts determine this. All customer chemical handlings are analyzed by a team of chemist to ensure that filtered solutions are a feasible option for the customer. There are several variables that determine this, which include; handling frequency, quantity, vapor pressure of the chemical, molecular weight, and heat load. Once all these factors are analyzed a validation report will be provided providing the filters life cycle AND most importantly, guaranteeing the users safety as per the AFNOR NFX 15.211 standard.

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How AFNOR Certification Guarantees the Safety of Our Products

AFNOR NFX 12:211 (101) CONTAINMENT

The fume hood must maintain any chemical vapors or particles within the enclosure without any propagation in the lab environment.

Test protocol supplied upon request.

AFNOR NFX 12:211 (101) FACE VELOCITY

Represents the fume capacity to create a barrier between the operator and the handling.

Face velocity must be between 0.4 & 0.6 m/s.

AFNOR NFX 15:211 (101) DOCUMENTATION

Must have documentation providing a list of chemicals which can be retained by the filtration. This should indicate the CAS number, boiling point, breakthrough point, vapor pressure AND the filters retention capacity for each chemical during the normal operating phase, before there is detectable release no greater than 1% of the TLV.

Provide a certificate of validation of the handlings within the enclosure, with guaranteed life cycle of the filters performance.

Third party validation of the test data.

AFNOR NFX 15:211 (101) FILTRATION EFFICIENCY

Normal operating phase - Emissions at the filters exhaust must be lower than 1% of the TLV.

Detection Phase - The concentration at the filters exhaust must be lower than 1% of the TLV (Class 1), or 50% of the TLV (Class 2) and the automatic detection sensor must warn of breakthrough past the primary level of filtration.

Safety Phase – The concentration at the filter exhaust must be lower than 50% of the TLV.

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Custom Solutions

There is no limitation on the size of our cabinets which can be custom designed for any use.

The reduction in MEP equipment size can also provide a cost reduction allowing for easy integration of our technologies and reducing the mechanical space needed to just 14% of the GSF.

Also by way of example: Eight filtered fume hoods installed back-to-back in the center of a room allows for easy access from the lab benches to the hoods where they could be used for wet chemistry.

What are the benefits of Choosing Erlab Filters?

FILTRATION TECHNOLOGY erlab You can breathe.

50+ years of chemical filtration expertise

ESP

The Erlab Safety Program is included with every product.

The best value for your money.

Immediately available.

SMART Technology Features

Integrates a simpler and smarter way to communicate the products performance, which is monitored 24/7 and provides real-time communication via a SMART LED light and our eGuard web-based platform. Performance criteria monitored are:

- Face Velocity
- Filtration efficiency
- Hood operational time
- Blower speed and static pressure
- Data reports pulled of the hoods operational performance

GreenFume Hood FIltration Technology

With Erlab's GreenFumeHood Filtration Technology, the green fume hood provides superior filtration for a broader range of chemicals, enhanced detection, and network communication. The power of the green fume hood lies within the patented technology of the Neutrodine filtration system which is ideal for multidisciplinary handlings.

Features:

-Guaranteed safety through our advanced validation process of each chemical handling

-Safety redundancy of filters

-Detection sensor for monitoring of any concentration spike at the primary filters exhaust

-Real time safety communication

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Adsorb These Facts...

The Green Journey of an Erlab FIlter

Harvesting

Coconut shells are our organic media of choice. For this, coconut must be farmed and trees replenished. Once the coconuts are harvested, they are then activated using a proprietary process ensuring each granule provide the most efficient surface area .

Transportation

Since the transportation industry involves the shipment of goods from one location to another, the basic responsibility of reducing carbon emissions takes priority. We subscribe to benefits derived from logistics sustainability and efficiency that includes:

- Reducing Emissions-by reducing the overall number of miles driven, the total amount of noxious gasses released is reduced
- Reducing the amount of waste products
- Reducing the amount of energy consumed
- Alignment with governmental regulations & goals
- Increasing awareness among our customer base.

Filter Manufacturing

Erlab does not buy standard activated carbon. We have developed a carbon for our filters exclusively. We work with specialized partners to produce one of the most versatile active carbons in terms of molecular adsorption. We specify a strict set of rules which are then meticulously controlled during production at our refinery and then again once it arrives at our laboratory. We always ensure that it meets international ASTM standards, AFNOR NF X 15 211 and BSA result standards. Our experience in filtration allows us to offer 4 types of filters to cover a wide variety of laboratory applications.

Finally, we have developed a 5th type of filter based on Neutrodine® technology which ensures the user additional versatility, unequalled by other carbons available for fume hoods.

Incineration Disposal

§264.343 Performance standards ... an incinerator burning hazardous waste must achieve a destruction and removal efficiency (DRE) of 99.99% for each principal organic hazardous constituent (PHOC)...

Our pollution control system includes the following steps:

1. Nitrogen Oxide and suler oxide is removed
2. Mercury and Dioxin is removed
3. Acid Gas is removed
4. Particulate is removed
5. A pollution control test is performed
6. Water Vapor and harmless Cleaned Flue Gases are released to create clean Co2 to help replenish the coconut farms
7. Nontoxic sediment is taken to the landfill

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