

# **PurairRX**



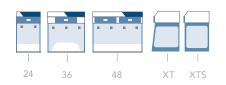




















# INTRODUCTION

Purair® RX Class I Balance Enclosure meets USP 800 and USP 795 requirements for non-sterile compounding processes. The Purair RX is designed to protect the user and the environment from hazardous powders and particulates generated on the work surface.



22–50 watt<sup>1</sup>

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 RX creates a safe work environment over the widest range of applications in the industry.

Balance Enclosures \ Compounding \ Powder Mixing \ Powder Weighing



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.







### KFY FFATURES

- High efficiency EC blower.
- · Energy saving LED lighting.
- Protects the operator from powder and particle hazards.
- Improved filter clamping eliminates bypass leakage.
- Exhaust canopy allows for thimble ducting to the facility exhaust system.
- Filter blockage alarm.
- Complies with USP 800 and USP 795 guidelines.

## **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.



optional FSA/AutoCAL controller. polypropylene spill tray and scale.

120 6th Street, Fort Myers, FL 33907 Toll Free. 800-306-0656 \ www.airscience.com Specifications (p.6)

Options & Accessories (p.8)



Ductless Fume Hoods 24 • 36 • 48

- 30 - 40

**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 is fitted with a standard black resin spill tray. An optional stainless steel tray is also available, see accessories.
- **H.** Pass Through Ports: Electrical cords and cables are safely routed into the cabinet through ports on the back.
- 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. Internal Manual Speed Controller: Authorized personnel may set the EC blower speed as desired
- L. Side Waste Chutes: 6" diameter side waste chutes safely transfer waste from the work surface to the proper disposal receptacle.
- M. Rear Internal Baffle: Rear baffle provides smooth horizontal airflow pattern. Removable for easy cleaning.
- N. External Exhaust Connection: Standard 6 in. diameter exhaust connection port to allow for outside ducting if preferred. USP 800 compliant.

# OTHER FEATURES

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

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 and USP 795 compliant.

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

**22 watt**<sup>1</sup> Purair P5-48-XT, shown with optional velometer, stainless steel spill tray and mobile cart.

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

- 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.
- 2) USP 800 guidelines for non-sterile HD compounding require the C-PEC to be equipped with redundant HEPA filtration (i.e. dual HEPA filters in series) or single HEPA filtration with exhaust vented to the exterior of the building.

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

Options & Accessories (p.8)

PurairRX

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 RX accommodates the full range of Multiplex $^{TM}$  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.

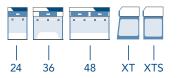
### RELIABILITY

Internal systems are isolated from fumes, extending product life.





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



#### **SELECTION**

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

## CONTROL

The **Basic** controller is standard and includes an On/Off switch and Filter Blockage alarm.



Basic Control Panel



FSA/AutoCAL Control Panel



FSA Control Panel

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.

The **optional AutoMON Microprocessor** controller monitors and displays cabinet operating parameters, airflow, containment and offers limited detection of low concentrations of hydrocarbon, some gases and organic acids. Audio and visual alerts if conditions become unsafe and are all displayed on a LCD screen.



AutoCAL Control Panel



AutoMON Control Panel

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

<sup>&</sup>lt;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.

Performance & Selection (p.4)

Filtration Technology (p.5)
Specifications (p.6)



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.





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



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 RX 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.

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

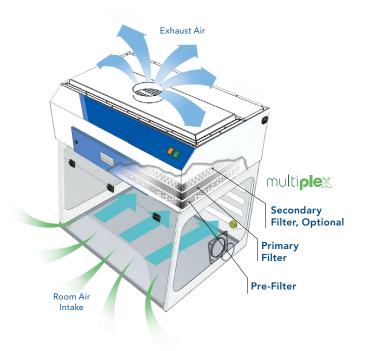
The system can be configured for the capture of acids, bases and particulates, such as biological aerosols, when paired with HEPA or ULPA filters.

# **AIRFI OW**

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.

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



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.

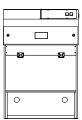
#### **CONTENTS:**

Product Overview (p.2) Design Features (p.3)

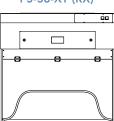
Filtration Technology (p.5)



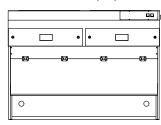






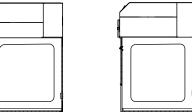


P5-48-XT (RX)



Standard Depth (XT)





MODEL	DIMENSIONS		WEIGHT (LBS/KG)		
	Internal Height	External (W $\times$ D $\times$ H)	Shipping (W × D × H)	Net	Ship

#### Standard Depth Models (XT)

•					
P5-24-XT (RX)	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 (RX)	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 (RX)	23.6" / 600 mm	48" × 27" × 35" / 1219 × 676 × 889 mm	55" × 40" × 45" / 1397 x 1016 x 1143 mm	138 / 63	230 / 104

#### Reduced Depth Models (XTS) for countertops 24" or less

P5-24-XTS (RX)	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 (RX)	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 (RX)	23.6" / 600 mm	48" × 24" × 35" / 1219 × 610 × 889 mm	55" × 40" × 45" / 1397 x 1016 x 1143 mm	138 / 63	230 / 104

7

#### PRODUCT SPECIFICATIONS

Filtration	P5-24-XT (RX)   P5-24-XTS (RX)	P5-36-XT (RX)   P5-36-XTS (RX)	P5-48-XT (RX)   P5-48-XTS (RX)	
Face Velocity	100 fpm	100 fpm	100 fpm	
Construction	P5-24-XT (RX)   P5-24-XTS (RX)	P5-36-XT (RX)   P5-36-XTS (RX)	P5-48-XT (RX)   P5-48-XTS (RX)	
Finish	<··· White epoxy coated	< $\cdots$ White epoxy coated steel frame and head unit. Clear sides and back panel. Black resin spill tray $ \cdots > $		
Blower		<··· EC blower. ···>		
Controls	<··· Main On/Off. ···>			
Electrical	<··· 120V, 60Hz or 230V, 50H	< 120V, 60Hz or 230V, 50Hz voltages available. Specify when ordering. Other voltage options available>		
Monitoring		<··· Filter blockage alarm, standard. ···>		
Efficiency	P5-24-XT (RX)   P5-24-XTS (RX)	P5-36-XT (RX)   P5-36-XTS (RX)	P5-48-XT (RX)   P5-48-XTS (RX)	

Efficiency	P5-24-XT (RX)   P5-24-XTS (RX)	P5-36-XT (RX)   P5-36-XTS (RX)	P5-48-XT (RX)   P5-48-XTS (RX)
Power Consumption <sup>1</sup>	22 watt	34 watt	50 watt
Lighting	< LED>		

<sup>&</sup>lt;sup>1)</sup> All measurements are with Filter Type ASTS-030.

#### FILTER 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)
Secondary/Stacked Filter, Optional*	(1)	(1)	(2)
Primary Filter*	(1)	(1)	(2)
Pre-Filter*	(1)	(1)	(2)

<sup>\*</sup> For specific examples refer to Multiplex filtration system summary on page 5.

# 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	lodine 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/UPI	LA Powders and particulates.

<sup>\*</sup>Other formulas may be available.



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.

<sup>&</sup>lt;sup>2)</sup> Measured 12" (30 cm) from the cabinet front and 15" (38 cm) above the work surface plane.

## **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)
Safety Filter*	An additional carbon, HEPA or ULPA safety filter exceeding ANSI/AIHA Z9.5 requirements can be installed after the main filter.		por or particulate protection are ava ntact Air Science for ordering informa	
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
AutoMON Controller*	The optional microprocessor controller monitors and displays cabinet operating parameters, airflow, containment and offers limited detection of low concentrations of hydrocarbon, some gases and organic acids. Emits audio and visual alerts if conditions become unsafe and are all displayed on a LCD screen. Not TUV compliant.	MON-P	MON-P	MON-P
Spill Tray (Stainless)	Removable for easy cleaning.	TRAY-P5-24-SS TRAY-P5-2S-SS	TRAY-P5-36-SS TRAY-P5-36S-SS	TRAY-P5-48-SS TRAY-P5-48S-SS
SafeSwitch HEPA Filter Shutter System	Minimizes exposure to filter contaminants when removing used 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	Mobile base stand, fixed height, with locking casters.	CART-25	CART-36	CART-50
Bottom Shelf	Provides a lower storage shelf for mobile base stand.	CART-25-SHELF	CART-36-SHELF	CART-50-SHELF
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
Polypropylene Construction	Cabinets are available in all polypropylene construction. Contact Air Science for information.	P5-24-XT-PP P5-24-XTS-PP	P5-36-XT-PP P5-36-XTS-PP	P5-48-XT-PP P5-48-XTS-PP
Remote Control**	Wired controller, provides lower access height to comply with ADA requirements.	RC-P	RC-P	RC-P

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

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

#### **CONTENTS:**

Product Overview (p.2) Design Features (p.3) Filtration Technology (p.5)

Options & Accessories (p.8)

**PurairRX** 

**OPTIONS & ACCESSORIES** 

# WARRANTY

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



For details visit the Warranty section m 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		



120 6th Street \ Fort Myers, FL 33907 **T.** 239-489-0024 \ **Toll Free.** 800-306-0656 \ **F.** 800-306-0677 www.airscience.com



