

# **High Performance Ductless Balance Enclosures**

24 • 36 • 48

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



USP USP 79 COMPLIANT CO

USP 795 COMPLIANT

Also Meets or Exceeds OSHA, ANSI and other International Standards







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- Protects the operator from powder and particle hazards encountered during non-sterile compounding.
- SafeSwitch™ Filter Shutter System (optional) for safer bag-in/bag-out filter exchange.
- Innovative filter clamping eliminates by-pass leakage.
- Exhaust canopy allows for thimble ducting to the facility exhaust system.
- Airflow monitor with low airflow alarm built-in.
- Complies with USP 800 guidelines which specify hazardous materials must be compounded within the proper work environment associated with both sterile and non-sterile products and preparations.

Purair P5-36-XT (RX), shown with 6" diameter side chutes.



### **APPLICATIONS**

- Compounding
- Powder Mixing
- Weighing

### INTRODUCTION

Purair® RX Balance Hood is a Class I enclosure that meets USP 800 requirements for non-sterile compounding procedures. The Purair RX is designed to protect the user and the environment from hazardous powders and particulates generated on the work surface. At the heart of the Purair product line is innovative ductless technology that creates a safe work environment in a wide variety of applications throughout the industry.

### DUCTLESS FILTRATION: The Eco-friendly Choice

Advanced HEPA filtration offers a safe, high performance alternative to conventional ducted cabinets for a broad range of applications:

- Environmental
   Benefits. Air Science
   ductless enclosures
   isolate and trap powders and particulates
   to prevent ecological impact through release into the
   environment.
- Safer Filter
  Replacement. The
  optional Air Science
  SafeSwitch bag-in/
  bag-out filter replacement system minimizes exposure to filter
  contaminants when
  removing used filters for
  insertion of new filters.
- Versatile. The Purair RX includes a factoryinstalled exhaust canopy that allows for thimble ducting to the outside. HEPA/ULPA filters also provide high levels of biological safety.

- Easy to Install. The ductless balance hood is self-contained and does not require venting to the outside. The cabinet is portable and may be moved from one location to the next 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 powders or particulates.
- Self-testing. Electronic airflow monitoring assures continuous safety.





### **PRODUCT FEATURES:**

- A. Filter I.D. Window: A strategically placed front cover window shows the installed filter part number and installation date to encourage timely filter replacement.
- **B. Side Waste Chutes:** (Optional) Purair RX hoods are available with 6" diameter side waste chutes to safely transfer waste from the work surface to the proper disposal receptacle.
- C. Rear Internal Baffle: Rear baffle provides smooth horizontal airflow pattern. Removable for easy cleaning.
- **D. External Exhaust Connection:** Standard 6 in. diameter exhaust connection port to allow for outside ducting. USP-800 compliant.
- **E. Built-in Lighting:** Hoods include standard 60W lights to fully illuminate the work surface.
- **F. Air Velometer:** (Optional) An analog air velocity meter in the field of vision of the user.
- G. 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 and features a self-locking feature.
- H. Control Panel: Electronic controls and displays include switches for the blower and low airflow alarm. Ergonomics, safety and aesthetics all come together with the 10° pitch of the face.
- I. Steel Support Frame: The chemical resistant epoxy coated steel frame adds mechanical strength. Optional all polypropylene construction is available if desired: see Accessories.
- J. Electrostatic Pre-Filter: The 99.5% effective electrostatic pre-filter is accessible from inside the chamber to contain the release of any particulates that it traps. The pre-filter can be changed while the unit is operating to prevent operator exposure to chemical vapors.
- K. Pass-Through Ports: Electrical cords and cables are safely routed into the cabinet through 1 5/8". diameter ports on the back and side walls.
- L. Airflow Alarm: A continuous air velocity monitoring system alerts the operator upon unacceptable values.
- Purair P5-36-XT (RX), shown with optional mobile cart.

- M. Built-in Blower: All models include an internal blower. With the addition of an optional remote blower and additional ductwork the cabinet can be connected to an existing facility exhaust system.
- N. Internal Manual Speed Controller: Authorized personnel may set the centrifugal fan motor speed as desired.
- O. Stand: Optional mobile cart with locking casters.
- **P. Work Surface:** The internal work surface can be fitted with an optional stainless steel tray (epoxy resin surface is standard); see Accessories.
- Q. Filter Door Key: Filter access keys prevent 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. This also helps eliminate operator fatigue.

Standards Compliant: Performance specifications and construction meet or exceed OSHA, ANSI and relevant international standards to assure operator safety. Purair RX enclosure hoods are USP-800 compliant.

Construction: All models are available in either metal or polypropylene construction. See selection chart for specifications and dimensions. Specify metal or polypropylene when ordering. Available in 110V, 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.

SafeSwitch™ Filter Shutter System: (Optional) A unique filter shutter system closes the exposed filter media face and minimizes exposure to the contaminated filters, protecting the operator and the environment.

**Purai**r

### THE AIR SCIENCE PERFORMANCE ADVANTAGE

Each Air Science balance hood includes features expressed through sound design and certified quality construction. Options and accessories add functional performance to meet specific applications:

### Professional Quality. Air Science hoods comply with current technical and safety

### Optional HEPA Filtration.

A HEPA filter can be added to contain biological contaminants. The optional SafeSwitch™ bag-in/bag-out filter replacement system minimizes exposure during change-out to increase operator safety.

# Industrial Components. The cabinet frame and work surfaces are durable and chemically resistant.

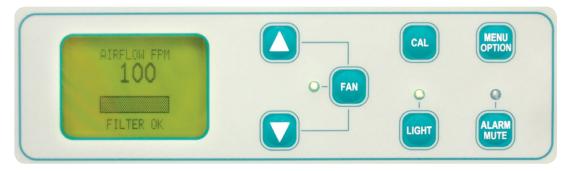
# **Reliability.**Internal systems are

isolated from fumes, extending product life





Basic control panel. Standard on Purair RX Models, Includes On/Off switch and low airflow alarm.



The optional **Monitair** microprocessor controller monitors and displays cabinet operating parameters, airflow, containment, and filter condition; emits audio and visual alerts if conditions become unsafe, all on a LCD display.

# multiple<u></u>

### AIR SCIENCE MULTIPLEX FILTRATION TECHNOLOGY

Multiplex Filtration consists of a pre-filter and main filter to create a complex architecture customized to each application.

The mechanical design enhances safety, convenience and overall value.

- The electrostatic prefilter is accessible from within 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 optional SafeSwitch™ Filter Shutter System ensures safer filter replacement by isolating contaminants from the operator during filter changes.
- The filter chamber prevents contaminated air from contacting internal cabinet mechanisms.
- The main filter number and installation date are displayed in a front-access window.
- The Multiplex option permits one or more filtration options to be combined to meet a wider range of multiple-use applications. Multiplexing permits configuration for the capture of acids, bases and

- particulates such as biological aerosols when paired with HEPA or ULPA filters.
- The Air Science carbon filter is a selfcontained assembly sized to fit the specific product model number, and configured to optimize airflow across 100% of the filter surface area for maximum efficiency, prolonged filter life, optimal diffusion and saturation capacity, and user safety.

Air Science is the single source supplier for all pre-filters and carbon filters used in its products, plus those of many other manufacturers.



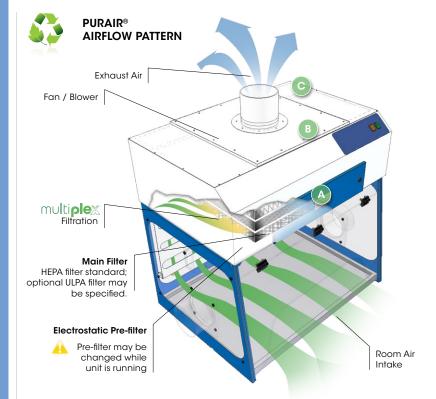
### SAFESWITCH™ BAG-IN/BAG-OUT FILTER REPLACEMENT

The optional Air Science SafeSwitch bag-in/bag-out filter replacement system minimizes exposure to filter contaminants when removing used carbon or HEPA filters for insertion of new filters. When replacement is required a draw cord manually activates an internal louver set to close the filter face for easy bag-out recovery. See Options.

# PURAIR RX FEATURES & BENEFITS

Purair RX hoods are available in 3 standard sizes, each with 4 configuration options and metal or polypropylene construction, totaling 24 standard medals

- High capacity air handling system delivers face velocity of 100 FPM.
- A low airflow alarm warns of insufficien face velocity.
- The Air Science filter assembly is easy to access, easy to change, and safe.
- A unique filter clamping design eliminates bypass leakage outside the cabinet.



- Purair P5-36-XT (RX), shown with Multiplex Filtration System.
- The Purair RX Series ductless balance hood maintains a constant face velocity of 100 FPM in compliance with USA and international standards for safety and performance. Contaminated air is pulled through the Multiplex filtration system and clean air is returned to the room.
- A. The main filter is easy to replace, no tools required. The filter clamps tightly against the filter gasket to prevent filter bypass and maintain filter integrity. The optional SafeSwitch™ HEPA Filter Shutter system also ensures that operators are safely separated from trapped contaminants during filter changes.
- B. Exhaust achieves compliance with USP 800 guidelines for hazardous material compounding.
- C. USP 800 permits use of double HEPA filters in lieu of exhausting to the outside (Optional).

  Choose from HEPA (ULPA optional) or activated carbon. If HEPA/ULPA is chosen the cabinet can be used without connection to an outside exhaust.



Air Science fume hoods use energy-efficient ebmpapst™ brand centrifugal blowers or long life, and depend-

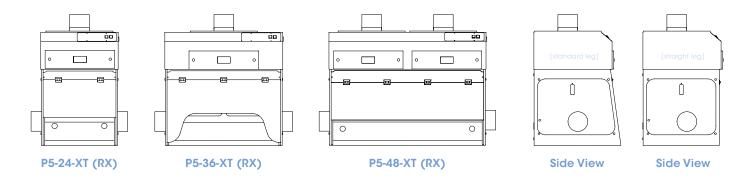
### MULTIPLEX FILTRATION SYSTEM, SUMMARY

	Filter Type	Filter Function		
Standard Filters				
Pre-Filter	Electrostatic	Protects the main filter from aerosols, mists, dust and particulates.  Pre-filter efficiency is typically 95.5% or greater down to 0.5 microns.		
Main Filter	HEPA (ULPA optional)	A self-contained HEPA filter physically captures larger than 0.3 micron particulates. An ULPA filter may be specified to capture particulates larger than 0.12 microns. Specify when ordering.		

### Safety Filters (Optional, select only one)

carety times (epineman, series, emy energy			
Safety Filter (HEPA/ULPA)	HEPA (ULPA optional)	The safety filter can be a self-contained HEPA filter which physically captures larger than 0.3 micron particulates. An ULPA filter may be specified to capture particulates larger than 0.12 microns. Specify when ordering. When chosen, the HEPA/ULPA safety filter permits the cabinet exhaust to be vented to the room without external ducting.	
Safety Filter (Carbon)	Activated Carbon	FILTCO™ sourced, the single carbon filter contains activated carbon granules chemically formulated to capture one or more specific vapors or family of vapors. When chosen as the safety filter the cabinet must be vented to the outside for USP 800 compliance.	





MODEL	DIMENSIONS		WEIGHT (lbs/Kg)		
	Internal Height	External (W x D x H)	Shipping (WxDxH)	Net	Ship
Standard Models					
P5-24-XT (RX)	23.6" 600 mm	24" x 27" x 35" 610 x 676 x 889 mm	40" x 40" x 40" 1016 x 1016 x 1016 mm	72 / 33	129 / 59
P5-36-XT (RX)	23.6" 600 mm	36" x 27" x 35" 914 x 676 x 889 mm	40" x 40" x 40" 1016 x 1016 x 1016 mm	99 / 45	157 / 71
P5-48-XT (RX)	23.6" 600 mm	48" x 27" x 35" 1219 x 676 x 889 mm	45" x 55" x 40" 1143 x 1397 x 1016 mm	138 / 63	195 / 88
Models with Straig	ght Legs (Reduced Depth)				
P5-24-XTS (RX)	23.6" 600 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
P5-36-XTS (RX)	23.6" 600 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
P5-48-XTS (RX)	23.6" 600 mm	48" x 24" x 35" 1219 x 610 x 889 mm	45" x 55" x 40" 1143 x 1397 x 1016 mm	138 / 63	195 / 88

### **PRODUCT SPECIFICATIONS**

Purair Model	P5-24-XT (RX) P5-24-XTS (RX)	P5-36-XT (RX) P5-36-XTS (RX)	P5-48-XT (RX) P5-48-XTS (RX)
Airflow CFM	135.9	206	281.25
Face Velocity FPM	100	100	100
Noise, dBA, 1 meter	< 50	< 50	< 53
Lighting	<··· Compact fluorescent lamp. ···>		
Construction	$<\cdots$ White epoxy coated steel frame and head unit. Clear sides and back panel. $\cdots>$		
Blower	<··· ebmpapst™ centrifugal fan. ···>		
Electrical	$<\cdots$ 120V, 60Hz or 220V, 50Hz voltages available. Specify when ordering. Other voltage options available. $\cdots>$		
Electrical Switches	<··· Main On/Off ···>		
Monitoring	< Low airflow alarm, standard>		

### **Filter Specifications**

Pre-Filter	Electrostatic, 1 lb / .45 kg (nominal)		
Main	HEPA (ULPA optional)	HEPA (ULPA optional)	(2) HEPA (ULPA optional)
Safety (optional)*	HEPA (ULPA optional) or	HEPA (ULPA optional) or	(2) HEPA (ULPA optional) or
	Activated Carbon	Activated Carbon	(2) Activated Carbon

<sup>\*</sup> Optional. Select only one. Choose from HEPA (ULPA optional) or activated carbon. If HEPA/ULPA is chosen the cabinet can be used without connection to an outside exhaust.

Specifications are subject to change without notice.

**Product Specifications** 



### **OPTIONS & ACCESSORIES**

Purair Model		P5-24-XT (RX) P5-24-XTS (RX)	P5-36-XT (RX) P5-36-XTS (RX)	P5-48-XT (RX) P5-48-XTS (RX)
SafeSwitch™ Bag-In/Bag-Out Filter Replacement*	Minimizes exposure to filter contaminants when removing used carbon or HEPA filters for insertion of new filters. When replacement is required a draw cord manually activates an internal louver set to close the filter face for easy bag-out recovery.	ASTS-030-SS	ASTS-030-SS	ASTS-030-SS
Monitair Control Panel*	Microprocessor controller monitors cabinet operating parameters, airflow, containment, and filter condition; emits audio and visual alerts if conditions become unsafe.	MON-P	MON-P	MON-P
Stainless Steel Work Surface	Stainless steel work surface for easy cleaning.	SS TRAY-P5-24 SS TRAY-P5-24-S	SS TRAY-P5-36 SS TRAY-P5-36-S	SS TRAY-P5-48 SS TRAY-P5-48-S
Dwyer Air Flow 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.	P5-CART	P5-36-CART	P20-CART
Base Cabinet, Fixed	Provides storage space below.	P5-ENCB	P5-36-ENCB	P20-ENCB
ADA Compliance*	Provides wheelchair access and lowered remote controls.	<··· All Purair RX models are available in ADA compliant configurations. Contact Air Science for ordering information. ···>		
Polypropylene Construction*	Cabinets are available in all polypropylene construction. Contact Air Science for information.	P5-24-XT (RX)-PP P5-24-XTS (RX)-PP	P5-36-XT (RX)-PP P5-36-XTS (RX)-PP	P5-48-XT (RX)-PP P5-48-XTS (RX)-PP
Duplex Electrical Outlet*	Two NEMA-1420R receptacles with ground fault interrupter. 110V service standard; international fixtures available.	AS-GFI	AS-GFI	AS-GFI
Stainless Steel Hanging Rod*	Hanging rod spans the width of the cabinet.	HANGR-RX-24	HANGR-RX-36	HANGR-RX-48

<sup>\*</sup> Factory installed; specify when ordering.

# Warranty Terms and Conditions

The Purair RX is supported by a limited Legacy Lifetime Warranty™ which starts on the date of shipment from our factory. This 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.

This Warranty is valid on all Air Science products with regard to mechanical parts AS LONG AS genuine Air Science parts and filters were used in compliance with Air Science specifications.

This Warranty constitutes the customer's sole and exclusive remedy, and Air Science's sole and exclusive responsibility with respect to any alleged breach of this limited warranty.

STANDARDS & COMPLIANCE			
Quality Management Systems	ISO 9001		
Chemical Fume Containment	ANSI/ASHRAE 110 1995 SAFEBRIDGE Performance Verification (VE)		
Carbon Filter Efficiency	BS 7989-2001 AFNOR NFX 15-211		
Biological Safety Filter Efficiency HEPA and ULPA	IEST-RP-CC-0034.2 IEST-RP-CC007.1 IEST-RP-CC001-4 EN 1822		
Electrical Safety	UL-C-61010-1 CE Mark ROHS Exempt under EEE Category 9		
Product Design	ANSI Z 9.5-2003 ANSI Z 9.7-1998		
OSHA, Occupational Safety and Health Administration	OSHA Standard -29 CRF, Safety and Health Regulations for General Industry, 1910.1450: Occupational exposure to hazardous chemicals in laboratories. Part B, definition, laboratory type hood. All Air Science products meet this definition.		
Environment	ISO 14001 Energy Star Partner		
Compounding Standards	USP 800 USP 795		









