

Purair[®] BASIC



General Application Ductless Fume Hoods

- Provides Operator Safety and Numerous Features for General Applications



34 watt¹ Purair model P5-36-XTS,
with optional velometer.



22–50 watt¹

The single EC blower motor assures lower cost of ownership in one of the world's most energy efficient ductless fume hoods.



"The World's Most Extensive Selection of Ductless Fume Hoods."



CONTENTS:

- Product Overview (p.2)
- Design Features (p.3)
- Performance & Selection (p.4)
- Filtration Technology (p.5)
- Specifications (p.6)
- Options & Accessories (p.8)

BASIC

Ductless Fume Hoods

24 • 36 • 48

PRODUCT OVERVIEW

2

INTRODUCTION

Purair® Basic ductless fume hoods are designed to protect the user and the environment from hazardous vapors generated on the work surface.



22–50 watt¹

The single EC blower motor assures lower cost of ownership in one of the world's most energy efficient ductless fume hoods.

APPLICATIONS

Using innovative filtration technology, the Purair Basic creates a safe work environment over the widest range of applications in the industry.

Compounding \ Balance Enclosures, Microscopes, and Robotic Equipment \ Forensics \ Histology \ Educational \ Microscopy \ Mobile and Classroom Demonstrations \ Pharmaceutical \ Powder Fingerprinting \ Powder Weighing \ Sample Prep Work \ Soldering \ Solvent Cleaning and Welding \ Veterinary \ Dental



Deep into its second generation, Air Science embraces the diversity and cultural heritage of the founders and co-workers who are continuing a tradition of excellence. Demonstrating a commitment to adaptation, inclusion and quality output from a United States-based company with a domestic and global reach.

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KEY FEATURES

- High efficiency EC blower.
- Energy saving LED lighting.
- Protects the operator from fume and (with added HEPA/ULPA filter) particle hazards.
- Improved filter clamping eliminates bypass leakage.
- Filter blockage alarm.

DUCTLESS TECHNOLOGY

The Eco-Friendly Choice

Advanced carbon filtration technology offers a safe, high performance alternative to conventional ducted fume hoods for a broad range of applications.

Environmental Benefits. Air Science® ductless fume hoods isolate and trap chemical vapors to prevent ecological impact through release into the environment.

Versatile. Each filtration system is selected for its specific application. Carbon filters are available in more than 14 configurations for use with vapors of organic solvents, acids, mercury and formaldehyde. HEPA/ULPA filters can be added for biological safety.

Easy to Install. The ductless fume hood is self-contained and does not require venting to the outside. Many units are portable and may be moved with minimal downtime and without filter changes. Set-up, operation, and filter maintenance are straightforward.

Energy Efficient. Because filtered air is returned to the room, no demands are required of the facility HVAC capacity for make-up air.

Cost Effective. Facility ductwork, HVAC and construction costs are eliminated.

Safe to Use. Cabinet airflow and face velocity protect users from incidental exposures to fumes.

Self-Testing. (select models) Electronic airflow monitoring assures continuous safety. An electronic gas sensor monitors carbon filter performance.



50 watt¹ Purair P5-48-XT shown with optional FSA/Autocal controller, polypropylene spill tray and mobile cart.

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¹ Energy consumption disclosure is based on internal testing with primary filters during normal operation. Power consumption published is nominal and dependent on cabinet size.

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- Product Overview (p.2)
- Design Features (p.3)
- Performance & Selection (p.4)
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- Options & Accessories (p.8)

BASIC

Ductless Fume Hoods

24 • 36 • 48

DESIGN FEATURES

3



DESIGN FEATURES

- A. Filter I.D. Window:** A convenient, strategically placed front cover window shows the installed filter part number and installation date to encourage timely filter replacement.
- B. Control Panel:** Electronic controls and displays include switches for the blower and filter blockage alarm.
- C. Filter Blockage Alarm:** Continuously monitors filter loading and alerts user when service is needed.
- D. Air Velometer:** An optional analog air velocity meter is positioned in the user's field of vision.
- E. Steel Support Frame:** The chemical resistant epoxy coated steel frame adds mechanical strength. Optional all polypropylene construction is available if desired; see accessories.
- F. Hinged Front Sash:** When closed, the cabinet sash protects the contents from inadvertent external contact and better isolates the air within. The sash is easy to open and close.
- G. Work Surface:** The internal work surface can be fitted with an optional polypropylene (available in white and black) or stainless steel tray; see accessories.
- H. Pass Through Ports:** Electrical cords and cables are safely routed into the cabinet through ports on the back.
- I. Electrostatic Pre-Filter:** The electrostatic pre-filter is accessible from inside the chamber and 91% effective down to 1-3 microns.
- J. Filter Door Key:** Filter access keys prevent unauthorized removal or accidental exposure to dirty filters.

- K. Dynamic Filtration Chamber:** The dynamic filter chamber prevents any possible leakage of contaminated air by pressurizing the fan plenum (positive air) and depressuring the filter compartment (negative air).
- L. Internal Manual Speed Controller:** Authorized personnel may set the EC blower speed as desired.
- M. Stand:** Optional mobile cart with locking casters.
- N. Safety Filter:** The optional carbon or HEPA/ULPA safety filter adds an additional layer of protection.

ADDITIONAL FEATURES

360 Degree Visibility: Clear back and side panels allow ambient light into the chamber and provide users with an unobstructed view of contents.

Construction: All models are available in either metal or polypropylene construction. Specify metal or polypropylene when ordering. See selection chart for specifications and dimensions. Available in 120V, 60Hz and 230V, 50Hz models.

22 watt¹ Purair P5-24-XT, shown with optional velometer, stainless steel spill tray and mobile cart.

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CONTENTS:

- Product Overview (p.2)
- Design Features (p.3)
- Performance & Selection (p.4)
- Filtration Technology (p.5)
- Specifications (p.6)
- Options & Accessories (p.8)

BASIC

Ductless Fume Hoods

24 • 36 • 48

PERFORMANCE & SELECTION

4

Air Science high-efficiency fume hoods are expertly designed to meet specific applications and certified for quality construction. Standard features, options and accessories are developed purposefully to enhance user-friendliness.

PERFORMANCE

The Purair Basic accommodates the full range of [Multiplex™ Filtration System](#) options.

The high capacity air handling system delivers face velocity of 100 fpm in compliance with US and international safety and performance standards.

DESIGN

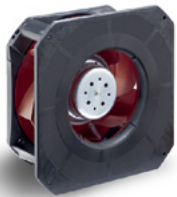
Professional quality Air Science fume hoods comply with current technical and safety regulations.

The cabinet frame and work surfaces, comprised of industrial components, are durable and chemically resistant.

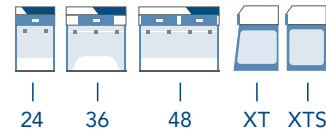
The Air Science filter assembly is easy to access and change. The unique filter clamping design eliminates bypass leakage outside the cabinet.

RELIABILITY

Internal systems are isolated from fumes, extending product life.



Energy-efficient EC blowers promote long life and dependable performance of Purair Basic fume hoods.



SELECTION

Purair Basic products are available in 3 standard widths, 2 depth options, in metal or polypropylene construction, totaling 12 standard models.

Custom manufacturing capabilities permit adaptations of standard cabinets such as polypropylene construction shown here with mobile base cabinet.



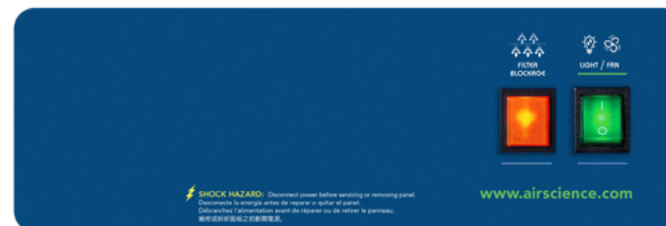
CONTROL

The **basic control panel** is standard and includes an On/Off switch and Filter Blockage alarm.

The **optional FSA/Autocal** controller displays the airflow and offers limited detection of low concentrations of hydrocarbon, some gases and organic acids. Audio and visual alarms alert users to filter saturation and if the airflow reaches preset thresholds. An Hour Counter is also included.

The **optional FSA controller** offers limited detection of low concentrations of hydrocarbon, some gases and organic acids. Audio and visual alarms alert users if filter saturation reaches preset thresholds. An Hour Counter and Low Airflow alarm are also included.

The **optional Autocal controller** displays the airflow. Audio and visual alarms alert users if the airflow reaches preset thresholds. An Hour Counter is also included.



Basic Control Panel



FSA Control Panel



FSA/Autocal Control Panel



Autocal Control Panel

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CONTENTS:

Product Overview (p.2)
Design Features (p.3)
Performance & Selection (p.4)
Filtration Technology (p.5)
Specifications (p.6)
Options & Accessories (p.8)

BASIC

Ductless Fume Hoods 24 • 36 • 48

FILTRATION TECHNOLOGY

5



FILTRATION

At the heart of the Purair product line is innovative filtration technology. The **Multiplex Filtration System** consists of a pre-filter, main activated carbon filter and optional HEPA/ULPA filter. The system permits a customized combination of filter media and configuration for chemical and physical adsorption specific to each application need.

The Air Science **carbon filtration technique** is based on enhanced, activated carbon particle formulations from specially selected, naturally occurring raw material that is superior to wood or other organic sources. The carbon is treated to attain the proper porosity and aggregate surface area and to react with several ranges of aerosolized chemicals moved through the filter by an air handling blower.

View available filters and descriptions on [page 7](#).

**safe
SWITCH™**

The optional SafeSwitch HEPA Filter Shutter system ensures that operators are safely separated from trapped contaminants during filter changes.

SECUR.
safe disposal service

Filter disposal services are available in selected markets providing responsible destruction or recycling of used saturated filters in authorized facilities.

FILTER CONFIGURATION

The Multiplex feature permits one or more filtration options to be combined to meet a wider range of multiple-use applications.

The Purair Basic can be equipped with a single activated carbon main filter or with a stacked configuration which combines two main filters, each activated to adsorb one or more specific vapors or family of vapors. For safety against particulates, an optional HEPA or ULPA filter can also be added. When used with a HEPA/ULPA filter, the ductless fume hood may be applied as a Class I Biological Safety Cabinet.

The carbon filter is sized to fit the specified product model number and configured to optimize airflow across 100% of the filter surface area. The self-contained assembly maximizes filter efficiency, prolongs filter life, optimizes diffusion and saturation and improves user safety.

- P. Electrostatic Pre-Filter:** Protects the main filters from aerosols, mists, dust and particulates.
- C. Activated Carbon Main Filter:** A single or stacked filter configuration.
- H. HEPA/ULPA Filter, Optional:** Both HEPA and ULPA filters use micro-glass fiber media designed to capture fine particles and biologicals. Both filters can capture particles smaller than the micron size for which they are tested. HEPA and ULPA filter efficiencies are 99.97% at 0.3 microns and 99.999% at 0.12 microns respectively.

| MULTIPLY FILTRATION SYSTEM, SUMMARY | | | | |
|---|----------|-----------------------|----------------------|------------------------------|
| Application | Chemical | Powder/ Biological | Chemical & Powder | Chemical within Cleanroom |
| Secondary/ Stacked Filter, Optional | C | H | C | H |
| Primary Filter | C | H | H | C |
| Pre-Filter | P | P | P | P |

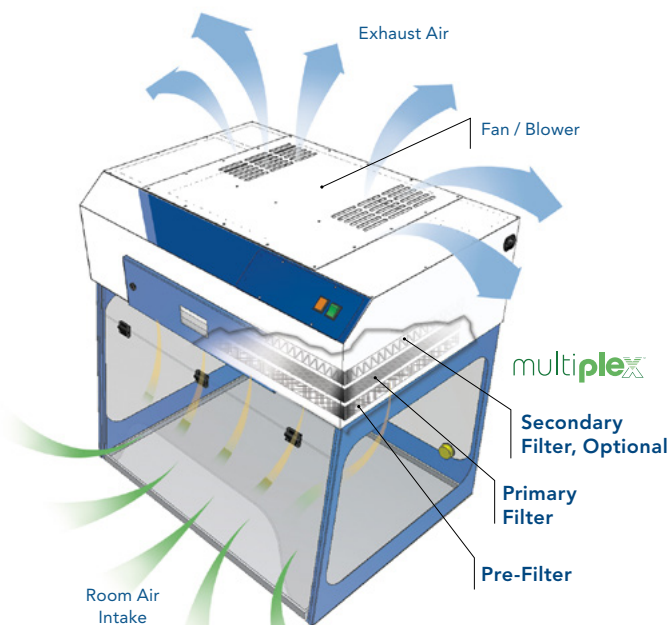
The system can be configured for the capture of acids, bases and particulates, such as biological aerosols, when paired with HEPA or ULPA filters.

AIRFLOW

Contaminated air is pulled through the Multiplex Filtration System. Activated carbon adsorbs chemical vapors and optional HEPA/ULPA filters capture particulates. Clean air is returned to the room.

The main filters are easy to replace with no tools required. The filter clamps tightly against the filter gasket to prevent filter bypass and maintain filter integrity.

⚠ **The pre-filter** may be replaced while unit is in operation.



CONTENTS:

- Product Overview (p.2)
- Design Features (p.3)
- Performance & Selection (p.4)
- Filtration Technology (p.5)
- Specifications (p.6)
- Options & Accessories (p.8)

BASIC

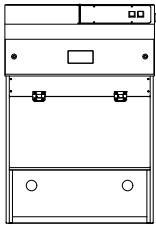
Ductless Fume Hoods

24 • 36 • 48

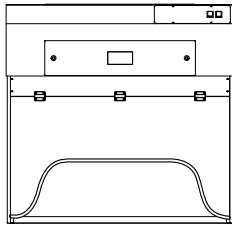
SPECIFICATIONS

6

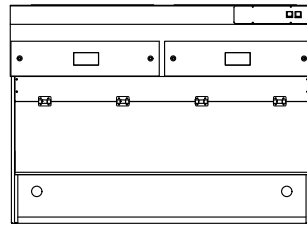
P5-24-XT



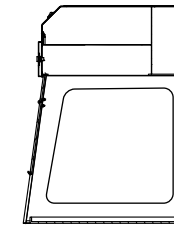
P5-36-XT



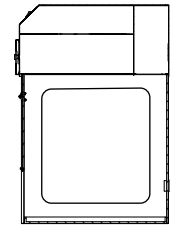
P5-48-XT



Standard Depth (XT)



Reduced Depth (XTS)



| MODEL | DIMENSIONS | | | WEIGHT (LBS/KG) | |
|---|-----------------|---------------------------------------|---|-----------------|-----------|
| | Internal Height | External (W × D × H) | Shipping (W × D × H) | Net | Ship |
| Standard Depth Models (XT) | | | | | |
| P5-24-XT | 23.6" / 600 mm | 24" × 27" × 35" / 610 × 676 × 889 mm | 40" × 40" × 40" / 1016 × 1016 × 1016 mm | 72 / 33 | 150 / 68 |
| P5-36-XT | 23.6" / 600 mm | 36" × 27" × 35" / 914 × 676 × 889 mm | 40" × 40" × 40" / 1016 × 1016 × 1016 mm | 99 / 45 | 170 / 77 |
| P5-48-XT | 23.6" / 600 mm | 48" × 27" × 35" / 1219 × 676 × 889 mm | 55" × 40" × 45" / 1397 × 1016 × 1143 mm | 138 / 63 | 230 / 104 |
| Reduced Depth Models (XTS) for countertops 24" or less | | | | | |
| P5-24-XTS | 23.6" / 600 mm | 24" × 24" × 35" / 610 × 610 × 889 mm | 40" × 40" × 40" / 1016 × 1016 × 1016 mm | 72 / 33 | 150 / 68 |
| P5-36-XTS | 23.6" / 600 mm | 36" × 24" × 35" / 914 × 610 × 889 mm | 40" × 40" × 40" / 1016 × 1016 × 1016 mm | 99 / 45 | 170 / 77 |
| P5-48-XTS | 23.6" / 600 mm | 48" × 24" × 35" / 1219 × 610 × 889 mm | 55" × 40" × 45" / 1397 × 1016 × 1143 mm | 138 / 63 | 230 / 104 |

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- Performance & Selection (p.4)
- Filtration Technology (p.5)
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BASIC

Ductless Fume Hoods

24 • 36 • 48

SPECIFICATIONS

7

PRODUCT SPECIFICATIONS

| Filtration | P5-24-XT P5-24-XTS | P5-36-XT P5-36-XTS | P5-48-XT P5-48-XTS |
|--------------------------------|--|----------------------|----------------------|
| Face Velocity | 100 fpm | 100 fpm | 100 fpm |
| Construction | P5-24-XT P5-24-XTS | P5-36-XT P5-36-XTS | P5-48-XT P5-48-XTS |
| Finish | <... White epoxy coated steel frame and head unit. Clear sides and back panel. ...> | | |
| Blower | <... EC blower. ...> | | |
| Controls | <... Main On/Off. ...> | | |
| Electrical | <... 120V, 60Hz or 230V, 50Hz voltages available. Specify when ordering. Other voltage options available. ...> | | |
| Monitoring | <... Filter blockage alarm, standard. ...> | | |
| Efficiency | P5-24-XT P5-24-XTS | P5-36-XT P5-36-XTS | P5-48-XT P5-48-XTS |
| Power Consumption ¹ | 22 watt | 34 watt | 50 watt |
| Lighting | <... LED. ...> | | |

¹ All measurements are with Filter Type ASTS-030.

FILTER SUMMARY*

| Formula | Description |
|---------------|--|
| GP Plus! | The most widely used filter in the range, primarily for solvent, organic and alcohol removal. |
| ACI Plus!/SUL | Designed to neutralize volatile inorganic acid vapors. |
| ACR | Iodine and methyl iodide vapors; It is frequently used for iodination reactions with lower level radioactive iodine. |
| ACM | Mercury vapor. |
| AMM | Removes vapors from dilute ammonia solutions and to remove low molecular weight amines. |
| FOR | Designed to oxidize formaldehyde and glutaraldehyde fumes; It is widely used in hospital pathology laboratories. |
| HEPA/UPLA | Powders and particulates. |

*Other formulas may be available.

FILTER SPECIFICATIONS

| Purair Model | P5-24-XT P5-24-XTS | P5-36-XT P5-36-XTS | P5-48-XT P5-48-XTS |
|-------------------------------------|----------------------|----------------------|----------------------|
| Secondary/Stacked Filter, Optional* | (1) | (1) | (2) |
| Primary Filter* | (1) | (1) | (2) |
| Pre-Filter* | (1) | (1) | (2) |

* For specific examples refer to Multiplex filtration system summary on [page 5](#).



Through our partner company [Filtco Filters](#), Air Science is a single source supplier of all pre-filters, carbon filters and HEPA/UPLA filters used in our products.

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- Product Overview (p.2)
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- Filtration Technology (p.5)
- Specifications (p.6)
- Options & Accessories (p.8)

BASIC

Ductless Fume Hoods

24 • 36 • 48

OPTIONS & ACCESSORIES

8

OPTIONS & ACCESSORIES

| Purair Model | | P5-24-XT P5-24-XTS | P5-36-XT P5-36-XTS | P5-48-XT P5-48-XTS |
|---------------------------------------|--|---|------------------------------------|------------------------------------|
| Safety Filter* | An additional carbon, HEPA or ULPA safety filter exceeding ANSI/AIHA Z9.5 requirements can be installed after the main filter. | <... Safety filters for vapor or particulate protection are available for all models. ...> Contact Air Science for ordering information. | | |
| FSA/Autocal Controller* | The optional FSA/Autocal controller displays the airflow and offers limited detection of low concentrations of hydrocarbon, some gases and organic acids. Audio and visual alarms alert users to filter saturation and if the airflow reaches preset thresholds. An Hour Counter is also included. | ADV-P | ADV-P | ADV-P |
| FSA Controller* | The optional FSA controller offers limited detection of low concentrations of hydrocarbon, some gases and organic acids. Audio and visual alarms alert users if filter saturation reaches preset thresholds. An Hour Counter and Low Airflow alarm are also included. | FSA | FSA | FSA |
| Autocal Controller* | The optional Autocal controller displays the airflow. Audio and visual alarms alert users if the airflow reaches preset thresholds. An Hour Counter is also included. | AUTOCAL | AUTOCAL | AUTOCAL |
| Spill Tray (Polypropylene) | Removable for easy cleaning. | TRAY-P5-24 TRAY-P5-24-XTS | TRAY-P5-36 TRAY-P5-36-XTS | TRAY-P5-48 TRAY-P5-48-XTS |
| Spill Tray (Stainless Steel) | Removable for easy cleaning. | TRAY-P5-24-SS TRAY-P5-24-XTS-SS | TRAY-P5-36-SS TRAY-P5-36-XTS-SS | TRAY-P5-48-SS TRAY-P5-48-XTS-SS |
| SafeSwitch HEPA Filter Shutter System | Minimizes exposure to filter contaminants when removing used carbon or HEPA filters for insertion of new filters. | ASTS-030-SS | ASTS-030-SS | ASTS-030-SS (2) |
| Dwyer Airflow Meter | Continuous display of face velocity. | DWYER | DWYER | DWYER |
| Base Stand, Mobile, with Casters | Provides a lower storage shelf; accommodates wheelchair access. Locking casters fix the hood in place. | CART-25 | CART-36 | CART-50 |
| Base Cabinet, Fixed (Metal) | Provides storage space below. | CART-MCC-25 | CART-MCC-36 | CART-MCC-50 |
| Base Cabinet, Fixed (Polypropylene) | Provides storage space below. | CART-SSC-25 | CART-SSC-36 | CART-SSC-50 |
| Fire Safety Cabinet Base | Flame resistant safe storage for combustible and flammable liquids. | CART-FSC-25 | CART-FSC-36 | CART-FSC-50 |
| Remote Control** | Wired controller, provides lower access height to comply with ADA requirements. | RC-P | RC-P | RC-P |
| Polypropylene Construction* | Ductless fume hoods are available in all polypropylene construction. | P5-24-XT-PP P5-24-XTS-PP | P5-36-XT-PP P5-36-XTS-PP | P5-48-XT-PP P5-48-XTS-PP |
| Duplex Electrical Outlet* | Two NEMA-1420R receptacles with ground fault interrupter. 120V service standard; international fixtures available. | AS-GFI | AS-GFI | AS-GFI |
| Service Fitting* | Cabinets can be fitted with service fixtures in sidewall or on work surface. | <... SF-X. Specify service fitting type (faucet, valve, petcock) and location when ordering. ...> | | |
| Stainless Steel Hanging Rod* | Hanging rod spans the width of the cabinet. | HANGR-P5-24 | HANGR-P5-36 | HANGR-P5-48 |
| Cup Sink, Mounts into Tray* | Polyethylene cup sink (3" x 5" x 9") is fitted into the base tray. Other sizes and materials available. Contact Air Science for ordering information. | SINK | SINK | SINK |
| UV Lamp*** | Creates light emission conditions know to safely decontaminate interior surfaces. Includes a timer, door microswitch, fully closing front sash and UV filtering clear polycarbonate panels. The UV operation must comply with local codes and facility safety practices. | UV-P5-24 | UV-P5-36 | UV-P5-48 |

*Factory installed; specify when ordering.

**Handheld box connects via cable to head unit. Includes On/Off switch and blower speed control. Can be placed inside work zone.

***Includes timer, door microswitch and fully closing front sash, all clear panels polycarbonate (UV filtering). Safety precautions need to be followed.

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WARRANTY

This product is protected by the Air Science Legacy Limited Lifetime Warranty™.



For details visit the [Warranty section](#) of our website.

STANDARDS & COMPLIANCE

| | |
|---|---|
| Quality Management Systems | ISO 9001 : 2015 |
| Electrical Safety | UL-C-61010-1 CAN/CSA C22.2 61010-1-12 EN 61010-1:2010 CE Mark |
| OSHA, Occupational Safety and Health Administration | OSHA Standard -29 CFR, Safety and Health Regulations for General Industry, 1910.1450: Occupational exposure to hazardous chemicals in laboratories. Part B, definition, laboratory type hood. This product may assist you with compliance or as part of your chemical hygiene plan. Please consult your Safety Officer and/or Industrial Hygienist. |
| Environment | ISO 14001:2015 ENERGY STAR® Partner |



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