

# Purair<sup>®</sup> FLOW

## Laminar Flow Cabinets

24 • 36 • 48

"The World's Most Practical Selection of Benchtop Laminar Flow Cabinets."



— Purair<sup>®</sup> FLOW-24

Simple, Effective Protection for  
Samples and Work Processes, Uncompromised  
Performance, Economical Price

Meets or Exceeds OSHA, ANSI and  
other International Standards



**JUMP TO:**

- Features and Callouts (p.3)
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- Options and Accessories (p.6)



**Purair<sup>®</sup> FLOW<sup>®</sup>**  
Laminar Flow Cabinets

- Vertical laminar flow with HEPA/ULPA filtration protects materials inside the cabinet from particulates.
- High airflow capacity.
- Configurable with a broad range of options customized to your specific application.
- Easy-to-change filters.
- Available in 2', 3' and 4' widths.
- Purair<sup>®</sup> FLOW-48, shown.



**INTRODUCTION**

Purair FLOW series laminar flow cabinets are designed to protect the work surface, products and materials from particulate contamination. Room air passes through a HEPA filter then uniformly by laminar flow through the cabinet interior to protect the work from unfiltered air. The airflow is oriented to exhaust airborne particulate introduced by the user.

The Purair FLOW series product line employs the Air Science exclusive Multiplex HEPA filtration technology to sustain the contamination-free environment.

**CONVENIENCE AND CONSTRUCTION BENEFITS**

Purair FLOW series cabinets offer a proven level of ISO Class 4 product performance at an economical cost. These cabinets are intended for use in non-hazardous applications where biological or biohazard byproducts are not generated and user protection is not required. A range of Air Science innovations are integrated into the clean, simple, low-maintenance design offering flexible access to the interior work area.

- Purair FLOW cabinets are available in three model sizes with various options.
- Cabinets are shipped fully assembled with standard power cords; no installation required.

- Products are designed for desktop use, or may be installed on an optional base stand or mobile cart.
- Purair FLOW cabinets maintain a 0.45 m/s (90 fpm) airflow velocity, measured 6" (150 mm) from the filter face, with a uniformity of +/- 20% across the filter face.
- This face velocity is in compliance with U.S.A. and international standards for safety and performance. The HEPA filters are easy to replace; no tools required.
- Purair FLOW cabinets are constructed of steel with a microbial powder finish coating.

**APPLICATIONS**

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





**PRODUCT FEATURES:**

- A. Task Lighting:** Fluorescent cabinet lamp located away from laminar flow area.
- B. Filter:** Camfil Farr main HEPA filter with 99.99% efficiency for 0.3 micron particulates (ULPA optional).
- C. Pass Through Ports:** Convenient rear-wall pass through ports for safe routing of instrument cords, cables and leads.
- D. Fan:** High-performance ebmpapst™ centrifugal fan.
- E. Disposable Pre-Filter:** Accessible from the chamber exterior top to contain the release of any particulates that it traps.
- F. Filter Door Lock:** Prevents unauthorized removal or accidental exposure to dirty filters.

**OTHER 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 220V, 50Hz models.
- Steel Support Frame:** The chemical resistant epoxy coated steel frame adds mechanical strength. Optional all polypropylene construction is available if desired. The pre-filter can be changed while the unit is operating to prevent operator exposure to chemical vapors.

Purair<sup>®</sup> FLOW<sup>™</sup>-24, shown.



The control panel includes an ON/OFF switch for simple operation.

**THE AIR SCIENCE PERFORMANCE ADVANTAGE**

Each Purair FLOW cabinet includes features expressed through sound design and certified quality construction. Options and accessories add functional performance to meet specific applications.

- **Professional Quality.** Air Science cabinets comply with current technical and safety regulations.
- **Advanced Filtration.** Air Science Multiplex HEPA filtration provides high performance protection.
- **Industrial Components.** The cabinet frame and work surfaces are durable and chemically resistant.
- **Reliability.** Internal systems are isolated from contamination, extending product life.



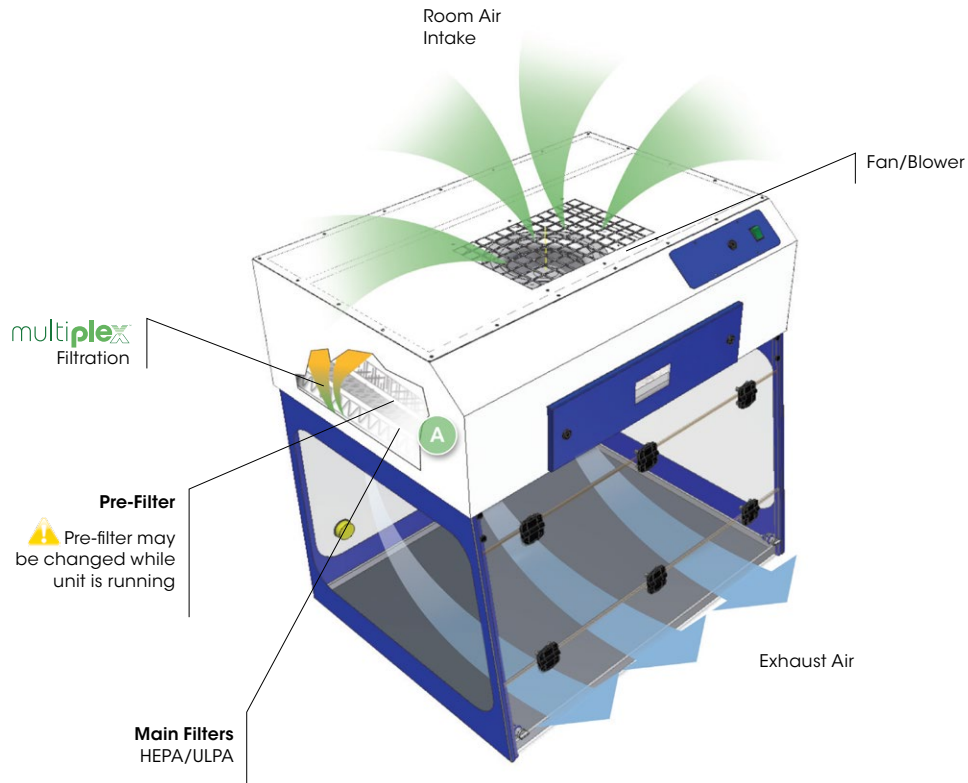
Purair FLOW cabinets incorporate energy-efficient ebmpapst™ permanently lubricated direct drive centrifugal blowers for maximum operational savings, low noise and minimal vibration.



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



**PURAIR FLOW AIRFLOW PATTERN**



**multiple**

**AIR SCIENCE MULTIPLEX FILTRATION TECHNOLOGY**

The Multiplex filtration consists of a pre-filter and main HEPA filter. The mechanical design enhances safety, convenience and overall value.

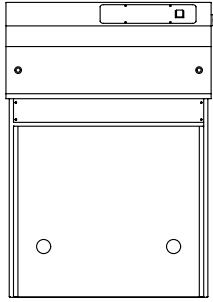
- The disposable pre-filter is accessible from the exterior top of the cabinet.
- A filter clamping mechanism allows for the filter to be easily installed and ensures an even seal at the filter peripheral face at all times to prevent bypass leakage.

- Purair FLOW-36 shown with Multiplex filtration system.
- 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 0.45 m/s (90 fpm) ensures that there is 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.
- A. 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.

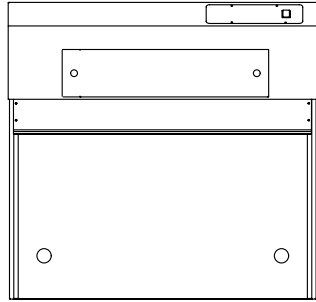
**MULTIPLEX™ FILTRATION SYSTEM SUMMARY**

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

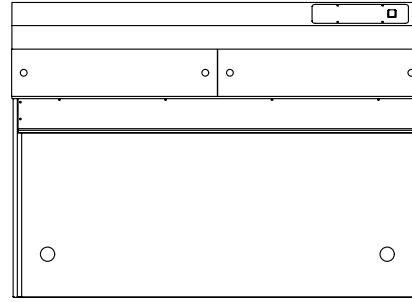
This Product Exceeds OSHA, ANSI and Other International Standards.



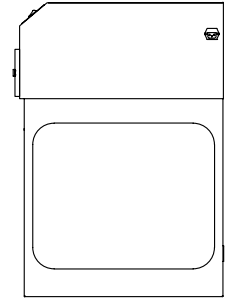
Purair<sup>®</sup> FLOW-24



Purair<sup>®</sup> FLOW-36



Purair<sup>®</sup> 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 40" 1016 x 1016 x 1016 mm	72 / 33	129 / 59
FLOW-36	36" 914 mm	24" 610 mm	24" 610 mm	36" x 24" x 35" 914 x 610 x 889 mm	40" x 40" x 40" 1016 x 1016 x 1016 mm	99 / 45	157 / 71
FLOW-48	48" 1219 mm	24" 610 mm	24" 610 mm	48" x 24" x 35" 1219 x 610 x 889 mm	52" x 45" x 40" 1321 x 1143 x 1016 mm	138 / 63	195 / 88

PRODUCT SPECIFICATIONS

Purair <sup>®</sup> Model	FLOW-24	FLOW-36	FLOW-48
Airflow Pattern	<... Vertical downflow. ...>		
Airflow <sup>1</sup>	<... 0.45 m/s (90 fpm) ...>		

Filter Specifications

Pre-Filter	<... Disposable polyester fibers with 85% arrestance. ...>
Main Filter <sup>2</sup>	<... HEPA efficiency, 99.99% at 0.3µm. ...>
Clamping	<... Screw compression clamp. ...>
Lighting	<... Compact fluorescent bulb, removed from air stream. ...>

Side Windows

Construction	<... Acrylic. ...>
Visible Opacity	<... Transparent. ...>
Color	<... Colorless. ...>

Construction

Color	<... White epoxy-coated steel frame with blue legs on cabinet sides. ...>
Pass Through Ports	<... Standard. ...>
Blower	<... ebmpapst™ centrifugal fan. ...>
Electrical	<... 120V, 60Hz or 220V, 50Hz voltages available. Specify when ordering. Other voltage options available. ...>
Electrical Controls	<... Main ON/OFF switch for fan and lighting. Solid-state fan speed control with RFI filter maintains blower uniformity. ...>

<sup>1</sup> Average airflow measured 6" (150 mm) from filter face. Uniformity is +/- 20%.

<sup>2</sup> Camfil Farr filters; HEPA efficiency, 99.99% at 0.3µm.

**OPTIONS AND ACCESSORIES**

Purair® Model		FLOW-24	FLOW-36	FLOW-48
Base Stand	Floor-standing base for cabinet. Available with leveling feet or locking casters. Optional motorized height adjustment.	P5-CART	P15-CART	P20-CART
Polypropylene Construction	Cabinets are available in all polypropylene construction. Contact Air Science® for information.	FLOW-24-PP	FLOW-36-PP	FLOW-48-PP
ULPA Filter	ULPA filter efficiency 99.999% at particle sizes between 0.1 to 0.3µm.	FLOW-24-ULPA	FLOW-36-ULPA	FLOW-48-ULPA
Spill Tray/Work Surface	Polypropylene work surface available in white or black. Slides out for easy cleaning.	TRAY-P5-24	TRAY-P5-36	TRAY-P5-48

**STANDARDS AND COMPLIANCE**

Quality Management Systems	ISO 9001:2008
Environment	ISO 14001:2004 ENERGY STAR® Partner
Cabinet Performance	IEST-RP-CC002.2 AS 1386.5
Air Quality	ISO 14644-1, Class 4
Filtration	IEST-RP-CC034.1 IEST-RP-CC001.3 IEST-RP-CC007.1 EN 1822
Electrical Safety	UL-C-61010-1 CE Mark RoHS Exempt under EEE Category 9



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