Purg^o^{RX}



High Performance Ductless Balance Enclosures

- Class I Enclosure, Complies with USP 800 and USP 795 Criteria for Non-Sterile Compounding
- Meets or Exceeds OSHA, ANSI and Other International Standards







22–50 watt¹ The single EC blower motor assures

lower cost of ownership in one of the world's most energy efficient ductless fume hoods.



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







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Ductless Fume Hoods 24 • 36 • 48 PRODUCT OVERVIEW

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 watt¹

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.

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KEY FEATURES

- High efficiency ebm-papst 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.



34 watt¹ Purair P5-36-XT shown with optional FSA/Autocal controller, polypropylene spill tray and scale.

This product exceeds OSHA, ANSI and other International <u>Certification</u> Standards. Specifications are subject to change without notice or obligation on the part of Air Science. For questions contact Air Science.

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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.

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

22 watt¹ Purair P5-24-XT, shown with optional velometer, stainless steel spill tray and mobile cart.

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.

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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.

This product exceeds OSHA, ANSI and other International Certification Standards.

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.



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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[™] 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

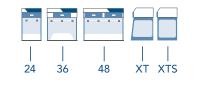
Internal systems are isolated from fumes, extending product life.





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

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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 control panel** is standard and includes an On/Off switch and Filter Blockage alarm.





FSA/Autocal Control Panel



FSA Control Panel

PERFORMANCE & SELECTION

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** displays the airflow and 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 Monitair 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



Monitair Control Panel

This product exceeds OSHA, ANSI and other International <u>Certification</u> Standards. Specifications are subject to change without notice or obligation on the part of Air Science. For questions contact Air Science.

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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, 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.

Secur safe disposal service

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

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FILTER CONFIGURATION

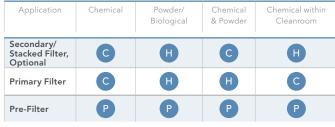
The Multiplex feature permits one or more filtration options to be combined to meet a wider range of multiple-use applications.

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 99.995% at 0.3 microns and 99.9995% at 0.12 microns respectively.

MULTIPLEX FILTRATION SYSTEM, SUMMARY



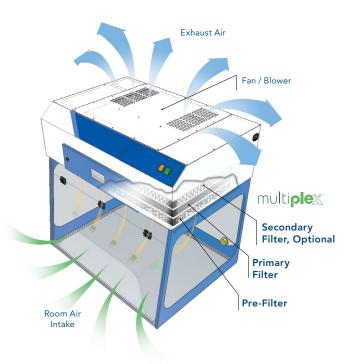
The system can be configured for the capture of acids, bases and particulates, such as biological aerosols, when paired with HEPA or ULPA filters.

AIRFLOW

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.



This product exceeds OSHA, ANSI and other International <u>Certification</u> Standards. Specifications are subject to change without notice or obligation on the part of Air Science. For questions contact Air Science.

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Standard Depth (XT) Reduced Depth (XTS) P5-24-XT (RX) P5-36-XT (RX) P5-48-XT (RX) in l in l Ó0 -68 -0 8 0 0 0 0 MODEL DIMENSIONS WEIGHT (LBS/KG) Internal Height External ($W \times D \times H$) Shipping (W \times D \times 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" \times 40" \times 40" / 1016 \times 1016 \times 1016 mm	99 / 45	170 / 77
P5-48-XT (RX)	23.6" / 600 mm	48" × 27" × 35" / 1219 × 676 × 889 mm	45" × 55" × 40" / 1143 × 1397 × 1016 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" \times 24" \times 35" / 914 \times 610 \times 889 mm	$40"\times40"\times40"$ / 1016 \times 1016 \times 1016 mm	99 / 45	170 / 77
P5-48-XTS (RX)	23.6" / 600 mm	48" × 24" × 35" / 1219 × 610 × 889 mm	45" × 55" × 40" / 1143 × 1397 × 1016 mm	138 / 63	230 / 104

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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)		
Airflow	135.9 cfm	206 cfm	281.25 cfm		
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	steel frame and head unit. Clear sides and	l back panel. Black resin spill tray $\cdots >$		
Blower		<···· ebm-papst EC blower. ···>			
Controls		<··· Main On/Off. ···>			
Electrical	< 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)		
Power Consumption ¹	22 watt	34 watt	50 watt		
Lighting	<··· LED. ···>				
Noise, dBA ²	< 54	< 55	55 < 60		

¹⁾ All measurements are with Filter Type ASTS-030.

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²⁾ Measured 12" (30 cm) from the cabinet front and 15" (38 cm) above the work surface plane.

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)

on page 5.

* For specific examples refer to Multiplex filtration system summary on page 5.



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 and those of many other manufacturers.

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FILTER SUMMARY

Formula	Description	
GP Plus!	The most widely used filter in the range, primarily for solvent, organic and alcohol removal.	
ACI Plus!	Neutralizes volatile inorganic acid vapors.	
ACR	lodine and methyl iodide vapors as well as low level radioactive iodine.	
ACM	Mercury vapor.	
AMM	Removes vapors from dilute ammonia solutions and to remove low molecular weight amines.	
SUL	Designed to remove hydrogen sulphide and low molecular weight mercaptans.	
CYN	Removal of hydrogen cyanide. Many cyanide compounds will evolve HCN gas if acidified, so this filter is normally specified if working with any cyanide compound.	
FOR	Designed to oxidize formaldehyde and glutaraldehyde fumes. It is widely used in hospital pathology laboratories.	
EDU	Designed to handle chemicals normally used in a university level chemistry curriculum.	
MIL	Designed for military applications involving war gasses.	
HEPA/UPLA	Powders, particulates and biologicals.	
/iew additional information on the Multiplex Filtration System		

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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.	< Safety filters for vapor or particulate protection are available for all models> Contact Air Science for ordering information.		
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 displays the airflow and offers limited detection of low concentra- tions 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
Monitair 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	The mobile cart 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
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

* Factory installed; specify when ordering.

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

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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 <u>Service section</u> of our website at www.airscience.com.

STANDARDS & COMPLIANCE		
Quality Management Systems	ISO 9001 : 2015	
Chemical Fume Containment	ANSI/ASHRAE 110 1995	
Carbon Filter Efficiency	BS 7989-2001 AFNOR NFX 15-211	
Biological Safety Filter Efficiency HEPA and ULPA	IEST-RP-CC007.1 IEST-RP-CC001-4 EN 1822	
Electrical Safety	UL-C-61010-1 CAN/CSA C22.2 61010-1-12 EN 61010-1:2010 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 CFR, 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 : 2015 ENERGY STAR® Partner	



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