# Fume Box



60H-XL

60V

60H **Ductless Enclosures** • An Affordable, Effective Air Filtration System Solution • Choose From Vertical or Low Profile Horizontal Design Air Science FumeBox

Fume Box-AP60V









# INTRODUCTION

Air Science® Fume Box ductless enclosures are designed to protect the user from chemicals, vapors or powders during low-volume chemical manipulations by effectively containing low concentrations of noxious fumes, vapors or powders.

### **APPLICATIONS**

Soldering \ Histology \ Cover Slipping \ Staining \ Pathology \ Graphic Arts, Sign Shops \ Art Conservation \ Electronics Assembly \ Particulate Control \ Manufacturing Processes \ Air Purification



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**

- Low-profile, completely portable, no ductwork required.
- Compact size, easily positioned on shallow countertops or counters with overhanging wall cabinets.
- · Clear viewing enclosure prevents chemical splash.
- · Modular design permits multiple configurations.

# **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.
- 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.



Fume Box-AP60H-XL





# **DESIGN FEATURES**

- A. Main On/Off Switch: High quality rocker On/Off switch
- **B.** Steel Support Frame: The chemical resistant epoxy
- **C.** Electrostatic Pre-Filter: The electrostatic pre-filter is
- **D.** Color: The cabinet is white with blue trim; side and back
- **E.** Enclosed Filtration Chamber: Main filters can be carbon

# **ADDITIONAL FEATURES**

360 Degree Visibility: Clear back and side panels allow

Construction: All models are available in polypropylene

Performance & Selection (p.4)

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

#### PERFORMANCE

The Air Science Multiplex™ Filter offers a range of options for high performance protection.

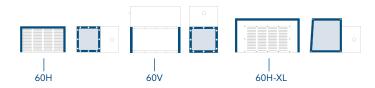
• Multiplex filter configuration permits a customized combination of filter media for a broad range of chemical families and biological agents if required.

A high capacity air handling system delivers face velocity of 100 fpm.

# 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, easy to change, plus a unique filter clamping design eliminates bypass leakage outside the cabinet.



# **SELECTION**

Fume Box ductless enclosures are available in 3 standard models, in metal or polypropylene construction, totaling 6 standard models.

# CONTROL

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



Basic Control Panel





The optional source capture hose converts the Fume Box to a fume extraction unit with a 6" diameter (152 mm) hose to capture pollutants at their source. Hose can attach to any vented enclosure, exhaust port on your equipment or desk mount scoop.



# **FILTRATION**

The Fume Box utilizes innovative filtration technology with the exclusive **Multiplex Filtration System**. The Multiplex Filtration System consists of a pre-filter, main activated carbon or HEPA/ULPA filter and safety activated carbon or 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.

# FILTER CONFIGURATION

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

The Fume Box can be equipped with a single activated carbon main filter. For safety against particulates, a HEPA or ULPA can be installed.





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 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			
Application	Chemical Powder/Biological		
Primary Filter	C	Н	
Pre-Filter	Р	P	

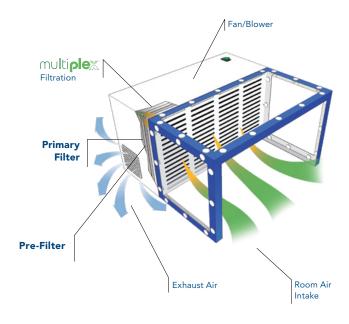
The system can be configured for the capture of acids, bases and particulates, such as biological aerosols, when paired with HEPA or ULPA filters.

# **AIRFLOW**

The Fume Box ductless enclosures maintain 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; clean air is returned to the room.

The main filters are easy to replace and install. 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.





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.

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Containment & Filtration (p

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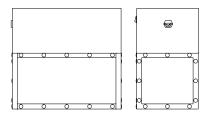
# Fume Box-AP60V

**Side View** 

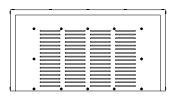




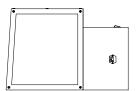
**Side View** 







Side View



МС	DDEL				WEIGHT	(LBS/KG)
Metal	Polypropylene	Internal (W x D x H)	External (W x D x H)	Shipping (W x D x H)	Net	Ship
AP60H	AP60H-PP	11.00" x 11.69" x 20.63"/ 279 x 297 x 524 mm	20.72" x 12.02" x 21.16" / 526 x 305 x 537 mm	27" x 27" x 16" / 686 x 686 x 406 mm	45 / 20	60 / 27
AP60V	AP60V-PP	20.63" x 11.69" x 11.00"/ 524 x 297 x 279 mm	21.16" x 12.02" x 20.72" / 537 x 305 x 526 mm	27" x 27" x 16" / 686 x 686 x 406 mm	45 / 20	60 / 27
AP60H-XL	AP60H-XL-PP	29.22" x 13.82" x 15.32" / 742 x 351 x 389 mm	29.75" x 24.72" x 15.67" / 756 x 628 x 398 mm	40" x 40" x 36" / 1016 x 1016 x 914 mm	50 / 23	100 / 45

Filter Weight

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#### **PRODUCT SPECIFICATIONS**

Filtration	AP60H	AP60V	AP60H-XL	
Airflow		<··· 135.9 cfm ···>		
Face Velocity		< 100 fpm>		
Construction	AP60H	AP60V	AP60H-XL	
Finish	< White epoxy-coated s	teel filtration unit with blue enclosure. Cle	ar sides and top panels. ···>	
Blower		< AC blower>		
Controls		<··· Main On/Off. ···>		
Electrical	<··· 120V, 60Hz or 230V, 50Hz vol	$<\cdots$ 120V, 60Hz or 230V, 50Hz voltages available. Specify when ordering. Other voltage options available. $\cdots>$		
Monitoring		<··· Filter blockage alarm, standard. ···>		
Pre-Filter Weight		< 1 lb / 0.4 kg>		

# **FILTER SPECIFICATIONS**

<--- 7 lbs / 3.5 kg. --->

Fume Box	AP60H	AP60V	AP60H-XL
Primary Filter(s)*	(1)	(1)	(1)
Pre-Filter*	(1)	(1)	(1)

<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/UPLA	Powders and particulates.

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

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**OPTIONS AND ACCESSORIES** 

Fume Box		AP60H	AP60V	AP60H-XL
Spill Tray (Polypropylene)	Removable for easy cleaning.	TRAY-AP60	TRAY-AP60	TRAY-AP60-XL
Fume Extraction Unit			AP60EX	
Source Capture Hose*	Converts the Fume Box to a fume extraction unit with a 6" diameter (152 mm) hose to capture pollutants at their source. Hose can attach to any, exhaust port on your equipment or desk mount scoop.		AP60EX	

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

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 Information	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	

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WARRANTY

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



For details visit the Warranty section of our website.



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