

# EarthLine<sup>®</sup>



## Laboratory Furniture

**PRODUCTS FOR SUSTAINABLE DESIGN**

**KEWAUNEE<sup>®</sup>**

*...encouraging new discovery*

Sustainable  
Laboratory Furniture  
and Fume Hoods  
for Labs of the  
21<sup>st</sup> Century

# EarthLine<sup>®</sup> by Kewaunee



**Pharmacia — Building Q**  
*LEED Gold Certified*



**Emory University — Whitehead Building**  
*LEED Silver Certified*

#### **Kewaunee's Energy Conserving Fume Hoods**

- Require less exhaust, offering ongoing annual energy savings
- Lower initial startup costs by requiring less HVAC infrastructure and fewer controls

#### **Kewaunee's EarthLine Sustainable Laboratory Furniture**

Offering a variety of environmentally-friendly material including:

- No added formaldehyde medium density fiberboard core panels
- FSC-certified plywood panels
- 25%-40% recycled steel
- Rapidly-renewable veneers

#### **All Kewaunee Laboratory Furniture and Fume Hoods are**

- designed and engineered to meet SEFA performance specifications, assuring cabinetry and fume hoods that will last for decades, matching the building life cycle
- manufactured using modern, environmentally responsible methods and materials that meet or exceed all local, state, and national regulations
- manufactured in the United States of America



#### **Kewaunee Scientific Corporation**



- is a member of the U. S. Green Building Council
- is a U.S. Environmental Protection Agency/Department of Energy Labs21 Supporter
- is the recipient of the Environmental Excellence Award

#### **Environmental Statement**

Kewaunee Scientific Corporation recognizes that our environment is the responsibility of not only the individual, but the corporate community as well. The success of our customers, our employees, and our company depends on the ability of us all to sustain the resources that underlie the products and services we offer and use.

Kewaunee has a two-fold environmental commitment:

1. To provide laboratory furniture, fume hoods, and accessories that minimize energy consumption and adverse environmental impact by designing, engineering, and manufacturing products
  - that use renewable and recyclable resources,
  - that use less energy and resources to install and operate, and
  - that match the building life cycle, withstanding the rigors of decades of use, relocation and reuse.
2. To manufacture these products in an environmentally responsible manner.

# EarthLine<sup>®</sup> Laboratory Casework

## Kewaunee's earth-friendly laboratory cabinet

Created from nature's renewable and recyclable resources



### Eco-friendly Core Panels:

End, top, and bottom panels, drawer heads, and doors are all manufactured from eco-friendly Medite<sup>®</sup>II, a 100% recycled and recovered fiber core panel.

### VOC-Free Flatline Finishing:

All panel parts are protected with an acid-resistant, clear-coat finish, applied with an environmentally friendly flatline process that releases no volatile organic compounds (VOCs) into the atmosphere.

### Recycled Steel Drawer Body and Shelf:

Drawer body and shelf manufactured from 25%-40% recycled steel, coated for durability with an acid-resistant, VOC-free, powder coat finish.

### Choice of Environmentally-Friendly Veneers:

EarthLine<sup>®</sup> cabinets are available in two rapidly-renewable veneers: Natural and Caramelized Asian Bamboo, and three hardwood veneers: American Lyptus, Red Oak, and White Maple.

### Laboratory Grade Construction:

Meets SEFA 8 performance standards including five-knuckle stainless steel hinges and 150-pound load capacity drawer.



Natural  
Asian Bamboo



Caramelized  
Asian Bamboo



American  
Lyptus



Red Oak



White Maple

## High-efficiency low-volume fume hoods

Low-Volume fume hoods require less HVAC infrastructure and fewer controls, while providing ongoing annual energy operation savings.

Energy savings is a key component of the U.S. Green Building Council's LEED program.

## The Supreme Air LV Fume Hood

Kewaunee's newest innovation, the high-efficiency Supreme Air LV fume hood offers unsurpassed safety, a host of user-friendly features, and 45% energy savings over standard fume hoods.

### Safety and ergonomic features include:

- Full containment at all sash positions, based on ANSI Z9.5 recommended levels
- Smooth operating, 18" auto-return, belt-drive sash
- Obstruction-free flush sill
- Rear-outlet, front-mounted, anti-splash cupsink
- Staggered service outlets
- Gasketed and angled access panels
- Cord pass-throughs
- Easy to clean baffle system

# Energy Conserving Fume Hoods



## The Dynamic Barrier Fume Hood

Operating at even lower CFM than the Supreme Air LV, the Dynamic Barrier fume hood offers up to 73% energy savings over standard fume hoods by using a restricted sash opening.

## Other Earth-Friendly Kewaunee Laboratory Products

### Ensemble

Wood-Fronted  
Steel Casework  
available using Medite<sup>®</sup>II core  
panel drawer heads  
and doors with a 25%-40%  
recycled steel cabinet body



### Signature Series<sup>®</sup>

Wood Casework  
available using NAF,  
FSC-certified, hardwood  
plywood with Red Oak  
or White Maple veneers.



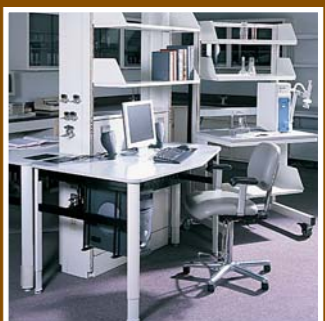
### Research Collection<sup>®</sup>

Steel Casework  
manufactured from 25%-40%  
recycled steel with a VOC-free,  
acid-resistant powder coat finish



### Alpha<sup>®</sup> System

Adaptable Furniture  
mobile tables, carts, and  
modular service carriers  
affording several environmental  
advantages including  
low life-cycle costs  
and low environmental  
impact reconfiguration



# Kewaunee and LEED Certification

*Kewaunee's commitment to the environment includes support of the U.S. Green Building Council's LEED program (Leadership in Energy and Environmental Design). The LEED program is a certification system designed to promote buildings that are environmentally responsible, cost effective, and healthy places for people to live and work.*

## Kewaunee Products Can Contribute Toward LEED Points

### Category 1 - Sustainable Sites

By using our reconfigurable, flexible furniture and service carriers, wall and ceiling destruction can be kept to a minimum in renovation projects. Lower volume hood exhaust can mean less duct work.

### Category 2 - Water Efficiency

Our service carriers allow easy reconfiguration of cooling loops, encouraging water recycling and conservation.

### Category 3 - Energy and Atmosphere

Our low volume and ultra low volume fume hoods facilitate energy savings by exhausting less conditioned air from the building. Our air flow monitoring alarms and ASHRAE testing expertise can help contribute to additional credits.

### Category 4 - Materials and Resources

The recycled content of our products, as well as our sources for raw materials, may contribute toward recycled content. Because our modular and flexible products are reusable, they may contribute toward building reuse and resource reuse. Our EarthLine® wood cabinetry is made from 100% recovered and recycled wood fiber. Other wood panel products come from SFI-managed forests. Depending on the location of your project we may contribute toward local materials.

### Category 5 - Indoor Environmental Quality

Because our products and finishes are low-emitting, they may contribute toward low-emitting materials and low-emitting paints and coatings.

### Category 6 - Innovation and Design Process

Our experienced and creative designers can work with you to customize innovative solutions for your laboratory of the 21<sup>st</sup> century.

### LEED Classifications:

Certified	26 points
Silver	33 points
Gold	39 points
Platinum	52 points

LEED #	Description	Points	EarthLine® Casework	Supreme Air LV Fume Hoods	Dynamic Barrier Fume Hoods	Other Kewaunee Sustainable Products
<b>Category 1 Sustainable Sites</b>						
Credit 3	Brownfield redevelopment	1		X	X	B
<b>Category 2 Water Efficiency</b>						
Credit 3.1	Reduce water usage by 20%	1				B
Credit 3.2	Reduce water usage by 30%	1				B
<b>Category 3 Energy &amp; Atmosphere</b>						
Credit 1.1	20%/10% energy reduction	2		X	X	A,B
Credit 1.2	30%/20% energy reduction	2		X	X	A,B
Credit 1.3	40%/30% energy reduction	2		X	X	A,B
Credit 1.4	50%/40% energy reduction	2		X	X	A,B
Credit 1.5	60%/50% energy reduction	2		X	X	A,B
Credit 3	Additional commissioning	1				F
Credit 4	Ozone depletion	1	X	X	X	F
Credit 5	Measurement and verification	1		X	X	F
<b>Category 4 Materials &amp; Resources</b>						
Credit 1.1	Building reuse 75%	1		X	X	A,B
Credit 1.2	Building reuse 100%	1		X	X	A,B
Credit 1.3	Building + 1/2 interior reuse	1		X	X	A,B
Credit 3.1	Resource reuse 5%	1				A,B
Credit 3.2	Resource reuse 10%	1				A,B
Credit 4.1	Recycled content 25%	1				A,B
Credit 5.1	Local materials 20%	1				G
Credit 5.2	Materials harvested locally 50%	1				G
Credit 7	Certified wood	1	X			D
<b>Category 5 Indoor Environmental Quality</b>						
Credit 4.2	Low-emitting paints and coatings	1	X	X	X	C,D,E
Credit 4.4	Low-emitting composite wood	1	X			
Credit 5	Indoor chemical source control	1		X	X	
<b>Category 6 Innovation &amp; Design Process</b>						
Credit 1.1	Design innovation	1	X	X	X	H
Credit 1.2	Design innovation	1	X	X	X	H
Credit 1.3	Design innovation	1	X	X	X	H
Credit 1.4	Design innovation	1	X	X	X	H

A = Alpha System

B = Service Carriers

C = Ensemble/Wood on Steel

D = Certified Wood

E = 40% Recycled Steel

F = Kewaunee Expertise

G = Factory Location

H = All of the Above

# Glossary of Terms and Acronyms

**ASHRAE:** American Society for Heating, Refrigerating and Air-Conditioning Engineers — Organization that established the fume hood containment standard known as ASHRAE 110-1995.

**Bamboo Veneer:** Bamboo is a grass that can be processed into a veneer with performance characteristics like wood. It is a rapidly-renewable resource.

**Certified Forest:** A forest that is rated by the FSC on three criteria: timber resource sustainability, forest ecosystem maintenance, and socio-economic benefits to the host community.

**Certified Plywood:** Hardwood plywood manufactured to ANSI HP-1-2000 standards using FSC-certified veneer, particleboard, or MDF substrates. Certified core can be combined with non-certified face veneers and qualify as FSC-certified board with a minimum of 70% certified product.

**Chain of Custody Wood:** Wood product traceable to a certified forest.

**Cradle-to-Grave Analysis:** Analysis of the impact of a product from the beginning of its source-gathering process, through the end of its useful life, and disposal of all waste products. Cradle-to cradle is a related term signifying the recycling or reuse of materials at the end of their first useful life.

**Environmental Impact Statement:** A document required of federal agencies by the National Environmental Policy Act for major projects or legislative proposals, used for making decisions on the positive and negative effects of the undertaking.

**EPP:** Environmentally Preferable Product — A certification program of the Composite Panel Association (CPA) based on the U.S. Environmental Protection Agency's (EPA) Environmentally Preferable Purchasing program. EPP-certified products must contain 100% recycled or recovered fiber content and must meet industry emission standards.

**FSC:** Forest Stewardship Council — A worldwide, independent, membership-based organization promoting responsible management of the world's forests through development of standards, a certification system, and trademark recognition.

**Flatline Finishing:** A method of finishing flat panel products that increases the finish transfer efficiency, reclaims and recycles excess finish, and emits minimal VOCs. In addition it can use coating materials that are UV cured instead of heat cured, saving energy and natural resources.

**Formaldehyde:** A gas used widely in production of adhesives, commonly emitted by indoor materials that are made with its compounds. Is highly irritating if inhaled, and is now listed as a probable human carcinogen.

**LEED:** Leadership in Energy and Environmental Design — A rating system and certification program promoted as a blueprint for sustainable building practices, developed by the USGBC.

**LEED Certified Professional (LEED Accredited Professional):** An individual trained and tested in recognizing elements of building construction that will garner LEED points and eventual certification.

**Labs21:** EPA and DOE established program to improve energy efficiency and environmental performance of laboratories by examining the entire laboratory facility from a "whole building" perspective.

**Life Cycle Assessment (LCA):** A method to evaluate the environmental effects of a product by analyzing its entire life cycle. Life cycle assessment is typically described in three complementary phases: inventory analysis, impact assessment, and improvement assessment.

**Lyptus Veneer:** Lyptus is the trademarked name for a hybrid of two eucalyptus species, *Eucalyptus grandis* and *Eucalyptus urophylla*. Trees are grown on managed plantations. The hybrid matures in 14-16 years, as compared to 40-50 years for other hardwoods with similar characteristics.

**Medite®II Core Panels:** Medite®II is a fiberboard product of SierraPine Ltd. It is manufactured from SCS and EPP certified, no-added formaldehyde, 100% recovered and recycled wood fiber. The use of this core material can directly contribute to LEED credit Material and Resources 4.1, 4.2, 5.1, and 5.2 as well as Indoor Environmental Quality 4.4

**NAF:** No Added Formaldehyde — A plywood adhesive technology using no added formaldehyde during panel construction.

**OSHA:** Occupational Safety and Health Administration — Federal agency regulating U.S. workplace health and safety.

**Powder Coating:** A durable finishing method for metals using a dry, powdered plastic that is heat-fused onto the surface. No VOC solvents are required, and practically no waste is produced.

**Recycled Material:** Material that would otherwise be destined for disposal, but is diverted or separated from the waste stream, reintroduced as material feed-stock, and processed into marketed end-products.

**SCS:** Scientific Certification System — A third-party testing and certification company based in Emeryville, California.


**SEFA:** Scientific Equipment and Furniture Association — An organization of scientific equipment and furniture designers, manufacturers and installers who work closely with laboratory owners, architects, contractors and others to advance leading edge science throughout the world.

**SFI:** Sustainable Forestry Initiative® — A comprehensive system of principles, objectives, and performance measures that combines the perpetual growing and harvesting of trees with the long-term protection of wildlife, plants, soil and water quality. The world's largest sustainable forestry and certification program, covering nearly 94 million acres of forestland in North America.

**Sustainable:** To be truly sustainable, a human community must not decrease bio-diversity, must not consume resources faster than they are renewed, must recycle and reuse virtually all materials, and must rely primarily on resources of its own region.

**USGBC:** United States Green Building Council — A coalition of leaders from across the building industry working to promote buildings that are environmentally responsible, profitable, and healthy places to live and work.

**VOC:** Volatile Organic Compound — Chemical compounds based on carbon and hydrogen structures that are vaporized at room temperatures.

Printed in the USA on 100% recycled post consumer fiber 



P.O. Box 1842 • Statesville, NC 28687-1842  
Phone: (704) 873-7202 • Fax: (800) 932-3296  
E-mail: [marketing@kewaunee.com](mailto:marketing@kewaunee.com)  
Web Site: [www.kewaunee.com](http://www.kewaunee.com)

EPB-07/06