

Thermo Fisher Scientific



The Leader in Environmental  
Laboratory Solutions

Thermo Scientific Hamilton

# The Leader in Environmental

## Corporate Commitment

Thermo Fisher Scientific has been recognized as the market leader in environmental stewardship in the laboratory furniture industry. We have demonstrated our commitment to the environment through ongoing investment in environmentally friendly manufacturing processes,

use of renewable and recycled raw materials and the development of furniture solutions for sustainable laboratory environments. Thermo Fisher Scientific has been extensively involved with organizations in developing and promoting environmental initiatives and accountability.

### **To promote environmental stewardship, Thermo Fisher Scientific:**

- joined the U.S. Green Building Council as an executive member to help develop new standards and educate owners and practitioners of the costs and benefits of sustainable laboratory furnishings.
- became a corporate supporter and sponsor of the Labs21 DOE/EPA initiative to help evaluate environmental specifications and applicability in both private and public market segments.
- was certified by SmartWood/Rainforest Alliance as a Forestry Stewardship Council Chain-of-Custody (FSC C-O-C) manufacturer, insuring total compliance to LEED (Leadership in Energy and Environmental Design) 2.2 requirements.
- developed and initiated the market transformation to a waterborne wood finish, earning Thermo Fisher Scientific the prestigious Wisconsin Department of Natural Resources Pollution-Prevention-Prosperity Award for the elimination of VOCs and hazardous waste generated during the manufacturing process.
- invested in special fabrication machinery that maximizes yield while minimizing scrap.
- originated the use of powder coat reclaim booths, advanced HVAC air-handling systems and various safety initiatives that promote on-the-job safety while reducing waste.
- retains a LEED® AP (Accredited Professional) on staff to evaluate project specifications, understand the customer's intent and provide documentation for certification submittals.



## Corporate Initiatives

Thermo Fisher Scientific can make a significant contribution toward the success of a sustainable laboratory project and help customers and communities achieve their environmental stewardship objectives.

Our corporate commitment includes taking an active role in a variety of organizations and programs that promote the advancement of environmental stewardship.



### **Thermo Fisher Scientific major corporate initiatives include:**

- supporting the USGBC LEED 2.2 program and continued development and implementation of LEED-AGL (Application Guide for Laboratories).
- designing and manufacturing lab furniture, fume hoods and accessories that minimize environmental impact and reduce energy consumption.
- following preferred purchasing practices, targeting rapidly renewable materials and high-recycling resources.
- using Chain-of-Custody wood products from sustainable forests which adhere to Forestry Stewardship Council standards.
- ongoing investment in manufacturing operations/facilities and providing a healthy workplace that will yield benefits for the environment, our employees, our customers and our community.
- continuing to educate our customers and design professionals on the implications and benefits of LEED green building products and other environmental initiatives for the laboratory environment.
- our commitment to remain the industry innovator in designing and engineering products that match the building life cycle and endure the requirements of reuse, relocation and reconfiguration.

# L a b o r a t o r y   S o l u t i o n s

## Wood Furniture

Thermo Scientific Hamilton standard wood furniture contains hardwoods, veneers and plywoods which originate from managed forests that are 100% sustainable with formaldehyde glue levels well below that required by HUD and OSHA standards. The use of

FSC certified sustainable woods, and glues containing no added urea formaldehyde, help contribute toward LEED credits. In addition, agrifiber cores and veneers made from rapidly renewable materials are offered by Thermo Fisher Scientific.

### **Thermo Fisher Scientific wood initiatives include:**

- being the industry's first Chain-of-Custody manufacturer to have a product certified by SmartWood.
- developing a highly chemical resistant waterborne wood finish (now adopted by the lab industry) to meet SEFA requirements — no HAPs and minimal VOCs.
- applying finish in custom spray booths to reduce airborne emissions and boost total finish transfer.
- maximizing natural resources with advanced CNC equipment.
- developing and using adhesives and glues that are significantly below LEED standards for Indoor Air Quality.
- using wood waste to heat manufacturing facilities.
- expanding the product line to include wheat board core, bamboo, certified wood and products with no added urea formaldehyde.
- adhering to standards established by the Forest Stewardship Council, including:
  - ✓Rapid regeneration following a timber harvest.
  - ✓Protection of soil and site productivity.
  - ✓State-approved best management practices.
  - ✓Protection of significant ecological/historical sites.



## Steel and Adaptable Furniture Systems

Steel is North America's top recycled product. Thermo Scientific Hamilton steel, adaptable furniture systems and fume hoods are manufactured utilizing cold-rolled sheet steel with a high recycled content. Currently the steel purchased contains a minimum 25% recycled content and can be as high as 50% (60% represents post-consumer content/40% represents post-industrial content).

Adaptable casework systems are designed to be repositioned and reconfigured resulting in product reuse and extending the product life to match the building's useful life cycle. A broad range of standard components can be reused to allow the end-user to adapt to changes in technology, disciplines and personnel.

### **Thermo Fisher Scientific steel and systems initiatives include:**

- leading the industry in the creation of adaptable systems and modular components designed for reuse.
- using steel products that meet SEFA 8 industry performance standards.
- choosing finishes that comply with VOC emission limits established by Green Seal's GS-11.
- applying powder coats in reclaim booths that capture and reuse overspray.
- utilizing sheet steel with a minimum of 25% recycled content (60% post-consumer/40% post-industrial).
- implementing the use of CNC machines and optimization programs to increase yields.
- recycling steel scrap, efficiently returning materials to their point of origin.



# Airflow Products

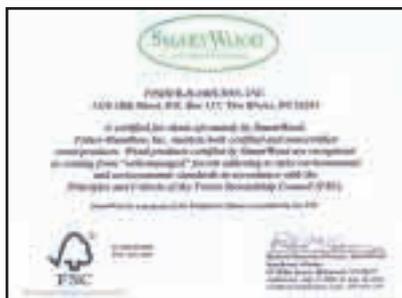
Thermo Fisher Scientific provides a variety of fume hood products to address the changing needs of today's end-users, while contributing to a safer and healthier work environment. Energy efficient, low-volume output fume hoods result in significant energy cost savings, reducing operating costs. Pioneer® and Concept® provide a new threshold for fume hood containment performance, helping to provide operator safety.

**Thermo Fisher Scientific airflow initiatives include:**

- pioneering the development and implementation of UL 1805 standards that help to provide for end-user health and safety.
- developing Pioneer and Concept fume hoods which are energy efficient and utilize 40%-50% less tempered air than conventional fume hoods.
- utilizing monitor systems that alarm in an operational unsafe situation and are designed to be inherently self-identifying and fail safe.
- reducing tempered air exhaust levels via auto-sash returns, sash and Variable Air Volume (VAV) exhaust controls.
- improving air quality by offering localized exhaust devices to further reduce tempered air exhaust levels emitted when handling non-toxic materials.
- CNC equipment used in fabrication to maximize yields and reduce waste.
- establishing an end-user training program for proper sash management and operation of alarm systems.
- conducting fume hood performance verification using the ASHRAE 110 Method of Testing Performance of Laboratory Fume Hoods – "As Installed."



**Commonwealth of Pennsylvania - EPA LEED 2.1 Gold Certified**



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# Laboratory Solutions

## U.S. Green Building Council LEED 2.2 Certification

Thermo Fisher Scientific supports and benchmarks initiatives based on the U.S. Green Building Council LEED 2.2 building rating system. The whole-building approach encourages and guides a collaborative, integrated design and construction/demolition/reuse process.

Our green efforts are integrated into the manufacturing strategies and processes. Thermo Fisher Scientific invests in manufacturing technologies that will yield benefits for the environment, employees, customers and the community.

In addition to utilizing environmentally sound manufacturing processes and materials, Thermo Fisher Scientific's products and practices are designed to provide benefits for sustainable laboratory environments in how they are sourced, designed, fabricated, shipped and installed.

The Green Building rating system is based on a point system with five mandatory credit categories, plus an optional category for Innovation and Design. Although no manufacturer can directly qualify for point accumulation, Thermo Fisher Scientific's products, practices and processes can help contribute to the overall scope of the project.

### LEED 2.2 Credit Category and Point Distribution:

- Sustainable Sites – 22%
- Water Efficiency – 8%
- Energy and Atmosphere – 27%
- Materials and Resources – 20%
- Indoor Environmental Quality – 23%
- Innovation and Design Process – 5 additional credits

### Four Levels of LEED Certification:

- Certified Level 26 - 32 points
- Silver Level 33 - 38 points
- Gold Level 39 - 51 points
- Platinum Level 52+ (69 possible)

### Matrix Key to Products, Practices and Processes:

1. High efficiency service fixtures/flow resistors
2. Occupant sensors
3. Overhead service carriers
4. Steel and steel/wood casework
5. Wood casework
6. Adaptable systems
7. High-efficiency chemical fume hoods
8. Alternate airflow products
9. VAV controllers and fume hood monitors
10. Manufacturing location and practices
11. Freight and installation practices
12. LEED® AP and technical support
13. All of the above

Credit	Requirements	Our Solution	Points
<b>Section One</b>	<b>Sustainable Sites</b>		
SS 8	Light Pollution Reduction	2, 3, 10	1
<b>Section Two</b>	<b>Water Efficiency</b>		
WE 3.1	Water Use Reduction: 20% Reduction	1, 2, 7	1
WE 3.1	Water Use Reduction: 30% Reduction	1, 2, 7	1
<b>Section Three</b>	<b>Energy &amp; Atmosphere</b>		
EA Prerequisite 1	Fundamental Commissioning	2, 7, 9	Required
EA Prerequisite 2	Minimum Energy Performance	2, 7, 9	Required
EA 1.1	Design Energy Reduction 20% new, 10% existing	7, 8, 9	2
EA 1.2	Design Energy Reduction 30% new, 20% existing	7, 8, 9	2
EA 1.3	Design Energy Reduction 40% new, 30% existing	7, 8, 9	2
EA 1.4	Design Energy Reduction 50% new, 40% existing	7, 8, 9	2
EA 1.5	Design Energy Reduction 60% new, 50% existing	7, 8, 9	2
EA 3	Enhanced Commissioning	7, 8, 9, 12	1
EA 5	Measurement & Verification	7, 8, 9	1
<b>Section Four</b>	<b>Materials &amp; Resources</b>		
MR 1.3	Building Reuse: Maintain 50% of Interior Non-Structural Elements	1, 3, 4, 5, 6, 7, 8, 9	1
MR 2.1	Construction Waste Management: Divert 50% from Disposal	11	1
MR 2.2	Construction Waste Management: Divert 75% from Disposal	11	1
MR 3.1	Resource Reuse: 5%	1, 2, 3, 4, 5, 6, 7, 8, 9	1
MR 3.2	Resource Reuse: 10%	1, 2, 3, 4, 5, 6, 7, 8, 9	1
MR 4.1	Recycled Content: 10% (post-consumer + 1/2 pre-consumer)	3, 4, 6, 7, 8	1
MR 4.2	Recycled Content: 20% (post-consumer + 1/2 pre-consumer)	3, 4, 6, 7, 8	1
MR 5.1	Regional Materials: 10% Extracted, Processed & Manufactured Regionally	3, 4, 5, 6, 7, 8	1
MR 5.2	Regional Materials: 20% Extracted, Processed & Manufactured Regionally	3, 4, 5, 6, 7, 8	1
MR 6	Rapidly Renewable Materials	4, 5	1
MR 7	Certified Wood	4, 5	1
<b>Section Five</b>	<b>Indoor Environmental Quality</b>		
EQ 1	Outdoor Air Delivery Monitoring	9	1
EQ 3.1	Construction IAQ Management Plan: During Construction	11	1
EQ 4.1	Low-Emitting Materials: Adhesives & Sealants	3, 4, 5, 6, 7, 8	1
EQ 4.2	Low-Emitting Materials: Paints & Coatings	3, 4, 5, 6, 7, 8	1
EQ 4.4	Low-Emitting Materials: Composite Wood & Agrifiber Products	4, 5	1
EQ 5	Indoor Chemical & Pollutant Source Control	4, 5, 6, 7, 10	1
EQ 6	Controllability of Systems: Lighting	6	1
EQ 8.1	Daylight & Views: Daylight 75% of Spaces	6	1
EQ 8.2	Daylight & Views: Daylight 90% of Spaces	6	1
<b>Section Six</b>	<b>Innovation &amp; Design Process</b>		
ID 1.1	Design Innovation	13	1
ID 1.2	Design Innovation	13	1
ID 1.3	Design Innovation	13	1
ID 1.4	Design Innovation	13	1
ID 2	LEED Accredited Professional	12	1

## Solutions for the Technical Environment

When choosing laboratory furniture, consult Thermo Fisher Scientific. As the industry leader, Thermo Fisher Scientific offers the most comprehensive selection of product lines, options and accessories in the world.

The markets served are as diverse as the products manufactured. We work very closely with the educational, industrial, research and health care markets, and are actively engaged in the development of new technologies and products to better serve ever-changing laboratory environments.

The Thermo Scientific Hamilton lines that can be drawn upon to build the optimal solution include:

- **Wood Casework**
- **Steel Casework**
- **Plastic Laminate Casework**
- **Phenolic Resin Casework**
- **Stainless Steel Casework**
- **MAX/Lab® Adaptable Furniture System**
- **MAX/Wall® Technical Wall System**
- **MAX/Mobile® Adaptable Furniture System**
- **Distinction® Laboratory Bench System**
- **C-Frame™ Adaptable Furniture System**
- **P-Frame™ Adaptable Furniture System**
- **System XL™ Adaptable System**
- **Adaptable Table Systems**
- **Laboratory Fume Hoods**

## Dealer Planning Expertise

Our dealers are a network of full support laboratory specialists who prefer to get involved in the earliest possible planning stages so they can offer helpful suggestions that can make your laboratory work easier and more efficient than ever before.

Whether it's product renovation or new construction, Thermo Scientific Hamilton dealers have the skills, the expertise and product line selection to get the job done efficiently and cost effectively.



[www.hamiltonlab.com](http://www.hamiltonlab.com)

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Thermo Fisher Scientific  
1316 18th Street, P.O. Box 137  
Two Rivers, WI 54241  
Phone 920-793-1121  
Fax 920-793-3084

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