

# PurairFLOW











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#### INTRODUCTION

Purair<sup>®</sup> 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 <u>Multiplex™ HEPA</u> <u>Filtration</u> 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.



### 37–115 watt<sup>1</sup>

The single EC blower motor assures lower cost of ownership in one of the world's most energy efficient laminar flow cabinets.

#### **APPLICATIONS**

Vertical laminar flow cabinets are intended for use in non-hazardous applications where user protection from biologicals or biohazardous byproducts is not required.

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

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#### **KEY FEATURES**

- Provides sterile work zone for aseptic techniques.
- Air cleanliness meets 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

The Purair FLOW is designed to provide protection to the work surface from biological or particulate contamination. It is ideal for pharmacy compounding of non-toxic agents, assembly of finely tuned instrumentation, cell culture and other processes where protection of the user is not required but easy access to the work surface is important. ISO Class 5 air quality is maintained through a downward laminar flow that provides gentle airflow throughout the cabinet. The clean, simple, low maintenance design offers a comfortable workstation for a range of applications and may be bench mounted or positioned on a mobile bench.



Purair FLOW-36 shown with optional spill tray and mobile cart.



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.

Specifications are subject to change without notice or obligation on the part of Air Science. For questions contact Air Science.

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

#### PurgirFLOW Laminar Flow Cabinets 24 • 36 • 48 PRODUCT OVERVIEW

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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 99.97% efficiency for 0.3 micron particulates (ULPA optional).
- **C.** Pre-Filter: Disposable polyester fiber pre-filter with 85% arrestance.
- **D.** Blower Motor: 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

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Laminar Flow Cabinets

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

**DESIGN FEATURES** 

Construction: All models are available in 120V, 60Hz or 230V, 50Hz models.

Purair FLOW-36, shown with optional spill tray and mobile cart.

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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 <u>Air Science Multiplex filter</u> 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 an average airflow velocity of 0.30 m/s (60 fpm) at initial setpoint, measured 6" (150 mm) from the filter face.

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

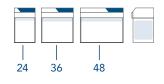
#### DESIGN

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





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**PurgirFLOW** 

Laminar Flow Cabinets

Energy-efficient blowers promote long life and dependable performance of Purair FLOW work stations.

**PERFORMANCE & SELECTION** 



Purair FLOW-24

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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

LEARN

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

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#### 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 air within the work zone to dilute and flush airborne contaminants from the work area. An average airflow velocity of 0.30 m/s (60 fpm) at initial setpoint ensures that there is a sufficient number of air changes within the work zone to eliminate cross contamination and to maintain optimum cleanliness.

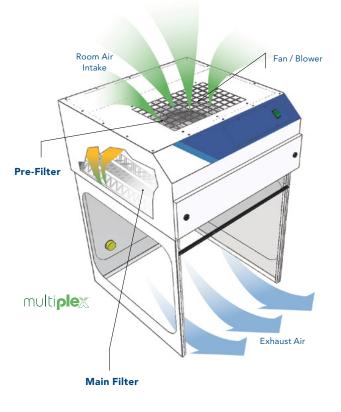
Purified air travels across the work zone to the work surface in a vertical downflow stream and then exits the work zone across the open cabinet front.

#### FILTER CONFIGURATION

P. <u>A</u> 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.





CONTAINMENT & FILTRATION

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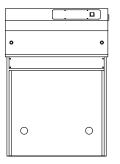
Through our partner company <u>Filtco Filters</u>, Air Science is a single source supplier of all pre-filters, carbon filters and HEPA/ULPA filters used in our products.

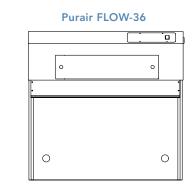
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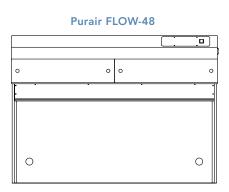
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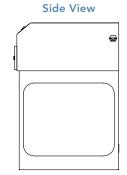
#### PurgirFLOU Laminar Flow Cabinets 24 • 36 • 48 SPECIFICATIONS

Purair FLOW-24









MODEL	VOLTAGE	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-A	120V, 60Hz	24" / 610 mm	23.29" / 591.5 mm	22.5" / 571 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-24-G	230V, 50Hz	24" / 610 mm	23.29" / 591.5 mm	22.5" / 571 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-A	120V, 60Hz	36" / 914 mm	23.29" / 591.5 mm	22.5" / 571 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-36-G	230V, 50Hz	36" / 914 mm	23.29" / 591.5 mm	22.5" / 571 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-A	120V, 60Hz	48" / 1219 mm	23.29" / 591.5 mm	22.5" / 571 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
FLOW-48-G	230V, 50Hz	48" / 1219 mm	23.29" / 591.5 mm	22.5" / 571 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

"A" — 120V, 60Hz "G" — 230V, 50Hz

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#### PRODUCT SPECIFICATIONS

Filtration	FLOW-24	FLOW-36	FLOW-48
Airflow	< $\cdots$ Vertical downflow; 0.30 m/s (60 fpm). $\cdots$ >		
Pre-Filter	< $\cdots$ Disposable polyester fibers with 85% arrestance. $\cdots$ >		
Main Filter	< $\cdots$ HEPA efficiency, 99.97% at 0.3 $\mu$ m. $\cdots$ >		
Clamping	< Screw compression clamp>		
Construction	FLOW-24	FLOW-36	FLOW-48
Finish (exterior)	$<\cdots$ White epoxy-coated steel frame with white legs on cabinet sides. $\cdots>$		
Windows	<··· Acrylic, transparent. ···>		
Blower	<···· EC blower. ···>		
Controls	< Main On/Off switch for fan and lighting. Solid-state fan speed control with RFI filter maintains blower uniformity>		
Pass Through Ports	<···· Two, standard, knock-out. ···>		
Efficiency	FLOW-24	FLOW-36	FLOW-48
Power Consumption <sup>1</sup>	37 watt	78 watt	115 watt
Lighting	<··· LED. ···>		

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#### OPTIONS AND ACCESSORIES

Purair Model		FLOW-24	FLOW-36	FLOW-48
ULPA Filter	ULPA filter efficiency 99.999% at particle size 0.12 $\mu m.$	ASTS-030U	ASVLFP536-030U	ASTS-030U (2)
Spill Tray (Polypropylene)	Removable for easy cleaning.	TRAY-P5-24S	TRAY-P5-36S	TRAY-P5-48S
Spill Tray (Stainless Steel)	Removable for easy cleaning.	TRAY-P5-24S-SS	TRAY-P5-36S-SS	TRAY-P5-48S-SS
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

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#### PurgirFLOU Laminar Flow Cabinets 24 • 36 • 48 OPTIONS & ACCESSORIES

WARRANTY

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

For details visit the <u>Warranty section</u> 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	
Environment	ISO 14001:2015 ENERGY STAR® Partner	



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