

Protecting the Operator or Process from Chemical Fumes, Vapors and Particulate



www.aircleansystems.com

AirClean® Systems
The Fume Control Experts.

CORPORATE OVERVIEW



Founded in 1992, AirClean® Systems is the largest North American manufacturer of ductless hoods, workstations and enclosures. We continue to develop and produce a complete range of solutions for protecting the operator or process from toxic vapors, fumes, gases, and particulate.

A forward-thinking company

AirClean® Systems was founded on the premise that it is possible to provide operator or process protection from airborne contaminants using state-of-the-art materials and manufacturing systems. This simple idea has culminated into twenty years of providing the highest quality ductless fume hoods, clean benches, exhaust hoods and related products to institutions across the globe. We continually strive to infuse our products with cutting-edge technology to further increase their safety, usability and longevity. Independence™, the most advanced ductless fume hood available, embodies this ideal.

An environmentally-conscious company

Our ductless fume hoods are a true “green product”, using much less energy and natural resources than traditional exhaust fume hoods. The average traditional “total exhaust” fume hood consumes three-and-a-half times the energy of the average U.S. household.* This is due to the hood exhausting room air, forcing the HVAC system to continually heat or cool makeup air coming into the laboratory. Ductless fume hoods eliminate this costly cycle – reducing environmental impact through significantly reduced energy use.

A quality-focused company

AirClean® Systems products are manufactured at our corporate headquarters located in Raleigh, NC USA. In addition, AirClean® Systems manufactures products in Melbourne, Australia for the Australian and Southeast Asian market. Each manufacturing facility offers full electronic and mechanical design capabilities with extensive CAD-CAM design experience. Our CNC machining center and in-house engineering expertise allows AirClean® Systems the flexibility to keep pace with our customer’s needs.

Before shipment, each AirClean® Systems product is tested in-house to meet or exceed applicable safety standards and regulations. Stringent QA/QC procedures during all phases of production guarantee the highest quality and reliability of each product.

An informed company

AirClean® Systems maintains an extensive application database resulting from thousands of installations, many years of field experience and laboratory research in the containment of toxic chemicals and particulate. Our customers are not only using rigorously field-tested hoods, workstations and enclosures; they are accessing many years of laboratory application data and experience to ensure the proper safety solution is in place.

* Mills, E. and D. Sartor. “Energy Use and Savings Potential for Laboratory Fume Hoods.” *Energy*, Vol. 30, 2005, pp. 1859-1864. LBNL-55400.

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AC600 Series Ductless Chemical Workstation

The AC600 Series Chemical Workstation is designed to provide a low cost solution for protection of the operator and environment from toxic vapors, gases, fumes, and particulate. The AC600 Series ductless chemical workstation incorporates molded thermoplastics which can be configured for a variety of common applications.



AC632TA-220 ductless chemical workstation

Features:

- AirSafe™ automatic safety controller
- Bonded gas phase carbon filtration
- Integral base with deep spill lip
- No ductwork required
- No installation required - plugs directly into a standard 220/240V electrical outlet
- Clear polycarbonate shell for 360° visibility
- Extremely quiet operation < 49dBA
- Available in standard height or tall version
- Meets UL, CSA & CE electrical requirements

Safety Features:

- The filter and electronics are located above the workspace, eliminating the chance of a chemical spill entering these sensitive areas
- The brushless, sparkless blower is post-filter
- The deep base effectively contains accidental spills
- The low airflow alarm warns the user both visually and audibly
- Filter safety lockout to ensure correct filter replacement

AirClean® Systems ductless hoods, workstations, and enclosures meet and exceed relevant ductless hood standards and guidelines.

AC600 SERIES CHEMICAL WORKSTATION DIMENSIONS						
Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC632A-220	813 mm	635 mm	762 mm	787 mm	584 mm	483 mm
AC632TA-220	813 mm	635 mm	1016 mm	787 mm	584 mm	660 mm
AC632TAS-220	813 mm	635 mm	1016 mm	787 mm	584 mm	737 mm
AC648A-220	1219 mm	635 mm	787 mm	1194 mm	584 mm	483 mm
AC648TA-220	1219 mm	635 mm	1041 mm	1194 mm	584 mm	660 mm
AC648TAS-220	1219 mm	635 mm	1041 mm	1194 mm	584 mm	737 mm

Polypropylene Ductless Hood Folding Sash Version

AirClean® Systems polypropylene ductless hoods remove toxic particulate, chemical fumes or vapors, protecting both the operator and the environment. Polypropylene fume hoods, standard with a thermally fused integral spill tray, offer excellent chemical resistance during corrosive applications.



AC4000-220 polypropylene hood with AirSafe™ automatic safety controller.

Features:

- Polypropylene construction for excellent chemical resistance. The result — NO RUST — allows for longer service compared to standard metal hoods
- Wide range of activated bonded carbon, impregnated chemisorptive, and HEPA filters for containment of virtually any toxic vapor, fume, gas, or particulate
- AirZone™ baffling establishes a proper horizontal airflow pattern which directs toxins away from the operator in a predictable pattern, removing “dead spots” within the enclosure
- No installation costs. All AirClean® Systems bench-top hoods are shipped completely assembled (filters installed) and ready to use
- Integral vapor-proof fluorescent lighting
- No ductwork required
- Available in 220/240V AC versions
- Meets UL, CSA & CE electrical requirements

Options:

- Vented and unvented polypropylene base cabinets
- Slip hatch electrical access ports
- Polypropylene sink and water fixture
- Epoxy-coated stand with leveling feet
- Metal or stainless steel liner

POLYPROPYLENE DUCTLESS HOOD DIMENSIONS - FOLDING SASH

Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC3000-220	914 mm	762 mm	1372 mm	889 mm	660 mm	889 mm
AC4000-220	1219 mm	762 mm	1372 mm	1194 mm	660 mm	889 mm
AC5000-220	1524 mm	762 mm	1372 mm	1499 mm	660 mm	889 mm
AC6000-220	1829 mm	762 mm	1372 mm	1803 mm	660 mm	889 mm

nominal dimensions

Polypropylene Ductless Hood Sliding Sash Version

AirClean® Systems polypropylene hoods, with sliding sash option, are similar to traditional exhaust fume hoods with one primary difference: they are ductless — utilizing either gas phase or mechanical filtration. Vertical sliding safety glass sash and dual wall construction allow for the same user-friendly features as found on traditional exhaust hoods. The AirSafe™ automatic safety controller constantly monitors and maintains airflow as the sash slides up and down.



AC4000S-220 with optional base cabinet

Features:

- AirSafe™ automatic safety controller
- Polypropylene construction for excellent chemical resistance. The result — NO RUST — allows for longer service compared to standard metal enclosures
- Dual wall construction allows for front mounting of services such as water, gas, or electrical. Access panels on both sides of the hood allows field service of all fixtures
- Vertical sliding safety glass sash
- Wide range of activated bonded carbon, impregnated chemisorptive, and HEPA filters for containment of virtually any toxic vapor, fume, gas, or particulate
- FlowSmooth™ airfoil on sash lip promotes laminar airflow
- Integral vapor-proof fluorescent lighting system
- Available in 220/240V AC versions
- Hoods are shipped fully assembled
- Meets UL, CSA & CE electrical requirements

AirClean® Systems ductless hoods, workstations, and enclosures meet and exceed relevant ductless hood standards and guidelines.

ASHRAE110 tested

POLYPROPYLENE DUCTLESS HOOD DIMENSIONS - SLIDING SASH

Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC3000S-220	914 mm	762 mm	1524 mm	762 mm	635 mm	914 mm
AC4000S-220	1270 mm	762 mm	1524 mm	1118 mm	635 mm	914 mm
AC6000S-220	1829 mm	762 mm	1524 mm	1676 mm	635 mm	914 mm
AC8000S-220	2438 mm	762 mm	1524 mm	2286 mm	635 mm	914 mm

nominal dimensions

Patriot™ Ductless Fume Hood

Folding Sash Version

Patriot™ ductless fume hoods provide the operator with user-friendly controls, superior construction materials and market-leading safety features needed for effective fume containment. Patriot™ ductless fume hoods can be placed virtually anywhere, without the need to connect to building infrastructure, giving you the flexibility expected from modern laboratory equipment.



ACPT4000-220 Patriot with AirSafe™ NXT color touch-screen controller.

Features:

- Structural thermally-fused polypropylene construction for superior chemical resistance and spill containment
- Constant monitoring of fume hood face velocity with variable airflow control to user preset value
- Built-in solid state gas detection
- Large capacity filtration bed to handle a wide variety of applications
- AirZone™ baffling system that promotes smooth and controlled airflow for optimal containment
- Integral vapor proof fluorescent lighting for effective work area illumination
- Shipped fully assembled, filters installed
- 220/240V AC models available
- Meets UL, CSA & CE electrical requirements

Options:

- Vented and unvented polypropylene base cabinets
- Slip hatch electrical cord access ports
- Polypropylene sinks and deck mounted fixtures
- Sturdy cart/trolley with locking casters for mobility
- Epoxy coated metal stand with adjustable leveling feet

ASHRAE110 tested

PATRIOT DUCTLESS FUME HOOD DIMENSIONS - FOLDING SASH

Product #	External Dimensions			Internal Dimensions		
	Width	Height	Depth	Width	Height	Depth
ACPT3000-220	914 mm	1372 mm	762 mm	889 mm	889 mm	660 mm
ACPT3036-220	914 mm	1372 mm	914 mm	889 mm	889 mm	813 mm
ACPT4000-220	1219 mm	1372 mm	762 mm	1194 mm	889 mm	660 mm
ACPT4036-220	1219 mm	1372 mm	914 mm	1194 mm	889 mm	813 mm
ACPT5000-220	1524 mm	1372 mm	762 mm	1499 mm	889 mm	660 mm
ACPT5036-220	1524 mm	1372 mm	914 mm	1499 mm	889 mm	813 mm
ACPT6000-220	1829 mm	1372 mm	762 mm	1803 mm	889 mm	660 mm
ACPT6036-220	1829 mm	1372 mm	914 mm	1803 mm	889 mm	813 mm

Patriot™ Ductless Fume Hood

Sliding Sash Version

AirSafe™ NXT provides touchscreen access to all functions of the Patriot™ ductless fume hood. Automatic blower control, filter monitoring, alarm notifications and energy use meter are just a few of the standard features provided by the AirSafe™ NXT automatic safety controller. ChemMinder™ application acknowledgement system provides the end user with real-time data on approved chemical class.

Features:

- Touch-screen microprocessor controller with variable airflow controller and constant filter monitoring
- Structural thermally-fused polypropylene construction for superior chemical resistance and spill containment
- Chemical Class Confirmation — End-user notification of chemical/filtration compatibility
- AirZone™ baffling to promote uniform airflow and containment
- Dual wall design to allow for placement of fixtures, taps and electrical outlets like a typical total exhaust fume hood
- Large capacity filtration bed to handle a variety of chemical applications and built in gas detection
- Energy Use Meter — displays real-time and lifetime energy use
- Integral polypropylene spill base
- 220/240V AC models available
- Meets UL, CSA & CE electrical requirements

Options:

- Vented and unvented polypropylene base cabinets
- Slip hatch electrical cord access ports
- Polypropylene sinks and deck mounted fixtures
- Sturdy cart/trolley with locking casters for mobility
- Epoxy coated metal stand with adjustable leveling feet



ASHRAE110 tested

PATRIOT DUCTLESS FUME HOOD DIMENSIONS - SLIDING SASH

Product #	External Dimensions			Internal Dimensions		
	Width	Height	Depth	Width	Height	Depth
ACPT3000S-220	914 mm	1524 mm	762 mm	762 mm	914 mm	635 mm
ACPT3036S-220	914 mm	1524 mm	914 mm	762 mm	914 mm	787 mm
ACPT4000S-220	1270 mm	1524 mm	762 mm	1118 mm	914 mm	635 mm
ACPT4036S-220	1270 mm	1524 mm	914 mm	1118 mm	914 mm	787 mm
ACPT6000S-220	1829 mm	1524 mm	762 mm	1676 mm	914 mm	635 mm
ACPT6036S-220	1829 mm	1524 mm	914 mm	1676 mm	914 mm	787 mm
ACPT8000S-220	2438 mm	1524 mm	762 mm	2286 mm	914 mm	635 mm
ACPT8036S-220	2438 mm	1524 mm	914 mm	2286 mm	914 mm	787 mm

Free-Standing Polypropylene Enclosure

AirClean® Systems free-standing polypropylene enclosures are designed to accommodate applications that require additional vertical height not found in standard benchtop hoods. The enclosures are designed with lower access doors that open to provide complete access to the enclosure opening.



AC4000E-220 48"-wide Free-Standing Polypropylene Enclosure

Features:

- AirSafe™ automatic safety controller
- Polypropylene construction for excellent chemical resistance. The result — NO RUST — allows for longer service compared to standard metal enclosures
- Wide range of activated bonded carbon, impregnated chemisorptive, and HEPA filters for containment of virtually any toxic vapor, fume, gas, or particulate
- No installation costs. All AirClean® Systems hoods are shipped fully assembled (filters installed) and ready to use
- No BASE installed — direct placement on existing laboratory or warehouse floor.
- Integral vapor-proof fluorescent lighting
- No ductwork required
- Available in 220/240V AC versions
- Meets UL, CSA & CE electrical requirements

Typical Applications:

- Testing bulk powders
- Filling applications — large bulk container to smaller containers
- Large scale chemistry setups

AirClean® Systems ductless hoods, workstations, and enclosures meet and exceed relevant ductless hood standards and guidelines.

FREE-STANDING POLYPROPYLENE ENCLOSURE

Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC3000E-220	914 mm	813 mm	2007 mm	889 mm	762 mm	1524 mm
AC4000E-220	1219 mm	813 mm	2007 mm	1194 mm	762 mm	1524 mm
AC6000E-220	1829 mm	813 mm	2007 mm	1803 mm	762 mm	1524 mm

nominal dimensions

Walk-In Free-Standing Ductless Enclosure

AirClean® Systems polypropylene walk-in enclosures are an effective containment solution for fumes or particulate released from equipment during manipulation or bulk handling applications. A variety of enclosure widths, depths and sash options maximize operator access without compromising safety.



*Customized
AC10000WI Walk-In
Free-Standing
Ductless Enclosure*

Features:

- Multiple depth options
- AirSafe™ automatic safety controller
- Polypropylene construction — seamless design
- Bonded carbon and HEPA filter stacking options for a variety of applications
- Vapor-proof fluorescent light
- No ductwork required
- Available in 220/240V AC versions

Options:

- Slip hatch electrical cord access ports
- Larger pass-through access ports
- Slotted rear wall for horizontal airflow patterns
- Customization of standard design to accommodate equipment or workplace layout

Typical Applications:

- Enclosing large equipment while retaining full operator access
- Bulk chemical mixing and weighing

WALK-IN FREE-STANDING DUCTLESS ENCLOSURE						
Product #	External Dimensions			Internal Dimensions		
	Width	Depth Options	Height	Width	Depth Options	Height
AC6000WI-220	1829 mm	91 cm	2438 mm	1803 mm	711 mm	1880 mm
AC8000WI-220	2438 mm	122 cm	2438 mm	2413 mm	1016 mm	1880 mm
AC10000WI-220	3048 mm	152 cm	2438 mm	3023 mm	1321 mm	1930 mm

PowderSafe™ Type A

PowderSafe™ Type A enclosures provide a safe and effective weighing environment for toxic compounds or chemicals. SafeChange™ technology minimizes the threat of exposure to toxic powders during pre-filter replacement. The electrostatically charged pre-filter is easily bagged out under negative pressure.



AC710C-220 Type A ductless balance enclosure

PowderSafe™ Type A has been independently tested and validated for containment of particulate.

Features:

- AirSafe™ automatic safety controller
- Portable HEPA filtration — NO DUCTWORK REQUIRED
- SafeChange™ technology for pre-filter change-out
- Solid 3/8" polypropylene base
- Tested with 3- and 4-place balances
- Compact ergonomic design takes up less space than similar enclosures
- Leak tested and certified before shipment
- Electrostatically charged pre-filter prevents 'particle rain'
- Electrical cord access ports
- Quiet operation < 49dB
- Available in 220/240V AC versions
- Meets UL, CSA & CE electrical requirements

SafeChange™ Technology



SafeChange™ technology allows for the pre-filter to be bagged-out while the enclosure is running.

POWERSAFE™ TYPE A ENCLOSURE DIMENSIONS

Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC705* - 220	610 mm	610 mm	762 mm	584 mm	584 mm	483 mm
AC710C - 220	813 mm	610 mm	762 mm	787 mm	584 mm	483 mm
AC710CT - 220	813 mm	610 mm	1016 mm	787 mm	584 mm	660 mm
AC710CTS - 220	813 mm	635 mm	1016 mm	787 mm	584 mm	737 mm
AC720C - 220	1219 mm	610 mm	762 mm	1194 mm	584 mm	483 mm
AC720CT - 220	1219 mm	610 mm	1041 mm	1194 mm	584 mm	660 mm
AC720CTS - 220	1219 mm	635 mm	1067 mm	1194 mm	584 mm	737 mm

*AirSafe™ automatic safety controller is not available on model AC705

PowderSafe™ Type B

Seamless polypropylene construction provides the mass and vibration resistance crucial for accurate powder weighing, while AirSafe™ automatic safety controller monitors airflow and filter condition. The full rear-wall HEPA filtration zone moves powders and particulate away from the operator in a smooth horizontal laminar pattern. HEPASafe™ technology allows filters to be safely and easily bagged-out under negative pressure.



Features:

- Variable airflow volume via AirSafe™
- Continuous HEPA filter monitoring
- High mass - solid polypropylene construction
- Effectively weighs at 5 decimal places
- Real-time airflow display on LCD
- Audible and visible alarms
- Fluorescent light - one touch operation
- Portable HEPA filtration — NO DUCTWORK REQUIRED
- Electrical cord access ports
- Meets UL, CSA & CE electrical requirements
- Available in 220/240V AC versions

PowderSafe™ Type B has been independently tested and verified for operator protection by SafeBridge Consultants, Inc.®

AC740C-220 48" PowderSafe™ Type B enclosure

HEPASafe™ Filter Change Technology

AirClean® Systems HEPASafe™ filter change technology allows the end user to safely and easily change the contaminated filters under negative pressure. A permanent HEPA filter protects the operator during primary HEPA filter change out. If the primary HEPA filter should ever be compromised, the permanent HEPA filter would also act as an "undisturbed" backup safety filter. The pre-filter and primary HEPA filter are simply bagged out within the enclosure.



POWERSAFE™ TYPE B ENCLOSURE DIMENSIONS

Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC730C-220	813 mm	762 mm	838 mm	787 mm	533 mm	457 mm
AC740C-220	1219 mm	762 mm	838 mm	1194 mm	559 mm	457 mm

PowderSafe™ Type C

AirClean® Systems Type C PowderSafe™ enclosure incorporates the airflow dynamics and HEPASafe™ features of the PowderSafe™ Type B with the user-friendly features and chemical fume containment capabilities of the ductless fume hood. Thermally fused polypropylene makes the PowderSafe™ Type C enclosure perfect for weighing powders or solvents.



AC770-220 PowderSafe™ Type C with optional blue base and stand

AirClean® Systems ductless hoods, workstations, and enclosures meet and exceed relevant ductless hood standards and guidelines.

Features:

- AirSafe™ automatic safety controller
- Horizontal laminar airflow pattern
- Chemically impervious construction
- HEPASafe™ filter change-out
- High mass — solid polypropylene construction
- Vapor-proof fluorescent light
- Ductless — no installation required
- Available in 220/240V AC versions

Options:

- Bonded carbon multipurpose filtration
- Contrasting base color
- Waste port for weighing vessel disposal

Typical Applications:

- Pharmaceutical compounding
- Powder weighing
- Package opening
- R&D of pharmaceutical compounds
- Animal surgery
- Encapsulation of potent compounds

ASHRAE110 tested

POWERSAFE™ TYPE C ENCLOSURE DIMENSIONS

Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC760-220	914 mm	762 mm	1118 mm	889 mm	559 mm	635 mm
AC765-220	914 mm	762 mm	1372 mm	889 mm	559 mm	889 mm
AC770-220	1219 mm	762 mm	1118 mm	1194 mm	559 mm	635 mm
AC775-220	1219 mm	762 mm	1372 mm	1194 mm	559 mm	889 mm
AC780-220	1829 mm	762 mm	1118 mm	1803 mm	559 mm	635 mm
AC785-220	1829 mm	762 mm	1372 mm	1803 mm	559 mm	889 mm

nominal dimensions

PowderSafe™ Bulk Handling Enclosure

AirClean® Systems PowderSafe™ Bulk Handling Enclosures provide effective control and containment of airborne particulate during manipulation and transfer of potent compounds. Designed to provide a turbulence-free airflow environment, PowderSafe™ Bulk Handling Enclosures move air in a horizontal pattern to maximize containment while minimizing sample loss and balance instability.



Standard Features:

- AirSafe™ automatic safety controller
- HEPASafe™ filter change out
- Dark blue base for ease of cleaning
- Disposal port for weighing vessels
- Bulk handling conversion ring
- Meets UL, CSA & CE electrical requirements
- Available in 220/240V AC versions

Options:

- Gas phase bonded carbon filtration
- White epoxy coated stand with leveling feet
- Hydraulic lift

ASHRAE10 tested

Bulk Container Access Port



Utilizing a unique access port and optional hydraulic lift, the bulk chemical drum can be raised or lowered to a comfortable working height, depending on the volume of chemical in the drum. When drum access is not needed, the included access port cover can be used to seal the base, allowing for use as a standard balance enclosure.

BULK HANDLING ENCLOSURE DIMENSIONS

Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC794BE-220	1219 mm	914 mm	2388 mm	1194 mm	737 mm	889 mm
AC795BE-220	1524 mm	914 mm	2388 mm	1499 mm	737 mm	889 mm
AC796BE-220	1829 mm	914 mm	2388 mm	1803 mm	737 mm	889 mm

nominal dimensions



Combination PCR Workstation

AirClean® Systems AC600 Series Combination PCR Workstation provides ISO 5 HEPA-filtered air with UV light irradiation for the ultimate DNA/RNA manipulation and amplification work area. Cross-contamination during amplification of DNA and RNA can lead to results that are inaccurate, costing the lab technician valuable time and reagents. PCR Workstations minimize this risk by keeping airborne contaminants away from samples and irradiating work surfaces and tools between amplifications.



AC632LFUVC-220 PCR Workstation

Features:

- UVtect™ microprocessor controller
- ISO 5 vertical laminar airflow
- Constant monitoring of UV light and HEPA filter effectiveness
- Polycarbonate and polypropylene design reflects UV energy
- Seamless plastic design — no joints or gaps in construction
- Digital UV light timer 0-59 minutes
- UV shelf with built-in pipettor holder
- Lab event timer
- Slip-hatch electrical cord access port
- Shipped fully assembled
- Available in 220/240V AC versions
- Meets UL, CSA & CE electrical requirements

PCR Workstation is a registered trademark of Hoffman-LaRoche.

Get Results — Not Background!



UV light and UV shelf for enhanced irradiation of supplies



Sash safety switch automatically turns off UV light and activates the blower when sash is raised

PCR WORKSTATION DIMENSIONS

Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC624LFUV-220*	610 mm	610 mm	762 mm	584 mm	584 mm	457 mm
AC632LFUVC-220	813 mm	610 mm	762 mm	787 mm	584 mm	457 mm
AC632TLFUVC-220	813 mm	610 mm	991 mm	787 mm	584 mm	686 mm
AC648LFUVC-220	1219 mm	610 mm	813 mm	1194 mm	584 mm	457 mm
AC648TLFUVC-220	1219 mm	610 mm	1067 mm	1194 mm	584 mm	737 mm

*AC624LFUV is not equipped with UVtect™ microprocessor controller

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AirClean® Systems

ISO 5 Horizontal Clean Bench

Constructed from white seamless polypropylene, AirClean® Systems horizontal laminar flow clean benches are the ideal solution for ISO 5 applications. Standard on all horizontal laminar flow clean benches, the UVTect™ controller constantly monitors filter conditions, alerting the operator of insufficient airflow.

Features:

- UVTect™ microprocessor controller
- All polypropylene construction - NO RUST!
- Seamless, smooth construction minimizes air turbulence
- Built-in fluorescent lighting
- All-white surfaces are easy to clean
- Meets ISO 5 Class 100 clean bench standards
- Available in 220/240V AC versions

Options:

- Custom sturdy cart or stand
- Cup sink and vacuum fittings
- Polypropylene base cabinet
- Shortwave ultraviolet light kit with full sash
- ULPA filter

NOTE: This product will not protect the operator from biological hazards.



AC5000HLF-220 Clean Bench shown with optional mobile cart



POLYPROPYLENE HORIZONTAL CLEAN BENCH DIMENSIONS

Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC4000HLF-220	1219 mm	762 mm	1041 mm	1041 mm	483 mm	686 mm
AC5000HLF-220	1524 mm	762 mm	940 mm	1321 mm	483 mm	686 mm
AC6000HLF-220	1829 mm	838 mm	940 mm	1651 mm	483 mm	686 mm
AC8000HLF-220	2438 mm	762 mm	940 mm	2261 mm	483 mm	686 mm

Vertical Laminate Flow Workstation

AirClean® Systems AC600 Series vertical laminar flow workstations are ideal for applications that are not hazardous to the operator but require a clean work area. The compact, lightweight design allows for multiple “clean zones” within a laboratory.



AC632LF-220 with UVtect™ microprocessor controller



AC632LF-220 shown with optional metal-free polypropylene construction

Features:

- UVtect™ microprocessor controller
- ISO 5 vertical laminar flow air
- 360-degree visibility
- Integral polypropylene base for easy cleaning
- All thermoplastic construction
- Built-in fluorescent light
- HEPA filter monitor automatically indicates when filter change is required
- Slip hatch access port
- Meets UL, CSA & CE electrical requirements
- Available in 220/240V AC versions

Options:

- Shortwave UV light
- Custom sturdy cart for workstation portability
- Metal-free polypropylene construction
- ULPA filter

NOTE: This product will not protect the operator from biological hazards.

AC600 SERIES LAMINAR FLOW WORKSTATION DIMENSIONS

Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC624LF-220	584 mm	610 mm	762 mm	584 mm	584 mm	457 mm
AC632LF-220	813 mm	610 mm	762 mm	787 mm	584 mm	457 mm
AC632TLF-220	813 mm	610 mm	991 mm	787 mm	584 mm	686 mm
AC648LF-220	1219 mm	610 mm	813 mm	1194 mm	584 mm	457 mm
AC648TLF-220	1219 mm	610 mm	1067 mm	1194 mm	584 mm	737 mm

nominal dimensions

Microscope Enclosure



AC632LFUVMIC-220 pictured

AirClean® Systems ductless microscope enclosures provide either a ISO 5 work environment for sample preparation or protect the operator from exposure to particulates and gases. Each enclosure is designed to work with a wide range of microscopes. The microscope access port provides easy and full access to the eye piece and viewing platform.

Features:

- Microprocessor controlled
- Sash closure allows for maximum operator protection without compromising airflow
- Process protection workstations equipped with UV safety interlock
- Constructed from UV and chemical resistant materials
- Audible and visible alarms
- Shipped fully assembled and ready for use
- UL, CSA and CE compliant

MICROSCOPE ENCLOSURE DIMENSIONS						
Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC632TLFUVMIC-220	813 mm	610 mm	1016 mm	787 mm	584 mm	711 mm
AC648TLFUVMIC-220	1219 mm	610 mm	1067 mm	1194 mm	584 mm	762 mm
AC632TMIC-220	813 mm	635 mm	1016 mm	787 mm	584 mm	737 mm
AC648TMIC-220	1219 mm	635 mm	1067 mm	1194 mm	610 mm	686 mm

nominal dimensions

Mail Handling Workstation

MailSafe™ workstations protect against airborne biological agents while opening envelopes and small packages. HEPA-filtered negative pressure airflow effectively contains unknown or suspicious substances that may be found. MailSafe™ features polycarbonate and polypropylene construction, making it a lightweight, portable mail handling solution.

Features:

- HEPA filtration for capture of particulate to 0.3 microns in size
- Automatic sash switch turns blowers off when sash is closed, maintaining an air barrier
- Mini-helic gauge monitors filter life, indicating when to change HEPA filter
- Internal 15W fluorescent light



AC632MS pictured

MAILSAFE™ CLASS 1 MAIL HANDLING WORKSTATION DIMENSIONS						
Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC632MS-220	813 mm	610 mm	762 mm	787 mm	584 mm	508 mm
AC648MS-220	1219 mm	610 mm	762 mm	1194 mm	584 mm	508 mm

AirMax™ Total Exhaust Fume Hood

AirMax™ total exhaust fume hoods are manufactured from structural polypropylene, which eliminates the potential for corrosion. Featuring standard bypass design, AirMax™ exhausts a constant volume of air, regardless of sash position. Optional features are available for more precise control of blower speed and face velocity.



AC6030TE-220 AirMax™ Fume Hood with optional polypropylene base cabinet

Safety Features:

- AirMax™ fume hoods have an advanced airfoil design that is important to the overall safety and performance of the fume hood. The rolled entry design incorporated into each AirMax™ hood prevents reverse flow and eddy currents from escaping the fume hood.
- AirMax™ exhaust hoods have a double sidewall construction which allows mounting of services and outlets on the posts.
- Containment of spills and heavy gases are easy with the AirMax™ total exhaust fume hood. A removable work surface exposes a spill basin that may be fitted with a drain for disposal of any spills. The rear baffle extends below the work surface to effectively remove any heavy gases or evaporation from a spill.



ACA3500 microprocessor controller for AirMax™ total exhaust fume hood

ASHRAE110 tested

AIRMAX™ DIMENSIONS

Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC3030TE-220	914 mm	762 mm	1499 mm	635 mm	533 mm	813 mm
AC4030TE-220	1219 mm	762 mm	1499 mm	940 mm	533 mm	813 mm
AC5030TE-220	1524 mm	762 mm	1499 mm	1245 mm	533 mm	813 mm
AC6030TE-220	1829 mm	762 mm	1499 mm	1549 mm	533 mm	813 mm
AC8030TE-220	2438 mm	762 mm	1499 mm	2159 mm	533 mm	813 mm

nominal dimensions

AirMax™ Fume Hood with Wet Fume Scrubber

AirMax™, with wet fume scrubber minimizes personnel, ductwork and environmental exposure to caustic acid gases and other water soluble chemicals. Contaminated air passes through the scrubber's water-washed contact media before being exhausted, while water used during the scrubbing process is captured in the holding tank and recirculated. An optional pH dosing system can be utilized to neutralize acids captured during the scrubbing process.



Wet Scrubber Features:

- Thermoplastic construction is resistant to gases being scrubbed
- Direct-mount to fume hood exhaust — eliminates contaminated ductwork between the fume hood and scrubber
- Observation window for media inspection
- Scrubber holding tank with recirculating pump (located inside base cabinet)

Typical Applications:

Scrubbers are used with extraction systems where soluble substances are being evaporated at accelerated rates.

Examples include:

- Trace metal analysis
- Hot acid etching
- Acid digestions for metal analysis
- Precious metal purification
- Fat testing in food industry

Options:

- Auto pH dosing system
- Spray bar for perchloric acid use
- Service fixtures and sinks
- Polycarbonate sash
- PVC base material
- Polypropylene blowers
- Variable speed driver

AC6030TEML-220 AirMax™ Fume Hood with wet fume scrubber

Partial list of chemicals that AirClean® Systems scrubbers are appropriate for:

HCl	Hydrochloric Acid	NaOCl	Sodium Hypochlorite
H ₂ SO ₄	Sulfuric Acid	H ₂ O ₂	Hydrogen Peroxide
HF	Hydrofluoric Acid	C ₂ H ₄ O ₂	Acetic Acid
HClO ₄	Perchloric Acid	NH ₃	Ammonia
NaOH	Sodium Hydroxide	H ₃ PO ₄	ortho-Phosphoric Acid
KCl	Potassium Chloride	H ₃ BO ₃	ortho-Boric Acid
NaCl	Sodium Chloride	HNO ₃	Nitric Acid

AIRMAX™ WITH WET FUME SCRUBBER DIMENSIONS

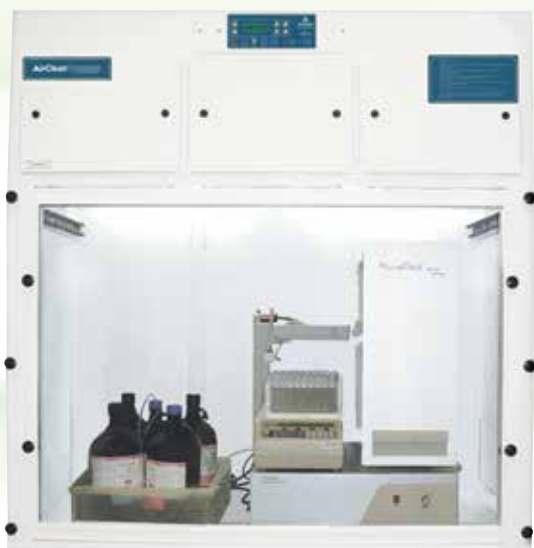
Product #	External Dimensions			Internal Dimensions		
	Width	Depth	Height	Width	Depth	Height
AC4030TEML-220	1219 mm	762 mm	2591 mm	940 mm	508 mm	1092 mm
AC5030TEML-220	1524 mm	762 mm	2591 mm	1245 mm	508 mm	1092 mm
AC6030TEML-220	1829 mm	762 mm	2591 mm	1549 mm	508 mm	1092 mm

Ductless Safety Enclosure

AirClean® Systems ductless safety enclosures are engineered specifically for enclosing a variety of instruments to include rotary evaporators, chromatography equipment and robotic instruments while providing unrestricted access for operator interaction.



AC23824A-220 ductless rotary evaporator enclosure



AC5400-220 enclosing the ISCO Sq 16x Open Access Purification System

Features:

- AirSafe™ automatic safety controller constantly monitors airflow and filter condition
- Integral base with deep spill lip
- Quiet operation; < 49 dB
- Horizontal or vertical sliding access doors for equipment manipulation
- Airflow automatically increases when doors are opened, preventing fumes from escaping
- No ductwork required for simple installation
- Space-saving bench-top design
- Dust-free bonded gas phase filtration



Gilson 215 SW enclosure provides containment of toxic chemical fumes and vapors

A variety of sizes, construction materials, sash types and airflow options are available to match your liquid handling apparatus. Operator protection enclosures utilize the AirSafe™ automatic safety controller technology. For enclosures designed to provide process protection only, the UVtect™ microprocessor controller is incorporated.

AirClean® Systems ductless hoods, workstations, and enclosures meet and exceed relevant ductless hood standards and guidelines.

Accessories



Sturdy Cart and Stand

Constructed of 14-gauge, cold-rolled steel and epoxy-coated for chemical resistance, AirClean® Systems carts and stands are designed exclusively for our ductless hoods, workstations and enclosures. All carts and stands feature a two-position base bar for easy acceptance of wheelchairs and laboratory chairs. An optional polypropylene shelf may be added for storage or transportation of supplies. Carts are shipped with two 4-inch locking casters and two free-motion casters. Stands are shipped with stainless steel leveling feet.



Polypropylene Base Cabinet

Constructed from thermally-fused, structural white polypropylene, these cabinets are ideal for storage of corrosive chemicals. Base cabinets are available with a variety of shelving options and are exclusively designed for our ductless hoods, workstations and enclosures. The base cabinets are available in two height ranges in both vented and unvented options. The vented base cabinets hook directly to the ductless fume hood's filtration system and provides a slight negative pressure within the base cabinet to reduce potential fume and vapor buildup. Designed with secondary spill containment, the AirClean® Systems polypropylene base cabinets are an excellent option for placement of our ductless polypropylene fume hoods.



Fixtures, Taps and Faucets

AirClean® Systems offers a wide range of service fixtures for all dual-walled fume hoods and enclosures. Designed to mount directly on the post of any AirClean® Systems fume hood and allow for remote control of the required service. AirClean® Systems fixtures and taps are industry standard and follow the industry color code scheme to ensure uniformity within your laboratory setting. All service fixtures are shipped pre-plumbed and factory-tested to meet applicable standards and guidelines. In addition to fixtures, taps and faucets, AirClean® Systems offers electrical outlets installed on the post with optional microprocessor controller activation.



Polypropylene Sinks

AirClean® Systems offers a full line of standard polypropylene sinks to meet the most challenging applications. Polypropylene is an ideal material for minimizing corrosion problems due to its natural chemical resistant properties. Sinks are available in a variety of standard sizes; optional custom sinks can be designed to meet user requirements.

Principles of Gas Phase Filtration

A general purpose gas phase bonded carbon filter can be used for a range of chemicals. The index below is intended as a guide to approximate how much of the toxic contaminant the filter may adsorb.

An AirClean® Systems general purpose filter that weighs 22 lbs. (10 kg) with an index of "1" will adsorb up to 50% or 11 lbs. (5 kg) of the given contaminant. The index does not indicate the filtration efficiency, but the approximate weight of the contaminant that may be adsorbed within the filter. In general an index of "1" or "2" is a good indication of the filter's suitability for use with that specific chemical. If another type of filter would be more appropriate, it has been indicated in parentheses in the partial chemical listing on the following page.



Load Capacity Index for a 22 lb. Activated Carbon Filter			
Index	Load Capacity	%	Approx. Max. Weight of Contaminant
1	Excellent	15-50	3.3 lbs. to 11 lbs. (1.5 kg to 5 kg)
2	Good	5-20	1.1 lbs. to 4.4 lbs. (0.5 kg to 2 kg)
3	OK	<5	Up to 1.1 lbs. (0.5 kg)
4	Poor	<1	Up to .22 lbs. (0.1 kg)

Example: An AC4000 with 3 filters, 22 lbs. (10 kg) could adsorb up to 33 lbs. (15 kg) of contaminant index "1".

Note: Many factors affect filter load capacity. This chart is provided as a reference only. Specific load capacity may only be calculated on an application by application basis. Please consult an AirClean® Systems application specialist for an analysis of load capacity for your application.



Activated Bonded Carbon Chemisorptive Filters (partial list only)

Filter Type	Application
ACFGLT	Glutaraldehyde and Formaldehyde
ACFFOR	Formaldehyde
ACF300	Ammonia or Amines
ACF350	Alkaline Fumes
ACF400	Inorganic Acids
ACF410	Hydrogen Sulphide
ACF430	Mercury Vapors
ACFMULTI	Multi-layered composite filter for Aldehydes, Acids and General Organic Solvents

*Other filters are available for specific applications.

For a free application assessment visit www.aircleansystems.com/assessment

Filtration Load Capacity Index (filter type: ACF100)

NAME	INDEX	NAME	INDEX	NAME	INDEX	NAME	INDEX
Acids		Aldehydes		Methyl Benzoate	1	Diethyl Ketone	1
Acetic Acid	2	Acetaldehyde	3	Methyl Formate	3	Dipropyl Ketone	1
Acetic Anhydride	2	(ACFGLT)*		Methyl Methacrylate	2	Ethyl Amyl Ketone	1
Acrylic Acid	2	Acrolein (ACFGLT)*	3	Methyl Propionate	2	Ethyl Butyl Ketone	1
Ascorbic Acid	1	Acrylaldehyde	2	Methyl Salicylate	1	Isophorone	2
Benzoic Acid	1	Benzaldehyde	2	Propyl Acetate	2	Methyl Amyl Ketone	1
Butyric Acid	1	Butyraldehyde	2			Methyl Butyl Ketone	2
Caprylic Acid	1	Formaldehyde	3	Ethers		Methyl Cyclohexanone	1
Carbolic Acid	1	(ACFFOR)*		Diethyl Ether	2	Methyl Ethyl Ketone	1
Decanoic Acid	1	Glutaraldehyde	2	Diisopropyl Ether	1	Methyl Isoamyl Ketone	2
Formic Acid(ACF400)*	3	(ACFGLT)*		Dimethyl Ether	4	Methyl Isobutyl Ketone	1
Fumaric Acid	2	Isobutyraldehyde	2	Dioxane	2	Methyl Isopropyl Ketone	2
Hydrochloric Acid (ACF400)*	4	Propionaldehyde	2	Ethyl tert-butyl Ether	1	Methyl Propyl Ketone	2
Hydrobromic Acid (ACF400)*	3			Tetrahydrofuran	2	Pentanone	2
Isobutyric Acid	2	Amines &					
Lactic Acid	1	Nitrogen Compounds		Hydrocarbons		Miscellaneous	
Methacrylic Acid	3	Ammonia (ACF300)*	4	Benzene	1	Adhesives	1
(ACF400)*		Ammonium Acetate	2	Butadiene	3	Animal odors	1
Nitric Acid (ACF400)*	4	Ammonium Chloride	3	Butylene	2	Camphor	1
Oxalic Acid	1	(ACF300)*		Cycloheptane	1	Carbon Monoxide	4
Palmitic Acid	1	Ammonium Hydroxide	4	Cyclohexane	1	Carbon Dioxide	4
Propionic Acid	2	(ACF300)*		Cyclopentane	1	Citrus fruits	1
Phosphoric Acid	4	Cyclohexylamine	3	Decane	1	Cooking odors	1
(ACFGLT)*		(ACF300)*		Decene	1	Degreasing solvents	1
Stearic Acid	1	Diethylamine (ACF300)*	2	Ethylene	4	Deodorizers	2
Sulfamic Acid	2	Dimethylamine	3	Ethyl Benzene	1	Detergents	1
Sulfuric Acid (ACF400)*	4	(ACF300)*		Heptane	1	Hospital odors	1
Trichloroacetic Acid	2	Dimethylaniline	1	Heptene	1	Human odors	1
Trifluoroacetic Acid	2	Dimethylformamide	2	Heptyne	1	Leather	1
Valeric Acid	1	(ACF300)*		Hexane	1	Ozone	1
		Dimethylglyoxine	2	Hexene	1	Nicotine	1
Alcohols		Diphenylamine	1	Hexyne	1	Perfumes	1
Amyl Alcohol	2	(ACF300)*		Isobutane	2	Petrol	1
Benzyl Alcohol	1	Ethylamine (ACF300)*	3	Napthalene	1	Putrifying odors	1
Butanol	2	Isopropylamine	3	Nonane	1	Putrescine	1
Cyclohexanol	1	(ACF300)*		Nonene	1	Products of incomplete	
Decanol	1	Methylamine (ACF300)*	4	Octane	1	combustion	2
Diethylene Glycol	1	N-Propylamine	4	Octene	1	Plastic	1
Dodecanol	1	(ACF300)*		Pentane	2	Poultry odors	1
Ethyl Alcohol	1	Trimethylamine	3	Pentene	2	Rancid oils and fats	1
Ethylene Glycol	2	(ACF300)*		Pentyne	2	Resins	1
Glycerol	1			Propane	3	Rubber	1
Heptanol	1	Esters		Propylene	2	Stale odors	1
Hexanol	1	Amyl Acetate	1	Styrene	1	Odors from stables	1
Isobutyl Alcohol	2	Butyl Acetate	1	Toluene	1	Tar odors	1
Isopropyl Alcohol	2	Ethyl Acetate	2	Xylene	1	Tobacco smoke	3
Mercaptoethanol	2	Ethyl Acrylate	2			Toilet odors	1
2-methoxyethanol	2	Ethyl Butyrate	1	Ketones		Turpentine	1
Methyl Alcohol	4	Ethyl Formate	2	Acetone	2	Varnish	1
Octanol	1	Isopropyl Acetate	1	Acetyl Acetone	2	Vinegar	1
Phenol	1	Isopropyl Myristate	2	Butanone	2	Wood Alcohol	2
Propanediol	2	Methyl Acetate	2	Cyclohexanone	1		
Propanol	3	Methyl Acrylate	3	Cyclopentanone	1		

Partial Chemical Listing - Contact AirClean® Systems for additional information at: contact@aircleansystems.com

- Ductless Fume Hoods
- Laminar Flow Workstations
- Total Exhaust Hoods
- Ductless Balance Enclosures
- PCR Workstations
- Microscope Enclosures
- Liquid Handling Enclosures
- Bulk Handling Enclosures



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