Air Science®

PurairⓇBASIC

General Application Ductless Fume Hoods

• Provides Operator Safety and Numerous Features for General Applications

BASIC

54 watt[1] *Purair model P5-36-XT, with optional velometer.*

30–71 watt[1]

The single blower motor assures lower cost of ownership in one of the world's most energy efficient ductless fume hoods.

Operator   Particulate   Vapor

24   36   48   XT   XTS

ENERGY STAR PARTNER

GSA Schedule Contract # GS-07F5832P

ISO 9001 ISO 14001 BUREAU VERITAS Certification
N° US018639 / N° US018640

BUREAU VERITAS 1828

INTRODUCTION

Purair® BASIC ductless fume hoods are designed to protect the user and the environment from hazardous vapors generated on the work surface.

30–71 watt[1]

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

Compounding \ Balance Enclosures, Microscopes and Robotic Equipment \ Forensics \ Histology \ Educational \ Microscopy \ Mobile and Classroom Demonstrations \ Pharmaceutical \ Powder Fingerprinting \ Powder Weighing \ Sample Prep Work \ Soldering \ Solvent Cleaning and Welding \ Veterinary \ Dental

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.

KEY FEATURES

- High efficiency EC blower.
- Energy saving LED lighting.
- Protects the operator from fume and (with added HEPA/ULPA filter) particle hazards.
- Improved filter clamping eliminates bypass leakage.
- Filter blockage alarm.

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.

71 watt[1] *Purair P5-48-XT shown with optional Autocal controller, polypropylene spill tray and mobile base stand.*

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.*

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 can be fitted with an optional polypropylene tray (available in white and black); see accessories.

H. Pass Through Ports: Electrical cords and cables are safely routed into the cabinet through ports on the back.

I. 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. Dynamic Filtration Chamber: The dynamic filter chamber prevents any possible leakage of contaminated air by pressurizing the fan plenum (positive air) and depressuring the filter compartment (negative air).

L. Internal Manual Speed Controller: Authorized personnel may set the EC blower speed as desired.

M. Stand: Optional mobile base stand with locking casters.

N. Safety Filter: The optional carbon or HEPA/ULPA safety filter adds an additional layer of protection.

ADDITIONAL FEATURES

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

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

30 watt[1] *Purair P5-24-XT, shown with optional velometer and mobile base stand.*

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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.*

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 BASIC 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.
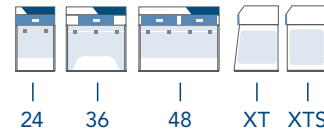
The Air Science filter assembly is easy to access and change. The unique filter clamping design eliminates bypass leakage outside the cabinet.

RELIABILITY

Internal systems are isolated from fumes, extending product life.

Energy-efficient blowers promote long life and dependable performance of Purair BASIC fume hoods.

SELECTION

24   36   48   XT   XTS

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

Custom manufacturing capabilities permit adaptations of standard cabinets such as polypropylene construction shown here with mobile base stand.

P5-24-XT shown on optional base stand with flame resistant safe storage cabinet

CONTROL

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

The **optional Advanced** 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.
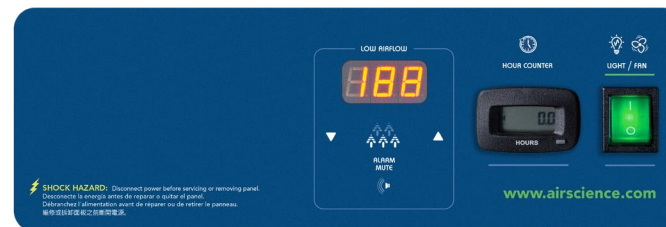
The **optional Autocal** controller displays the airflow. Audio and visual alarms alert users if the airflow reaches preset thresholds. An Hour Counter is also included.

Basic Control Panel

Advanced Control Panel (ADVP)

Autocal Control Panel (ACAL)

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multiplex™

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

secur.
safe disposal service

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 BASIC 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. 100% efficiency for particles 3 microns and larger.

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.

MULTIPLEX FILTRATION SYSTEM, SUMMARY

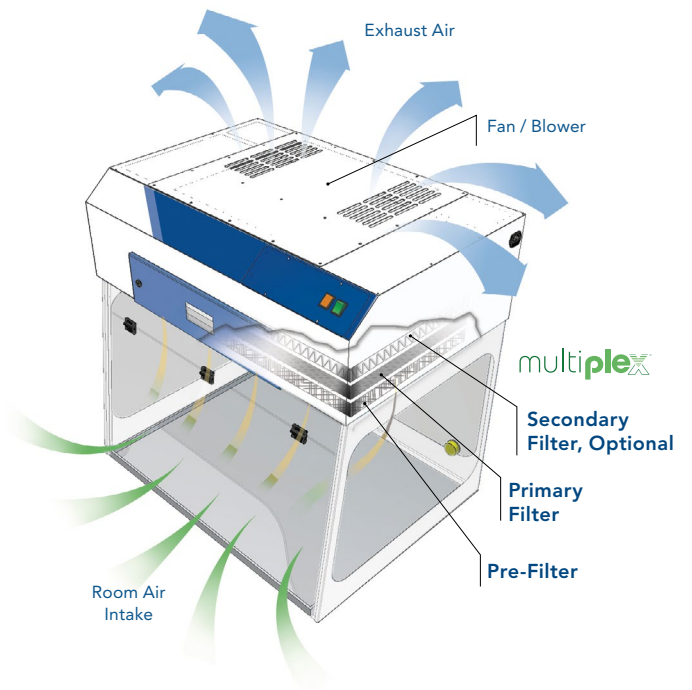| Application	Chemical	Powder/Biological	Chemical & Powder	Chemical within Cleanroom
Secondary/Stacked Filter, Optional	C	H	C	H
Primary Filter	C	H	H	C
Pre-Filter	P	P	P	P

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

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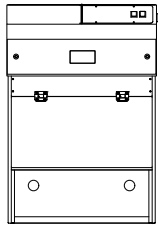
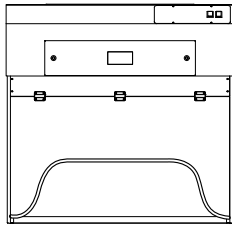⚠ **The pre-filter** may be replaced while unit is in operation.

Exhaust Air

Fan / Blower

multiplex

Secondary Filter, Optional

Primary Filter

Pre-Filter

Room Air Intake

PurairBASIC

Ductless Fume Hoods 24 • 36 • 48

SPECIFICATIONS

6

P5-24-XT   P5-36-XT   P5-48-XT   Standard Depth (XT)   Reduced Depth (XTS)
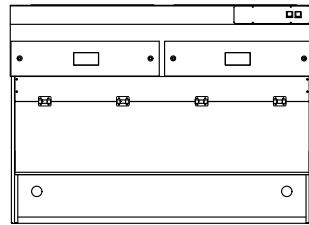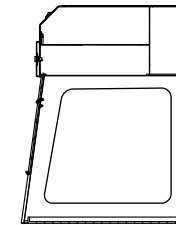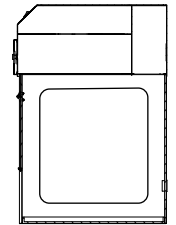
MODEL	VOLTAGE	DIMENSIONS			WEIGHT (LBS/KG)	
		Internal Height	External (W × D × H)	Shipping (W × D × H)	Net	Ship
Standard Depth Models (XT)						
P5-24-XT-A	120V, 60Hz	23.29" / 591.5 mm	24" × 27" × 35" / 610 × 676 × 889 mm	40" × 40" × 40" / 1016 × 1016 × 1016 mm	72 / 33	150 / 68
P5-24-XT-G	230V, 50Hz	23.29" / 591.5 mm	24" × 27" × 35" / 610 × 676 × 889 mm	40" × 40" × 40" / 1016 × 1016 × 1016 mm	72 / 33	150 / 68
P5-36-XT-A	120V, 60Hz	23.29" / 591.5 mm	36" × 27" × 35" / 914 × 676 × 889 mm	40" × 40" × 40" / 1016 × 1016 × 1016 mm	99 / 45	170 / 77
P5-36-XT-G	230V, 50Hz	23.29" / 591.5 mm	36" × 27" × 35" / 914 × 676 × 889 mm	40" × 40" × 40" / 1016 × 1016 × 1016 mm	99 / 45	170 / 77
P5-48-XT-A	120V, 60Hz	23.29" / 591.5 mm	48" × 27" × 35" / 1219 × 676 × 889 mm	55" x 40" x 45" / 1397 x 1016 x 1143 mm	138 / 63	230 / 104
P5-48-XT-G	230V, 50Hz	23.29" / 591.5 mm	48" × 27" × 35" / 1219 × 676 × 889 mm	55" x 40" x 45" / 1397 x 1016 x 1143 mm	138 / 63	230 / 104
Reduced Depth Models (XTS) for countertops 24" or less						
P5-24-XTS-A	120V, 60Hz	23.29" / 591.5 mm	24" × 24" × 35" / 610 × 610 × 889 mm	40" × 40" × 40" / 1016 × 1016 × 1016 mm	72 / 33	150 / 68
P5-24-XTS-G	230V, 50Hz	23.29" / 591.5 mm	24" × 24" × 35" / 610 × 610 × 889 mm	40" × 40" × 40" / 1016 × 1016 × 1016 mm	72 / 33	150 / 68
P5-36-XTS-A	120V, 60Hz	23.29" / 591.5 mm	36" × 24" × 35" / 914 × 610 × 889 mm	40" × 40" × 40" / 1016 × 1016 × 1016 mm	99 / 45	170 / 77
P5-36-XTS-G	230V, 50Hz	23.29" / 591.5 mm	36" × 24" × 35" / 914 × 610 × 889 mm	40" × 40" × 40" / 1016 × 1016 × 1016 mm	99 / 45	170 / 77
P5-48-XTS-A	120V, 60Hz	23.29" / 591.5 mm	48" × 24" × 35" / 1219 × 610 × 889 mm	55" x 40" x 45" / 1397 x 1016 x 1143 mm	138 / 63	230 / 104
P5-48-XTS-G	230V, 50Hz	23.29" / 591.5 mm	48" × 24" × 35" / 1219 × 610 × 889 mm	55" x 40" x 45" / 1397 x 1016 x 1143 mm	138 / 63	230 / 104

"A" — 120V, 60Hz
"G" — 230V, 50Hz

PRODUCT SPECIFICATIONS

Filtration	P5-24-XT | P5-24-XTS	P5-36-XT | P5-36-XTS	P5-48-XT | P5-48-XTS
Face Velocity	100 fpm / 0.50 m/sec	100 fpm / 0.50 m/sec	100 fpm / 0.50 m/sec

Construction	P5-24-XT | P5-24-XTS	P5-36-XT | P5-36-XTS	P5-48-XT | P5-48-XTS
Finish	<··· White epoxy coated steel frame and head unit. Clear sides and back panel. ···>		
Blower	<··· EC blower. ···>		
Controls	<··· Main On/Off. ···>		
Monitoring	<··· Filter blockage alarm, standard. ···>		

Efficiency	P5-24-XT | P5-24-XTS	P5-36-XT | P5-36-XTS	P5-48-XT | P5-48-XTS
Power Consumption* 120V, 60Hz	30 watt	54 watt	71 watt
Power Consumption* 230V, 50Hz	30 watt	54 watt	71 watt
Lighting	<··· LED. ···>		

* Watts at calibrated airflow setpoint with GP Filter(s) and prefilter installed.

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	Iodine 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/UPLA	Powders and particulates.

* Other formulas may be available.

FILTER SPECIFICATIONS

Purair Model	P5-24-XT | P5-24-XTS	P5-36-XT | P5-36-XTS	P5-48-XT | P5-48-XTS
Secondary/Stacked Filter, Optional*	(1)	(1)	(2)
Primary Filter*	(1)	(1)	(2)
Pre-Filter*	(1)	(1)	(2)

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

filtco

Through our partner company Filtco Filters, 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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[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.*

OPTIONS & ACCESSORIES

Purair Model		P5-24-XT | P5-24-XTS	P5-36-XT | P5-36-XTS	P5-48-XT | P5-48-XTS
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.		
Advanced Controller*	The optional Advanced 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.	P5-24-XT-A-ADVP P5-24-XT-G-ADVP P5-24-XTS-A ADVP P5-24-XTS-G-ADVP	P5-36-XT-A-ADVP P5-36-XT-G-ADVP P5-36-XTS-A-ADVP P5-36-XTS-G-ADVP	P5-48-XT-A-ADVP P5-48-XT-G-ADVP P5-48-XTS-A-ADVP P5-48-XTS-G-ADVP
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.	P5-24-XT-A-ACAL P5-24-XT-G-ACAL P5-24-XTS-A-ACAL P5-24-XTS-G-ACAL	P5-36-XT-A-ACAL P5-36-XT-G-ACAL P5-36-XTS-A-ACAL P5-36-XTS-G ACAL	P5-48-XT-A-ACAL P5-48-XT-G-ACAL P5-48-XTS-A-ACAL P5-48-XTS-G-ACAL
Spill Tray (Polypropylene)	Removable for easy cleaning.	TRAY-P5-24 TRAY-P5-24-XTS	TRAY-P5-36 TRAY-P5-36-XTS	TRAY-P5-48 TRAY-P5-48-XTS
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*	Ductless fume hoods are available in all polypropylene construction.	P5-24-XT-A-PP P5-24-XT-G-PP P5-24-XTS-A-PP P5-24-XTS-G-PP	P5-36-XT-A-PP P5-36-XT-G-PP P5-36-XTS-A-PP P5-36-XTS-G-PP	P5-48-XT-A-PP P5-48-XT-G-PP P5-48-XTS-A-PP P5-48-XTS-G-PP
UV Lamp**	Creates light emission conditions know to safely decontaminate interior surfaces. Includes a timer, door microswitch, fully closing front sash and UV filtering clear polycarbonate panels. The UV operation must comply with local codes and facility safety practices.	P5-24-XT-A-UV P5-24-XT-G-UV P5-24-XTS-A-UV P5-24-XTS-G-UV	P5-36-XT-A-UV P5-36-XT-G-UV P5-36-XTS-A-UV P5-36-XTS-G-UV	P5-48-XT-A-UV P5-48-XT-G-UV P5-48-XTS-A-UV P5-48-XTS-G-UV

*Factory installed; specify when ordering.

**Includes timer, door microswitch and fully closing front sash, all clear panels polycarbonate (UV filtering). Safety precautions need to be followed.

"A" — 120V, 60Hz
"G" — 230V, 50Hz

WARRANTY

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

For details visit the 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

Air Science®

ENERGY STAR PARTNER

GSA Schedule
Contract # GS-07F5832P

ISO 9001
ISO 14001
BUREAU VERITAS Certification
N° US018639 / N° US018640

BUREAU VERITAS
1828

WolfLabs

Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct.
If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

www.wolflabs.co.uk

Please contact us if this literature doesn't answer all your questions.