

Laminar Flow Cabinets

- Simple, Effective Protection for Samples and Work Processes
- Uncompromised Performance, Economical Price
- Meets or Exceeds OSHA, ANSI, and Other International Standards



Purair FLOW-36

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- Product Overview (p.2)
- Design Features (p.3)
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- Containment & Filtration (p.5)
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FLOW

Laminar Flow Cabinets

24 • 36 • 48

PRODUCT OVERVIEW

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INTRODUCTION

Purair® FLOW Series laminar flow cabinets are designed to protect the interior work zone from particulate contamination.

The Purair FLOW Series product line employs the Air Science exclusive [Multiplex™ HEPA Filtration](#) technology to sustain a contamination-free environment.

HEPA filtered air passes uniformly through the cabinet interior via vertical laminar flow. The airflow is oriented to prevent introduction of airborne particulates during normal use.

APPLICATIONS

Mycology and Food Microbiology \ Plant and Mammalian Cell Culture \ Clinical Pharmacies and Hospitals \ Cleanrooms \ Semiconductor Assembly \ Pharmaceutical Production \ Aerospace Contamination Control \ Medical Device Assembly \ General Research Protocols



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.



KEY FEATURES

- Provides sterile work zone for aseptic techniques.
- Air cleanliness meets and exceeds ISO Class 5.
- Energy saving LED lighting.
- Vertical laminar flow with HEPA filtration.
- Large front opening provides unrestricted access to the work zone.

FLOW SERIES

Purair FLOW Series cabinets offer proven ISO Class 5 product performance. Vertical laminar flow cabinets are intended for use in non-hazardous applications where user protection from biologicals or biohazardous byproducts is not required. The Purair FLOW Series includes a range of Air Science innovations integrated into the clean, simple, low-maintenance design. Cabinets offer flexible access to the interior work area and an economical price.



Purair FLOW-48 shown with optional spill tray and mobile cart.

This product exceeds OSHA, ANSI and other International [Certification](#) Standards. Specifications are subject to change without notice.

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DESIGN FEATURES

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DESIGN FEATURES

- A. Control Panel:** The control panel includes an On/Off switch for simple operation.
- B. Main Filter:** HEPA filter with 99.99% efficiency for 0.3 micron particulates (ULPA optional).
- C. Pre-Filter:** Disposable polyester fiber pre-filter with 85% arrestance.
- D. Blower Motor:** ebm-papst centrifugal fan.
- E. Stand:** Optional base stand converts to mobile cart with optional locking casters.
- F. Lighting:** Compact LED cabinet lamp located away from laminar flow area.
- G. Pass Through Ports:** Convenient rear-wall pass through ports for safe routing of instrument cords, cables, and leads.
- H. Filter Door Lock:** Prevents unauthorized removal or accidental exposure to saturated filters.
- I. Filter Clamp:** Wide knob filter clamps are conveniently located forward of the assembly. The clamps secure the filter to the plenum with even pressure to assure a tight seal and to simplify filter removal and replacement when required.
- J. Work Surface:** Optional polypropylene spill tray, available in white or black, or optional stainless steel spill tray available.

ADDITIONAL FEATURES

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

Standards Compliant: Performance specifications and construction meet or exceed OSHA, ANSI, and relevant international standards to assure operator safety.

Construction: All models are available in either metal or polypropylene construction, specify when ordering. Available in 120V, 60Hz or 230V, 50Hz models.

Purair FLOW-24, shown with optional spill tray and mobile cart.

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PERFORMANCE & SELECTION

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Air Science FLOW cabinets 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 [Air Science Multiplex Filter](#) offers a range of options for high performance protection.



Multiplex filter configuration permits a customized combination of filter media for a broad range of chemical families and biological agents if required.

Purair FLOW cabinets maintain up to 0.45 m/s (90 fpm) airflow velocity, measured 6" (150 mm) from the filter face.

The HEPA filters are easy to replace; no tools required.

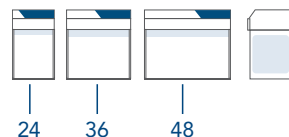
DESIGN

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

The cabinet frame and work surfaces, comprised of industrial components, are durable and chemically resistant with a microbial powder finish coating.

The Air Science filter assembly is easy to access, easy to change, plus a unique filter clamping design eliminates bypass leakage of the main filter.

Stackable sections make cabinets highly portable and enable quick setup.



SELECTION

Purair FLOW cabinets are available in three model sizes with various options. Designed for desktop use, or for installation on an optional base stand or mobile cart.

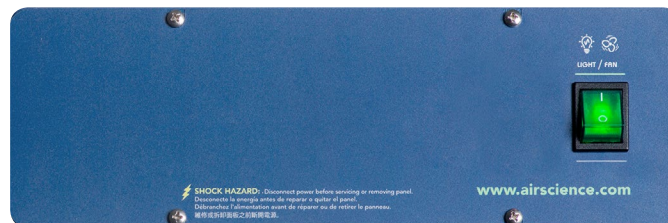
RELIABILITY

Purair FLOW cabinets incorporate energy-efficient ebm-papst centrifugal blowers for maximum operational savings, low noise, and minimal vibration.

Air Science uses long-life HEPA filters without aluminum separators to increase filter efficiency, minimize the potential for leakage, and increase filter life.

CONTROL

The **Standard integrated control panel** features an On/Off switch for simple operation of the blower and light.



Standard Controller



Purair FLOW cabinets incorporate energy-efficient ebm papst™ permanently lubricated direct drive centrifugal blowers for maximum operational savings, low noise and minimal vibration.



Purair FLOW-36, shown with optional mobile cart.

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CONTAINMENT & FILTRATION

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FILTRATION

At the heart of the Purair product line is innovative filtration technology. **The Multiplex Filtration System** consists of a pre-filter and main filter. The mechanical design enhances safety, convenience, and overall value.

- The disposable pre-filter is accessible from the exterior top of the cabinet.
- A filter clamping mechanism allows for the filter to be easily installed and ensures an even seal at the filter peripheral face at all times to prevent bypass leakage.
- The filter chamber prevents contaminated air from contacting internal cabinet mechanisms.



SECUR.
safe disposal service



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

AIRFLOW

Room air enters from the top of the cabinet through the disposable pre-filter where larger particles are trapped, increasing the service life of the main HEPA filter.

Air is forced evenly across the HEPA filter to deliver a flow of pure, uniform air within the work zone to dilute and flush airborne contaminants from the work area. A nominal filter face velocity of up to 0.45 m/s (90 fpm) ensures that there is a sufficient number of air changes within the work zone to eliminate cross contamination and to maintain optimum cleanliness.

Purified air travels across the work zone to the work surface in a vertical, unidirectional downflow stream, and then exits the work zone across the open cabinet front.

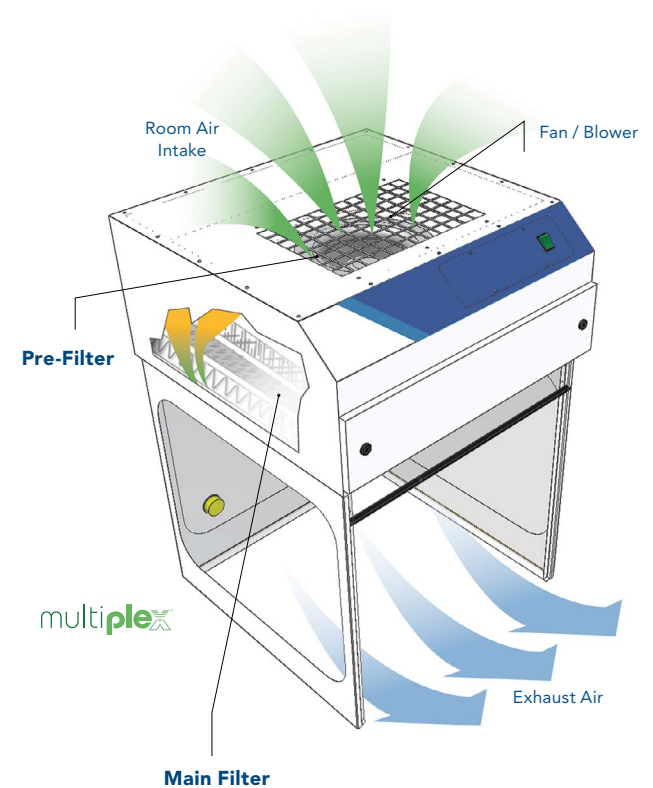
FILTER CONFIGURATION

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

H. The main filter is easy to replace; no tools required. The filter clamps tightly against the filter gasket to prevent filter bypass and to maintain filter integrity.

MULTIPLEX FILTRATION SYSTEM, SUMMARY

Pre-Filter	P	Disposable polyester fibers with 85% arrestance.
Main Filter	H	A self-contained filter designed to physically capture particles larger than 0.3 microns (HEPA) or 0.12 microns (ULPA).



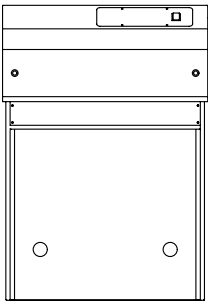
Through our partner company [Filtco Filters](#), Air Science is a single source supplier of all pre-filters, carbon filters, and HEPA/ULPA filters used in our products and those of many other manufacturers.

This product exceeds OSHA, ANSI and other International [Certification](#) Standards. Specifications are subject to change without notice.

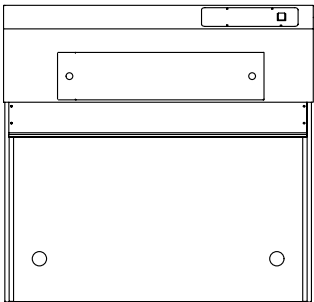
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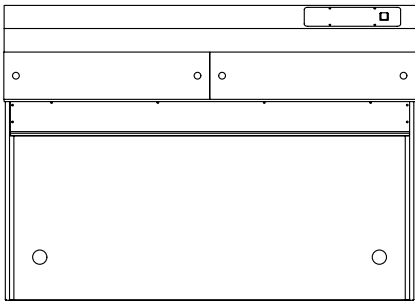
Purair FLOW-24



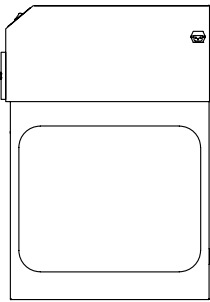
Purair FLOW-36



Purair FLOW-48



Side View



MODEL	DIMENSIONS					WEIGHT (LBS/KG)	
	Nominal Width	Internal Height	Internal Depth	External (W x D x H)	Shipping (W x D x H)	Net	Ship
FLOW-24	24" / 610 mm	24" / 610 mm	24" / 610 mm	24" x 24" x 35" / 610 x 610 x 889 mm	40" x 40" x 45" / 1016 x 1016 x 1143 mm	72 / 33	150 / 68
FLOW-36	36" / 914 mm	24" / 610 mm	24" / 610 mm	36" x 24" x 35" / 914 x 610 x 889 mm	48" x 40" x 45" / 1219 x 1016 x 1143 mm	99 / 45	175 / 79
FLOW-48	48" / 1219 mm	24" / 610 mm	24" / 610 mm	48" x 24" x 35" / 1219 x 610 x 889 mm	60" x 40" x 45" / 1524 x 1016 x 1143 mm	138 / 63	225 / 102

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PRODUCT SPECIFICATIONS

Filtration	FLOW-24		FLOW-36		FLOW-48	
Airflow	<... Vertical downflow; 0.3 m/s - 0.45 m/s (60 - 90 fpm). ...>					
Pre-Filter	<... Disposable polyester fibers with 85% arrestance. ...>					
Main Filter	<... HEPA efficiency, 99.99% at 0.3µm. ...>					
Clamping	<... Screw compression clamp. ...>					
Construction	FLOW-24		FLOW-36		FLOW-48	
Finish (exterior)	<... White epoxy-coated steel frame with white legs on cabinet sides. ...>					
Windows	<... Acrylic, transparent. ...>					
Blower	<... ebm-papst centrifugal fan. ...>					
Controls	<... Main On/Off switch for fan and lighting. Solid-state fan speed control with RFI filter maintains blower uniformity. ...>					
Electrical	<... 120V, 60Hz or 230V, 50Hz voltages available. Specify when ordering. Other voltage options available. ...>					
Pass Through Ports	<... Two, standard, knock-out. ...>					
Efficiency	FLOW-24		FLOW-36		FLOW-48	
Lighting	<... LED lighting. ...>					
Noise, dBA ¹	< 63		< 66		< 66	

¹ Measured 12" (30 cm) from the cabinet front and 15" (38 cm) above the work surface plane.

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OPTIONS AND ACCESSORIES

Purair Model		FLOW-24	FLOW-36	FLOW-48
ULPA Filter	ULPA filter efficiency 99.999% at particle sizes between 0.1 to 0.3µm.	ASTS-030U	ASVLF536-030U	2 × ASTS-030U
Spill Tray (Polypropylene)	Removable for easy cleaning.	TRAY-P5-24	TRAY-P5-36	TRAY-P5-48
Spill Tray (Stainless Steel)	Removable for easy cleaning.	SS-TRAY-P5-24	SS-TRAY-P5-36	SS-TRAY-P5-48
Base Stand, Mobile, with Casters	Provides a lower storage shelf; accommodates wheelchair access. Locking casters fix the hood in place.	CART-24	CART-36	CART-48
Base Cabinet, Fixed (Metal)	Provides storage space below.	CART-MCC-24	CART-MCC-36	CART-MCC-48
Base Cabinet, Fixed (Polypropylene)	Provides storage space below.	CART-SSC-24	CART-SSC-36	CART-SSC-48
Fire Safety Cabinet Base	Flame resistant safe storage for combustible and flammable liquids	CART-FSC-24	CART-FSC-36	CART-FSC-48
Polypropylene Construction*	Cabinets are available in all polypropylene construction. Contact Air Science for information.	FLOW-24-PP	FLOW-36-PP	FLOW-48-PP

Factory installed; specify when ordering.

WARRANTY

This product is protected by the Air Science **Legacy Lifetime Warranty™** which starts on the date of shipment from our factory. This limited warranty is the result of thousands of successful Air Science production applications in pharmaceutical, laboratory, forensic, industrial, and educational applications.

This warranty covers defects in materials and workmanship. Our liability under the Legacy Lifetime Warranty is, at our option, to repair or replace any defective parts of this equipment if you document that these parts were defective at the time we sold the product to you. Normal conditions apply.



For details visit the [Service section](#) of our website at www.airscience.com.

STANDARDS & COMPLIANCE

Quality Management Systems	ISO 9001:2015
Environment	ISO 14001:2015 ENERGY STAR® Partner
Cabinet Performance	IEST-RP-CC002.3 AS 1386.5
Air Quality	ISO 14644-1, Class 5
Filtration	IEST-RP-CC034.1 IEST-RP-CC034.3 IEST-RP-CC034.7 EN 1822
Electrical Safety	UL-C-61010-1 CE Mark RoHS Exempt under EEE Category 9



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Use the above details to contact us if this literature doesn't answer all your questions.

Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

