



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

Case Study: Framingham State University 8 labs outfitted exclusively with filtered fume hoods

PROJECT PROFILE:

Type:
Addition

Location:
Framingham, MA

Filtered Fume Hoods:
(49) Air Master Systems
Green Solution Hoods
featuring Erlab's
GreenFumeHood Filtration
Technology

Statistics:
68,000 SqFt
5-stories
August, 2015 Completion

Architect:
Ellenzweig

MEP Engineer:
BR+A Engineers

Construction Manager:
Barr and Barr

THE SCOPE

To offer students enhanced curriculum, the 4-story addition to Hemenway Hall at Framingham State University includes (8) Organic, Inorganic, Analytical and Physical Chemistry teaching laboratories utilizing a total of (49) filtered fume hoods. LEED Silver certification is being pursued.



THE CHALLENGE

The large and expensive mechanical systems required to support a 100% ducted hood design contributed to the project going over budget. State funding for this statewide STEM initiative had already been set and finding a solution to reducing construction costs was necessary.



THE SOLUTION

Incorporating Green Solution Hoods featuring Erlab's GreenFumeHood Filtration Technology into the design provides a safe working environment for the students, offers significant energy savings for the school, and helps to achieve LEED silver.

The chemistry involved is easily handled by GreenFumeHood Filtration Technology. The combinations of acids, bases and solvents used by the students will be fully adsorbed by the Neutrodine filters and last greater than 2 years as proven at other installations with similar chemical usage.

The architect designed a mix of mostly filtered and some ducted fume hoods which reduced the mechanical systems size by 25%, lowering their costs by over \$917,000 and providing a net savings of over \$330,000 on the project.

With this savings, it was now possible to complete the entire 6th floor and avoid having unusable shell space.

THE RESULT

Both construction and operational costs are reduced.

- \$330,000 net construction cost savings
- \$24,500 estimated annual operating cost savings
- Assisted the project in maintaining an aggressive construction schedule.
- Less operational noise when students are using the hoods.
- Outfit the entire 6th floor with the construction cost savings.



Erlab's state of the art Research & Development Laboratory relying 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 45 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 recognized 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 and independent testing verifies 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 emissions concentration at the filter exhaust will always be lower than 1% of the TLV.

5 Application Questionnaire

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 your filtration safety specialist that ensures your hood is operating to its full potential.