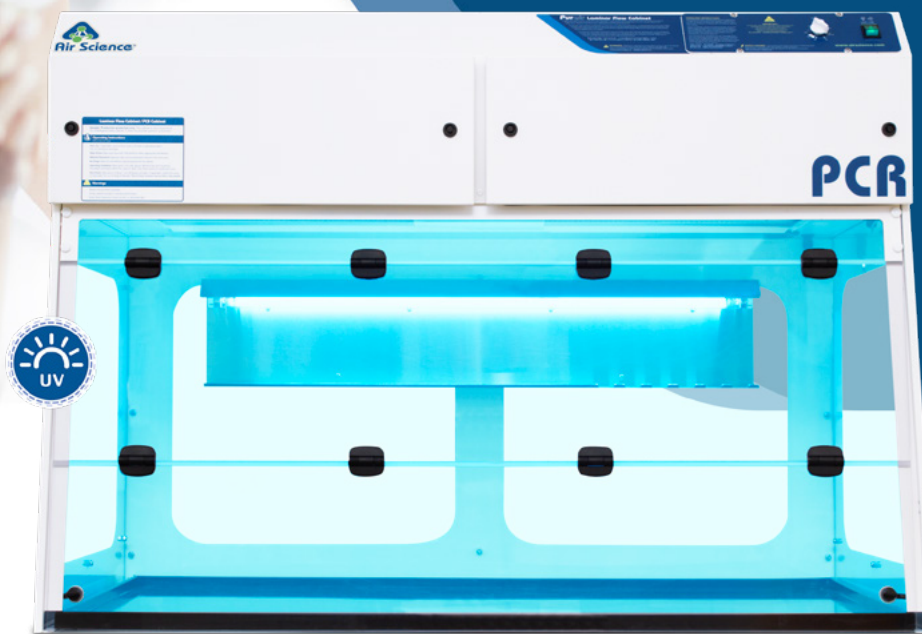




PCR Laminar Flow Cabinets

- Provides Contaminant-Free Interior for PCR Applications and Protects Against Cross-Contamination



115 watt¹ Purair model PCR-48.



37–115 watt¹

The single EC blower motor assures lower cost of ownership in one of the world's most energy efficient laminar flow cabinets.



Product



Particulate



24



36



48



Schedule

Contract # GS-47QSMS24D0042



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INTRODUCTION

The Purair® PCR laminar flow cabinet employs the Air Science Multiplex™ HEPA Filtration technology to create a safe, energy-efficient, contaminant-free environment. It is ideally suited for use when flexible access to instrumentation inside the cabinet is required.



37–115 watt¹

The single EC blower motor assures lower cost of ownership in one of the world's most energy efficient laminar flow cabinets.

APPLICATIONS

PCR cabinets are intended for use in non-hazardous applications where biological or biohazard byproducts are not generated and user protection is not required.

PCR Laboratories \ Forensics \ Pharmaceutical \ Sample Preparation \ General Research Protocols



KEY FEATURES

- Provides sterile work zone for aseptic techniques.
- Air cleanliness meets ISO Class 5.
- Energy saving LED lighting.
- Vertical laminar airflow with HEPA filtration.
- Equipped with germicidal UV lamp to create light emission conditions known to provide safe decontamination.
- 360 degree visibility with UV absorbing polycarbonate construction.

PCR WORKSTATION

Polymerase chain reaction* (PCR) is a simple and inexpensive technique to make multiple copies of a targeted nucleotide sequence from a DNA sample and to amplify sequences from small samples. This technique is widely used in genetics laboratories that work with DNA and RNA.

Because PCR amplification is extremely sensitive to contamination, prevention of contamination requires good laboratory practices to minimize external or cross-contamination during reagent preparation, sample preparation and sample amplification.

* Polymerase chain reaction (PCR) is a patented process owned by Hoffman La Roche.



Purair PCR-24 shown with optional mobile cart.



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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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.

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DESIGN FEATURES

- A. Control Panel:** The integrated control panel features an On/Off switch for the fan, light and UV lamp timer.
- B. Main Filter:** Main HEPA filter with 99.97% efficiency for 0.3 micron particulates (ULPA optional).
- C. Pre-Filter:** The pre-filter can be changed while the unit is operating to prevent operator exposure to chemical vapors.
- D. Fan:** High-performance EC fan.
- E. Stand:** Optional base stand converts to mobile cart with optional locking casters.
- F. Lighting:** Compact LED cabinet lamp located away from laminar flow area.
- G. UV Lamp:** Built-in ultraviolet lamp with timer creates light emission conditions known to permit safe decontamination between PCR cycles. Includes a double-flap safety cover of 0.2" (5 mm) UV absorbing 254 nm beta radiation resistant polycarbonate; provides superior operator protection while allowing easy access to the work zone. Timer can be set over range of 0 to 60 minutes or set to HOLD.
- H. Pass Through Ports:** Convenient rear wall pass-through ports for safe routing of instrument cords, cables and leads.
- I. Filter Door Lock:** Prevents unauthorized removal or accidental exposure to dirty filters.
- J. Ergonomic Design:** Ergonomically angled front improves reach and user comfort.

- K. Work Surface:** Large polypropylene work surface, white or black standard with optional stainless steel work surface available.
- L. Decontamination Shelf:** Mounted on the back wall near the UV lamp for maximum exposure.
- M. Magnetic Door Latch:** Safety interlock prevents operator exposure to UVs when door is opened during decontamination cycle.
- N. Double-Hinged Self-Locking Front Sash:** The magnetic sash closure protects samples on the work surface from contamination with up to 90 fpm airflow.

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 120V, 60Hz or 230V, 50Hz models.



Purair PCR-24, shown with optional stainless steel spill tray and mobile cart.

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PurairPCR

Laminar Flow Cabinets

24 • 36 • 48

PERFORMANCE & SELECTION

4

Each Air Science PCR work station is 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 Air Science [Multiplex Filtration System](#) 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.

PCR work stations maintain an average airflow velocity of 0.30 m/s (60 fpm) at initial setpoint, measured 6" (150 mm) from the filter face.

The HEPA filters are easy to replace; no tools required.

DESIGN

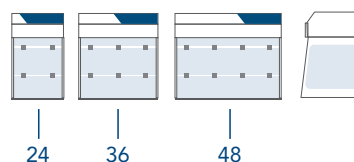
Professional quality Air Science laminar flow hoods comply with current technical and safety regulations.

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 of the main filter.

An optional stainless steel work surface includes lips on all four sides to contain spills.

Stackable sections make cabinets highly portable and enable quick setup.



SELECTION

Purair PCR cabinets are available in three model sizes with various options. Designed for desktop use or installation on an optional base stand or mobile cart.

RELIABILITY

Air Science PCR work stations use an energy-efficient centrifugal blowers for long life and dependable performance.

Air Science uses long-life HEPA filters without aluminum separators to increase filter efficiency, minimize the potential for leakage and increase filter life.

CONTROL

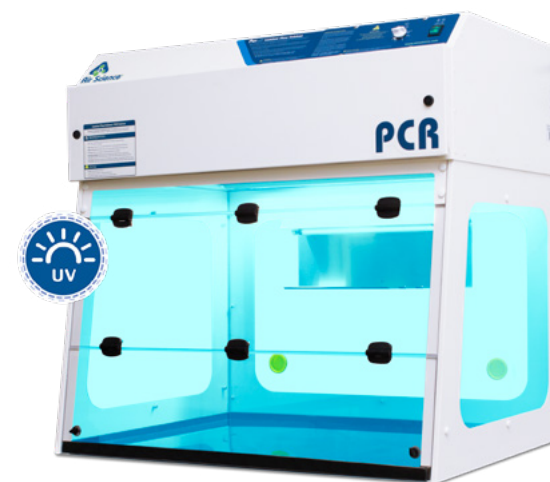
The **standard integrated control panel** features an On/Off switch for the fan, light and UV lamp timer.



Standard Controller



Energy-efficient blowers promote long life and dependable performance of Purair PCR work stations.



Purair PCR-36.

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FILTRATION

At the heart of the PCR work station is innovative filtration technology. **The Multiplex Filtration System** consists of a pre-filter and main filter. The mechanical design enhances safety, convenience and overall value.

- The disposable pre-filter is accessible from the exterior top of 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.



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

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AIRFLOW

Room air enters from the top of the cabinet through the disposable pre-filter where larger particles are trapped, increasing the service life of the main HEPA filter.

Air is forced across the HEPA filter to deliver a flow of pure air within the work zone to dilute and flush airborne contaminants from the work area. An average airflow velocity of 0.30 m/s (60 fpm) ensures that there is sufficient number of air changes within the work zone to eliminate cross-contamination and to maintain optimum cleanliness.

Purified air travels across the work zone to the work surface in a vertical downflow stream and then exits the work zone across the open cabinet front.

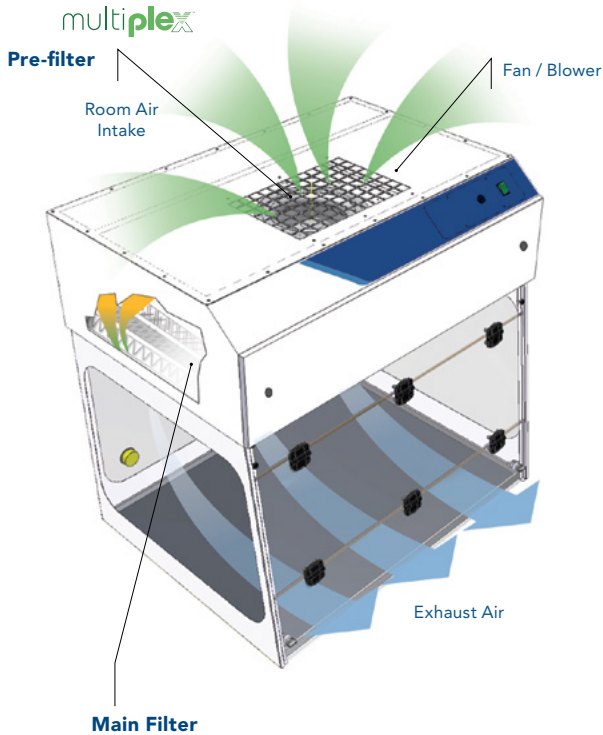
FILTER CONFIGURATION

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

H. The main filter is easy to replace; no tools required. The filter clamps tightly against the filter gasket to prevent filter bypass and to maintain filter integrity.

MULTIPLEX FILTRATION SYSTEM, SUMMARY

Pre-Filter	P	Disposable polyester fibers with 85% arrestance.
Main Filter	H	A self-contained filter designed to physically capture particles larger than 0.3 microns (HEPA) or 0.12 microns (ULPA).



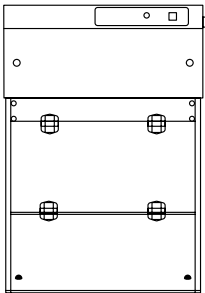
Through our partner company **Filtco Filters**, Air Science is a single source supplier of all pre-filters, carbon filters and HEPA/ULPA filters used in our products.

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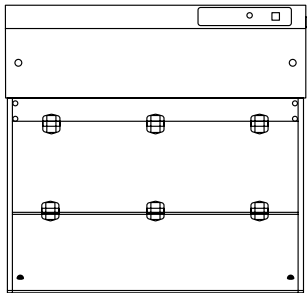
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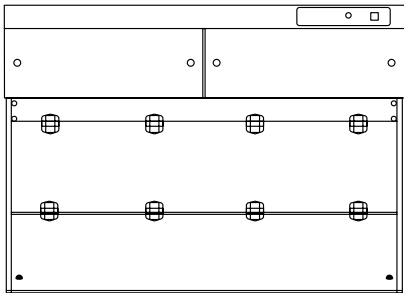
Purair PCR-24



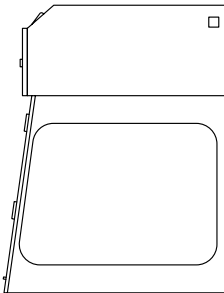
Purair PCR-36



Purair PCR-48



Side View



MODEL	VOLTAGE	DIMENSIONS					WEIGHT (LBS/KG)	
		Nominal Width	Internal Height	Internal Depth	External (W × D × H)	Shipping (W × D × H)	Net	Ship
PCR-24-A	120V, 60Hz	24" / 610 mm	23.29" / 591.5 mm	26.75" / 679 mm	24" × 27" × 35" / 610 × 686 × 889 mm	48" × 40" × 45" / 1219 × 1016 × 1143 mm	72 / 33	150 / 68
PCR-24-G	230V, 50Hz	24" / 610 mm	23.29" / 591.5 mm	26.75" / 679 mm	24" × 27" × 35" / 610 × 686 × 889 mm	48" × 40" × 45" / 1219 × 1016 × 1143 mm	72 / 33	150 / 68
PCR-36-A	120V, 60Hz	36" / 914 mm	23.29" / 591.5 mm	26.75" / 679 mm	36" × 27" × 35" / 914 × 686 × 889 mm	48" × 40" × 45" / 1219 × 1016 × 1143 mm	99 / 45	175 / 79
PCR-36-G	230V, 50Hz	36" / 914 mm	23.29" / 591.5 mm	26.75" / 679 mm	36" × 27" × 35" / 914 × 686 × 889 mm	48" × 40" × 45" / 1219 × 1016 × 1143 mm	99 / 45	175 / 79
PCR-48-A	120V, 60Hz	48" / 1219 mm	23.29" / 591.5 mm	26.75" / 679 mm	48" × 27" × 35" / 1219 × 686 × 889 mm	60" × 40" × 45" / 1524 × 1016 × 1143 mm	138 / 63	225 / 102
PCR-48-G	230V, 50Hz	48" / 1219 mm	23.29" / 591.5 mm	26.75" / 679 mm	48" × 27" × 35" / 1219 × 686 × 889 mm	60" × 40" × 45" / 1524 × 1016 × 1143 mm	138 / 63	225 / 102

"A" — 120V, 60Hz
"G" — 230V, 50Hz

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PRODUCT SPECIFICATIONS

Filtration	PCR-24	PCR-36	PCR-48
Airflow	<... Vertical downflow; 0.30 m/s (60 fpm). ...>		
Pre-Filter	<... Disposable polyester fibers with 85% arrestance. ...>		
Main Filter	<... HEPA efficiency, 99.97% at 0.3 µm. ...>		
Clamping	<... Screw compression clamp. ...>		
Construction	PCR-24	PCR-36	PCR-48
Finish (exterior)	<... White epoxy-coated steel frame with white legs on cabinet sides. ...>		
Windows	<... Polycarbonate, transparent, UV absorbing. ...>		
Blower	<... EC blower. ...>		
Controls	<... Main On/Off switch for fan and lighting. Solid-state fan speed control with RFI filter maintains blower uniformity. UV timer, safety interlock shut-off. ...>		
Work Surface	<... Standard, black polypropylene. Optional, white polypropylene or stainless steel. Specify when ordering. ...>		
Pass Through Ports	<... Two standard, knockout. ...>		
Shelving	<... Decontamination shelf on rear wall. ...>		
Front Sash	<... Standard, hinged double with safety interlock. ...>		
Efficiency	PCR-24	PCR-36	PCR-48
Power Consumption ¹	37 watt	78 watt	115 watt
Lighting	<... LED lighting ...>		
UV Lamp	<... 1 × 253.7 nanometer 15 watt. ...>		

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OPTIONS AND ACCESSORIES

Purair Model		PCR-24	PCR-36	PCR-48
ULPA Filter	ULPA filter efficiency 99.999% at particle size 0.12 µm.	ASTS-030U	ASVLP536-030U	ASTS-030U (2)
Spill Tray (Stainless Steel)	Removable for easy cleaning.	TRAY-P5-24-SS	TRAY-P5-36-SS	TRAY-P5-48-SS
Base Stand, Mobile, with Casters	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

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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.

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
Environment	ISO 14001:2015 ENERGY STAR® Partner



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