Safefume 360 ™

Automatic Cyanoacrylate Fuming Chamber

"The World's Most Advanced Cyanoacrylate Fuming Chamber."

24 • 33T • 60T • 72XL

— Safefume™ 360
ARV-33T Chamber shown with
optional UV Lamp and UPS

UV OPTION AVAILABLE

Safely Detect Quality Latent
Prints and Reproducible Results

Compliant with OSHA, ANSI and
other International Standards

Air Science®

Safefume 360 Automatic Cyanoacrylate Fuming Chamber | 24 • 33T • 60T • 72XL

APPLICATIONS
- State and Federal Crime Laboratories
- Crime Scene Investigation
- Law Enforcement Agencies
- Medical Examiners' Programs
- Criminal Justice Education

Safefume 360

Automatic Cyanoacrylate Fuming Chamber

The professionally designed automatic fuming chamber eliminates reliance on do-it-yourself systems that lack user-safety allowances and microprocessor controls needed for repeatable results.

The Safefume system controls all functions from start-to-finish, permitting the investigator to initiate an unattended automatic cycle, establish the proper fuming intensity and duration, and to return upon completion to collect results.

Fuming time, humidity and chamber fume evacuation can be user-set to comply with internal department criteria, lab safety protocols or best practices in evidence management.

Safefume 360 ARV-24

INTRODUCTION

Part of the trusted Safefume™ line of automatic fuming chambers, the Safefume 360 is used to develop latent prints from non-porous surfaces in a controlled and safe environment. The Safefume 360 is available in several sizes, starting at small bench top units through to larger walk-in chambers.

DUCTLESS TECHNOLOGY:
The Eco-friendly Choice

Advanced carbon filtration technology offers a safe, high performance alternative to ducted cabinets for cyanoacrylate fingerprint development applications.

- **Environmental Benefits.** Safefume 360 cyanoacrylate fuming chambers capture cyanoacrylate vapors used in the development process to prevent operator exposure and eliminate ecological impact through release into the environment.

- **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 isolation and filtration protect users from incidental exposures to cyanoacrylate fumes.

- **Self testing.** Electronic process monitoring assures continuous safety. An optional electronic gas sensor monitors carbon filter performance.

- **Versatile.** The filtration system uses the exclusive Air Science Multiplex filtration technology.

- **Easy to Install.** Safefume 360 chambers are self-contained. Set-up, operation and filter maintenance are straightforward.

Made in the U.S.A.

This Product Exceeds OSHA, ANSI and Other International Standards.

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PRODUCT FEATURES:

A. Dynamic Filtration Chamber: The dynamic filter chamber prevents leakage of contaminated air by maintaining partial vacuum in the filter plenum.

B. Control Panel: The microprocessor control panel manages the Printbuster Pro operating sequence with control, oversight and display of all processing functions. The LCD display works with a touchpad data entry keypad to establish all operating parameters.

C. Doors: Tempered glass, keyed doors with aluminum frame and tamper-proof seal provide improved security, stability and ease of cleaning. Scratch-resistant glass for lasting optimum visibility.

D. Fan: High velocity sparkless and brushless centrifugal fan.

E. Hanging Rods: Removable and adjustable stainless steel hanging rods for proper orientation of evidence.

F. Water Nebulizer/Humidifier: Water nebulizer to elevate humidity in chamber.

G. Hot Plate Accelerator: Hot plate to polymerize ethyl cyanoacrylate. Optional programmable hot plate (0-400 °C) also available.

H. Optional UV Lamp: Activated ultraviolet light provides secondary disinfection of the interior between cases to prevent cross-contamination, ensuring integrity of the samples for DNA testing.

I. Uninterruptable Power Supply: Backup power supply to support all systems for one complete machine cycle in the event of power failure.

OTHER FEATURES:

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

Construction: Models are available in either polypropylene and epoxy-coated steel or aluminum frame with plastic wall construction. Locking doors are tempered glass with tamper-proof seal and aluminum frame. See selection chart for specifications and dimensions. Available in 110V, 60Hz single phase electrical supply (other voltages available on request).

Internal Chamber Cleansing: The Internal Chamber Cleansing feature automatically activates to eliminate contamination and remove the harmful vapor from the unit. This process is especially important if the unit is used infrequently or only during certain periods of high evidence volume.
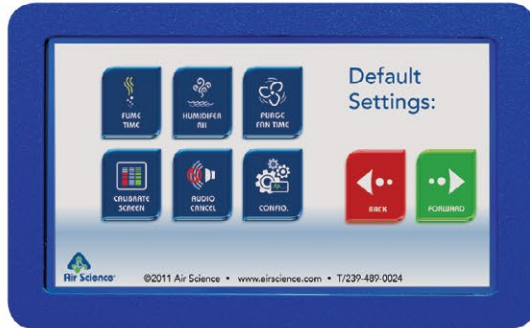
Safefume 360 ARV-60T

THE AIR SCIENCE PERFORMANCE ADVANTAGE

Safefume 360 automatic cyanoacrylate fuming chambers include features expressed through sound design and certified quality construction. Accessories add functional performance to meet specific applications.
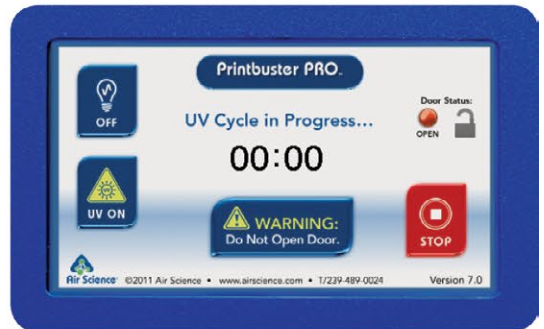
- **Professional Quality.** Safefume 360 automatic cyanoacrylate fuming chambers comply with current technical and safety regulations.

- **Multiplex Filtration.** The Air Science Multiplex Filter offers high performance and safety.

- **Industrial Components.** The cabinet frame and work surfaces are durable and chemically resistant.

- **Reliability.** Internal systems are isolated from fumes, extending product life.

Air Science Safefume 360 uses energy-efficient ebm-papst™ brand centrifugal blowers for long life and dependable performance.

The microprocessor control panel manages the Printbuster™ Pro operating sequence with control, oversight and display of all processing functions. The LCD display works with a touchpad data entry keypad to establish all operating parameters.

AIR SCIENCE PRINTBUSTER™ PRO LCD INTERFACE TECHNOLOGY

Printbuster Pro is the industry's first use of touchscreen technology offering a simple, easy-to-use solution delivering repeatable results every time. The automatic latent fingerprint development cycle manages the following:

- Relative humidity setpoint. Relative humidity is established via a water-filled nebulizer/humidifier.

- Cabinet temperature display.

- Door status with lock alarm.

- Circulation fan On/Off.

- Hot plate On/Off. The hot plate accelerator polymerizes ethyl cyanoacrylate for a specific time interval.

- Processing time.

- Purge cycle time. Fumes are removed from the chamber through the Multiplex filtration system via a carbon filter; air is safely exhausted to the room.

- Emergency stop and filter condition, with an optional electronic gas sensor that emits an audible and visual warning when the main filter must be changed.
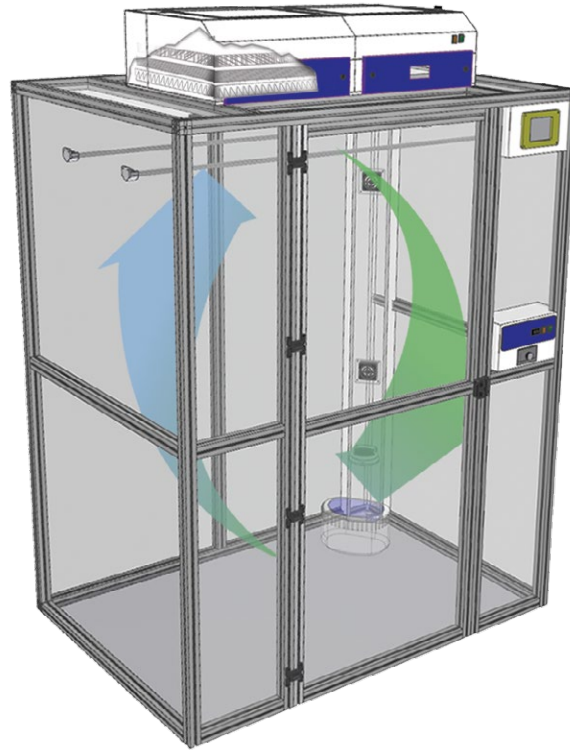
multiplex®

MULTIPLEX™ FILTRATION TECHNOLOGY

Multiplex Filtration consists of a pre-filter and main filter to create a combination of chemical and physical architecture customized to each application. The mechanical design enhances safety, convenience and overall value.

- The electrostatic pre-filter is accessible from within the cabinet.

- A filter clamping mechanism allows for the filter to be easily installed and ensures an even seal at the filter peripheral face at all times to prevent bypass leakage.

- The filter chamber prevents contaminated air from contacting internal cabinet mechanisms.

- The main filter number and installation date are displayed in a front-access window.

The Air Science carbon filtration technique is based on enhanced, activated carbon particle formulations from specially selected, naturally occurring raw material 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.

- The carbon filter is a self-contained assembly sized to fit the specified product model number, and configured to optimize airflow across 100% of the filter surface area for maximum efficiency, prolonged filter life, optimal diffusion and saturation capacity, and user safety.

- Air Science is the single source supplier for all pre-filters and carbon filters used in its products, plus those of many other manufacturers.
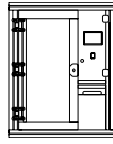
Safefume 360 ARV-72XL

Safefume 360 ARV-72XL

A high volume, stand alone, fingerprinting chamber designed for processing large amounts of evidence on a regular basis. Large items such as automobile doors, tires, bicycles and others are easily processed in this unit. This model offers the same functionality as our smaller versions including the Printbuster Pro control system.
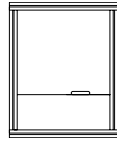
Safefume 360 **Automatic Cyanoacrylate Fuming Chamber** | 24 • 33T • 60T • 72XL

ARV-24   (side view)   **ARV-33T**   (side view)

SAFEFUME 360 FEATURES & BENEFITS

The Air Science Safefume 360 automatic cyanoacrylate fuming chambers safely and automatically develop latent fingerprints on most non-porous surfaces using the proven technique of exposure to ethyl cyanoacrylate vapor. Evidence is positioned in the chamber with a flexible system of hanging rods and shelves. A fully automatic system controls and monitors the process.
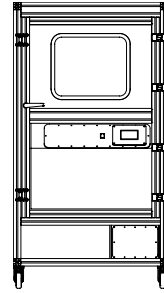
• Optional side and rear windows for 360° view of development.

• Choose from multiple sizes, from bench top to floor standing.

• Multi-chamber cabinets available.

• Caster wheels standard on all models except bench top series.

• Optional UV Lamp decontamination.

• Evidence is easily positioned inside the chamber using the adjustable hanging rods.

• Cyanoacrylate is placed within the chamber and starting the cycle triggers the automated system that controls the hot plate, cabinet humidity, door lock, internal circulation fan, and purge cycle.

• The recirculatory design requires no ducting for its setup.

• Cyanoacrylate vapors are filtered by a special carbon filter that ensures no dangerous substances are exhausted into the atmosphere air supply.
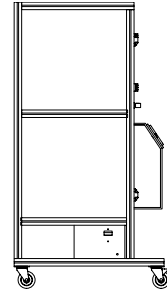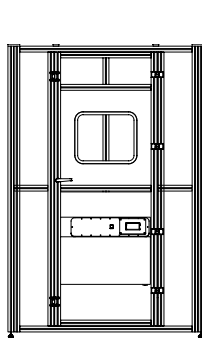
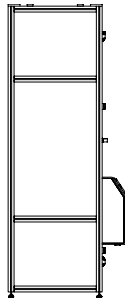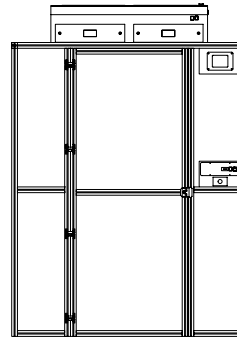| MODEL	DIMENSIONS			WEIGHT (lbs/Kg)	
	Internal Height	External (W x D x H)	Shipping (W x D x H)	Net	Ship
Safefume 360 Models					
ARV-24	27.5" 699 mm	24" x 25" x 30" 610 x 635 x 762 mm	30" x 34" x 38" 762 x 864 x 965 mm	83 / 38	125 / 57
ARV-33T	50" 1270 mm	33" x 34" x 70" 838 x 864 x 1778 mm	39" x 43" x 78" 991 x 1092 x 1981 mm	291 / 132	331 / 150
ARV-60T	82" 2083 mm	60" x 29" x 87" 1524 x 737 x 2210 mm	66" x 44" x 95" 1676 x 1118 x 2413 mm	390 / 177	449 / 204
ARV-72XL	80" 2032 mm	72" x 48" x 86" 1829 x 1219 x 2184 mm	80" x 54" x 95" 2032 x 1372 x 2413 mm	825 / 374	968 / 439

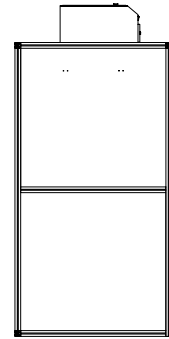*Specifications are subject to change without notice.*

ARV-60T   (side view)   **ARV-72XL**   (side view)

PRODUCT SPECIFICATIONS

Safefume 360 Models	ARV-24	ARV-33T	ARV-60T	ARV-72XL
Construction	<··· Aluminum frame with tempered glass and door with key locks and tamper-proof seals. Hanging rail. ···>			
Blower	<··· ebmpapst™ centrifugal fan. ···>			
Electrical Switches	<··· Main On/Off ···>			
Monitoring	<··· Complete monitoring of all functions. ···>			
Hanging Rods	1	2	2	2
Shelves	1	1	3	-

Filter Specifications

Pre-Filter	<··· Electrostatic ···>
Main Filter	<··· Carbon ···>

This Product Exceeds OSHA, ANSI and Other International Standards.

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OPTIONS & ACCESSORIES

Safefume 360 Model		ARV-24	ARV-33T	ARV-60T	ARV-72XL
Option	Description	Part Number			
DNA Decontamination UV lamp*	A UV lamp is available for overnight decontamination of interior surfaces. The UV kit includes a timer and door micro switch interlock. The UV operation must comply with local codes and facility safety practices. Contact your facility safety officer for details.	CA-UV	CA-UV	CA-UV	CA-UV
Automatic Lock-Out System	Safety supplement to standard key lock system. Automatic lock-out system is interconnected to the main control system to prevent premature or unauthorized access to interior chamber.	EM-LOCK	EM-LOCK	EM-LOCK	EM-LOCK
Adjustable Temp Hot Plate	Allows programmable temperatures from 0-400 °C for use of standard and specialty cyanoacrylates.	ADJ-HP	ADJ-HP	ADJ-HP	ADJ-HP
Uninterruptable Power Supply	Capable of supporting all systems for one complete machine cycle in the event of power failure.	UPS	UPS	UPS	UPS
Cleaning Kit	Complete kit for cleaning the chamber.	C-KIT	C-KIT	C-KIT	C-KIT
Evidence Baskets	Hanging wire baskets to place evidence.	EV-B	EV-B	EV-B	EV-B

* Includes timer, and door micro switch. Safety precautions must be followed.

STANDARDS & COMPLIANCE

Quality Management Systems	ISO 9001
Chemical Fume Containment	ANSI/ASHRAE 110 1995
Carbon Filter Efficiency	BS 7989-2001 AFNOR NFX 15-211
Electrical Safety	UL-C-61010-1 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

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ENERGY STAR PARTNER

GSA Schedule Contract GS-07F5832P

COTECNA CERTIFIED ISO 9001:2008 ISO 14001:2004 COMPANY Certificate No CQR-1582 A / B