



Experts in air filtration for the protection of laboratory personnel since 1968

Case Study: \$100 Million LEED Gold R&D tech center

PROJECT PROFILE:

Type:
New Construction

Location:
Akron, OH

Filtered Fume Hoods:
(11) Thermo Scientific hoods featuring Erlab's GreenFumeHood Technology

Statistics:
Completion Date: Feb 2012
Square Footage: 265,000

Architect:
SoL Harris/Day

THE SCOPE

The laboratory manager of this prestigious racing tire tech center was given the opportunity to design a new world-class laboratory and wanted maximum flexibility to promote a productive workflow, encourage innovation, and allow for ergonomic placement of equipment. The lab would be located on the fourth floor with a high ceiling and full length windows that would give an open and innovative working atmosphere.



THE CHALLENGE

The new lab would be built upwind of a residential neighborhood so they wanted the ability they wanted to protect the environment and create a positive impact on the community. Additionally, LEED Gold certification required thinking differently about the lab design.

THE SOLUTION

Testing

When the lab manager first learned about Erlab's GreenFumeHood Technology she gave serious consideration to this innovative filtered fume hood because of its next-generation filtration technology that also included secondary "safety" filters. When the new lab project was approved, she brought this new technology before the board. They felt this was a safe, viable option because of the type of chemicals used for their research, provided it passed their testing. They received feedback from the HVAC engineer that they can save a lot of money in energy and construction costs by implementing this type of technology. Some were still skeptical, so they bought a test unit and tested 300 chemicals over 20 months and the results exceeded expectations. The GreenFumeHood Technology, which utilizes Neutrodine™ filtration, proved successful and they determined that this was a safe, reliable technology.

Substantial Cost Savings

Originally, the new lab would be located on the fourth floor to accommodate a ducted solution. However, with the GreenFumeHood Technology the ductwork was ultimately removed and the new laboratory was designed with smaller mechanical systems. The lab is easier to control with simplified, lower cost, airflow controls.

Flexibility

Eight filtered fume hoods placed back-to-back in the center of the room allowed for easy access from the lab benches to the hoods where they would be used for wet chemistry. An additional three filtered hoods are placed throughout the lab, plus one ducted floor-mounted fume hood.

THE RESULT

- LEED Gold certification awarded, V2.2
 - Energy savings credit – 6 out of 10 points earned
 - Innovation credit - filtered fume hoods saved 5.8% of the total building load
- The filtered fume hoods aid in cleaner air to the surrounding community.
- Unlike their old ducted hoods, the vibration of the GFH equipped hoods is so low the balances are now used inside the hood, improving worker safety.



Erlab's state of the art Research & Development Laboratory relies exclusively on filtration

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About Erlab

We provide safety, we protect your health

Erlab invented the ductless fume hood in 1968. With more than 50 years of experience in the field of chemical filtration and protection of laboratory personnel; we know the formula for safety. With Erlab, you will never have to wonder or worry if our products are safe. We build each one of the following 7 ingredients into our products, and without all of them, your health and safety will be compromised.

1 Erlab R&D Laboratory

The engineers and chemists in our state-of-the-art R&D laboratory understand molecular filtration. We are committed to designing products that are safe and of the highest quality, strive to improve our products, and continuously develop new products that provide greater protection in the laboratory.

2 Strict Safety Standards

We hold ourselves to the highest standard and adhere to the strict AFNOR NF X 15-211: 2009 filtration safety standard as endorsed by ANSI Z9.5-2012.

3 A Published Chemical Listing

It all begins here. Without this listing, we are not compliant with AFNOR NFX 15-211. Our in-house laboratory tests, as well as independent testing, to verify the retention capacity of over 700 chemicals for our filters.

4 Independent Testing

Erlab filters have been independently tested multiple times at various concentrations guaranteeing that our safety solutions all adhere to the strict performance criteria of the AFNOR NF X 15-211:2009 standard assuring that the emission concentration at the filter exhaust will always be lower than 1% of the TLV.

5 Application Questionnaire (Valiquest)

Our laboratory specialists will recommend the appropriate filtration fume hood, type of filter, and personalized advice.

6 Certificate of Validation for the chemicals used in the hood

A certified PhD chemist issues a Certificate of Validation with a list of the chemicals approved for use in the hood.

7 Our Safety Program

We back up our products 100%. This program includes your specialized chemical evaluation, validation of your hood upon installation, and a filtration safety specialist at your service to ensure that your hood is operating to its full potential.



2018 Celebrating 50 years
of innovation in filtration

