Protector® Pass-Through Laboratory Hoods

LABCONCO®

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Built to last.

Convenience

Perfect for installation in a wall between two rooms, these hoods can be accessed from each side of the hood. This added convenience thrives in academic environments.

Safety

Featuring many safety features that are prominent on many Labconco fume hoods, the Pass-Through hoods are designed for safety. This idea is extended to the built in alarm that sounds when both sashes are being opened at once, ensuring the hood is used properly.

Quality

The staple of Labconco's quality is evident through the Pass-Through hoods. From the sturdy metal construction, the chemical resistant liner, and the meticulous assembly, these hoods are built to last.

Protector® Pass-Through Laboratory Hoods

Features & Benefits

Front and side panels may be easily removed for maintenance access to lights, sash weights, and connections for electrical or service fixtures.

❇ **Eco-Foil™ air foil with Clean- Sweep™ openings** reduces energy consumption by 7-10% compared to flat air foils while its aerodynamic curve allows air to sweep the work surface for maximum containment.

❇ **Clean-Sweep™ sash handles and tracks.** The powder-coated aluminum sash handle includes Clean-Sweep openings to bleed air into the hood chamber and away from the operator's breathing zone.

❇ **Large unobstructed sightline** provides visibility of 37.5" high from the work surface to the header panel.

By-pass airflow design promotes stable face velocities.

Sash stops included. One sash stop is provided for each face to restrict sash opening height to 25" for optimal airflow. The sash stops may be defeated to raise the sash to maximum 28" height for loading and unloading only.

Audible sash alarm sounds when both sashes are opened simultaneously and continues until one sash is completely closed.

Optional color-coded service fixtures.

Optional 14.9" x 23.9", right or left-mounted glass viewing window provides an additional observation vantage point.

Vertical-rising tempered safety glass sashes provide maximum visibility.

❇ **Cord-Keeper™ slots** on the left and right side of the air foil allow the sash to close completely when electrical cords from equipment inside the hood are plugged into receptacles located on the corner posts.

Chemical-resistant, fiberglass-reinforced composite panel interior sides.

Pre-wired electrical components. Light switches and GFCI electrical duplex receptacle (on fixtured models) are factory-wired to the hoods junction box.

Performance tested to ASHRAE 110.

❇ Labconco exclusive feature

*U.S. Patent No. 6,461,233

Protector® Pass-Through Laboratory Hoods

Specifications

All models feature:

- Restricted by-pass airflow design.
- Side-entry air foils.
- Glacier white powder-coated steel exterior.
- ❇ Powder-coated steel Eco-Foil™ air foil with Clean-Sweep™ airflow openings.*
- ❇ Cord-Keeper™ slots on left and right side of air foil.
- Chemical-resistant molded composite panel interior sides and pre-set baffle with flame spread less than 25 per ASTM E-84.
- Powder-coated aluminum sash handle with Clean-Sweep™ openings and Clean-Sweep™ slots on the powder-coated steel sash tracks.*
- Two tempered safety glass vertical-rising sashes with cable pulleys and sash stops mounted at 25" (63.5 cm) opening height.
- 37.5" (95.3 cm) high sightline from the work surface to the header panel.
- Audible alarm that sounds when both sashes are open at the same time.
- Removable front and side panels and front access panels for access to plumbing and electrical wiring.
- Pre-wired T8 fluorescent lighting with vapor-proof design, one on each side and ADA-compliant light and blower switches on the front side.
- Factory prepared for up to four service fixtures on each corner post.
- Powder-coated stainless steel 12.81" ID exhaust connection.

All models conform to the following standards:

- CFR 29, Part 1910
- CE (230 volt models)
- SEFA 1
- SEFA 8, Cabinet Surface Finish Tests
- NFPA 45
- ASTM E84-09C
- ASHRAE 110
- ANSI Z9.5
- CAN/CSA C22.2 No. 61010.1
- UL 61010-1
- UL 1805
- WARNING: Cancer - P65Warnings.ca.gov (California only)

Fixtured models may feature:

- Two pre-plumbed service fixtures with forged brass valves with brass tubing for gas and copper tubing for cold water. Components for converting either or both fixtures to air or vacuum are provided. Inlet tubing is not provided.
- One pre-wired GFCI electrical duplex receptacle on lower right side.

Side window models feature:

- Right or left side-mounted tempered safety glass window, 14.9" x 23.9"

Required accessories not included:

- Remote blower
- Ductwork
- Work surface
- Base cabinet or stand

Optional accessories for on-site installation include:

- Service Fixture Kits
- Electrical Duplex Kits
- Guardian Airflow Monitor Kits
- Sash Stop Kits

Total Exhaust CFM and Static Pressure

Face Velocity (fpm)		Airflow Volumetric Rate (CFM) @ Static Pressure (inches of water)					
1 Sash @ Full Open (25" to sash stop)**	1 Sash @ 62.5% Open (18")†	4' Hood		5' Hood		6' Hood	
		CFM	s.p.	CFM	s.p.	CFM	s.p.
100	130	775	0.33	1020	0.42	1250	0.59
N/A	100	590	0.19	775	0.24	950	0.34

❇ Labconco exclusive feature * U.S. Patent No. 6,461,233 ** 25" opening height from sash to work surface.
† 18" opening height from sash to work surface. Additional sash stops required. See page 7.
♿ Heights of switches and electrical receptacles meet requirements of Americans with Disabilities Act (ADA) when work surface is set to ADA height.

Protector® Pass-Through Laboratory Hoods

Ordering Information & Dimensional Data

Catalog Number Configurator Use this key to configure the nine digit catalog number.

1 1 3 ☐ 0 ☐ 0 ☐ ☐

Select the **WIDTH** of your pass-through fume hood. This number is the fourth digit of your catalog number. Add 10 lbs. (5 kg) for fixtured models.

4 = 4' (122 cm)/410 lbs. (186 kg)
5 = 5' (152 cm)/500 lbs. (227 kg)
6 = 6' (183 cm)/585 lbs. (265 kg)

Select the **SIDE WINDOW OPTION** of your pass-through fume hood. This number is the sixth digit of your catalog number.

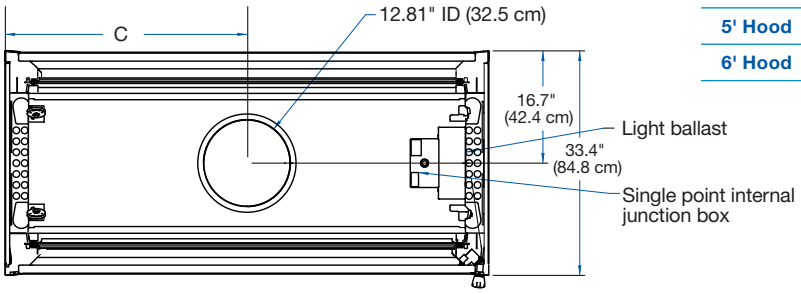
0 = No window **7** = Left side window **8** = Right side window

Select the **ELECTRICAL REQUIREMENTS, SERVICE FIXTURES** and **GFCI ELECTRICAL DUPLEX RECEPTACLE** of your pass-through fume hood. These are the eighth and ninth digits of your catalog number.

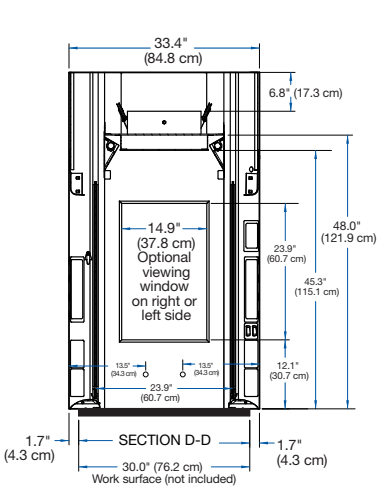
Electrical Requirements	No Service Fixtures	Two Service Fixtures	Two Service Fixtures & GFCI Duplexes*
100-115V, 50/60 Hz, 10 A	00	—	02
208-230V, 50/60 Hz, 5 A	20	21	—

*On hoods with no window, the fixtures are mounted one on each side. On hoods with left side window, the fixtures are mounted on the right side. On hoods with right side window, the fixtures are mounted on the left side. **Hoods with GFCI electrical duplex are rated at 20 amps, mounted on the right side.

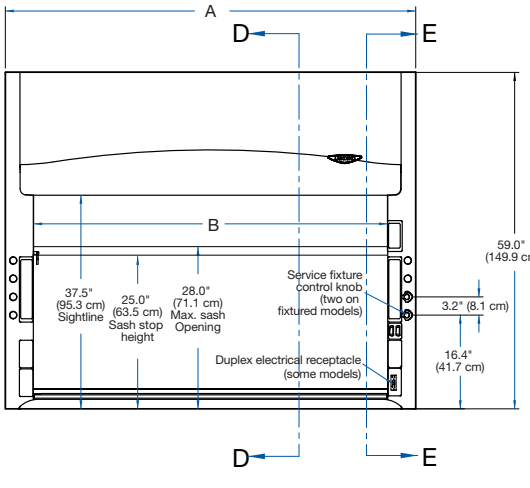
	A	B	C
4' Hood	48.0" (121.9 cm)	38.25" (97.2 cm)	24.0" (61.0 cm)
5' Hood	60.0" (152.4 cm)	50.25" (127.6 cm)	30.0" (76.2 cm)
6' Hood	72.0" (182.9 cm)	62.25" (158.1 cm)	36.0" (91.4 cm)



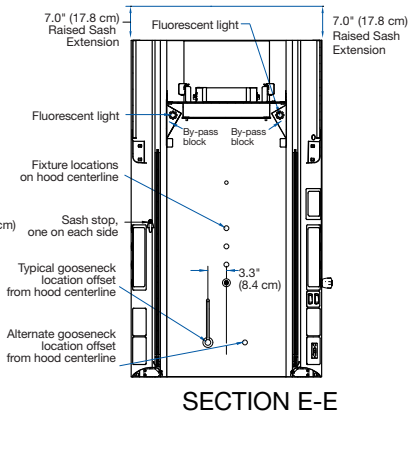
TOP



SIDE



FRONT



SECTION E-E

SIDE

Protector® Pass-Through Laboratory Hoods

Accessories

Catalog Number Configurator Use this key to configure the seven digit work surface catalog number.

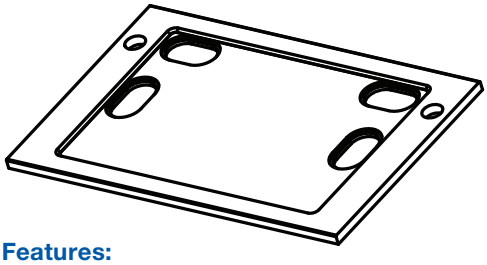
9 5 7 0 ☐ ☐ ☐

Select the **WIDTH** of your pass-through fume hood. This number is the fifth digit of your catalog number.
4 = 4' (122 cm)
5 = 5' (152 cm)
6 = 6' (183 cm)

Select the **LEFT CUPSINK CUTOUT** option (cupsink is sold separately). See dimensional drawing. This number is the sixth digit of your catalog number.
0 = None **1** =Rear **2** = Side*

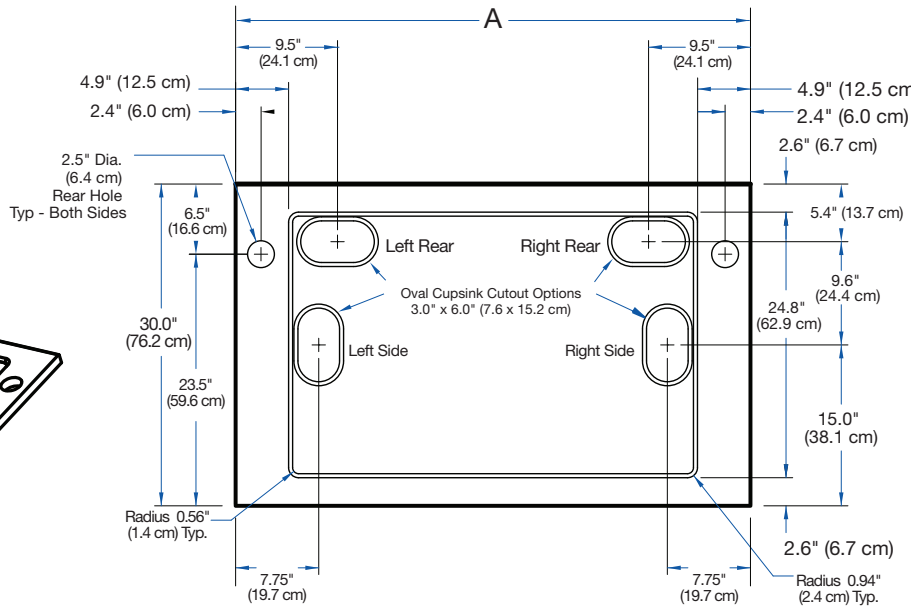
Select the **RIGHT CUPSINK CUTOUT** option (cupsink is sold separately). See dimensional drawing. This number is the seventh digit of your catalog number.
0 = None **1** =Rear **2** = Side*

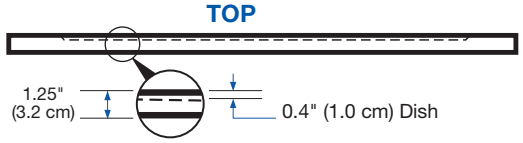
*Not compatible with Protector Solvent Storage Cabinets.



Features:

- Molded from a special formulation of corrosion-resistant epoxy resin.
- Dished and contoured to conform to the interior liner of Protector Pass-Through Hoods.
- Pre-drilled 2.5" (6.4 cm) diameter holes for plumbing pass-through.
- May be ordered with pre-cut 6" x 3" (15.2 x 7.6 cm) oval cupsink cutout(s). Cupsink is sold separately. See below.



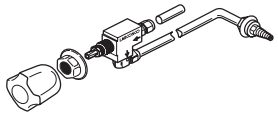
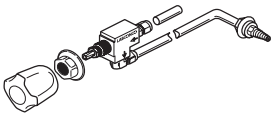
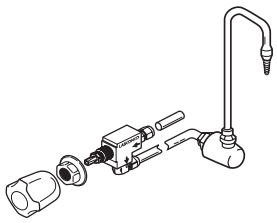


Nominal Hood Width	A
4' Hood	48.0" (121.9 cm)
5' Hood	60.0" (121.9 cm)
6' Hood	72.0" (182.9 cm)

4005200—Oval Polypropylene Cupsink
Mounts in work surface with cupsink cutout, 3.0" x 6.0" (7.6 x 15.2 cm). 1.5" National Pipe Straight Mechanical (NPSM) thread. Shipping weight 4 lbs. (2 kg)

Accessories

Service Fixture Kits include one remotely-controlled service fixture with valve, color-coded fixture knob and hose connector.
* **Inlet tubing is not included**. Except for vacuum, the maximum allowable pressure is 200 psi with a working pressure of 40 psi.

Kit	Catalog Number	Service Type	Tubing Material & Diameter	Side Location*	Maximum Flow Rate	Corner Post Position	Shipping Wt. lbs./kg
	9571000	Cold Water (CW)	Copper, 0.25"	Right	3.5 GPM (13.2 LPM)	Lowest	4.0 lbs. (2 kg)
	9571001	Cold Water (CW)	Copper, 0.25"	Right	3.5 GPM (13.2 LPM)	Mid-lower	4.0 lbs. (2 kg)
	9571002	Cold Water (CW)	Copper, 0.25"	Right	3.5 GPM (13.2 LPM)	Mid-upper	4.0 lbs. (2 kg)
	9571003	Cold Water (CW)	Copper, 0.25"	Right	3.5 GPM (13.2 LPM)	Highest	4.0 lbs. (2 kg)
	9571004	Cold Water (CW)	Copper, 0.25"	Left	3.5 GPM (13.2 LPM)	Lowest	4.0 lbs. (2 kg)
	9571005	Cold Water (CW)	Copper, 0.25"	Left	3.5 GPM (13.2 LPM)	Mid-lower	4.0 lbs. (2 kg)
	9571006	Cold Water (CW)	Copper, 0.25"	Left	3.5 GPM (13.2 LPM)	Mid-upper	4.0 lbs. (2 kg)
	9571007	Cold Water (CW)	Copper, 0.25"	Left	3.5 GPM (13.2 LPM)	Highest	4.0 lbs. (2 kg)
	9571100	Gas (GAS)	Brass, 0.25"	Right	29.0 CFM (441 BTU/sec)	Lowest	4.0 lbs. (2 kg)
	9571101	Gas (GAS)	Brass, 0.25"	Right	29.0 CFM (441 BTU/sec)	Mid-lower	4.0 lbs. (2 kg)
	9571102	Gas (GAS)	Brass, 0.25"	Right	29.0 CFM (441 BTU/sec)	Mid-upper	4.0 lbs. (2 kg)
	9571103	Gas (GAS)	Brass, 0.25"	Right	29.0 CFM (441 BTU/sec)	Highest	4.0 lbs. (2 kg)
	9571104	Gas (GAS)	Brass, 0.25"	Left	29.0 CFM (441 BTU/sec)	Lowest	4.0 lbs. (2 kg)
	9571105	Gas (GAS)	Brass, 0.25"	Left	29.0 CFM (441 BTU/sec)	Mid-lower	4.0 lbs. (2 kg)
	9571106	Gas (GAS)	Brass, 0.25"	Left	29.0 CFM (441 BTU/sec)	Mid-upper	4.0 lbs. (2 kg)
	9571107	Gas (GAS)	Brass, 0.25"	Left	29.0 CFM (441 BTU/sec)	Highest	4.0 lbs. (2 kg)
	9827900**	Cold Water (CW) gooseneck	Copper, 0.375"	One on each side	3.5 GPM (13.2 LPM)	—	10 lbs. (5 kg)

9826100—Standard Service Fixture Conversion Kit. Includes orange and yellow knobs and hose barbs and labels for converting Cold Water Standard Service Fixture or Gas Standard Service Fixture to air or vacuum. Inlet tubing is not included. Shipping weight 2 lbs. (1 kg)

* Location is determined by facing the sash from the front or opposite side.
GPM= gallons per minute LPM=liters per minute CFM=cubic feet per minute BTU/sec=British thermal unit per second

Accessories

Duplex Electrical Receptacle Kit
9851500

Electrical Receptacle Kits. For mounting on left or right side of any 4', 5', or 6' Protector Hood. Includes electrical receptacle, cover plate, wiring and outlet box. **Requires hard wiring and unique circuit.** International GFCI Switch is mountable in one corner post location above or below any single outlet.

Catalog Number	Kit	Outlet Type	Shipping Weight
9851100	115V, 20A AC, 60 Hz	Duplex, U.S.	4.0 lbs. (1.8 kg)
9851500	115V, 20A AC, GFCI, 60 Hz	Duplex, U.S.	4.0 lbs. (1.8 kg)
9854200	230V, 20A AC, 60 Hz	Duplex, U.S.	4.0 lbs. (1.8 kg)
9412500	230V, 13A AC, 50 Hz	Single, British (UK)	4.0 lbs. (1.8 kg)
9412700	230V, 16A AC, 50 Hz	Single, Schuko	4.0 lbs. (1.8 kg)
9412900	230V, 10A AC, 50 Hz	Single, China	4.0 lbs. (1.8 kg)
9413100	230V, 10A AC, 50 Hz	Single, Australia	4.0 lbs. (1.8 kg)
9413900	230V, 6-16A AC, 50 Hz	Single, India-South Africa	4.0 lbs. (1.8 kg)
9414100	International GFCI Switch, 16A	Not applicable	4.0 lbs. (1.8 kg)

115V, 60 Hz, 20A for North America

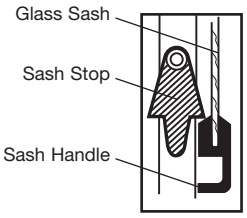
230V, 20A, 60 Hz for North America

230V, 50 Hz for Great Britain (UK)

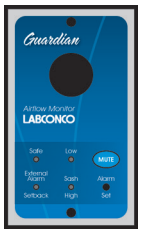
230V, 50 Hz Schuko

230V, 50 Hz for China/Australia

230V, 50 Hz for India/South Africa



9410300—Sash Stop Kit. Restricts how far a vertical-rising sash may be opened. Easily field installed on the fixture panel of many of our popular hoods. May also be placed at 50% open position (14" to work surface). Alternate sash positions may be field drilled. Includes components for one sash.



Guardian™ Airflow Monitors. Sense and alert you to low airflow conditions. From the monitor's face plate, you can easily select and calibrate a set point between 30 and 250 fpm using a velocity meter and a screwdriver. Audible/visual alarm. Include night setback, external alarm and alarm mute functions. Flush-mount design. **Requires field calibration.**

Catalog Number	Electrical Requirements	Shipping Weight
9413300	100-115V, 50/60 Hz	6.0 lbs. (2.7 kg)
9413301*	208-230V, 50/60 Hz	6.0 lbs. (2.7 kg)

9571300 Guardian Airflow Monitor Extension Kit. Required when ordering Guardian Airflow Monitor 9413300 or 9413301 for a Protector Pass-Through Laboratory Hood. Includes extension tube and adapter.

Guardian™ Digital Airflow Monitors. Sense and alert you to low airflow conditions. LCD displays actual airflow in fpm or m/sec. Audible/visual alarm alerts you to sustained low velocity condition. LCD displays calibration instructions. Contact Labconco for optional temperature sensor or optional RS-485 port for Modbus®** RTU communication. Flush-mount design. **Requires field calibration.**

Catalog Number	Electrical Requirements	Shipping Weight
9413400	100-115V, 50/60 Hz	6.0 lbs. (2.7 kg)
9413401*	208-230V, 50/60 Hz	6.0 lbs. (2.7 kg)

Contact Labconco for information on other accessories including ceiling enclosures, distillation grids and fire extinguishers.

*International electrical configuration

**Modbus is a registered trademark of Schneider Automation

Protector® Pass-Through Laboratory Hoods

Standards & Registered Trademarks

Standards

Key aspects of standards and codes as they relate to laboratory ventilation are summarized below.

ASHRAE 110 Method of Testing Performance of Laboratory Fume Hoods (ANSI Approved)

Evaluates fume hood's containment characteristics.

- Three part test: Smoke generation, face velocity profile, tracer gas release @ 4 liters per minute.
- Rated As Manufactured (AM), As Installed (AI) and As Used (AU).

American Society of Heating, Refrigerating and Air-Conditioning Engineers

1791 Tullie Circle NE
Atlanta, GA 30329
(404) 636-8400
www.ashrae.org

ANSI Z9.5 Standard— Laboratory Ventilation

Covers entire laboratory ventilation system.

- Vertical stack discharge @ 2000-3000 fpm.
- New and remodeled hoods shall have a monitoring device.

American Industrial Hygiene Association

2700 Prosperity Avenue, Suite 250
Fairfax, VA 22031
(703) 849-8888 www.aiha.org

Federal Register 29 CFR Part 1910

Occupational exposure to hazardous chemicals in laboratories

National Research Council Recommendations Concerning Chemical Hygiene in Laboratories (Non-mandatory) from "Prudent Practices."

- Fume hoods should have a continuous monitoring device.
- Face velocities should be between 60-100 linear feet per minute (lfpm).
- Average 2.5 linear feet of hood space per person.

Occupational Safety & Health Administration U.S. Department of Labor

200 Constitution Avenue, NW
Washington, DC 20210
(800) 321-6742 www.osha.gov

ASTM E84-09C Standard Test Method for Surface Burning Characteristics of Building Materials

Determines the relative burning behavior of the material by observing the flame spread along the specimen.

- Measures the flame spread and smoke development.
- Material is exposed to flaming fire for 10 minutes and the results measured and recorded.
- Results are compared to the indexes of mineral fiber cement board (flame spread and smoke development of zero) and red oak flooring (smoke development of 100).

ASTM International

100 Barr Harbor Drive
(610) 832-9585 www.astm.org P.O. Box C700
West Conshohocken, PA 19428-2959

NFPA 45: Standard on Fire Protection for Laboratories Using Chemicals

- Laboratory hoods should not be relied on for explosion protection.
- Services should be external to the hood.
- Materials of construction should have flame spread of 25 or less.

National Fire Protection Association

1 Batterymarch Park
Quincy, MA 02169-7471
(800) 344-3555 or (617) 770-3000
www.nfpa.org

NIH - Section 15991 Onsite Testing for Constant Volume Hoods

- Follows ASHRAE 110 test methods except for the following:
  - 1. 6 L tracer gas release rate instead of 4 L.
  - 2. Hood is loaded with boxes and cans.
  - 3. Rapid walk-by test.

National Institute of Health

9000 Rockville Pike
Bethesda, MD 20892
(301) 496-4000
www.nih.gov

Protector® Pass-Through Laboratory Hoods

Standards & Registered Trademarks

SEFA 1 Laboratory Fume Hoods Recommended Practices

- Covers design, installation, testing, maintenance and safe use of laboratory fume hoods

SEFA 8 Recommended Practices For Metal Laboratory Grade Furniture, Casework, Shelving and Tables, 8.0 Cabinet Surface Finish Tests

Defines test methods for evaluating the finish of laboratory furniture.

- Laboratory grade paint finishes shall withstand chemical exposure, hot water, and impact from a one-pound ball dropped from 12".
- Paint coating shall sufficiently adhere to the substrate.
- Paint shall be resistant to scratches.

Scientific Equipment & Furniture Association

1205 Franklin Avenue, Suite 320
Garden City, NY 11530
(516) 294-5424
www.sefalabs.com

UL 61010-1 Electrical Equipment for Laboratory Use

Specifies the general safety requirements for electrical equipment.

- Based on International Electrotechnical Commission (IEC) Publication 61010-1 with differences noted for U.S. use.
- Tests for protection against electrical shock, mechanical hazards, spread of fire, radiation, liberated gases, explosion and implosion.
- Tests for resistance to shock, vibration, impact, heat, moisture and liquids.

Underwriters Laboratories Inc.

333 Pfingsten Road
Northbrook, IL 60062-2096
(847) 272-8800
www.ul.com

CAN/CSA Standard C22.2 No. 1010.1 Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use

Specifies general safety requirements for electrical equipment.

- Design and methods of construction should provide adequate protection to the operator and the surrounding area against shock or burn, mechanical hazards, excessive temperature, spread of fire from the equipment, gas liberation, explosion or implosion.

Canadian Standards Association
5060 Spectrum Way, Suite 100
Mississauga, Ontario
L4W 5N6, CANADA
(800) 463-6727 or (416) 747-4044
www.csa.ca

ETL listing

ETL Testing Laboratories is a Nationally Recognized Testing Laboratory (NRTL). The ETL mark signifies that a product conforms to the following:

- UL Standard 61010-1 in the U.S.
- CAN/CSA Standard C22.2 No. 61010.1 in Canada.
- Products that bear the ETL mark are subjected to a comprehensive safety program that includes testing, listing, labeling and quarterly follow-up inspections.

Intertek Group
www.intertek.com

CE Marking

Indicates an electrical apparatus conformity to all safety and other directives/specifications presently required by the Council of European Communities.

- Electrical safety.
- Electromagnetic emissions testing — interference signals being output by the product.
- Electromagnetic immunity testing — the product does not respond to outside electromagnetic interference signals.

European Union

www.europa.eu

Registered Trademarks

ANSI® is a registered trademark of American National Standards Institute.

SEFA® is a registered trademark of Scientific Equipment and Furniture Association.

UL® is a registered trademark of UL, LLC.

Visit labconco.com to request information for all Labconco products.

LABCONCO CORPORATION

8811 Prospect Avenue
Kansas City, MO 64132

(800) 821-5525 | (816) 333-8811

labconco.com

4-55-7/30/24

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