



### INTRODUCTION

The Purair® Advanced Series ductless fume hoods are a series of high efficiency products designed to protect the user and the environment from hazardous vapors generated on the work surface. At the heart of the Purair fume hood product line is the innovative Air Science Multiplex™ Filtration Technology that creates a safe work environment over the widest range of applications in the industry.

### CARACTERISTICS

- > Purair Advanced ductless fume hoods and chemical processing workstations are available in 21 standard sizes, in metal or polypropylene construction, totaling 42 standard models.
- > Purair Advanced ductless fume hoods product line is available in seven standard sizes.
- > High capacity air handling system delivers face velocity of 100 fpm.
- > A low airflow alarm warns of insufficient face velocity.
- > SafeSwitch™ Filter Shutter System (optional) for safer bag-out filter exchange.
- > A unique filter clamping design eliminates bypass leakage outside the cabinet.
- > Accessories include an optional filter saturation alarm and optional back-up filter.

### APPLICATIONS

- Capsule Filling
- Chemical Sampling
- Dental Labs
- Drug & Chemical Analysis
- Forensics
- Histology
- Ink Fumes
- Light Grinding
- Pharmaceutical
- Pipetting
- Slide Staining
- Spray Adhesives
- Weighing

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**Purair**<sup>®</sup> ADVANCED

## Advanced Ductless Fume Hood Group

- *High operator protection to fume and particle hazards.*

- *Easy to change filters.*

- *Improved clamping eliminates by-pass leakage.*

- *Low airflow alarm.*

- *Optional back up safety filter.*

- *High capacity.*

- *Purair 20, shown with optional spill tray and Filter Saturation Alarm(FSA).*

### **DUCTLESS TECHNOLOGY:** *The Eco-friendly Choice*

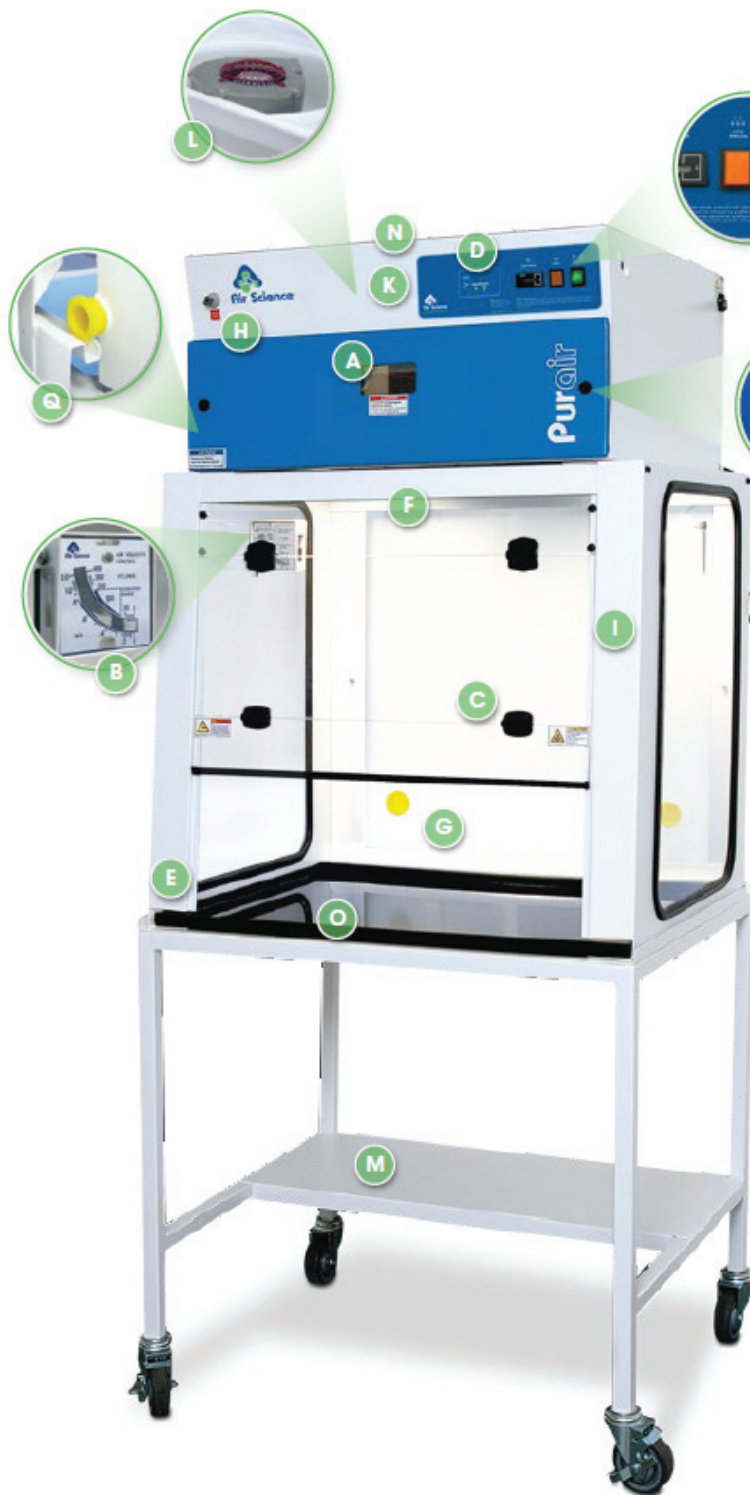
Advanced carbon filtration technology offers a safe, high performance alternative to conventional ducted fume hoods for a broad range of applications.

- **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. The Multiplex Filter broadens the range of applications. Carbon filters are available in more than 14 configurations for use with vapors of organic solvents, acids, mercury, 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 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 fumes.
- **Self testing.** (selected models) Electronic air flow monitoring assures continuous safety. An electronic gas sensor monitors carbon filter performance.

SOPHYC





- A. Filter I.D. Window:** A strategically placed front cover window shows the installed filter part number and installation date for convenience and to encourage timely filter replacement.
- B. Air Velometer:** An analog air velocity meter in the field of vision of the user provides independent backup to the electronic airflow alarm.
- C. Double Hinged Self Locking Front Sash:** When closed, the cabinet sash protects the operator with 100 FPM airflow. The sash is easy to open and latch.
- D. Control Panel:** Electronic controls and displays include switches for the blower and lights, an electronic hour counter and low airflow alarm, all located on a convenient front surface panel.
- E. Steel Support Frame:** The chemical resistant epoxy coated steel frame adds mechanical strength. Optional all polypropylene construction is available if desired. The pre-filter can be changed while the unit is operating to prevent operator exposure to chemical vapors.
- F. Electrostatic Pre-Filter:** Protects the main filters from aerosols, mists, dust and particulates with filter efficiency superior to 95.5% down to 0.5 microns.
- G. Pass Through Ports:** Electrical cords and cables are safely routed into the cabinet through ports on the back and side walls
- H. Air Sampling Port:** A filtered air sampling port allows manual filter monitoring.
- I. Color:** The cabinet is white; side and back panels are clear.
- J. Airflow Alarm:** A continuous air velocity monitoring system alerts the operator upon unacceptable values.
- K. Internal Manual Speed Controller:** Authorized personnel may set the centrifugal fan motor speed as desired.
- L. 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).
- M. Stand:** Optional mobile cart with locking casters.
- N. Safety Filter:** The optional carbon or HEPA/ULPA safety filter adds an additional layer of protection.
- O. Work Surface:** The internal work surface can be fitted with an optional polypropylene tray; see Accessories.
- P. Filter Door Key:** Filter access keys prevent unauthorized removal or accidental exposure to dirty filters.
- Q. Track & Wheel System:** The filter glides in on a wheel and track system, then clamps tightly against the filter gasket to prevent filter tears and maintain filter integrity.

## 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.

**Standards Compliant:** Performance specifications and construction meet or exceed OSHA, ANSI and relevant international standards to assure operator safety.

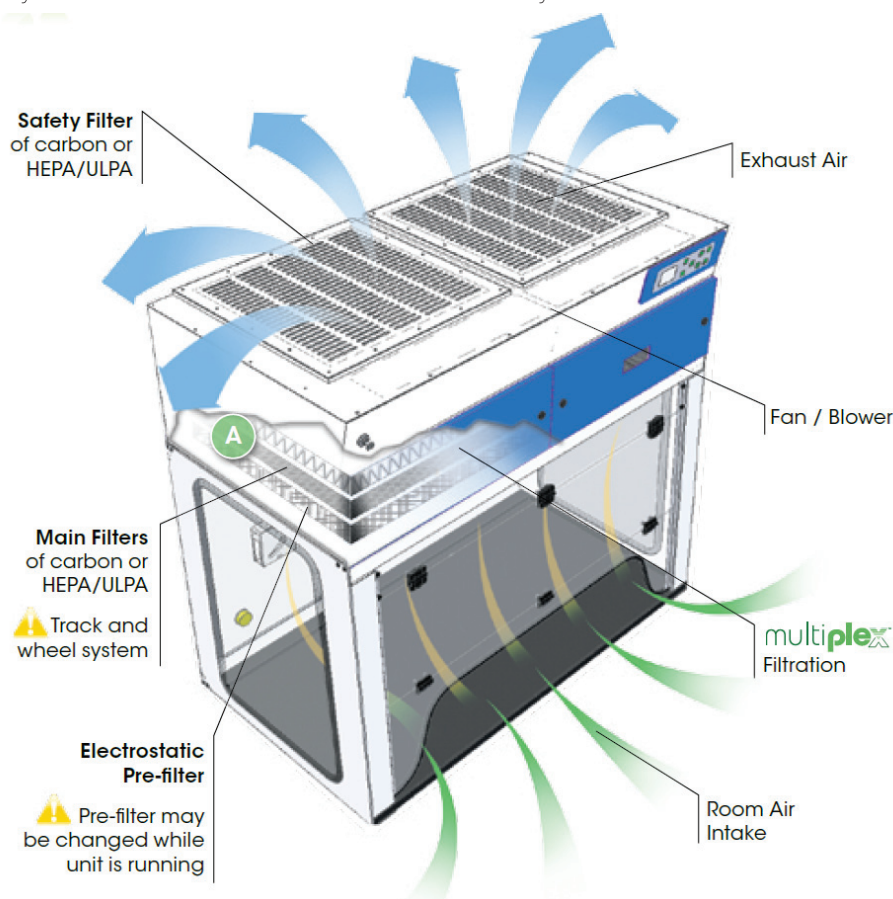
**Construction:** All models are available in either metal or polypropylene construction. See selection chart for specifications and dimensions. Specify metal or polypropylene when ordering. Available in 110V /60 Hz models.

► Purair 10XL, shown with optional mobile cart and spill tray.



## ENHANCED FILTRATION TECHNOLOGY

The Air Science Enhanced Filtration Technology (EFT™) is a universal filtration system developed for use with a wide range of core chemical families. These include organic acids, alcohols, aliphatic hydrocarbons, aromatic hydrocarbons, esters, aldehydes, ketones, ethers, halogens and others. Although the EFT system is weighted to accommodate these families, it can handle inorganic acids as well. The Air Science EFT system is available as an option on Air Science Advanced ductless fume hoods, standard on Purair Eco Series fume hoods, and can be retrofitted on many Air Science ductless fume hoods already in service worldwide.



Purair 20, shown with MultiPlex Filtration System.

The Purair Series ductless fume 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 where activated carbon adsorbs chemical vapors; clean air is returned to the room.

**A.** The main filter is easy to replace, no tools required. The filter glides in on a wheel and track system, then clamps tightly against the filter gasket to prevent filter tears and maintain filter integrity.

### Retention Capacity (grams) for a Single Module at 1% of the TLV (Threshold Limit Value)

#### Specification

#### AFNOR NFX 15-211

#### Testing Laboratory

IBR

Intertek

Product Manufacturer

Air Science

Brand E

Filter Type



Green

#### Test Results

Isopropanol (alcohol)

2052

673

Cyclohexane (aliphatic hydrocarbon)

1531

914

Hydrochloric acid (inorganic acid)\*

1205

2729\*

\* Based on "core" chemical families typically used in ductless fume hood applications, the Air Science EFT filter offers significant advantages over filters marketed as "universal" filters. On inorganic acids the EFT filter provides a lesser but more realistic usable capacity in that with moderate to heavy acid applications, all ductless fume hoods made of metal are subject to corrosion and rust. In those applications Air Science recommends its polypropylene or total exhaust hoods with a specially formulated heavy duty acid filter.



## TECHNICAL INFORMATIONS FOR 107002: EPOXY-COATED STEEL MODEL WITH ACID VAPOUR FILTER AND ORGANIC VAPOUR FILTER.

MODEL		DIMENSIONS			WEIGHT (lbs/Kg)	
Metal	Polypropylene	Internal Height	External (W x D x H)	Shipping (W x D x H)	Net	Ship
<b>Standard Height Models</b>						
P10	P10-PP	31.375" 797 mm	29.5" x 27.375" x 45.875" 750 x 695 x 1165 mm	50" x 40" x 36" 1270 x 1016 x 914 mm	106 / 48	156 / 71

## 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
Education (UK)	CLEAPPS Instruction Approved (EDU)



► Purair 10, shown with optional polypropylene construction, base cabinet and spill tray.

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