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Located at Price Research Center North
Winnipeg



Fume Hoods



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FUME HOODS

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FUME HOODS

Dynamic Bench Fume Hood Features

The Dynamic Bench fume hood requires over 70 percent less exhaust air volume than a traditional by-pass fume hood. The design conserves natural resources while saving thousands of dollars per fume hood on initial HVAC system requirements and on annual energy consumption. The Dynamic Bench fume hood is an ultra low constant volume design. Its basic size, shape and construction is the same as the standard Chemical Bench design; but, it incorporates new and innovative features that reduce exhaust air

usage while increasing the ease of use and maintaining unsurpassed containment. Based on proven constant volume technology, Dynamic Bench fume hoods avoid the requirements of expensive, high maintenance alternatives. It has been vigorously tested to ANSI/ASHRAE 110-1995 guidelines. In addition, the Dynamic Bench fume hood has been subjected to stringent dynamic testing including walk-bys, cross-drafts, and multiple breathing zone challenges, while maintaining unsurpassed containment.

Double Vertical Sash Design

Allows 37" (940mm) opening height for apparatus setup while projecting only 9" (229mm) above the hood.

Frameless Upper Sash
for unobstructed view.

Low Profile Sash Frame
offers easy access through horizontal panels.

Six-panel Combination Lower Sash

provides multiple protective working configurations.

Sash Stop at 10" (254mm) High

provides full width work opening while maximizing splatter and fume barrier for user protection.

Aerodynamically Shaped Lower Sash Handle

provides smooth airflow through vertical opening.



Dynamic Barrier by-pass
bathes area behind sash with uncontaminated air maximizing user protection.

Static Pressure Averaging Mechanism
provides accurate face velocity readings regardless of sash positioning.

Air Alert 600 Fume Hood Monitor
provides a visual one-hour timeline of fume hood performance

Service Ports
provides convenient, safe passage of wires and tubes for equipment connections.

Flush Sill
for unobstructed access through vertical opening.

Energy Saving
is a key component of the Canadian Green Building Councils Leed program.

FUME HOODS

High Performance Fume Hood Features

The High Performance fume hood is a new generation of fume hood. The design combines safety with an energy efficient design and a multitude of user-friendly features. The High Performance hood is a low constant volume design building on the features of the proven Chemical Bench hood. It's aesthetic design incorporates reduced air volume technologies with more efficient air flow containment to provide unsurpassed safety and barrier-free use. Based on proven constant volume

technology, the High Performance fume hood avoids the requirements of expensive, high maintenance alternatives. It has been tested using the ANSI/ASHRAE 110-1995 procedures to verify compliance with ANSI/AIHA Z9.5-2003. In addition, the High Performance hood has been tested using severe dynamic challenges (including the walk-by simulation apparatus of EN 14175) to confirm its superior containment capability.

Patented Semi-restricted

Bypass provides safe flow of clean air between experiment and user.

Removable Rear Baffles

for easy cleaning and hood maintenance.

Energy Saving Lighting

using single bulb, low profile T-5 fluorescent light fixture.

Triangular Shaped Access Panels

with staggered service outlets for easy set-up and maintenance.

Unique Interstitial, Vertical Slot Baffles

for exceptional turbulence free airflow and minimal upper vortex roll.

Spoiler Shaped Sash Handle

directs air away from user.

Flush Sill Airfoil

allows obstruction free access to fume hood.

Self-closing Sash to 18" (457mm)

for less exhaust volume and maximum protection. (patent pending)



Notched Nylon Sash Belt

Stainless steel cable reinforced, notched nylon belt and aluminum sprocket sash counterweight system for level, smooth, quiet sash operation.

35 1/2" (902mm) High Safety Glass Sash

for optimal unobstructed sight into fume hood.

28" (711mm) Sash Opening

with automatic hold-open latch for easy loading and unloading of hood.

Unique Rear Outleted Anti-splash Cupsink

mounts at front of hood work surface without interfering with cabinet storage below. (Order separately with work top)

Notched Sash Handle

for neat and easy cord and hose management.

Air Alert 600 Airflow Alarm

with digital readout, visual and audible alarms, and onboard data logging.

Recommended Option

FUME HOODS

Chemical Fume Hood Features

Chemical Fume Hoods are designed with a rigid frame construction that assures solid installation and low vibration and sound levels. Access panels are easily removable to access service lines and fittings. Radius corner posts and airfoils, plus easy operator control of interior baffle settings assure a high level of comfort, safety and efficiency. Given the variety of models available and the comprehensive

option packages to be selected, this new generation of fume hoods can be tailored to the application needs of your modern laboratory. Aesthetically pleasing curved airfoils, vision sash panels, contemporary controls and devices, designer colors and combinations make a hard-working laboratory safety device into an attractive part of the total laboratory environment.

Excellent interior lighting with exterior relamping

- Optional special purpose lighting

Fiberglass reinforced polyester liner

- 1/4" (6.4mm) thick – solid – light neutral colored liner
- Class A fire rating
- Task specific liner options
- Low profile, self-gasketing, interior access panel – removable without tools

Custom accessory offering

- A full array of service fittings and electrical fixtures
- Monitoring and safety alarms
- Pre-piping and pre-wiring
- UL listed when pre-wired per UL 61010A-1

Low profile PVC sash tracks

- Smooth sash operation
- Reduced air turbulence
- Seals the interior side panel

Easy operating full vision sash with:

- Full length painted aluminum handle for neat, clean appearance and streamline air features
- Available in stainless steel (painted aluminum shown)
- Exclusive sash leveling and alignment features



Top front panel available as:

- Solid panel with integral louvers
- Vision panel with integral louvers (shown)
- Solid panel with Sight-tight Chevron by-pass grille
- Vision panel with Sight-tight Chevron by-pass grille

Independent frame construction

- Rigid structural frame
- Allows liner panel replacement
- Stainless steel fasteners concealed with corrosion resistant caps

Narrow-radius corner posts

- Enhances aerodynamic air flow
- 4" (102mm) width creates more interior work space

Radius air foil

- Streamline air flow – low turbulence
- Heavy gauge steel for durability
- Available painted or in stainless steel

Epoxy resin work tops

- Dished work surface
- Many other options, including stainless steel

FUME HOODS

Introduction

Selection of the proper type of fume hood to use in a laboratory should be based upon two interrelated considerations:

1. The hood must allow the user to perform the work in a safe, efficient manner.
2. The need to reduce air conditioning cost.

The hood must be large enough to accommodate the required containers and apparatus within the prescribed safe work area of the hood (6" (152mm) behind the plane of the sash). The configuration of the hood should be such that containers can be moved in and out of the hood easily. The sash opening of the hood must allow sufficient access for safely manipulating the containers and apparatus within the hood. The interior of the hood must resist the corrosive effects of chemicals. The hood understructure should provide for storage of the required chemicals for the work being done in the hood. The total cost of a hood is greatly affected by its exhaust air requirements. The annual cost of heating and cooling the air exhausted by the hood can be as high as the initial cost of the hood itself. Choosing the proper hood type and sash configuration can significantly reduce these costs.

Types of Fume Hoods

Open by-pass fume hoods are designed for operation on constant air volume exhaust systems. The air by-pass provides for an alternate route for air to enter the hood as the sash is closed. The size of the by-pass is set so that, as the sash is closed, the velocity of the air increases to no more than three and one half times the velocity with the sash fully open. As a result, the static pressure loss through the front opening of these hoods is insignificant when compared to the pressure loss through the rear baffle and duct entry. Since the hood static pressure and the exhaust volume remain essentially constant, regardless of the sash position these hoods are classified as Constant Volume fume hoods.

Low constant volume fume hoods use a restricted sash opening or a lower face velocity, or both to reduce the exhaust quantity of air, measured in cubic feet per minute (CFM), liters per second (L/S), necessary to contain fumes with a typical face velocity of 80-120 FPM (.41-.61 m/s). Traditionally, such fume hoods can reduce the exhaust CFM(L/S) from 40% to 60% from open by-pass levels.

Restricted by-pass fume hoods are designed for operation on variable air volume (VAV) exhaust systems when used with a fume hood face velocity controller (not provided

with hood). On standard restricted by-pass hoods, the size of the air by-pass provides sufficient area that, with 100 feet per minute (.51 meters per second) by-pass velocity with the sash closed, the exhaust volume will be 25 CFM per square foot(11.8 L/S per square meter) of internal hood work surface. This is the lowest exhaust volume sufficient to dilute and prevent the escape of contaminants (see ANZI/AIHA Z9.5 and NFPA 45). This by-pass size is not appropriate for all VAV applications due to functional differences in face velocity controllers and variations in room exhaust requirements. If a different by-pass size is required, it should be specified at the time the hood is ordered. Hoods with horizontal and combination sashes are only cataloged as restricted bypass hoods. In these hoods the size of the by-pass required for constant volume operation and for providing a minimum 25 CFM per square foot (11.8 L/S per square meter) of internal hood worksurface in VAV operation is the same.

CBH Hoods only: Open By-Pass are designated by a dash (-). **Restricted By-Pass** are designated by the letter "B". As an example, CBH-72VS-00 is an open by-pass, while CBH-72VSB00 would be a restricted by-pass. (This rule does not apply to the HPH or DBH hoods.)

Face Velocity

In a laboratory fume hood, the control of contaminants is achieved by drawing air through the face (sash) opening. The face velocity is defined as the average velocity of the air in this opening and is expressed in units of feet per minute (FPM)(m/s meters per second). The Occupational Safety and Health Administration (OSHA) in its Laboratory Standard does not specify a required fume hood face velocity. As a result, hood users must look to published guidelines for recommendations on proper face velocities. The most authoritative of these published guidelines is the ANSI/AIHA Z9.5 American National Standard for Laboratory Ventilation. This publication recommends using an average face velocity of between 80-120 FPM (0.41-0.61 m/s).

Newer technologies have allowed face velocities as low as 55 FPM (.28 m/s) to show good containment. Part of the reasoning for these newer, lower face velocities is that the face velocity by itself does not define the protection level of a fume hood. There are other factors which are as important such as: the design of the hood, the location of the hood within the laboratory, the quality of the supply air distribution, and most importantly the work practices of the user. The ANSI/AIHA Z9.5 recommendation assumes that these factors have been optimized through proper design and work rules.

Where local and state(provincial) codes require the use of a specific face velocity, these codes should be followed.

GUIDE TO FUME HOOD SELECTION

Sash Arrangements

Vertical sash hoods provide the best horizontal and vertical access to the hood interior but they also have the highest exhaust requirements. The exhaust requirements can be reduced by using gravity sash stops, although, this restricts the vertical access into the work area. Split sash hoods can be used where needed for two work areas.

Auto-Return Vertical Sash hoods use a vertical sash that will automatically return to a pre-set position if released from a higher position. A full-open lock-out is provided for set-ups.

Horizontal sash hoods provide good access into the hood vertically and allow for lower exhaust requirements. These sashes do restrict the access across the hood for loading of equipment and apparatus. This limitation becomes less significant in larger hoods.

Combination vertical rising/horizontal sash hoods, as the name implies, provide the benefits of both the vertical and horizontal sash hoods. For normal operation the sash can be partially raised vertically, or the horizontal panels can be used. The sash can be fully opened vertically for loading equipment into the hood.

Configurations

Bench hoods are set on a work surface approximately 36" (914mm) above the floor and provide a convenient work area for the standing position. A minimum of 42" (1067mm) of interior working height is provided.

Walk-in hoods are used where taller apparatus is required or equipment is rolled into the hood. These hoods provide a minimum 78" (1981mm) of interior working height.

Special Purpose Fume Hoods

Isotope hoods are designed for use with radioactive materials. The Seamless welded type 304 stainless steel construction facilitates cleaning and decontamination.

Perchloric Acid hoods are required when this acid is heated above ambient temperature. The Type 316 stainless steel liner is fabricated to eliminate the possibility of formation of perchloric acid deposits. This hood includes a water wash down feature.

Baffle Design

Fixed baffles come with fixed slots in the rear baffle. The size of the slots are optimized to provide the best performance for general purpose use. In some instances (e.g. use of large hot plates) it is advantageous to be able to change the air flow patterns within the hood by adjusting the slots in the rear baffle. This adjustment should only be done by someone familiar with hood air flows and performance.

Internally adjustable baffles come with movable baffle strips which can adjust the relative size of the top and bottom slots. The middle slot in the baffle is fixed.

Single point adjustable baffles are adjustable by moving a selector knob, near the front of the hood, which restricts the flow to the lower slot, thus increasing the flow at the upper baffle slot. This adjustment can be done without disturbing the apparatus within the hood. The fixed baffle is the default option in the part number. Internally adjustable baffles are chosen by adding the suffix "**A**" to the part number (CBH-72VS-00A). Single point adjustable baffles are chosen by adding the suffix "**C**" to the part number (CBH-72VS-00C).

Work Tops

Epoxy Resin work tops are black in color, have excellent chemical resistance, and good heat resistance. They are the normal choice for general purpose hoods and highly corrosive applications.

Stainless Steel work tops are available in Types 304

and 316. They are used where cleanability and heat resistance are important. Type 316 is preferred where improved chemical resistance is desired. The hood work top is specified by a separate part number from the hood for all hoods except Isotope and Perchloric Acid hoods.

HIGH PERFORMANCE BENCH FUME HOODS HPH-VS

with Self-closing Vertical Rising Sash

Model Types Available:

Semi-restricted By-Pass, HPH-VS Self Closing, Vertical Rising Sash

Available Options:

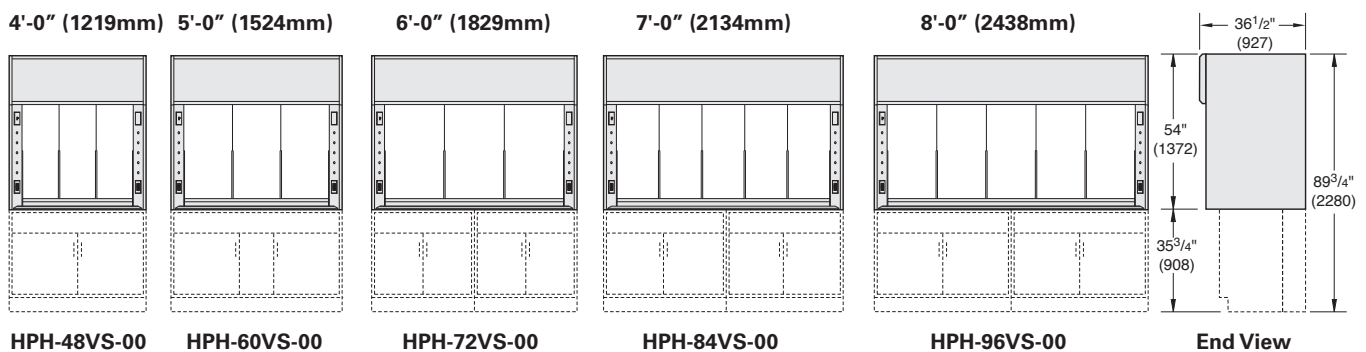
- Air Flow Alarms
- Service Fittings and Piping
- Electrical Fixtures and Wiring
- UL listed when pre-wired per UL 61010A-1
- 1805 UL classified
- Vapor Proof and Explosion Proof Lighting
- Stainless Steel Sill
- Tempered Sash Glass
- Tissue Screen
- Fire Extinguisher
- Distillation Rack
- Stainless Steel Duct Collar



Features:

- Patented, self-closing sash to 18" (457mm) for less exhaust volume and maximum protection.
- Patented semi-restricted by-pass provides safe flow of clean air between experiment and user
- Stainless steel cable reinforced, notched nylon belt and sprocket sash counterweight system for level, smooth, quiet sash operation.
- Unique interstitial, vertical slot baffles for exceptional turbulence free airflow and minimal upper vortex roll. Removable for easy cleaning and hood maintenance.
- 35¹/₂" (902mm) high frameless safety glass sash for optimal unobstructed sight into hood.
- 28" (711mm) high sash opening with automatic hold-open latch for easy loading and set-up.
- T-5 fluorescent light for increased energy savings.
- Triangular shaped access panels with staggered service outlet for easy set-up and maintenance.
- Notched sash handle for neat and easy cord and hose management.
- Designed and tested using ASHRAE 110-1995, BS 7258, and DIN 12 924 standards.

Model Numbers: High Performance Bench Fume Hoods – Self-closing Vertical Rising Sash



Note: See page 25 for chart of available options.

HIGH PERFORMANCE BENCH FUME HOODS HPH-VS

Specifications

High Performance Bench Hoods are furnished with fiberglass reinforced polyester liner and baffles, and each fume hood is complete with a lower deflector vane, counterbalanced, self-closing (to 18" (457mm)), frameless sash of 1/4" (6.4mm) combination safety glass and interior plumbing access panels. Hood exteriors are fabricated of cold rolled steel, phosphate coated with a baked chemical resistant, synthetic resin finish. The exhaust duct collar is polyethylene, 11¹⁵/₁₆" (303mm) O.D. (7 and 8 foot (2134 and 2438mm) hoods are furnished with two duct collars.)

DIMENSIONS	HEIGHT (mm)	LENGTH (mm)					DEPTH (mm)
Overall Dimension	89 ³ / ₄ " (2280)	48" (1219)	60" (1524)	72" (1829)	84" (2134)	96" (2438)	36 ¹ / ₄ " (921)
Work Top	37" (940)	39" (991)	51" (1295)	63" (1600)	75" (1905)	87" (2210)	24" (610)
Clearance (sash up)	103" (2616)	...	...	...	...	...

* Subtract 1" (25.4mm) in height if wood base cabinets are used.

Overall Hood Length	Sq. Ft. Opening at 28" Sash Opening	Sq. Ft. Opening at 18" Sash Opening	HIGH SETTING 100 FPM at 18" 66 FPM at 28"		MEDIUM SETTING 84 FPM at 18" 55 FPM at 28"		LOW SETTING 55 FPM at 18" 28" not recommended	
			CFM	SP	CFM	SP	CFM	SP
4'-0" / 48"	7.85	5.15	515	0.20	430	0.15	285	0.10
5'-0" / 60"	10.27	6.73	675	0.20	565	0.15	370	0.12
6'-0" / 72"	12.69	8.31	830	0.25	700	0.20	460	0.15
7'-0" / 84"	15.10	9.90	990	0.33	830	0.25	545	0.18
8'-0" / 96"	17.52	11.49	1150	0.20	965	0.15	630	0.10

Overall Hood Length	SQ. Meter Opening at 711mm Sash Opening	SQ. Meter Opening at 457mm Sash Opening	HIGH SETTING 0.51m/s at 457mm 0.34m/s at 711mm		MEDIUM SETTING 0.43m/s at 457mm 0.28m/s at 711mm		LOW SETTING 0.28m/s at 457mm 711mm not recommended	
			L/s	SP (Pa)	L/s	SP (Pa)	L/s	SP (Pa)
1219mm	0.73	0.48	243	49.77	204	37.33	135	24.88
1524mm	0.95	0.63	318	49.77	267	37.33	175	29.86
1829mm	1.18	0.77	392	62.21	329	49.77	216	37.33
2134mm	1.40	0.92	467	82.12	392	62.21	257	44.79
2438mm	1.63	1.07	542	49.77	455	37.33	298	24.88

* Includes free area contributions from sash clearance spaces and bypass opening.

Static pressures shown are for the pressure drop through the hoods only. The total pressure drop through the hood and the duct system must be calculated to select the proper exhaust fan.

Accessories Include: Two 120 volt AC 20 amp GFI receptacles, single-tube, T-5 fluorescent light fixture with bulb and 20 amp light switch. **No wiring for the electrical fixtures is included unless H-Option is added to part number. Hoods with H-Option are UL listed.**

Optional Accessories: Each front post and interior end liner is punched for up to five (5) remote control service fittings. The right hand post is punched for a second electrical fixture at the top which may be used for a fan switch or other electrical device. **Service fittings, fan, fan switch, work top, cupsink, and base units must be ordered separately.**

DYNAMIC BENCH FUME HOOD DBH-CS

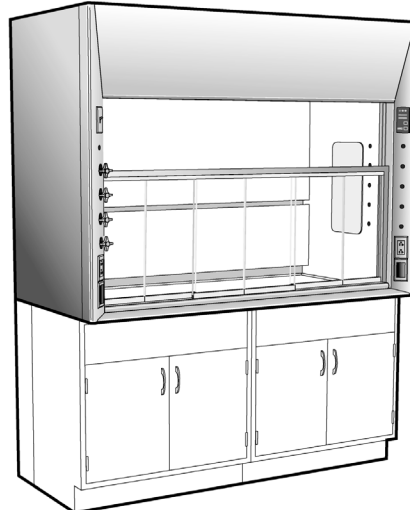
with Telescoping Combination Vertical Rising/Horizontal Sash

Model Types Available:

Dynamic Barrier By-Pass, DBH-CS

Available Options:

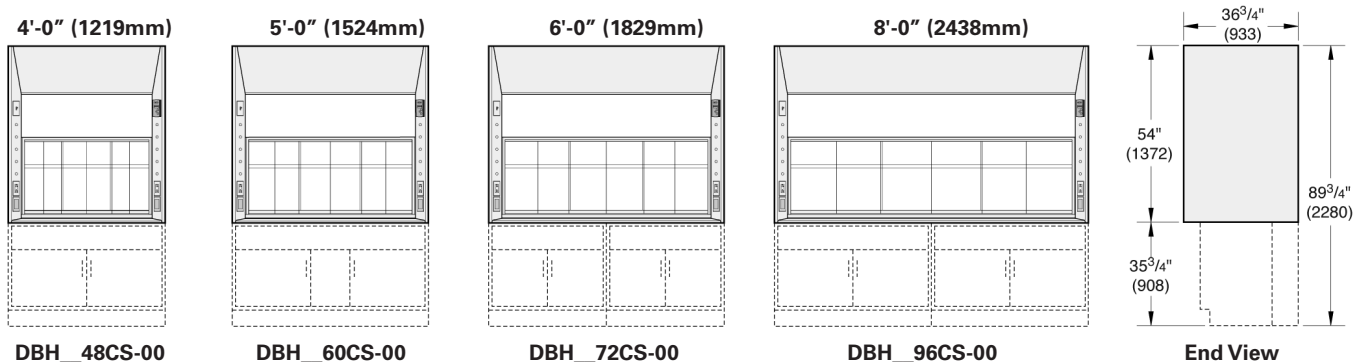
- Service Fittings and Piping
- Electrical Fixtures and Wiring
- UL listed when pre-wired per UL 61010A-1
- 1805 UL classified with Kemglass, Stainless Steel, or Phenolic Resin liner
- Lighting
- Stainless Steel Deflector Vane
- Tempered Sash Glass
- Tissue Screen
- Fire Extinguisher
- Distillation Rack
- Stainless Steel Duct Collar



Features:

- Requires over 70 percent less exhaust air volume than a traditional by-pass fume hood.
- Double telescoping vertical sash design allows full view into hood interior and 37" (940mm) opening height for apparatus setup.
- Radiused corner posts and airfoils for smooth air movement assures high level of comfort, safety and efficiency.
- 4" (102mm) thick endwalls provide more interior work space and clean-lined uncluttered design.
- Low profile sash frame for easy access through horizontal panels.
- Service ports provide convenient, safe passage for equipment connections.
- Exclusive Air Alert 600 Monitor provides a visual one-hour timeline of fume hood performance.
- Exclusive static pressure averaging mechanism provides accurate face velocity readings regardless of sash opening.
- Quiet fume hood operation, under 40 dBA with properly sized fans and ductwork.
- Designed and tested using ASHRAE 110-1995, BS 7258, and DIN 12 924 standards.

Model Numbers: High Performance Bench Fume Hoods – Self-closing Vertical Rising Sash



Note: See page 25 for chart of available options.

DYNAMIC BENCH FUME HOOD DBH-CS

Specifications

Dynamic Bench Fume Hoods are furnished with a choice of liner and baffles with center and lower exhaust slots. Each fume hood is complete with a lower deflector vane, lower sash frame fitted with six 1/4" (6.4mm) combination safety glass panels, interlocking upper frameless 1/4" (6.4mm) combination safety glass sash, and an Air Alert 600 Monitor with static pressure averaging. Hood exteriors are fabricated of cold rolled steel, phosphate coated with a baked chemical resistant, synthetic resin finish. The exhaust duct collar is polyethylene, 7¹⁵/₁₆" (202mm) O.D. (8 foot(2438mm) hoods are furnished with two duct collars.) Dynamic Bench Hoods are not designed for use with auxiliary air chambers.

DIMENSIONS	HEIGHT (mm)	LENGTH (mm)				DEPTH (mm)
Overall Dimension	89 ³ / ₄ " (2280)	48" (1219)	60" (1524)	72" (1829)	96" (2438)	36" (914)
Sash Opening	37" (940)	40" (1016)	52" (1321)	64" (1626)	88" (2235)	
Work Top	37" (940)	40" (1016)	52" (1321)	64" (1626)	88" (2235)	25 ¹ / ₂ " (648)
Clearance (sash up)	98 ³ / ₄ " (2508)	...	...	...	...

Overall Hood Length	Maximum Face Opening of Horizontal Sashes				Face Opening with Vertical Sash at 10" (254mm) Sash Stop				Total CFM & Static Pressure	
	W	H	Ft ² *	Velocity	W	H	Ft ² *	Velocity	W	H
4'-0"/48"	14 ¹ / ₂ "	22"	2.25	100 fpm	40"	10"	2.78	80 fpm	250	0.11"
5'-0"/60"	18"	22"	2.80	100 fpm	52"	10"	3.61	80 fpm	295	0.15"
6'-0"/72"	22"	22"	3.50	100 fpm	64"	10"	4.44	80 fpm	385	0.21"
8'-0"/96"	30"	22"	4.85	100 fpm	88"	10"	6.11	80 fpm	525	0.11"

Overall Hood Length	Maximum Face Opening of Horizontal Sashes				Face Opening with Vertical Sash at 10" (254mm) Sash Stop				Total L/s & Static Pressure	
	W	H	m ² *	Velocity	W	H	m ² *	Velocity	L/s	S.P. (Pa)
1219mm	368	559	0.21	0.51m/s	1016	254	0.26	0.41m/s	106	24.88
1524mm	457	559	0.26	0.51m/s	1321	254	0.34	0.41m/s	132	27.37
1829mm	559	559	0.33	0.51m/s	1626	254	0.41	0.41m/s	165	44.79
2438mm	762	559	0.45	0.51m/s	2235	254	0.57	0.41m/s	229	24.88

* Does not include free area contributions from sash clearance spaces and by-pass opening.

Static pressures shown are for the pressure drop through the hoods only. The total pressure drop through the hood and the duct system must be calculated to select the proper exhaust fan.

Accessories Include: Two 120 volt AC 20 amp GFI receptacles, single-tube, T-5 fluorescent light fixture with bulb and 20 amp light switch, Air Alert 600 Air Flow Monitor and two cord ports. **No wiring for the electrical fixtures is included unless H-Option is added to part number.**

Optional Accessories: Each front post and interior end liner is punched for up to five (5) remote control service fittings. **Service fittings, fan, fan switch, work top, cupsink, and base units must be ordered separately.**

Liner Options:

- K** = KMER Kewaunee Modified Epoxy Resin
- G** = Kemglass Fiberglass reinforced polyester
- S** = Type 304 Stainless Steel
- T** = Phenolic Resin

The blank left in the fume hood catalog numbers is for designating the desired lining.

Example: DBHK48CS-00 would designate a 4' (1219mm) hood with a KMER lining.

DYNAMIC WALK-IN FUME HOOD DWH-CS

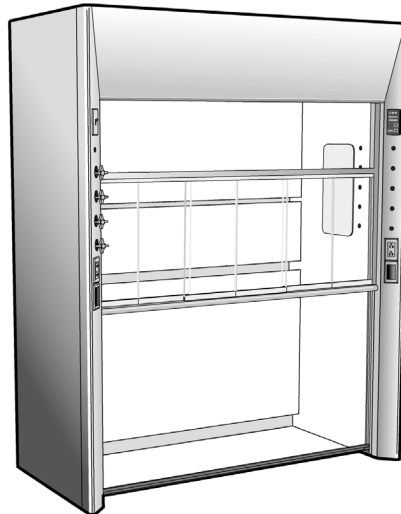
with Low-flow Combination Vertical Rising/Horizontal Sash

Model Types Available:

Dynamic Barrier By-Pass DWH-CS

Available Options:

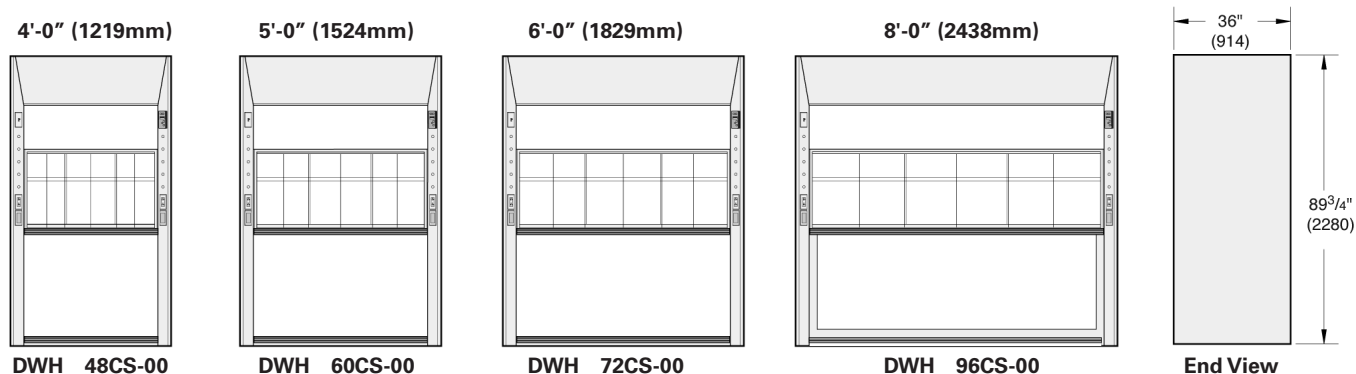
- Service Fittings and Piping
- Electrical Fixtures and Wiring
- UL listed when pre-wired per UL 61010A-1
- 1805 UL classified with Kemglass, Stainless Steel, or Phenolic Resin liner
- Lighting
- Stainless Steel Deflector Vane
- Tempered Sash Glass
- Tissue Screen
- Fire Extinguisher
- Distillation Rack
- Stainless Steel Duct Collar
- Removable Work Shelf



Features:

- Requires over 60 percent less exhaust air volume than a traditional by-pass fume hood.
- Extra large vertical sash design allows full view into hood interior and 73" (1854mm) opening height for apparatus setup.
- Radiused corner posts and airfoils for smooth air movement assures high level of comfort, safety and efficiency.
- 4" (102mm) thick endwalls provide more interior work space and clean-lined uncluttered design.
- Low profile sash frame for easy access through horizontal panels.
- Service ports provide convenient, safe passage for equipment connections.
- Exclusive Air Alert 600 Monitor provides a visual one-hour timeline of fume hood performance.
- Exclusive static pressure averaging mechanism provides accurate face velocity readings regardless of sash opening.
- Quiet fume hood operation, under 40 dBA with properly sized fans and ductwork.
- Designed and tested using ASHRAE 110-1995, BS 7258, and DIN 12 924 standards.

Model Numbers: High Performance Bench Fume Hoods – Self-closing Vertical Rising Sash



Note: See page 25 for chart of available options.

DYNAMIC BENCH FUME HOOD DWH-CS

Specifications

Dynamic Walk-In Fume Hoods are furnished with a choice of liner and baffles with center and lower exhaust slots and interior plumbing access panels. Each fume hood is complete with a counter balanced, extra large, low-flow narrow framed upper sash with six horizontal panels, and a frameless lower sash of 1/4" (6.4mm) combination safety glass, and an Air Alert 600 Monitor with static pressure averaging. Hood exteriors are fabricated of cold rolled steel, phosphate coated with a baked chemical resistant, synthetic resin finish. The exhaust duct collar is polyethylene, 7¹⁵/₁₆" (202mm) O.D. (8 foot(2438mm) hoods are furnished with two duct collars.)

Dynamic Bench Hoods are not designed for use with auxiliary air chambers.

DIMENSIONS	HEIGHT (mm)	LENGTH (mm)				DEPTH (mm)
Overall Dimension	89 ³ / ₄ " (2280)	48" (1219)	60" (1524)	72" (1829)	96" (2438)	36" (914)
Sash Opening	37" (940)	40" (1016)	52" (1321)	64" (1626)	88" (2235)	
Optional Work Sash	37" (940)	40" (1016)	52" (1321)	64" (1626)	88" (2235)	24 ¹ / ₂ " (622)
Clearance (sash up)	113 (2870)	...	...	...	...

* Subtract 1" (25.4mm) in height if wood base cabinets are used.

Overall Hood Length	Maximum Face Opening of Horizontal Sashes				Face Opening with Vertical Sash at 10" Sash Stop				Total CFM & Static Pressure	
	W	H	Ft ² *	Velocity	W	H	Ft ² *	Velocity	W	H
4'-0"/48"	14 ¹ / ₂ "	22"	2.25	100 fpm	40"	10"	2.78	80 fpm	250	0.11"
5'-0"/60"	18"	22"	2.80	100 fpm	52"	10"	3.61	80 fpm	295	0.15"
6'-0"/72"	22"	22"	3.50	100 fpm	64"	10"	4.44	80 fpm	385	0.21"
8'-0"/96"	30"	22"	4.85	100 fpm	88"	10"	6.11	80 fpm	525	0.11"

Overall Hood Length	Maximum Face Opening of Horizontal Sashes				Face Opening with Vertical Sash at 254mm Sash Stop				Total L/s & Static Pressure	
	W	H	m ² *	Velocity	W	H	m ² *	Velocity	L/s	S.P. (Pa)
1219mm	368	559	0.28	0.51m/s	1016	254	0.33	0.43m/s	142	42.3
1524mm	457	559	0.37	0.51m/s	1321	254	0.45	0.43m/s	189	57.2
1829mm	559	559	0.46	0.51m/s	1626	254	0.55	0.43m/s	235	92.1
2438mm	762	559	0.63	0.51m/s	2235	254	0.75	0.43m/s	319	49.8

* Does not include free area contributions from sash clearance spaces and by-pass opening.

Static pressures shown are for the pressure drop through the hoods only. The total pressure drop through the hood and the duct system must be calculated to select the proper exhaust fan.

Accessories Include: Two 120 volt AC 20 amp GFI receptacles, single-tube, T-5 fluorescent light fixture with bulb and 20 amp light switch, Air Alert 600 Air Flow Monitor and two cord ports. **No wiring for the electrical fixtures is included unless H-Option is added to part number.**

Optional Accessories: Each front post and interior end liner is punched for up to five (5) remote control service fittings. **Service fittings, fan, fan switch, work top, cupsink, and base units must be ordered separately.**

Liner Options:

K = KMER Kewaunee Modified Epoxy Resin

G = Kemglass Fiberglass reinforced polyester

S = Type 304 Stainless Steel

T = Phenolic Resin

The blank left in the fume hood catalog numbers is for designating the desired lining.

Example: DBHK48CS-00 would designate a 4' (1219mm) hood with a KMER lining.

GENERAL PURPOSE CHEMICAL BENCH FUME HOOD CBH-VS (B)

with Vertical Rising Sash

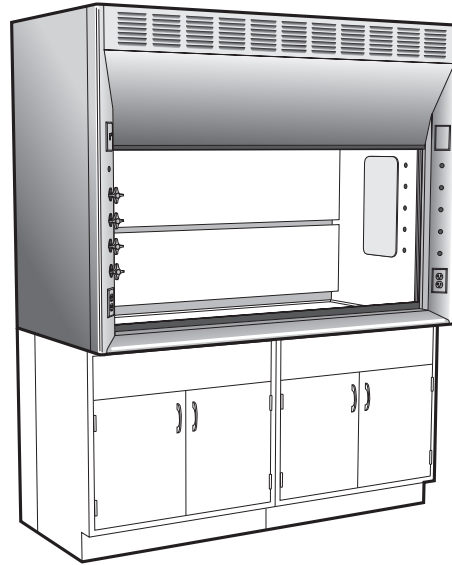
Model Types Available:

Open By-Pass CBH-VS Vertical Rising Sash

Restricted By-Pass CBH-VSB Vertical Rising Sash

Available Options:

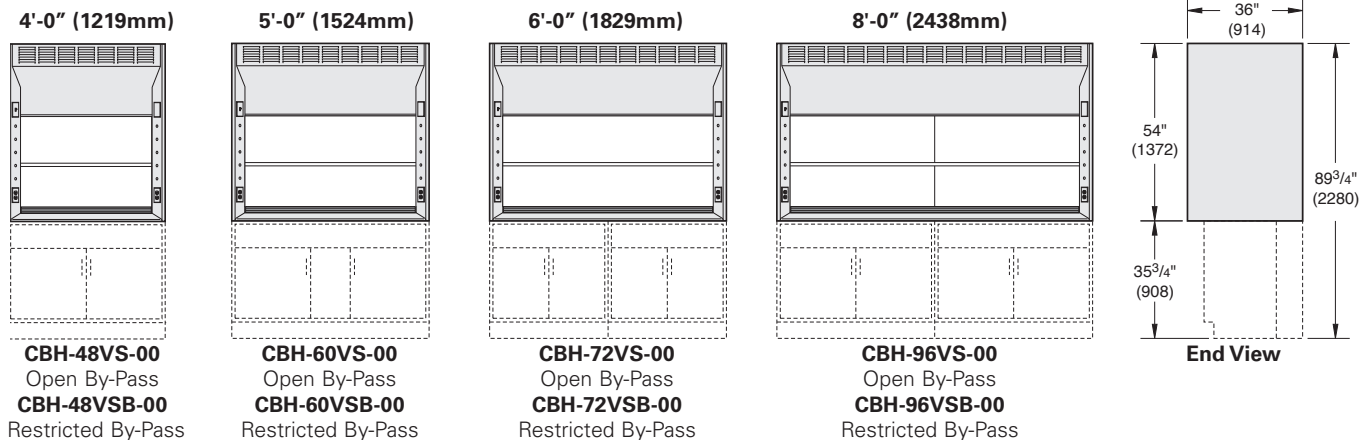
- Adjustable Baffles
- Air Flow Alarms
- Service Fittings and Piping
- Electrical Fixtures and Wiring
- UL listed when pre-wired per UL 61010A-1
- 1805 UL classified
- Vapor Proof and Explosion Proof Lighting
- Stainless Steel Deflector Vane
- Alternate Sash Handles
- Sash Frames
- Tempered Sash Glass
- Tissue Screen
- Fire Extinguisher
- Distillation Rack
- Sash Stop
- Stainless Steel Duct Collar



Features:

- Radius corner posts and airfoils for smooth air movement assures high level of comfort, safety and efficiency.
- 4" (102mm) thick endwalls provide more interior work space and clean-lined uncluttered design.
- Interior baffles designed to minimize turbulence and optimize containment.
- Frameless sash with full-length formed steel handle for neat, clean appearance and streamline air features.
- Low profile PVC sash tracks and exclusive sash leveling and alignment features assure easy and smooth sash operation
- Large friction-fit interior access panels provide easy access to piping and service fittings.
- Heavy gauge cold rolled steel exterior panels with independent rigid structural frame.
- Designed and tested using ASHRAE 110-1995, BS 7258, and DIN 12 924 standards.

Model Numbers: General Purpose Chemical Bench Fume Hoods – Vertical Rising Sash



Note: See page 25 for chart of available options.

Note: Open By-Pass Fume Hood shown. Restricted By-Pass Fume Hoods do not have louvered top front panel.

GENERAL PURPOSE CHEMICAL BENCH FUME HOOD CBH-VS (B)

Specifications

General Purpose Chemical Bench Fume Hoods are furnished with fiberglass reinforced polyester liner and baffles with upper, center, and lower exhaust slots. Each fume hood is complete with a lower deflector vane, counterbalanced, frameless sash of 1/4" (6.4mm) combination safety glass and interior plumbing access panels. Hood exteriors are fabricated of cold rolled steel, phosphate coated with a baked chemical resistant, synthetic resin finish. The exhaust duct collar is polyethylene, 11 15/16" (303mm) O.D. (8 foot(2438mm) hoods are furnished with two duct collars.) Chemical Bench Hoods are available with either an Open By-Pass or a Restricted By-Pass for VAV use.

DIMENSIONS	HEIGHT (mm)	LENGTH (mm)				DEPTH (mm)
Overall Dimension	89 3/4" (2280)	48" (1219)	60" (1524)	72" (1829)	96" (2438)	36" (914)
Sash Opening	28" (711)	40" (1016)	52" (1321)	64" (1626)	88" (2235)	
Optional Work Sash	37" (940)	40" (1016)	52" (1321)	64" (1626)	88" (2235)	25 1/2" (648)
Clearance (sash up)	103 (2616)	...	...	...	...

* Sash opening height above airfoil. Add 1" (25.4mm) in height to calculate sash opening area.

** Subtract 1" (25.4mm) in height if wood base cabinets are used.

Overall Hood Length	Sash Opening Sq. Ft. *	Total CFM and Static Pressure					
		80 FPM	S.P	100 FPM	S.P	120 FPM	S.P
4'-0"/48"	8.1	650	0.15"	810	0.25"	980	0.35"
5'-0"/60"	10.5	840	0.20"	1050	0.30"	1260	0.45"
6'-0"/72"	12.9	1040	0.25"	1290	0.40"	1550	0.60"
8'-0"/96"	17.7	1420	0.15"	1770	0.25"	2130	0.35"

Overall Hood Length	Sash Opening Sq. m *	Total L/s and Static Pressure					
		@ 0.41m/s	S.P. Pa	@ 0.51m/s	S.P. Pa	@ 0.61m/s	S.P. Pa
1219mm	0.75	307	37.33	382	62.21	463	87.10
1524mm	0.98	396	49.77	496	74.65	595	111.98
1829mm	1.20	491	62.21	609	99.54	732	149.30
2438mm	1.64	670	37.33	835	62.21	1005	87.10

Static pressures shown are for the pressure drop through the hoods only. The total pressure drop through the hood and the duct system must be calculated to select the proper exhaust fan.

Note: CFM(L/s) requirements shown above are for **Open By-Pass** hoods. The CFM(L/s) requirements for a **Restricted By-Pass** hood with the sash fully open is the same as above. The by-pass opening with the sash closed is 20% of that with the sash fully open.

Accessories Include: Two 120 volt AC 20 amp GFI receptacles, single-tube, T-5 fluorescent light fixture with bulb and 20 amp light switch. **No wiring for the electrical fixtures is included unless H-Option is added to part number. Hoods with H-Option are UL listed.**

Optional Accessories: Each front post and interior end liner is punched for up to five (5) remote control service fittings. The right hand post is punched for a second electrical fixture at the top which may be used for a fan switch or other electrical device. **Service fittings, fan, fan switch, work top, cupsink, and base units must be ordered separately.**

COMBINATION SASH BENCH FUME HOODS CBH-CSB

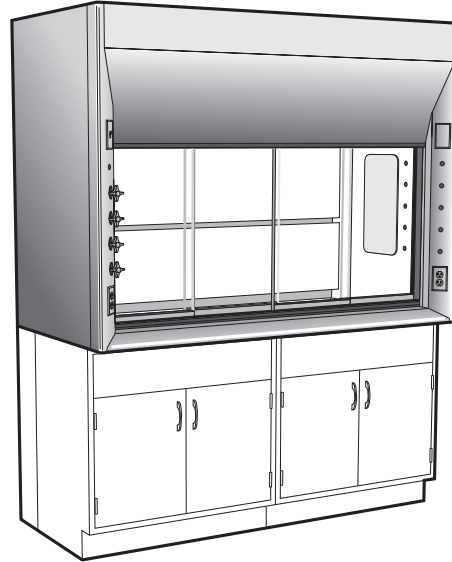
with Low-flow Combination Vertical Rising/Horizontal Sash

Model Types Available:

Restricted By-Pass CBH-CSB Vertical Rising/Horizontal Sash

Available Options:

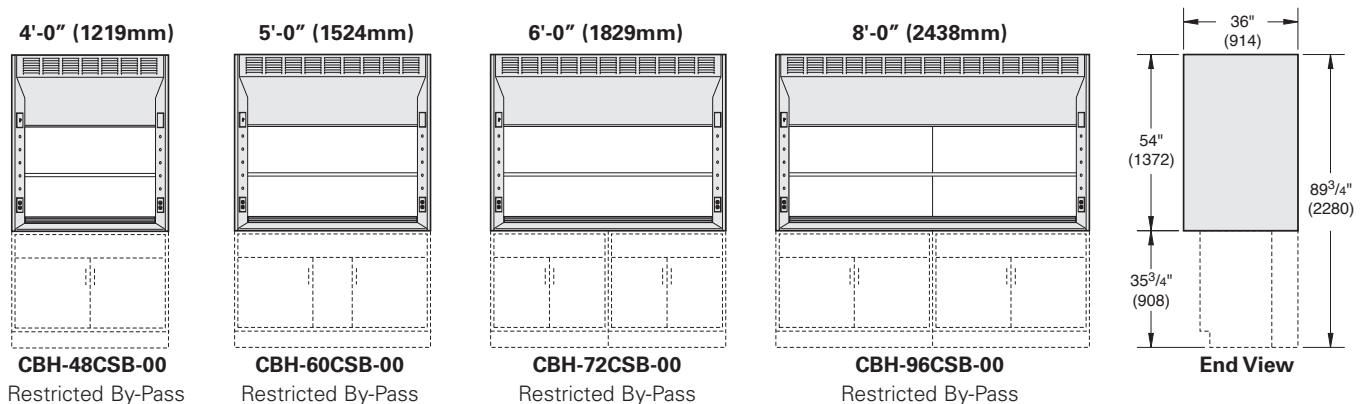
- Adjustable Baffles
- Air Flow Alarms
- Service Fittings and Piping
- Electrical Fixtures and Wiring
- UL listed when pre-wired per UL 61010A-1
- 1805 UL classified
- Vapor Proof and Explosion Proof Lighting
- Stainless Steel Deflector Vane
- Stainless Steel Sash Frame
- Tempered Sash Glass
- Tissue Screen
- Fire Extinguisher
- Distillation Rack
- Sash Stop
- Stainless Steel Duct Collar



Features:

- Radius corner posts and airfoils for smooth air movement assures high level of comfort, safety and efficiency.
- 4" (102mm) thick endwalls provide more interior work space and clean-lined uncluttered design.
- Interior baffles designed to minimize turbulence and optimize containment.
- Narrow framed sash with four horizontal glass panels on two tracks for neat clean appearance and improved exhaust efficiency.
- Low profile PVC sash tracks and exclusive sash leveling and alignment features assure easy and smooth sash operation
- Large friction-fit interior access panels provide easy access to piping and service fittings.
- Heavy gauge cold rolled steel exterior panels with independent rigid structural frame.
- Designed and tested using ASHRAE 110-1995, BS 7258, and DIN 12 924 standards.

Model Numbers: Combination Sash Chemical Bench Fume Hoods



Note: See page 25 for chart of available options.

Note: Restricted By-Pass Fume Hood shown. Open By-Pass Fume Hoods have louvered top front panel.

COMBINATION SASH BENCH FUME HOODS CBH-CSB

Specifications

Combination Sash Chemical Bench Fume Hoods are furnished with fiberglass reinforced polyester liner and baffles with upper, center, and lower exhaust slots. Each fume hood is complete with a lower deflector vane, counterbalanced, narrow framed sash with 1/4" (6.4mm) combination safety glass horizontal panels and interior plumbing access panels. Hood exteriors are fabricated of cold rolled steel, phosphate coated with a baked chemical resistant, synthetic resin finish. The exhaust duct collar is polyethylene, 11¹⁵/₁₆" (303mm) O.D. (8 foot (2438mm) hoods are furnished with two duct collars.) Combination Sash Bench Hoods are furnished with a Restricted By-Pass to match the restricted sash opening. They are designed for use with both constant volume and VAV applications.

DIMENSIONS	HEIGHT (mm)	LENGTH (mm)				DEPTH (mm)
Overall Dimension	89 ³ / ₄ " (2280)	48" (1219)	60" (1524)	72" (1829)	96" (2438)	36" (914)
Sash Opening	28" (711)	40" (1016)	52" (1321)	64" (1626)	88" (2235)	
Optional Work Sash	37" (940)	40" (1016)	52" (1321)	64" (1626)	88" (2235)	25 ¹ / ₂ " (648)
Clearance (sash up)	97" (2464)	...	...	...	...

* Sash opening height above airfoil. Add 1" (25.4mm) in height to calculate sash opening area.

** Subtract 1" (25.4mm) in height if wood base cabinets are used.

Overall Hood Length	Sash Opening Sq. Ft. *	Total CFM and Static Pressure					
		80 FPM	S.P.	100 FPM	S.P.	120 FPM	S.P.
4'-0"/48"	4.8	380	0.05"	480	0.10"	580	0.15"
5'-0"/60"	6.3	500	0.10"	630	0.15"	760	0.20"
6'-0"/72"	7.8	620	0.10"	780	0.15"	940	0.25"
8'-0"/96"	10.9	870	0.10"	1090	0.10"	1310	0.15"

Overall Hood Length	Sash Opening Sq. m *	Total L/s and Static Pressure					
		@ 0.41m/s	S.P. Pa	@ 0.51m/s	S.P. Pa	@ 0.61m/s	S.P. Pa
1219mm	0.45	179	12.4	227	24.9	274	37.3
1524mm	0.59	236	24.9	297	37.3	359	49.8
1829mm	0.72	293	24.9	368	37.3	444	62.2
2438mm	1.01	411	24.9	514	24.9	618	37.3

* Maximum sash opening with sash down. Includes By-Pass opening and 1" (25.4mm) below deflector vane.

Static pressures shown are for the pressure drop through the hoods only. The total pressure drop through the hood and the duct system must be calculated to select the proper exhaust fan.

Accessories Include: Two 120 volt AC 20 amp GFI receptacles, single-tube, T-5 fluorescent light fixture and bulb with 20 amp light switch. **No wiring for the electrical fixtures is included unless H-Option is selected.**

Optional Accessories: Each front post and interior end liner is punched for up to five (5) remote control service fittings. The right hand post is punched for a second electrical fixture at the top which may be used for a fan switch or other electrical device. **Service fittings, fan, fan switch, work top, cupsink, and base units must be ordered separately.**

ISOTOPE BENCH FUME HOOD IBH-VS (B)

with Vertical Rising Sash

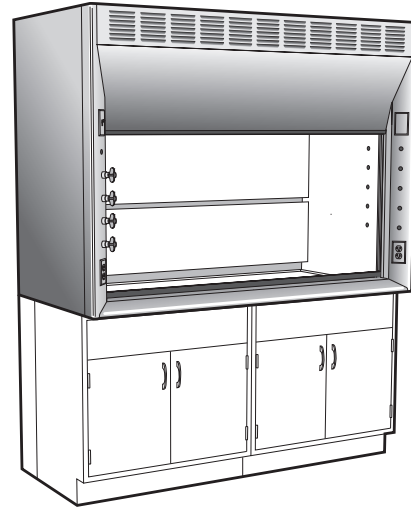
Model Types Available:

Open By-Pass IBH-VS Vertical Rising Sash

Restricted By-Pass IBH-VSB Vertical Rising Sash

Available Options:

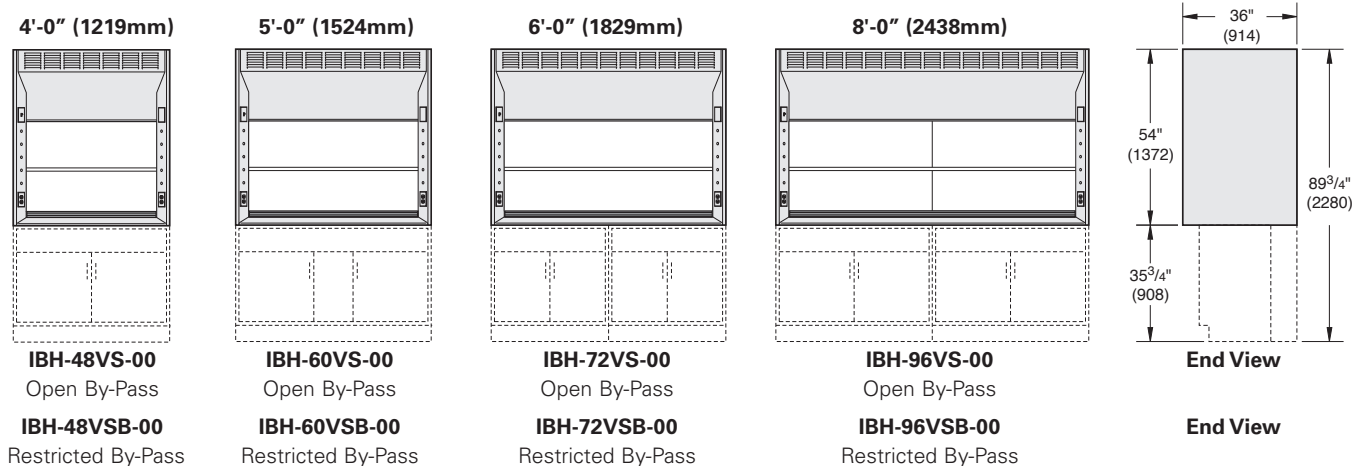
- Adjustable Baffles
- Air Flow and Static Pressure Alarms
- Service Fittings and Piping
- Electrical Fixtures and Wiring
- UL listed when pre-wired per UL 61010A-1
- Vapor Proof and Explosion Proof Lighting
- Stainless Steel Deflector Vane
- Alternate Sash Handles
- Sash Frame
- Tempered Sash Glass
- Tissue Screen
- Sash Stop



Features:

- Cove cornered, seamless welded stainless steel construction for easy cleaning and decontamination.
- Complete with integral work top and hemispherical cupsink.
- Radius corner posts and airfoils for smooth air movement assures high level of comfort, safety and efficiency.
- 4" (102mm) thick endwalls provide more interior work space and clean-lined uncluttered design.
- Interior baffles designed to minimize turbulence and optimize containment.
- Frameless sash with full-length formed steel handle for neat, clean appearance and streamline air features.
- Low profile PVC sash tracks and exclusive sash leveling and alignment features assure easy and smooth sash operation
- Heavy gauge cold rolled steel exterior panels with independent rigid structural frame.
- Designed and tested using ASHRAE 110-1995, BS 7258, and DIN 12 924 standards.

Model Numbers : Isotope bench Fume Hoods - Vertical Rising Sash



Note: See page 25 for chart of available options.

Note: Open By-Pass Fume Hood shown. Restricted By-Pass Fume Hoods do not have louvered top front panel.

ISOTOPE BENCH FUME HOOD IBH-VS (B)

Specifications

Isotope Bench Fume Hoods are furnished with a type 304 stainless steel liner and baffles with upper, center, and lower exhaust slots. Each fume hood is complete with a lower deflector vane, counterbalanced, frameless sash of 1/4" (6.4mm) combination safety glass, dished work top, and 5" (127mm) diameter cupsink. Hood exteriors are fabricated of cold rolled steel, phosphate coated with a baked chemical resistant, synthetic resin finish. The exhaust duct collar is stainless steel, 11 15/16" (303mm) O.D. (8 foot(2438mm) hoods are furnished with two duct collars.) Isotope Bench Hoods are available with either an Open By-Pass or a Restricted By-Pass for VAV use.

DIMENSIONS	HEIGHT (mm)	LENGTH (mm)				DEPTH (mm)
Overall Dimension	89 3/4" (2280)	48" (1219)	60" (1524)	72" (1829)	96" (2438)	36" (914)
Sash Opening	28" (711)	40" (1016)	52" (1321)	64" (1626)	88" (2235)	
Optional Work Sash	37" (940)	40" (1016)	52" (1321)	64" (1626)	88" (2235)	25 1/2" (648)
Clearance (sash up)	97" (2464)	...	...	...	...

* Sash opening height above airfoil. Add 1" (25.4mm) in height to calculate sash opening area.

** Subtract 1" (25.4mm) in height if wood base cabinets are used.

Overall Hood Length	Sash Opening Sq. Ft. *	Total CFM and Static Pressure					
		80 FPM	S.P.	100 FPM	S.P.	120 FPM	S.P.
4'-0"/48"	8.1	not recommended		810	0.25"	980	0.35"
5'-0"/60"	10.5	not recommended		1050	0.30"	1260	0.45"
6'-0"/72"	12.9	not recommended		1290	0.40"	1550	0.60"
8'-0"/96"	17.7	not recommended		1770	0.25"	2130	0.35"

Overall Hood Length	Sash Opening Sq. m *	Total L/s and Static Pressure					
		@ 0.41m/s	S.P. Pa	@ 0.51m/s	S.P. Pa	@ 0.61m/s	S.P. Pa
1219mm	0.75	not recommended		382	62.2	463	87.1
1524mm	0.98	not recommended		496	74.7	595	112
1829mm	1.20	not recommended		609	99.5	732	149.3
2438mm	1.64	not recommended		835	62.2	1005	87.1

Static pressures shown are for the pressure drop through the hoods only. The total pressure drop through the hood and the duct system must be calculated to select the proper exhaust fan.

Note: CFM(L/s) requirements shown above are for Open By-Pass hoods. The CFM(L/s) requirements for a Restricted By-Pass hood with the sash fully open is the same as above. The by-pass opening with the sash closed is 20% of that with the sash fully open.

Accessories Include: Two 120 volt AC 20 amp GFI receptacles, single-tube, T-5 fluorescent light fixture and bulb with 20 amp light switch. **No wiring for the electrical fixtures is included unless H-Option is selected.**

Optional Accessories: Each front post and interior end liner is punched for up to five (5) front loading remote control service fittings. The right hand post is punched for a second electrical fixture at the top which may be used for a fan switch or other electrical device. **Service fittings, fan, fan switch, and base units must be ordered separately.**

Stainless Steel Lining

Interior fume hood lining and baffles are 16 gauge, type 304 stainless steel. The seamless welded 14 gauge, type 304 stainless steel work top is dished 1/2" (12.7mm) to retain spillage, and has an integrally welded 5" (127mm) diameter cupsink at the left rear. (It is not recommended to punch vent holes in the work top of isotope hoods for use with acid storage base cabinets.)

PERCHLORIC ACID BENCH FUME HOOD PBH-VS

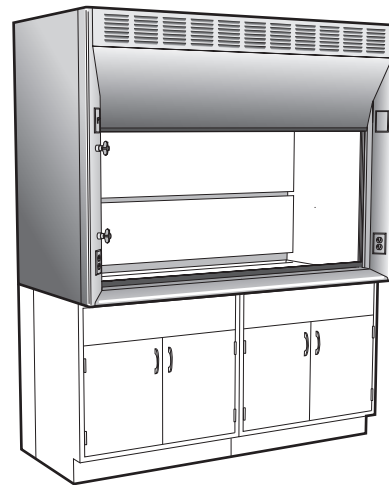
with Vertical Rising Sash

Model Types Available:

Open By-Pass PBH-VS Vertical Rising Sash

Available Options:

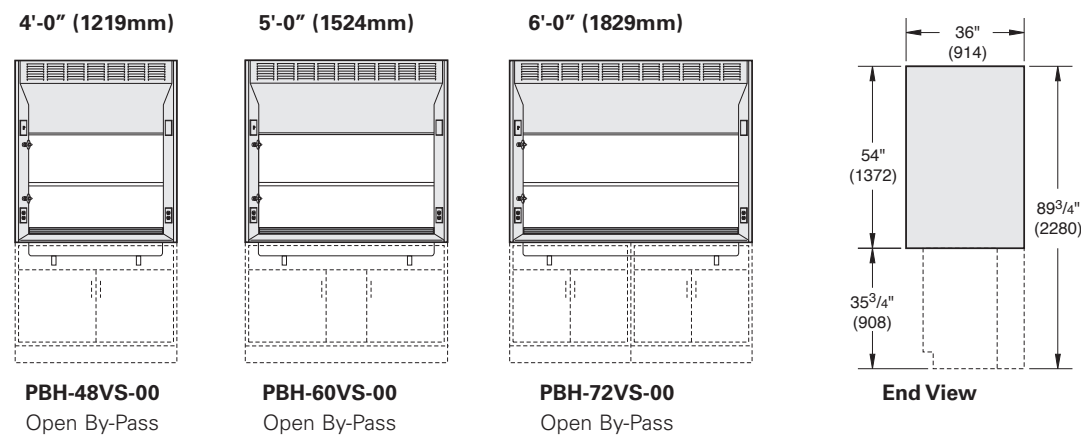
- Adjustable Baffles
- Air Flow and Static Pressure Alarms
- Service Fittings and Piping
- Electrical Fixtures and Wiring
- UL listed when pre-wired per UL 61010A-1
- Explosion Proof Lighting
- Stainless Steel Deflector Vane
- Sash Frame
- Tempered Sash Glass
- Sash Stop



Features:

- Cove cornered, seamless welded type 316 stainless steel construction for easy cleaning and decontamination.
- Complete with integral work top drain trough, cold water service fitting, and cold water hood washdown.
- Radius corner posts and airfoils for smooth air movement assures high level of comfort, safety and efficiency.
- 4" (102mm) thick endwalls provide more interior work space and clean-lined uncluttered design.
- Interior baffles designed to minimize turbulence and optimize containment.
- Frameless sash with full-length formed steel handle for neat, clean appearance and streamline air features.
- Low profile PVC sash tracks and exclusive sash leveling and alignment features assure easy and smooth sash operation
- Heavy gauge cold rolled steel exterior panels with independent rigid structural frame.
- Designed and tested using ASHRAE 110-1995, BS 7258, and DIN 12 924 standards.

Model Numbers: Perchloric Acid Bench Fume Hoods – Vertical Rising Sash



Note: See page 25 for chart of available options.

PERCHLORIC ACID BENCH FUME HOOD PBH-VS

Specifications

Perchloric Acid Bench Fume Hoods are furnished with a stainless steel liner and baffles with upper, center, and lower exhaust slots. Each fume hood is complete with a lower deflector vane, counter balanced, frameless sash of 1/4" (6.4mm) combination safety glass, and a louvered top front panel. A full length perforated spray pipe is located behind the top baffle, and is provided to simplify periodic wash down procedures. Hood exteriors are fabricated of cold rolled steel, phosphate coated with a baked chemical resistant, synthetic resin finish. The exhaust duct collar is st. steel, 11 15/16" (303mm) O.D. Perchloric Acid Hoods are available only with an Open By-Pass.

DIMENSIONS	HEIGHT (mm)	LENGTH (mm)			DEPTH (mm)
Overall Dimension	89 3/4" (2280)	48" (1219)	60" (1524)	72" (1829)	36" (914)
Sash Opening	28" (711)	40" (1016)	52" (1321)	64" (1626)	...
Optional Work Sash	37" (940)	40" (1016)	52" (1321)	64" (1626)	25 1/2" (648)
Clearance (sash up)	97" (2464)	...	...	...	...

* Sash opening height above airfoil. Add 1" (25.4mm) in height to calculate sash opening area.

Wood base cabinets are not recommended for use under perchloric acid fume hoods.

Overall Hood Length	Sash Opening Sq. Ft. *	Total CFM and Static Pressure					
		80 FPM	S.P.	100 FPM	S.P.	120 FPM	S.P.
4'-0"/48"	8.1	not recommended		not recommended		980	0.35"
5'-0"/60"	10.5	not recommended		not recommended		1260	0.45"
6'-0"/72"	12.9	not recommended		not recommended		1550	0.60"
Overall Hood Length	Sash Opening Sq. m *	Total L/s and Static Pressure					
		@ 0.41m/s	S.P. Pa	@ 0.51m/s	S.P. Pa	@ 0.61m/s	S.P. Pa
1219mm	0.75	not recommended		not recommended		463	87.1
1524mm	0.98	not recommended		not recommended		595	11.98
1829mm	1.20	not recommended		not recommended		732	149.3

Static pressures shown are for the pressure drop through the hoods only. The total pressure drop through the hood and the duct system must be calculated to select the proper exhaust fan.

Note: Due to the use of hot plates in perchloric acid hoods, 120 FPM(0.61 m/s) face velocity is recommended.

Accessories Include: Two 120 volt AC 20 amp GFI receptacles, single-tube, T-5 fluorescent light fixture and bulb with 20 amp light switch. **No wiring for the electrical fixtures is included unless H-Option is selected.**

Optional Accessories: Each front post and interior end liner is punched for up to five (5) front loading remote control service fittings. The right hand post is punched for a second electrical fixture at the top which may be used for a fan switch or other electrical device. **Service fittings, fan, fan switch, and base units must be ordered separately.**

Stainless Steel Lining

Interior Perchloric Acid fume hood linings and baffles are 16 gauge, type 316 stainless steel. The seamless welded 14 gauge, type 316 stainless steel work top is dished 1/2" (12.7mm) to retain spillage, and has an integrally welded trough sink at the rear.

Note: Acid Storage or Solvent Storage cabinets can not be vented through perchloric acid fume hood work tops.

GENERAL PURPOSE WALK-IN CHEMICAL FUME HOODS CWH-VS(B)

with Vertical Rising Sash

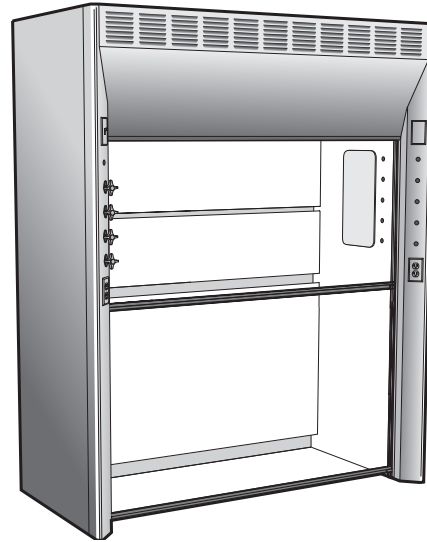
Model Types Available:

Open By-Pass CWH-VS Vertical Rising Sash

Restricted By-Pass CWH-VSB Vertical Rising Sash

Available Options:

- Adjustable Baffles
- Air Flow Alarms
- Service Fittings and Piping
- Electrical Fixtures and Wiring
- UL listed when pre-wired per UL 61010A-1
- 1805 UL classified
- Vapor Proof and Explosion Proof Lighting
- Stainless Steel Deflector Vane
- Alternate Sash Handles
- Sash Frame
- Tempered Sash Glass
- Tissue Screen
- Fire Extinguisher
- Distillation Rack
- Sash Stop
- Stainless Steel Duct Collar
- Work Floor & Removable Work Shelf

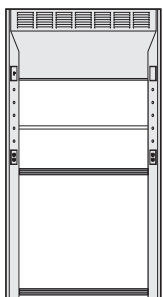


Features:

- Radius corner posts and airfoils for smooth air movement assures high level of comfort, safety and efficiency.
- 4" (102mm) thick endwalls provide more interior work space and clean-lined uncluttered design.
- Interior baffles designed to minimize turbulence and optimize containment.
- Frameless sashes with full-length formed steel handle for neat, clean appearance and streamline air features.
- Low profile PVC sash tracks and exclusive sash leveling and alignment features assure easy and smooth sash operation
- Large friction-fit interior access panels provide easy access to piping and service fittings.
- Heavy gauge cold rolled steel exterior panels with independent rigid structural frame.
- Designed and tested using ASHRAE 110-1995, BS 7258, and DIN 12 924 standards.

Model Numbers: General Purpose Walk-In Fume Hoods – Vertical Rising Sash

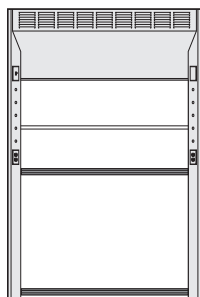
4'-0" (1219mm)



CWH-48VS-00
Open By-Pass

CWH-48VSB-00
Restricted By-Pass

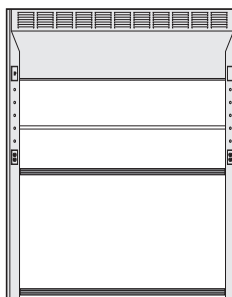
5'-0" (1524mm)



CWH-60VS-00
Open By-Pass

CWH-60VSB-00
Restricted By-Pass

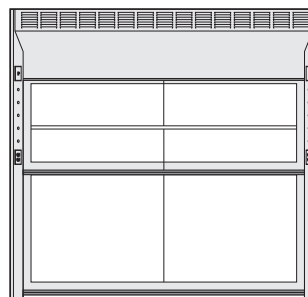
6'-0" (1829mm)



CWH-72VS-00
Open By-Pass

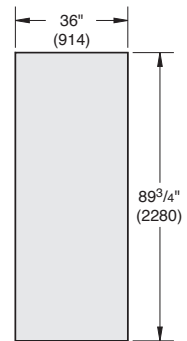
CWH-72VSB-00
Restricted By-Pass

8'-0" (2438mm)



CWH-96VS-00
Open By-Pass

CWH-96VSB-00
Restricted By-Pass



End View

Note: See page 25 for chart of available options.

GENERAL PURPOSE WALK-IN CHEMICAL FUME HOODS CWH-VS(B)

Specifications

General Purpose Walk-In Chemical Fume Hoods are furnished with fiberglass reinforced polyester liner and baffles with upper, center, and lower exhaust slots. Each fume hood is complete with two counterbalanced, frameless sashes of 1/4" (6.4mm) combination safety glass and interior plumbing access panels. Hood exteriors are fabricated of cold rolled steel, phosphate coated with a bake chemical resistant, synthetic resin finish. The exhaust duct collar is polyethylene, 11 15/16" (303mm) O.D. (8 foot(2438mm) hoods are furnished with two duct collars.) Walk-In Hoods are available with either an Open By-Pass or a Restricted By-Pass for VAV use.

DIMENSIONS	HEIGHT (mm)	LENGTH (mm)				DEPTH (mm)
Overall Dimension	89 3/4" (2280)	48" (1219)	60" (1524)	72" (1829)	96" (2438)	36" (914)
Sash Opening	28" (711)	40" (1016)	52" (1321)	64" (1626)	88" (2235)	
Optional Work Sash	37" (940)	40" (1016)	52" (1321)	64" (1626)	88" (2235)	25 1/2" (622)
Clearance (sash up)	97" (2464)	...	...	...	...

* Sash opening height above airfoil. Add 1" (25.4mm) in height to calculate sash opening area.

Wood base cabinets are not recommended for use under perchloric acid fume hoods.

Overall Hood Length	Sash Opening Sq. Ft. *	Total CFM and Static Pressure					
		80 FPM	S.P.	100 FPM	S.P.	120 FPM	S.P.
4'-0"/48"	8.1	650	0.15"	810	0.25"	980	0.35"
5'-0"/60"	10.5	840	0.20"	1050	0.30"	1260	0.45"
6'-0"/72"	12.9	1040	0.25"	1290	0.40"	1550	0.60"
8'-0"/96"	17.7	1420	0.15"	1770	0.25"	2130	0.35"

Overall Hood Length	Sash Opening Sq. m *	Total L/s and Static Pressure					
		@ 0.41m/s	S.P. Pa	@ 0.51m/s	S.P. Pa	@ 0.61m/s	S.P. Pa
1219mm	0.75	307	37.33	382	62.21	463	87.10
1524mm	0.98	396	49.77	496	74.65	595	111.98
1829mm	1.20	491	62.21	609	99.54	732	149.30
2438mm	1.64	670	37.33	835	62.21	1005	87.10

Static pressures shown are for the pressure drop through the hoods only. The total pressure drop through the hood and the duct system must be calculated to select the proper exhaust fan.

Note: CFM(L/s) requirements shown above are for Open By-Pass hoods. The CFM(L/s) requirements for a Restricted By-Pass hood with the sash fully open is the same as above. The by-pass opening with the sash closed is 20% of that with the sash fully open.

Accessories Include: Two 120 volt AC 20 amp GFI receptacles, single-tube, T-5 fluorescent light fixture and bulb with 20 amp light switch. **No wiring for the electrical fixtures is included unless H-Option is selected.**

Optional Accessories: Each front post and interior end liner is punched for up to five (5) remote control service fittings. The right hand post is punched for a second electrical fixture at the top which may be used for a fan switch or other electrical device. **Service fittings, fan, fan switch, optional work floor, and removable work shelf must be ordered separately.**

FUME HOOD OPTION AVAILABILITY

Options		CBH Vertical Sash	CBH Combo Sash	IBH	PBH	CWH	HPH	DBH	DWH
Open By-Pass	-	A		A	Std	A			
Restricted By-Pass	B	A	Std	A		A	Std	Std	Std
Adjustable Baffle	A	A	A	A	A	A			
Single Point Adjustable Baffle	C	A	A			A			
Distillation Rack	D	A	A			A	A	A	A
Fire Extinguisher	E	A	A			A	A	A	A
Additional GFI Receptacles (2)	F	A	A	A	A	A	A		
Front Load Fittings	G	A	A	Std	Std	A	A	A	A
Pre-Wired / UL Listed	H	A	A	A	A	A	A	A	A
Safety Shield	I	A		A	A				
T8 Fluorescent Light Ballast	J	A	A	A		A		A	A
Vapor Proof Light	K	A	A	A	Std	A	A	A	A
Explosion Proof Light	L	A	A	A	A	A	A	A	A
Air Alert 600 Alarm (at Top Right)	M	A	A	A	A	A		Std	Std
Stainless Steel Deflector Vane	O	A	A	A	A		A	A	
Additional GFI Receptacle (Right)	R	A	A	A	A	A	A		
Additional GFI Receptacle (Left)	S	A	A	A	A	A	A		
Vision Panel	V	A	A	A	A	A			
Air Alert 300 Alarm (location 1)	W	A	A	A	A	A			
Air Alert 300 Alarm (location 2)	Z	A	A	A	A	A			
Frameless Tempered Glass Sash	1	A		A	A	A ⁸	A		
Framed Safety Glass Sash	2	A	Std*	A	A	A			
Framed Tempered Glass Sash	3	A	A*	A	A	A		A	A
St. Steel Safety Glass Sash	4	A	A*	A	A	A			
St. Steel Tempered Glass Sash	5	A	A*	A	A	A			
Tissue Screen	6	A	A	A	A	A	A	A	A
Stainless Steel Duct Collar	7	A	A	Std	Std	A	A	A	A
Gravity Sash Stop	8	A	A	A	A	A	A [•]		
Work Shelf Supports	9					A			A

A = Option is available.

Std = Option is standard.

A⁸ = 8 foot Walk-In available with framed sash only.

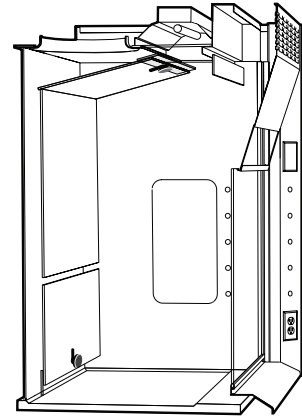
* = Combination sash available in narrow frame only.

• = As special order different than regular "Option 8" sash stop

FUME HOOD OPTIONS

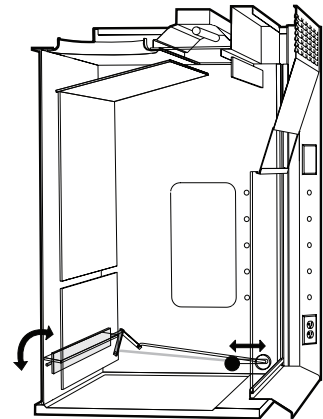
Adjustable Baffles - Option A

Internally adjustable baffles consist of movable baffle strips which can be adjusted by means of two slots and two threaded knobs. By sliding the strips up or down, the operator can adjust the relative size of the top and bottom slots. The middle slot in the baffle remains fixed.



Single Point Adjustable Baffles – Option C

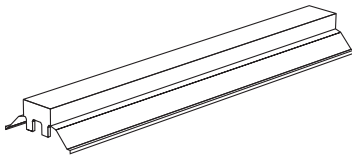
Single point adjustable baffles employ a pivoting baffle strip with an articulating arm, a linkage rod, and a thread knob. By sliding the knob which rides in a slot in the lining near the front of the hood, the baffle strip is rotated to provide varying degrees of blockage to the bottom slot. This adjustment can be done without disturbing the apparatus within the hood.



Alternate Lighting

Option J

T8 Lamped Fluorescent Light



T8 Lamped Fluorescent Lights are an energy savings option. The light output of the T8 lamps is reduced to match that of 34-watt T12 lamps. This reduction in light output results in energy savings of up to 60 percent. (fixture only – bulbs are not included)

Option K

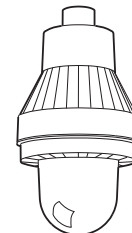
Vapor Proof Incandescent Light



0750-0S 150 watt
(Type A-19 Bulb not included)

Option L

Explosion Proof Incandescent Light



0753-00 150 watt
(Type A-21 Bulb not included)

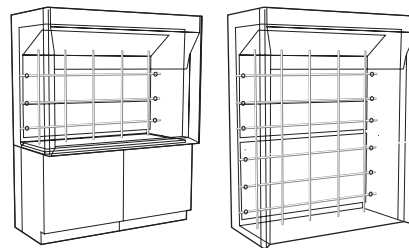
Meets NEC Classifications:

- Class 1, Division 1 & 2, Group C & D
- Class 2, Division 1 & 2, Group E, F & G
- Class 3

FUME HOOD OPTIONS

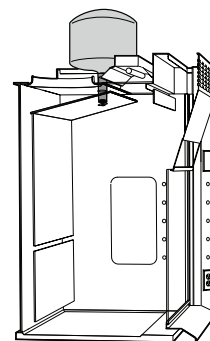
Distillation Racks - Option D

Fume Hoods may be furnished with a lattice style distillation rack. The rack consists of vertical and horizontal $\frac{1}{2}$ " (12.7mm) diameter Duralumin rods. The rods are fastened with rod clamps to form a lattice of approximate 12" (305mm) squares. Bench hoods have three horizontal rods, while walk-in and distillation hoods have six strips up or down, the operator can adjust the relative size of the top and bottom slots. The middle slot in the baffle remains fixed.



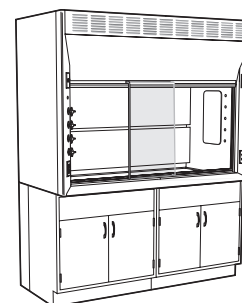
Fire Extinguisher – Option E

Fume Hoods may be fitted with a Fire Extinguisher System to control runaway experiments and the hazards of fire. At the heart of the system are multiple ABC dry chemical fire extinguisher, vertically mounted in the top of the fume hood for complete coverage. The extinguishers are fully self-contained and may be easily removed for maintenance and recharging. Each fire extinguisher is equipped with a bright stainless steel, five pound capacity, canister; a pressure gauge for easy status checking, a patented valve and delivery nozzle, and a 165°F (73.89°C) fusible link for automatic fire containment. To ensure complete coverage, 4' (1219mm), 5' (1524mm), and 6' (1829mm) long fume hoods are furnished with two extinguishers mounted on opposite sides of the duct collar. Eight foot long hoods are furnished with three extinguishers, one at each end, and one in the middle.



Sliding Safety Shield – Option I

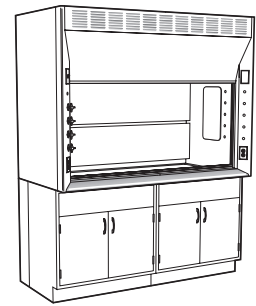
Bench Fume Hoods may be furnished with a polycarbonate safety shield designed to provide protection to fume hood users from small explosions, splattering of chemicals, breaking glass, etc. Designed to be used on Vertical Rising Sash Bench Hoods only, this 12" (305mm) wide x $\frac{1}{4}$ " (6.4mm) thick shield slides the full length of the hood face opening on ball bearing rollers suspended from a track at the top of the sash opening, with a guide at the bottom to keep the shield from swinging. When the shield is not in use, it can be easily removed from the upper track and stored until it is needed again for safety purposes.



FUME HOOD OPTIONS

Stainless Steel Lower Deflector Vane – Option O

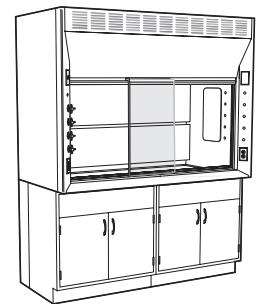
The standard painted cold rolled steel Lower Deflector Vane on bench fume hoods may be optionally replaced with stainless steel. Stainless steel offers improved scratch and abrasion resistance. Fabricated of 12 gauge, type 304 stainless steel, the deflector vane is furnished with a No. 4 finish.



Sash Frame and Glass Options

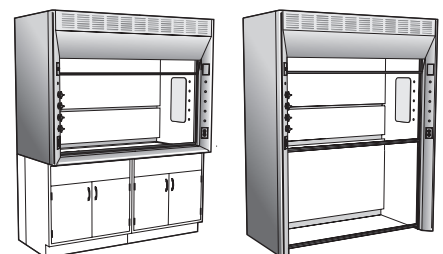
Standard fume hoods are fitted with frameless sashes of 1/4" (6.4mm) laminated safety glass. Optionally, as the chart below indicates, these hoods may be furnished with framed sashes of either painted cold rolled steel or stainless steel. In addition, all sashes may be fitted with 1/4" (6.4mm) tempered glass instead of laminated safety glass.

Option	Sash Frame	Sash Glass
Standard	Frameless	Laminated Safety
Option 1	Frameless	Tempered
Option 2	Painted CRS	Laminated Safety
Option 3	Painted CRS	Tempered
Option 4	Stainless Steel	Laminated Safety
Option 5	Stainless Steel	Tempered



Vision Panel – Option V

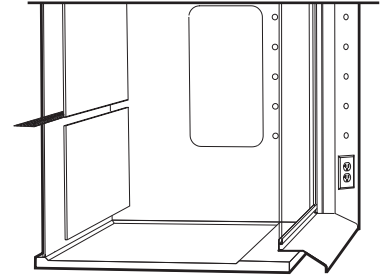
The standard louvered top front panel on all General Purpose and High Performance Fume Hoods may be replaced with an optional top front panel that contains a 6" (152mm) high transparent Vision Panel. The tinted acrylic Vision Panel offers added convenience by allowing the hood operator a clear view to the entire interior of the hood without bending down or placing their head inside the hood.



FUME HOOD OPTIONS

Tissue Screen — Option 6

The optional Tissue Screen protects the back baffle area just above the safety slot on both bench and walk-in fume hoods. Fabricated of perforated stainless steel, the screen blocks tissue and other light material from being swept up behind the upper baffle and into the exhaust system.



Stainless Steel Duct Collar — Option 7

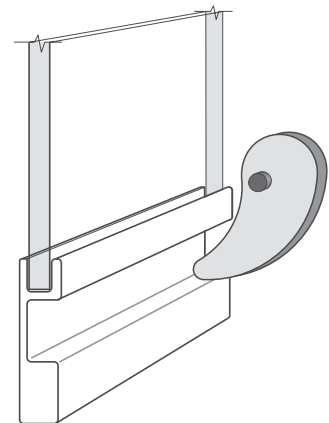
A Stainless Steel Duct Collar may be specified on any General Purpose or High Performance fume hood instead of the standard polyethylene collar.

Note: IBH Isotope Bench Hoods and PBH Perchloric Acid Bench Hoods are furnished standard with stainless steel collars.



Gravity Sash Stop – Option 8

As an energy conservation or safety measure, a Sash Stop may be added to any CBH hood with vertical rising sash. It may be mounted at any distance above the lower deflector vane to keep the sash from rising past that point. When needed the stop may be pivoted out of the way.



FUME HOOD WORK SURFACES

Work Top for Bench Hoods

Bench Hoods require a Work Top that may be either Epoxy Resin or Stainless Steel. Only Isotope and Perchloric Acid hoods have the Work Top as part of their standard part number. Work Tops for all other bench hoods must be specified separately. Work Tops are dished $\frac{3}{8}$ " (9.5mm) to retain spillage and incorporate a 6" (152mm) wide safety rim at the front. They may include cutouts for cupsinks, sinks, water or steam baths, hot plates fixtures, vent pipes or other apparatus as specified. A cupsink cutout is furnished standard as listed below.



For CBH Bench Hoods

0491 (3" x 6" (76mm x 152mm)) Cupsink cutout located at left rear

Overall Hood Length	Kemresin	Type 304 Stainless Steel	Type 316 Stainless Steel
4'-0" / 48" (1219mm)	019243-48R	019244-48S	019244-48L
5'-0" / 60" (1524mm)	019243-60R	019244-60S	019244-60L
6'-0" / 72" (1829mm)	019243-72R	019244-72S	019244-72L
8'-0" / 96" (2438mm)	019243-96R	019244-96S	019244-96L
10'-0" / 120" (3048mm)	019243-20R	019244-20S	019244-20L
12'-0" / 144" (3658mm)	019243-44R	019244-44S	019244-44L

For HBH Bench Hoods

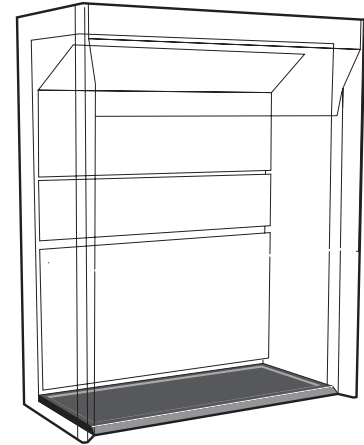
0499 (3 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " (88.9mm x 140mm)) Cupsink cutout located at right front

Overall Hood Length	Kemresin	Type 304 Stainless Steel	Type 316 Stainless Steel
4'-0" / 48" (1219mm)	030002-3448R	030202-3448S	030202-3448L
5'-0" / 60" (1524mm)	030002-3460R	030202-3460S	030202-3460L
6'-0" / 72" (1829mm)	030002-3472R	030202-3472S	030202-3472L
7'-0" / 84" (2134mm)	030002-3484R	030202-3484S	030202-3484L
8'-0" / 96" (2438mm)	030002-3496R	030202-3496S	030202-3496L

FUME HOOD WORK SURFACES

Optional Work Floor

Walk-In Fume Hoods may be fitted with an Optional Work Floor for added protection to the laboratory floor. Available in either epoxy resin or stainless steel, the Work Floor is fabricated with a beveled front safety rim to retain spills and facilitate rolling carts into the hood. Work Floors may include cutouts for drain outlets or other apparatus when specified.



For CWH Walk-In Hoods with Vertical Rising Sash

Overall Hood Length	Kemresin	Type 304 Stainless Steel
4'-0" / 48" (1219mm)	019250-48R	019251-48S
5'-0" / 60" (1524mm)	019250-60R	019251-60S
6'-0" / 72" (1829mm)	019250-72R	019251-72S
8'-0" / 96" (2438mm)	019250-96R	019251-96S

Optional Removable Work Shelf for Walk-In Hoods

Walk-In Hoods may be fitted with a removable Work Shelf mounted at 36⁵/₁₆" (922mm) above the floor. Available in either epoxy resin or stainless steel, the Work Shelf is provided with a front safety rim to minimize spills.

Work Shelves are available either 18" (457mm) or 24" (610mm) deep. 18" (457mm) deep shelves may be used in conjunction with distillation racks, or when clearance is required at the front of the hood.

Work Shelves may include cutouts when specified but should not include cupsinks or drains, as the shelf is removable.

Fume hoods with Removable Work Shelves must be specified with Option 9 to include the shelf support.



18" (457mm) Deep Optional Work Shelf for Walk-In & Distillation Hoods

Overall Hood Length	Kemresin	Type 304 Stainless Steel
4'-0" / 48" (1219mm)	019241-48R	019242-48S
5'-0" / 60" (1524mm)	019241-60R	019242-60S
6'-0" / 72" (1829mm)	019241-72R	019242-72S

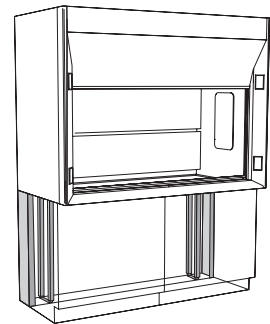
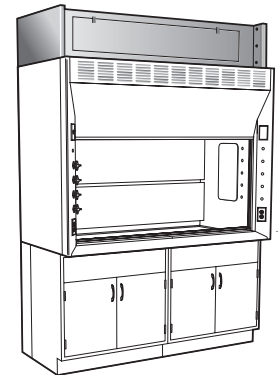
24" (610mm) Deep Optional Work Shelf for Walk-In & Distillation Hoods

Overall Hood Length	Kemresin	Type 304 Stainless Steel
4'-0" / 48" (1219mm)	020130-48R	020131-48S
5'-0" / 60" (1524mm)	020130-60R	020131-60S
6'-0" / 72" (1829mm)	020130-72R	020131-72S

FUME HOOD ENCLOSURES, TRIM & FINISHED BACKS

Fume Hood Ceiling Enclosures, also known as Furring Panel

Fume Hood Ceiling Enclosures are designed to fill the space between the top of the hood and the ceiling to provide a finished appearance. They are available in three sizes: 9 1/4" (235mm) High for ceilings 8' (2438mm) and lower, and 13" (330mm) or 21 1/4" (540mm) high, for ceilings up to 9' (2743mm) feet high. The 13" (330mm) and 21 1/4" (540mm) enclosures are provided with an Access Panel in the front for easy access to the light fixture. The front panel is mounted behind the sash to allow the hood bypass to remain open to the room.



Base Cabinet Rear Filler

To close opening between wall and rear of fume hood base cabinet.

Steel Rear Filler

BRSM370008-0000 35 3/4" (908mm) H
BRSM340008-0000 33" (838mm) H

Wood Rear Filler

X-P0836-00 36" (914mm) H

Support Struts

Floor mounted support to provide stability to rear overhang of fume hood tops and provides mounting struts for plumbing and electrical service lines. Adjustable in height and 7 7/8" (200mm) deep to fit 8" (203mm) deep plumbing chase.

Support Strut

K12-3608-0A 36" (914mm) H
K12-3308-0A 33" (838mm) H

Height

	Fume Hood Enclosures			HPH Hood Enclosures	
	9 1/4" (235mm) High w/o Access	13" (330mm) High w/Access	21 1/4" (540mm) High w/Access	13" (330mm) High w/Access	21 1/4" (540mm) High w/Access
48" (1219mm) L	019012-10	020451-48	020452-48	030200-1348	030200-2148
60" (1524mm) L	019013-10	020451-60	020452-60	030200-1360	030200-2160
72" (1829mm) L	019014-10	020451-72	020452-72	030200-1372	030200-2172
84" (2134mm) L				030200-1384	030200-2184
96" (2438mm) L	019015-10	020451-96	020452-96	030200-1396	030200-2196

	Fume Hood Enclosures		
	9 1/4" (235mm) High	13" (330mm) High	21 1/4" (540mm) High
48" (1219mm) L	030201-0948	030201-1348	030201-2148
60" (1524mm) L	030201-0960	030201-1360	030201-2160
72" (1829mm) L	030201-0972	030201-1372	030201-2172
84" (2134mm) L	030201-0984	030201-1384	030201-2184
96" (2438mm) L	030201-0996	030201-1396	030201-2196

Fume Hood Finished Backs

Fume Hood Finished Backs are designed to enclose the back of the fume hood when it is exposed to view.

	Chemical Fume Hood 54" (1372mm) High	Chemical Walk-In Fume Hood 90" (2286mm) High	High-Performance Bench Fume Hood 54" (1372mm) High
48" (1219mm) L	019973	019977	030203-5448
60" (1524mm) L	019974	019978	030203-5460
72" (1829mm) L	019975	019979	030203-5472
84" (2134mm) L			030203-5484
96" (2438mm) L	019976	019980	030203-5496

PRE-WIRED AND PRE-PIPED

Specifications

Pre-Wired — All Fume Hoods may be Pre-Wired at the factory. Pre-Wired hoods are wired using flexible metallic conduit to a single junction box located at the top of the hood for a single point connection at the job site. ULC listing is available on standard pre-wired configurations.

Option H must be selected for fume hoods to be ULC listed.

Pre-Piped — In addition all Fume Hoods may Pre-Piped at the factory when pre-piped fittings are selected. Piping is routed to the rear of the hood, in the side of the hood that the fittings are mounted. (If fittings are mounted in both ends, there are two connection points.) Piping may be routed either to the top or bottom of the hood as specified.

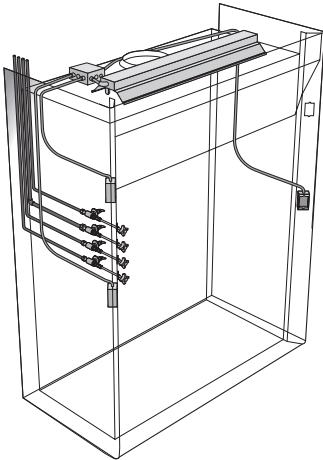
Standard Piping Materials 3/8" (9.5mm)

Water — Hard Drawn Type L Copper
 Gas — Black Steel
 Vacuum — Hard Drawn Type L Copper
 Air — Hard Drawn Type L Copper
 DI Water — PVC
 Other — Hard Drawn Type L Copper

(Copper connections made with lead free solder, black steel connections are threaded)

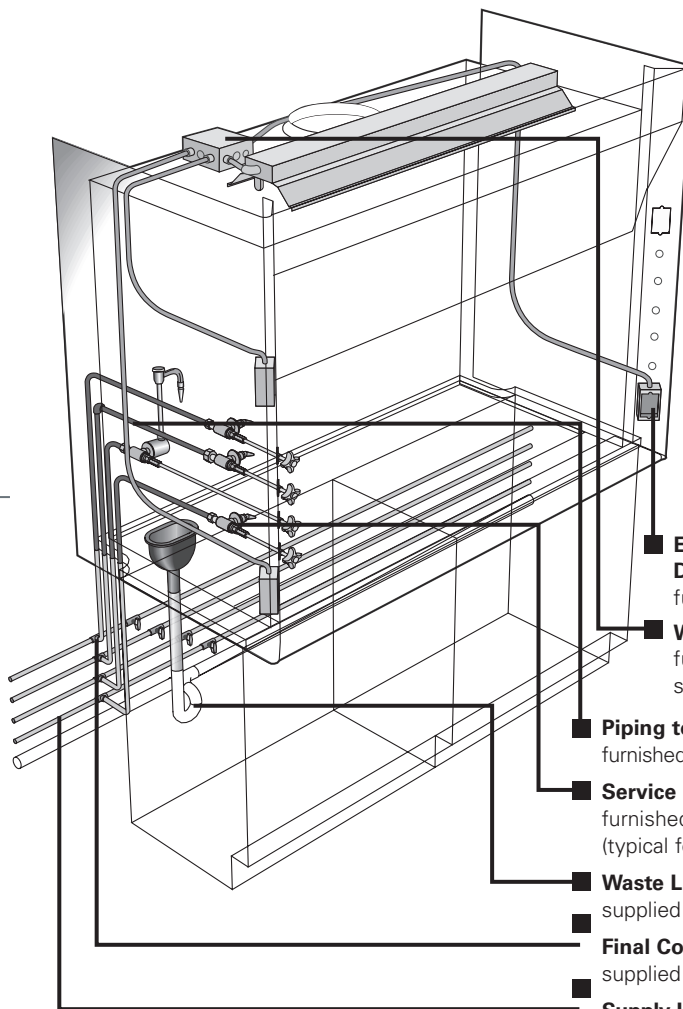
Typical Walk-In Hood

(Piped to top of hood)



Typical Fume Hood with Plumbing & Wiring Connections

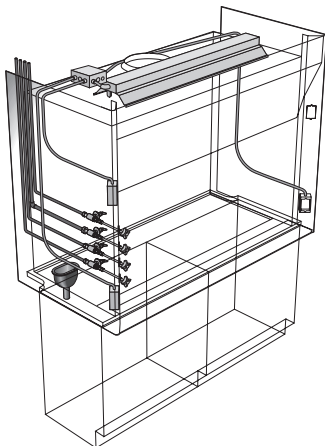
(Piped to bottom of hood)



- **Electrical Boxes and Devices**
furnished and installed
- **Wiring and Junction Box**
furnished when Pre-Wiring specified
- **Piping to Service Fittings**
furnished when Pre-Piping specified
- **Service Fittings and Valves**
furnished and installed
(typical for both sides of Hood)
- **Waste Line - Trap - Tailpiece**
supplied and installed by others
- **Final Connection**
supplied and connected by others
- **Supply Lines with shut-off valves**
supplied and connected by others

Typical Bench Hood

(Piped to top of hood)



TRUVIEW® TEACHING HOODS

Teaching Hood Features

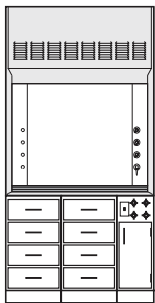
Features:

- Available in 4 foot (1219), 5 foot (1524), and 6 foot (1829) lengths, either single-sided for use against walls, or double-sided for use in center of laboratory.
- Glass end-walls and center baffles provide unobstructed view through hood.
- Uni-baffle design allows both halves of the double-sided hood to function independently as a complete fume hood.
- Sash-stops provided at 18" (457) for economical hood operation.
- Designed for use as a stand-alone hood or in assemblies of multiple hoods sharing common endwalls.
- Frameless sash with full-length handle for neat, clean appearance and streamline air flow.
- Flush-sill design allows easy access and excellent airflow.

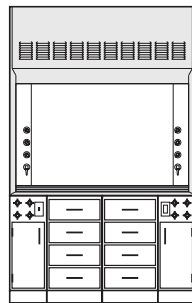


Typical Standard Height Configurations

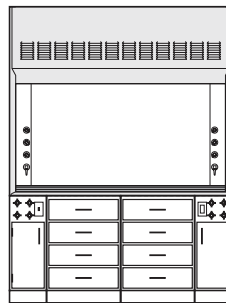
4'-0" (1219mm)



5'-0" (1524mm)

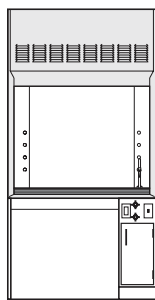


6'-0" (1829mm)

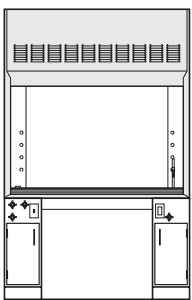


Typical ADA Height Configurations

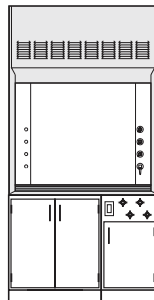
4'-0" (1219mm)



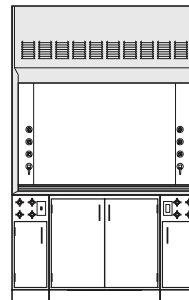
5'-0" (1524mm)



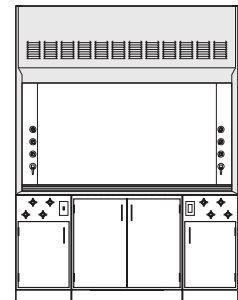
4'-0" (1219mm)



5'-0" (1524mm)



6'-0" (1829mm)



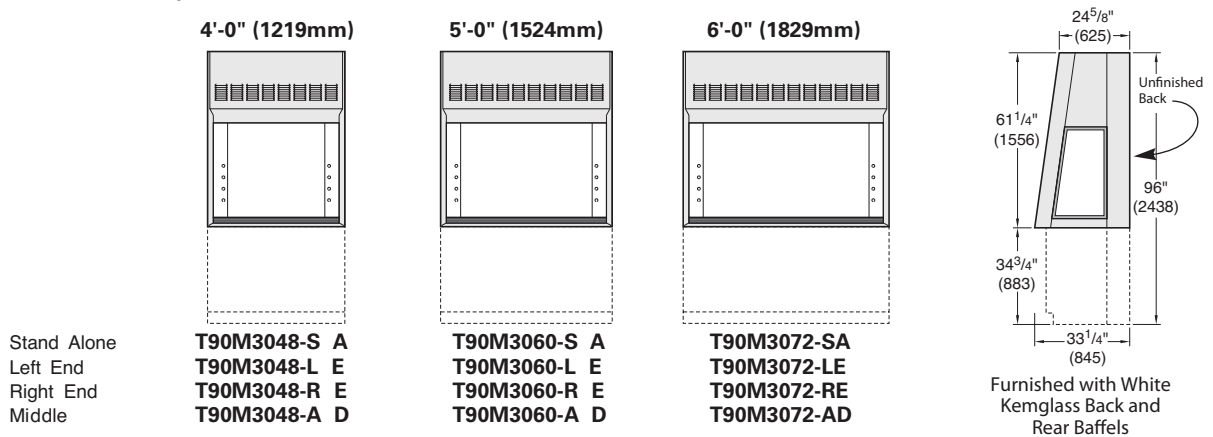
TRUVIEW® TEACHING HOODS

Ordering Instructions

1. Select Teaching Hood superstructure. When planning a multiple-hood assembly, select both a Right End and Left End hood, and as many Middle hoods as needed to finish the assembly.
2. Select a Hood Work Top for each hood. Work Tops are only available in Black dished Kemresin.
3. Select the required number of cupsinks for each hood.
 1 for 48" (1219) Single-sided
 2 for 48" (1219) Double-sided
 2 for 60" (1524) and 72" (1829) Single-sided
 4 for 60" (1524) and 72" (1829) Double-sided
4. Select Service Fittings and Electrical Fixtures. Each hood can accept up to four service fittings at each cupsink location.
5. Select base cabinets to fill the area below hood. Sink cabinet is needed on right end of 48" (1219) hoods and both ends of 60" (1524) and 72" (1829) hoods to house cupsink and service fittings.
6. Select Filler Panels as required.

Hoods ship with removable plug buttons in service fitting holes.

Single-sided Hood Superstructure

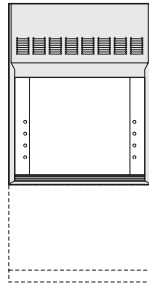


Overall Hood Length	Duct Collar Dimensions	Sash Opening Ft ² *	Total CFM and Static Pressure			
			80 FPM	Static Pressure	100 FPM	Static Pressure
4'-0"/48"	5" x 20"	5.5	440	0.10	550	0.15
5'-0"/60"	5" x 25"	7.0	560	0.10	700	0.15
6'-0"/96"	5" x 30"	8.5	680	0.10	850	0.15
Overall Hood Length	Duct Collar Dimensions	Sash Opening SQ. Meter*	Total L/s and Static Pressure			
			0.41 m/s	SP (Pa)	0.51 m/s	SP (Pa)
1219mm	127 x 508	0.51	208	24.9	260	37.3
1524mm	127 x 635	0.65	264	24.9	330	37.3
1829mm	127 x 762	0.79	321	24.9	401	37.3

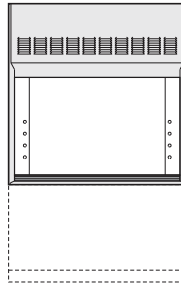
TRUVIEW® TEACHING HOODS

Double-sided Hood Superstructure

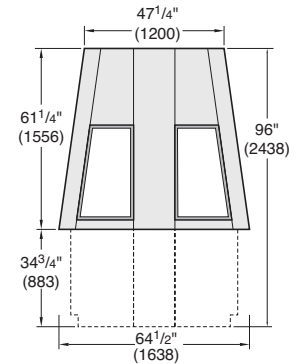
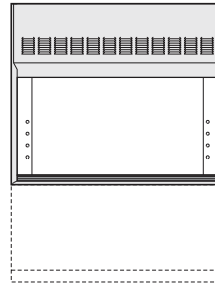
4'-0" (1219mm)



5'-0" (1524mm)



6'-0" (1829mm)



Furnished with clear safety glass center baffles.

Stand Alone
Left End
Right End
Middle

T90M6048-S A
T90M6048-L E
T90M6048-R E
T90M6048-A D

T90M6060-S A
T90M6060-L E
T90M6060-R E
T90M6060-A D

T90M6072-SA
T90M6072-LE
T90M6072-RE
T90M6072-AD

Overall Hood Length	Duct Collar Dimensions	Sash Opening Ft ² *	Total CFM and Static Pressure			
			80 FPM	Static Pressure	100 FPM	Static Pressure
4'-0"/48"	9" x 20"	11.0	880	0.10	1100	0.20
5'-0"/60"	9" x 25"	14.0	1120	0.15	1400	0.20
6'-0"/96"	9" x 30"	17.0	1360	0.15	1700	0.20
Overall Hood Length	Duct Collar Dimensions	Sash Opening SQ. Meter*	Total L/s and Static Pressure			
			0.41 m/s	SP (Pa)	0.51 m/s	SP (Pa)
1219mm	229 x 508	1.0	415	24.9	519	49.8
1524mm	229 x 635	1.3	529	37.3	661	49.8
1829mm	229 x 762	1.6	642	37.3	802	49.8

* Based on 18" high sash opening

TRUVIEW® ACCESSORIES

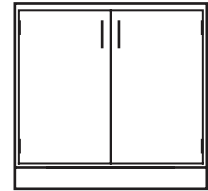
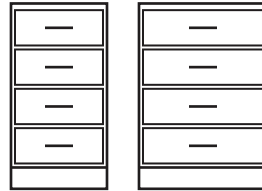
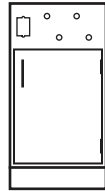
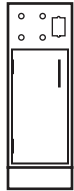
Cabinet Style Option

To specify door and pull style when ordering, replace blank in last digit of catalog number with style number. Wood base cabinets are available in

four door and drawer head styles. See the Signature® Wood Catalog for available styles as well as the complete wood cabinet offering.

The TruView Teaching Hood may also be installed on steel cabinetry.

Wood Standing Height Base Cabinets 34³/₄" high



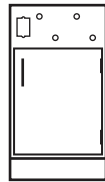
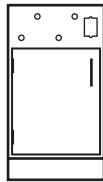
G10H362212L 12" (305) L
G10H362218L 18" (457) L
 without fixture cutouts
G00H362212L 12" (305) L
G00H362218L 18" (457) L

G10H362212- 12" (305) L
G10H362218- 18" (457) L
 without fixture cutouts
G00H362212- 12" (305) L
G00H362218- 18" (457) L

D30H362218-_0 18" (457) L
D30H362224-_0 24" (610) L

C03H362230- 30" (762) L
C03H362236- 36" (914) L

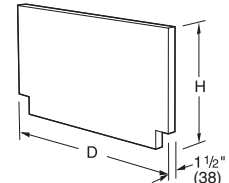
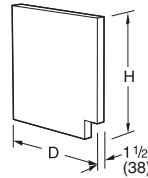
Wood ADA Height Base Cabinets 34³/₄" high



G10H342212L 12" (305) L
G10H342218L 18" (457) L
 without fixture cutouts
G00H342212L 12" (305) L
G00H342218L 18" (457) L

G10H342212- 12" (305) L
G10H342218- 18" (457) L
 without fixture cutouts
G00H342212- 12" (305) L
G00H342218- 18" (457) L

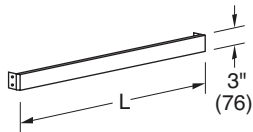
Pedestal Legs



A25H3034-00_0 33" (838) H
A25H3036-00_0 35" (889) H
 Pedestal Legs are 1 1/2" (38) thick and 29 3/4" (756) deep. They may be used instead of base cabinets to support the hood. They should be used with a Knee Space Panel and Apron Rail for stability.

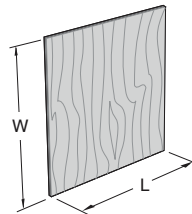
A26H5934-00_0 33" (838) H
A26H5936-00_0 35" (889) H
 Pedestal Legs are 1 1/2" (38) thick and 58 1/2" (1486) deep. They may be used instead of base cabinets to support the hood. They should be used with a Knee Space Panel and Apron Rail for stability.

Apron Rails



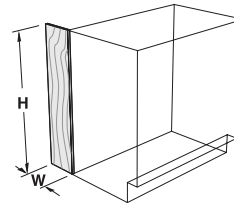
A00H0330-00_0 30" (762) L
A00H0336-00_0 36" (914) L
 Apron Rail 3/4" (19) thick, 3" (76) high, can be cut to length infield. Furnished with angles for attachment to adjacent units or pedestal legs.

Knee Space Panels



X-HK3036-00_0 30" (762) L
X-HK3636-00_0 36" (914) L
 3/4" (19) thick plywood, 36" (914) W. Designed to be field-cut to exact width and length required. Furnished with two cleats

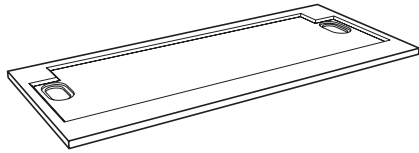
Filler Panels



X-HP0836-00_0 8" (203) W x 36" (914) H
X-HP1436-00_0 14" (356) W x 36" (914) H
 Fabricated from 3/4" (19) thick hard-wood plywood with edges cutsquare for flush installation.

TRUVIEW® ACCESSORIES

Single-sided Hood Work Tops

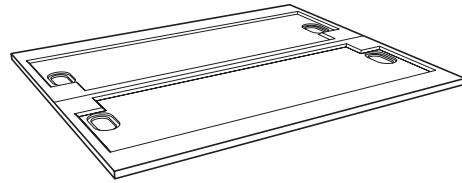


Black Kemresin

- T90R3048-BK** 48" (1219) L
- T90R3060-BK** 60" (1524) L
- T90R3072-BK** 72" (1829) L

Six foot (1829) and five foot (1524) tops are furnished with two cupsink cutouts, one each on the left and the right. Four foot (1219) tops are furnished with only one, on the right.

Double-sided Hood Work Tops



Black Kemresin

- T90R6048-BK** 48" (1219) L
- T90R6060-BK** 60" (1524) L
- T90R6072-BK** 72" (1829) L

Six foot (1829) and five foot (1524) tops are furnished with four cupsink cutouts, two on each side, one on the left and one on the right. Four foot (1219) tops are furnished with only two, on the right of each side. (ships in two sections)

Cupsinks



0491-BP Black Poly

Complete with removable strainer. 6" x 3" (152 x 76) inside dimension. 1 1/2" (38) IPS male straight thread outlet. (Overall height is 8" (203mm))

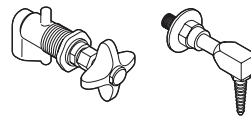
Service Fittings



- W-0744-A** Air
- W-0744-G** Gas
- W-0744-V** Vacuum

Front-load remote control service valves mount in top rail of sink base cabinet. Air, Gas, and Vacuum valves are furnished with color-coded, angled, nylon hose connector.

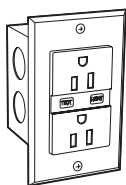
Water Fittings



- W-0744-W** Water

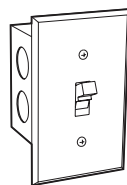
Front load remote control water valves mount in top rail of sink base cabinet. Water valves are furnished with color-coded epoxy-coated brass hose tip.

Apron Rails



0656-1V Receptacle

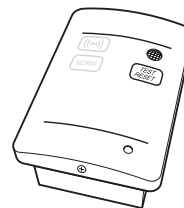
120 volt, GFI, specification grade, 20 amp, ground fault protected, single duplex receptacle with electric box and stainless steel face plate.



0655-1V Light Switch

single pole, 120/240 volt AC, 20 amp. with electric box and stainless steel face plate.

Air Alert 300 Face Velocity Airflow Alarm



X-018528-S Air Alert 300 AirGard 200

consists of a thermistor sensor mounted through the end wall of the hood, and a control monitor that gives both a visual and audible alarm. The alarm monitors the fume hood face velocity and sounds an alarm when the air flow falls below safe levels. A glowing green light signals when conditions are again safe. The control monitor also contains a test/reset button that allows the hood user to verify alarm

DUO-VISION DEMONSTRATION HOOD

Double-Sided Teaching and Demonstration Hood

Available Options:

Glass End Panels

- T95K8460-F** Without Fixtures & Fittings
- T95K8460-T** Without Top, Sink Fixtures & Fittings
- T95K4860-** Hood Only

Glass End Panels & One Sash Fixed

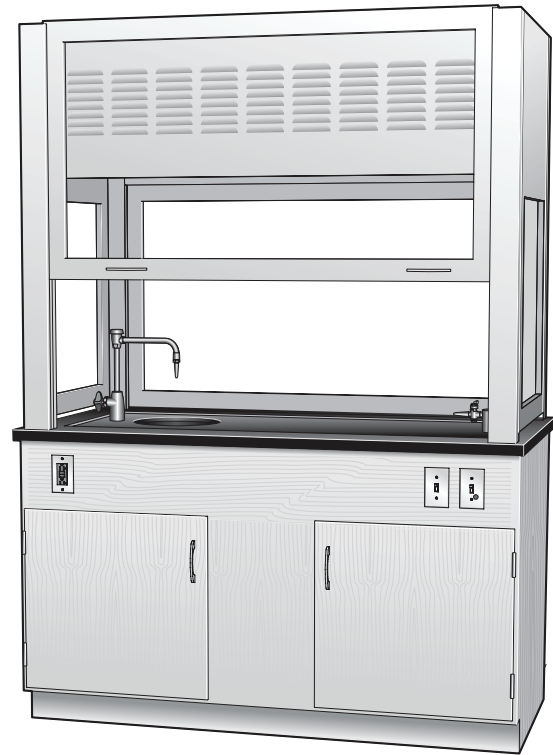
- T95K8460SF** Without Fixtures & Fittings
- T95K8460ST** Without Top, Sink Fixtures & Fittings
- T95K4860S** Hood Only

Solid End Panels

- T95K8460XF** Without Fixtures & Fittings
- T95K8460XT** Without Top, Sink Fixtures & Fittings
- T95K4860X** Hood Only

Features:

- Dual working sashes with glass end panels for excellent visibility into hood.
- Available with solid end panels.
- Available with one sash in fixed closed position for higher access control.
- Furnished with 12" (305) diameter sink with water faucet and service fitting.
- Furnished with 3-way light switch, blower switch
- Available with or without base cabinet, work top, fittings and fixtures.



- T95K8460-** Glass End Panels
- T95K8460S** Glass End Panels/One Sash Fixed
- T95K8460X** Solid End Panels

DIMENSIONS	HEIGHT (mm)	LENGTH (mm)	DEPTH (mm)
Overall Dimension	84" (2134)	32" (813)	60" (1524)
Hood	48" (1219)	30" (762)	58" (1473)
Interior	40" (1016)	25" (635)	53" (1346)
Base Cabinet G87W363059-	34 ³ / ₄ " (883)	30" (635)	259" (1499)
Work Top	1 ¹ / ₄ " (32)	32" (813)	60" (1524)

Note: For hood to contain fumes, both sashes can not be open at the same time.

Recommended:

- Sash Opening:** 53" (1346) x 30" (635) *
- Duct Collar:** 12" (305) Dia
- Recommended-Face Velocity:** 80 feet/minute (.41 m/s)
- Exhaust Volume:** 940 cfm (444 L/s)
- Static Pressure:** 0.30" (74.7) @ 940 cfm (444 L/s)

* based on only one sash open at a time.

Materials:

Hood Exterior: Cold Rolled Steel – Finish: #61 Light Neutral

Hood Lining: Glass & KMER

Base Cabinet: Hardwood Veneer – Specify Style

Work Top: Dished Black Kemresin

Sink: (1) **1038-00** 12" (305) Dia Kemresin
(1) **0482-BP** 1¹/₂" (38) IPS Sink Outlet

Electric Fixtures: (2) **0656-01V** 120 VAC GFI Duplex Receptacle

(2) **0591-1V** 3-way Light Switch

(1) **0675-1S** Blower Switch with Warning Light

(1) **0733-01** Blower Warning Light

Fittings: (1) **W-0337-0V** Water VB Gooseneck

(1) **W-0260-00** Single Outlet Service Fittings

No service piping, electrical conduit, ducting or exhaust fan included.

SINKS AND CUPSINKS

Cupsinks



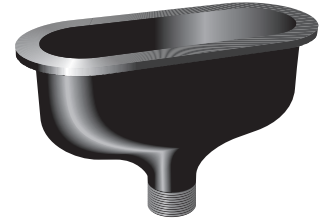
0499-BP Black Poly

Complete with integral strainer. 5 1/2" x 3 1/2" (140mm x 90mm) inside dimension. Outlet sized for 1 1/2" (38mm) compression fitting. (Overall height is 7" (178mm))



0491-BP Black Poly

Complete with removable strainer. 6" x 3" (152mm x 76mm) inside dimension. 1 1/2" (38mm) IPS male straight thread outlet. (Overall height is 8" (203mm))



0492-BP Black Poly

Complete with removable strainer. 9" x 3" (229mm x 76mm) inside dimension. 1 1/2" (38mm) IPS male straight thread outlet. (Overall height is 7" (178mm))

Side Mounted Cupsink



0476-BP Black Poly

Molded of black polyolefin resins. Complete with 90° union elbow. Designed to be mounted in a vertical panel not over 1/4" (6.4mm) thick. 6" x 3" (152mm x 76mm) inside dimension. 1 1/2" (38mm) IPS male straight thread outlet.

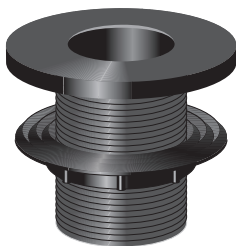
Epoxy Resin Tub Sinks



Tub sinks are one piece molded of modified epoxy resins and cured at high temperatures for maximum chemical, impact, and thermal shock resistance. All inside corners are coved and the bottom is pitched to the drain cutout. All dimensions are inside.

Cat. No.	L	H	W
1000-00	14" (356)	6" (152)	10" (254)
1001-00	16" (406)	7" (178)	8" (203)
1003-00	18" (457)	11 13/16" (300)	15" (381)
1005-00	25" (635)	10" (254)	15" (381)
1006-00	18" (457)	8" (203)	15" (381)
1007-00	24" (610)	8" (203)	16" (406)
1011-00	18" (457)	6" (152)	6 1/2" (165)
1021-00	16" (406)	7 1/2" (191)	16" (406)

Sink Outlet



0482-BP Black Poly

Complete with locknut. 1 1/2" (38mm) IPS male straight thread outlet. For use with epoxy resin tub sinks and troughs.

Sink Overflow



0494BP-04

4" (102mm) High

0494BP-06

6" (152mm) High

0494BP-08

8" (203mm) High

0494BP-10

10" (254mm) High

Sink Overflows are designed to be used with 0482-BP sink outlets. 1 1/2" (38mm) diameter.

Cup Sink



0975-00 Stainless Steel

Made of type 316 stainless steel and has integral cross bars. 6" x 3" (152mm x 76mm) I.D. 1 1/2" (38mm) I.P.S. male straight thread outlet.

FUME HOODS SERVICE FITTINGS

Specifications

All Fume Hood Fittings include brass valve with replaceable seat, Nylon color-coded panel flange with angle serrated hose connector, or gooseneck with sepia bronze finish, plastic color-coded four arm handle, and tank nipple, locknut, and washer. Standard fittings also include remote control rod assembly and black plastic angle flange. They may be used on either side of the hood in any location. (They can not be used on Isotope or Perchloric Acid hoods.) Gooseneck fittings are available with either long or short rod handles for either front or rear fixture locations.

Fitting Part Number Options:

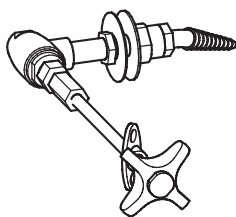
Part Numbers shown below indicate the fittings will be installed in the hood at the factory. If the fittings are to be Pre-Piped, the -I at the end of the part number must be replaced by -P. If the fittings need to be shipped loose, omit the -I from the part number.

Fittings for services not listed may be specified by replacing the service indicator letter at the end of the part number with a 0 and specifying the service required.

Service Fitting Color Codes:

Air Orange
 Cold Water Dark Green
 Distilled Water White
 Gas Dark Blue
 Hot Water Red
 Hydrogen Pink
 Nitrogen Brown
 Oxygen Light Green
 Special Gases Light Blue
 Steam Black
 Vacuum Yellow

Standard Remote Control Fittings

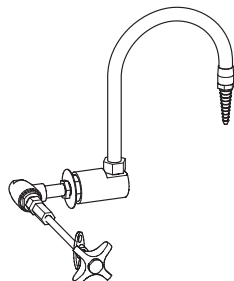


Panel Flange with Angle Serrated Hose Connector

- W-0860-3A-I** Air
- W-0860-3G-I** Gas
- W-0860-3V-I** Vacuum
- W-0861-3S-I *** Steam
- W-0861-3W-I** Cold Water
- W-0862-3D-I** Distilled Water

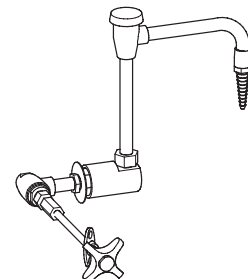
12 1/2" (318mm) Long Handle

* Sepia bronze flange and connector



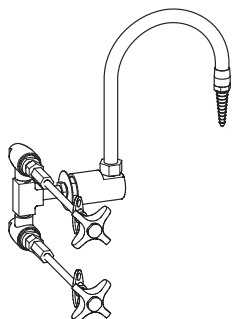
Water Valve Gooseneck

- W-0864-3W-I** 27 3/4" (705mm)
Long Handle
- W-0864-3WA-I** 12 1/2" (318mm)
Long Handle



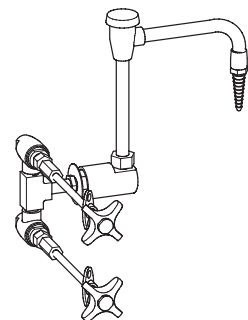
Water Valve Gooseneck with Vacuum Breaker

- W-0864-3WV-I** 27 3/4" (705mm)
Long Handle
- W-0864-3WVA-I** 12 1/2" (318mm)
Long Handle



Mixing Valve Gooseneck

- W-0868-3W-I** 27 3/4" (705mm)
Long Handle
- W-0868-3WA-I** 12 1/2" (318mm)
Long Handle



Mixing Valve Gooseneck with Vacuum Breaker

- W-0868-3WV-I** 27 3/4" (705mm)
Long Handle
- W-0868-3WVA-I** 12 1/2" (318mm)
Long Handle

FUME HOODS SERVICE FITTINGS

Specifications

Front Load Remote Control Fittings are ideal for hoods where space is tight or high levels of maintenance are expected, as they can be accessed from outside the hood at the front. They are used standard on Isotope and Perchloric Acid hoods, but may be specified as an option on all hoods by adding **Option G**. They must be ordered for use on either the left or right side of the hood. Front Load Fittings include brass valve with replaceable seat, Nylon color-coded panel flange with angle serrated hose connector, or gooseneck with sepia bronze finish,

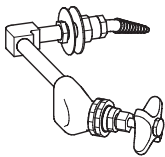
plastic color-coded four arm handle, and tank nipple, locknut, and washer. They include the piping from the valve to the panel flange or gooseneck tank nipple when they are installed in the hood at the factory.

Fitting Part Number Options:

Part Numbers shown below indicate the fittings will be installed in the hood at the factory. If the fittings are to be Pre-Piped, the **-I** at the end of the part number must be replaced by **-P**. If the fittings need to be shipped loose, omit the **-I** from the part number.

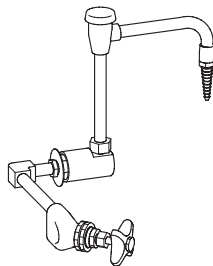
Fittings for services not listed may be specified by replacing the service indicator letters at the end of the part number with a **0** and specifying the service required.

Front Load Remote Control Fittings — Left Hand Mounting



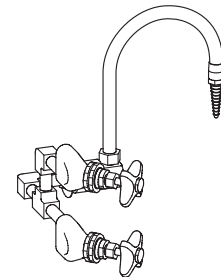
Nylon Panel Flange with Angle Hose Connector

- W-0739-L-AIR-I** Air
 - W-0739-L-GAS-I** Gas
 - W-0739-L-VAC-I** Vacuum
 - W-0739-L-STM-I*** Steam
 - W-0739-L-CW-I** Cold Water
 - W-0739-L-FD-I** Distilled Water
- * Sepia bronze flange and hose tip



Water Valve Gooseneck

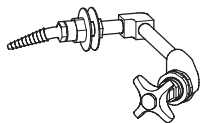
- W-0740-L-CW-I** Cold Water
- W-0740-L-CW-VB-I** Cold Water with Vacuum Breaker



Mixing Valve Gooseneck

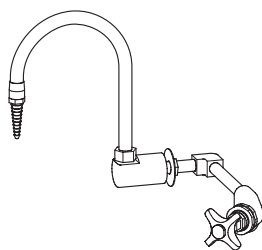
- W-0740-L-HCW-I** H&C Water
- W-0740-L-HCW-VB-I** H&C Water with Vacuum Breaker

Front Load Remote Control Fittings — Right Hand Mounting



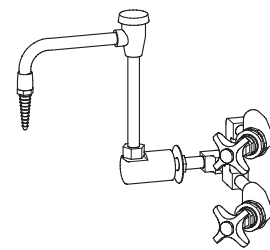
Nylon Panel Flange with Angle Hose Connector

- W-0739-R-AIR-I** Air
 - W-0739-R-GAS-I** Gas
 - W-0739-R-VAC-I** Vacuum
 - W-0739-R-STM-I*** Steam
 - W-0739-R-CW-I** Cold Water
 - W-0739-R-FD-I** Distilled Water
- * Sepia bronze flange and hose tip



Water Valve Gooseneck

- W-0740-R-CW-I** Cold Water
- W-0740-R-CW-VB-I** Cold Water with Vacuum Breaker



Mixing Valve Gooseneck

- W-0740-R-HCW-I** H&C Water
- W-0740-R-HCW-VB-I** H&C Water with Vacuum Breaker

FUME HOODS SERVICE FITTINGS

Specifications

High Performance Fume Hood Fittings include brass valve with replaceable seat, Nylon color-coded panel flange with angle serrated hose connector, or 90 degree water outlet with color coded epoxy finish, plastic color-coded four arm handle, and tank nipple, locknut, and washer. Standard fittings also include remote control rod assembly and black plastic angle flange. They may be used on either side of the hood in any location. The remote control rods are sized to match the length required if the fixture location is specified.

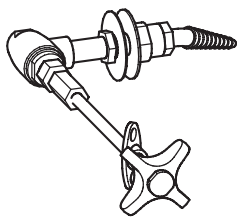
Fitting Part Number Options:

Part Numbers shown below indicate the fittings will be installed in the hood at the factory. If the fittings are to be Pre-Piped, the fittings are to be Pre-Piped, the **-I** at the end of the part number must be replaced by **-P**. If the fittings need to be shipped loose, omit the **-I** from the part number. Fittings for services not listed may be specified by replacing the service indicator letter at the end of the part number with a **0** and specifying the service required.

Service Fitting Color Codes:

Air Orange
 Cold Water Dark Green
 Distilled Water White
 Gas Dark Blue
 Hot Water Red
 Hydrogen Pink
 Nitrogen Brown
 Oxygen Light Green
 Special Gases Light Blue
 Steam Black
 Vacuum Yellow

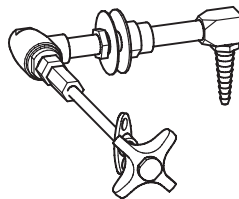
Standard HPH Remote Control Fittings



Panel Flange with Angle Serrated Hose Connector

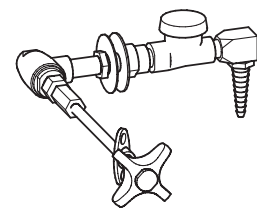
- W-0860-4A-I** Air
- W-0860-4G-I** Gas
- W-0860-4V-I** Vacuum
- W-0861-4S-I *** Steam
- W-0861-4W-I** Cold Water
- W-0862-4D-I** Distilled Water

* Sepia bronze flange and connector



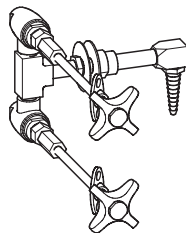
Water Valve Outlet

- W-0863-4W-I** Cold Water



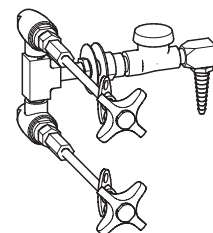
Water Valve Outlet with Vacuum Breaker

- W-0863-4WV-I** Cold Water with Vacuum Breaker



Water Mixing Valve Outlet

- W-0863-4HCW-I** Hot & Cold Water
(occupies two fitting holes)



Water Mixing Valve Outlet with Vacuum Breaker

- W-0863-4HCWV-I**
(occupies two fitting holes)

FUME HOODS SERVICE FITTINGS

Specifications

High Performance Hood Front Load Remote Control Fittings are designed to complement the High Performance hoods. They feature an ergonomic 2 1/8" (54mm) dia., fluted, black polyethylene handle. As with other front load fixtures, the valve can be accessed from outside the hood at the front. They may be specified as an option only on High Performance hoods by adding **Option G**, and must be ordered for use on either the left or right side of the hood.

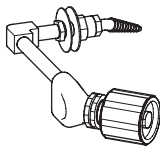
High Performance Hood Front Load Fittings include brass valve with replaceable seat, Nylon color-coded panel flange with angle serrated hose connector, or angled water outlet with colored epoxy finish, 2 1/8" (54mm) dia., fluted, black polyethylene handle, and tank nipple, locknut, and washer. They include the piping from the valve to the panel flange when installed in

the hood at the factory.

Fitting Part Number Options:

Part Numbers shown below indicate the fittings will be installed in the hood at the factory. If the fittings are to be Pre-Piped, the **-I** at the end of the part number must be replaced by **-P**. If the fittings need to be shipped loose, omit the **-I** from the part number. Fittings for services not listed may be specified by replacing the service indicator letters at the end of the part number with a **0** and specifying the service required.

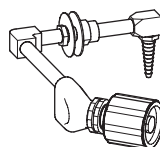
Front Load HPH Remote Control Fittings — Left Hand Mounting



Nylon Panel Flange with Angle Hose Connector

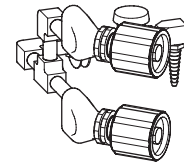
- W-0739-LV-AIR-I** Air
- W-0739-LV-GAS-I** Gas
- W-0739-LV-VAC-I** Vacuum
- W-0739-LV-STM-I*** Steam
- W-0739-LV-FD-I** Distilled Water

* Sepia bronze flange and hose tip



Water Valve Outlet

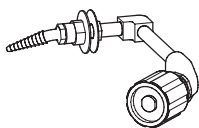
- W-0741-LV-CW-I** Cold Water
- W-0741-LV-CW-VB-I** Cold Water with Vacuum Breaker



Mixing Valve Outlet

- W-0741-LV-HCW-I** Hot & Cold Water
- W-0741-LV-HCW-VB-I** H&C Water with Vacuum Breaker

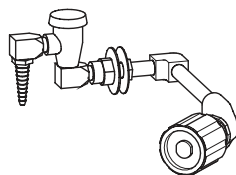
Front Load HPH Remote Control Fittings — Right Hand Mounting



Nylon Panel Flange with Angle Hose Connector

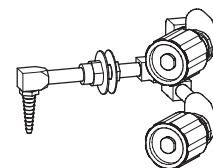
- W-0739-RV-AIR-I** Air
- W-0739-RV-GAS-I** Gas
- W-0739-RV-VAC-I** Vacuum
- W-0739-RV-STM-I*** Steam
- W-0739-RV-FD-I** Distilled Water

* Sepia bronze flange and hose tip



Water Valve Outlet

- W-0741-RV-CW-I** Cold Water
- W-0741-RV-CW-VB-I** Cold Water with Vacuum Breaker



Mixing Valve Outlet

- W-0741-RV-HCW-I** Hot & Cold Water
- W-0741-RV-HCW-VB-I** H&C Water with Vacuum Breaker

FUME HOODS ELECTRICAL FITTINGS

Specifications

All Electrical Fixtures except the fan switch are complete with 2 1/2" (64mm) deep steel electrical box, stainless steel face plate, and a 3-wire polarized grounding device, ivory in color. The fan switch is furnished with a specially sized 2" (50.8mm) deep cast aluminum electrical box, stainless steel face plate, and motor rated starter switch,

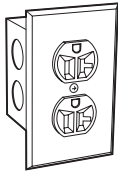
grey in color. Single gang receptacles & switches may be mounted in the fume hood vertical fascia. Double gang fittings and the Powerstat variable power controller must be mounted in the base cabinet below.

Fixture Part Number Options:
Part Numbers shown below indicate the fittings will be installed in the hood

at the factory. If the fixtures are to be Pre-Wired, the **-I** at the end of the part number must be replaced by **-P** and the H-Option added to the hood. If the fixtures need to be shipped loose, omit the **-I** from the part number.

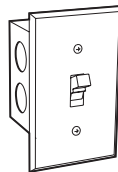
Option H must be selected for fume hoods to be UL listed.

Electrical Fixtures for Mounting in General Purpose & High Performance Fume Hoods and Base Cabinets -

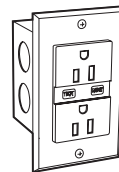


0581-1V-I **120 volt AC**
Specification grade, 20 amp, single duplex, receptacle.

0582-1V-I **240 volt AC**
Specification grade, 20 amp, single duplex, receptacle. (not pictured)

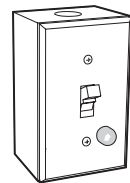


0655-1V-I **Toggle Switch**
Single pole, 120/240 volt AC, 20 amp.

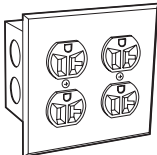


0656-1V-I ***120 Volt GFI**
Specification grade, 20 amp, ground fault protected, single duplex receptacle.

*Note: One ground fault inter-rupter will protect all outlets on the same circuit.

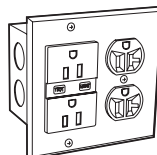


0695-1S-I **Fan Switch**
Motor rated starter switch with pilot light mounted in a single gang receptacle box complete with face plate, 120 volt pilot light, and double pole toggle switch with thermal overload protection for up to 1 HP single phase, 60 hertz 120/240 volt AC motors. (Thermal unit not provided)



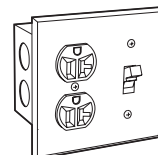
0581-6V-I **120 volt AC**
specification grade, 20 amp, double duplex, receptacle.

0582-6V-I **240 volt AC**
specification grade, 20 amp, double duplex, receptacle. (not pictured)



0657-6V-I ***120 volt GFI**
Specification grade, 20 amp, ground fault protected, double duplex receptacle.

*Note: One ground fault interrupter will protect all outlets on the same circuit.

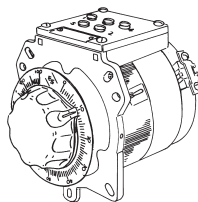


0589-6V-I **120 volt AC with Toggle**
Switch specification grade, 20 amp, double duplex, receptacle and single pole, 120/240 volt AC, 20 amp toggle switch.

Variable Power Controllers

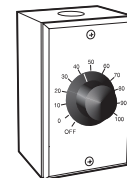
0767-00 **Powerstat Variable Power Controller**

Ratings:
Input: 120 VAC 50/60 hertz, single phase
Output: 0-120 VAC or 0-140 VAC
Max. Load: 10 amp.
Requires separate on/off control.



0767-01-I **Ohmitrol Solid State Variable Power Controller**

Ratings:
Input: 120 VAC
Output: (RFI filtered) 30-120 VAC
Max. Load: 1KW, 8.3 A
Trimmer Range: 10-50 Volts



FUME HOOD ALARMS & SAFETY DEVICES

Air Alert 600 Fume Hood Monitor – Option M

X-018718 Air Alert 600 Fume Hood Monitor consists of a thermistor sensor mounted on the fume hood interior wall and connected to fume hood containment cavity by a sensor port. A tube to the fume hood fascia completes monitored air path. The monitor measures and records the fume hood face velocity and sounds an alarm when the airflow falls below safe levels. Green, amber, and red LEDs signal safe, marginal, and low face velocity conditions. Alarm and lights are augmented by a digital liquid crystal readout and a visual one-hour "Event Timeline" that records alarm occurrences and their length for a continually updated one-hour time interval. Mounted on the hood fascia, the control monitor also contains "enter", "+", and "-" buttons that offers the hood user a variety of alarm features. Alarm setpoints, metric or classical units, alarm delay intervals, nighttime setback, and muting options are all programmable. The Air Alert 600 operates on 9-30 volts AC or DC and comes complete with an adapter that can be plugged into any 120 VAC receptacle.



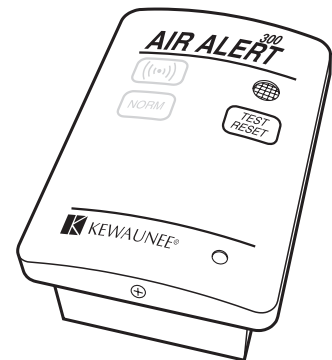
Air Alert 300 Face Velocity Airflow Alarm – Option W and Option Z

Option W Air Alert 300 Airflow Alarm mounted on right-hand fascia below blank face plate replacing uppermost fixture hole.

Option Z Air Alert 300 Airflow Alarm mounted on right-hand fascia replacing blank face plate.

X-018528 Air Alert 300 Airflow Alarm consists of a thermistor sensor mounted through the end wall of the hood, and a control monitor that gives both a visual and audible alarm. The alarm monitors the fume hood face velocity and sounds an alarm when the airflow falls below safe levels. A glowing green light signals when

conditions are again safe. The control monitor, which is mounted on the hood fascia, also contains a test/reset button that allows the hood user to verify alarm readiness. The Air Alert 300 operates on a 9 volt DC circuit and comes complete with an adapter that can be plugged into any 120 VAC receptacle.

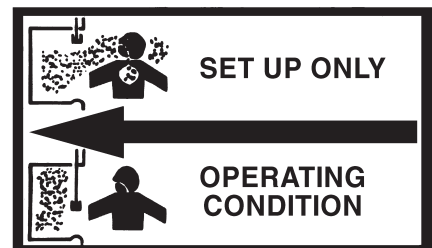


Sash Label

F-4803-00 Sash Open Safety Label

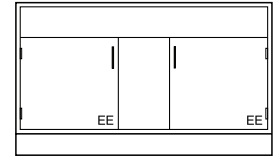
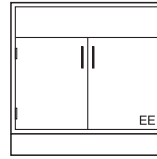
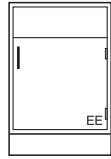
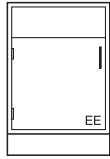
Designed to be used with Gravity Sash Stop, but may be used on any hood to indicate proper sash position for safe fume hood operation. Ideal for use when fans are sized for less than full sash open operation. Label is printed in black on clear vinyl.

Actual Label 2 1/2" x 4" (64mm x 102mm)



FUME HOOD BASE CABINETS

Standing Height Fume Hood Base Cabinets



Steel Cabinets (35³/₄" (908mm) High)

G08M372212L 12" (305mm) L
G08M372215L 15" (381mm) L
G08M372218L 18" (457mm) L
G08M372224L 24" (610mm) L

G08M372212- 12" (305mm) L
G08M372215- 15" (381mm) L
G08M372218- 18" (457mm) L
G08M372224- 24" (610mm) L

G08M372230- 30" (762mm) L
G08M372236- 36" (914mm) L
G08M372248- 48" (1219mm) L

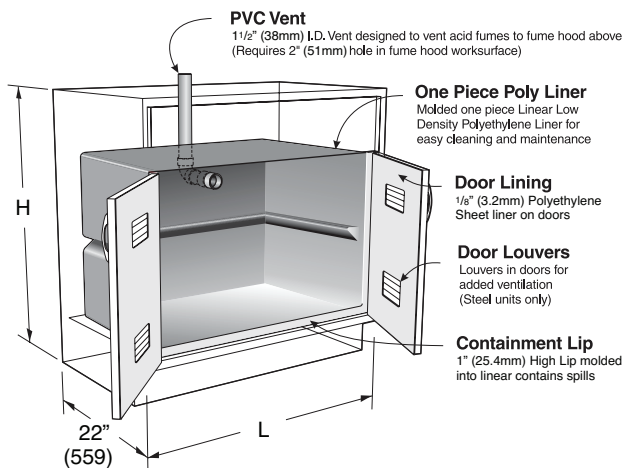
G08M372260- 60" (1524mm) L

Acid Storage Fume Hood Base Cabinets

Acid Storage Fume Hood Base Cabinets are specifically designed for the storage of corrosive chemicals. They are available in either steel or wood. These cabinets are lined with a molded one piece linear low density polyethylene tub with coved corners and a 1" (25.4mm) lip at the bottom front. The cabinet doors are lined with 1/8" (3.2mm) sheet polyethylene and the doors are latched using a nylon roller catch. Each cabinet is furnished with a PVC vent pipe for venting to the fume hood above. (Requires a 2" (51mm) hole in the hood worksurface.)

Vent Location:

24" (610) Cabinet – on Center
 30" (762) Cabinet – 7⁵/₈" (194) Right of Center
 36" (914) Cabinet – 5" (127) Right of Center
 48" (1219) Cabinet – 5" (127) Right of Center
 60" (1524) Cabinet – on Center

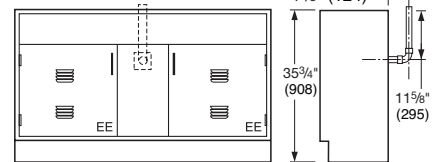
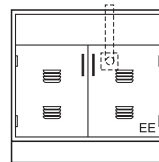
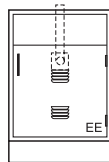
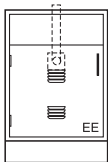


Optional Removable Half-Depth Shelf

Part No.

- 019624** Shelf for 24" (610mm) cabinet
- 019625** Shelf for 30" (762mm) cabinet
- 019626** Shelf for 36" (914mm) cabinet
- 019627** Shelf for 48" (1219mm) cabinet

Acid Storage Fume Hood Base Cabinets



Steel Cabinets (35³/₄" (908mm) High)

G80M372224L 24" (610mm) L

G80M372224- 24" (610mm) L

G80M372230- 30" (762mm) L

G80M372236- 36" (914mm) L

G80M372248- 48" (1219mm) L

G80M372260- 60" (1524mm) L

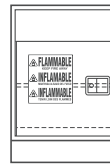
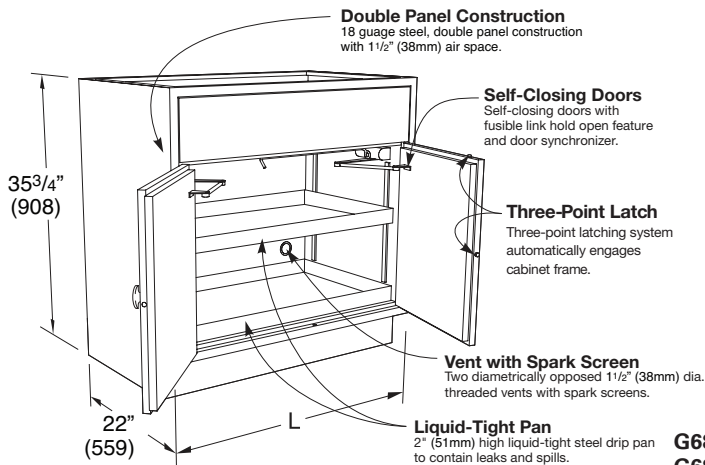
FUME HOOD BASE CABINETS

Solvent Storage Fume Hood Cabinets Specifications

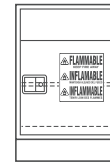
Solvent Storage Cabinets are specifically designed for the storage of flammable and combustible liquids. The cabinet is UL listed and meets UFC, OSHA and NFPA No. 30-1993 construction standards. It is all 18 gauge steel, double panel construction with self-closing doors, synchronized so that both doors will always fully close. The

right hand door is equipped with a three-point latching system that automatically engages the cabinet frame. Each door is equipped with a fusible-link hold-open feature that ensures the doors close should the temperature outside the cabinet exceed 165°F (73.89°C). A 2" (51mm) deep liquid-tight pan covers the entire bottom to contain liquid leaks

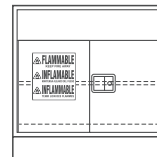
and spills. A full depth adjustable shelf, perforated to allow circulation within the cabinet, is also furnished. Two diametrically opposed vents with spark screens are provided in the back of the cabinet as well as a grounding screw. The cabinet is labeled: CAUTION FLAMMABLE – KEEP FIRE AWAY.



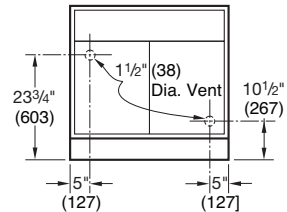
G68M372224L-204
24" (610mm) L



G68M372224-204
24" (610mm) L



G68M372230-204 30" (762mm) L
G68M372236-204 36" (914mm) L
G68M372248-204 48" (1219mm) L



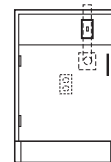
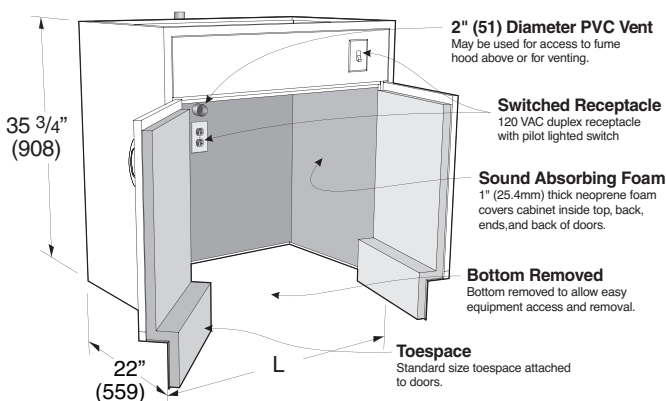
Vacuum Pump Storage Fume Hood Cabinets Specifications

Vacuum Pump Storage Fume Hood Cabinets are designed without a bottom to allow vacuum pumps and other equipment to be rolled in or out of the cabinets. The interior is lined with 1" (25.4mm) thick neoprene foam for sound deadening and easy cleaning. Each cabinet is furnished with a 120 VAC, 20 amp, duplex receptacle mounted on the inside cabinet back and a pilot lighted toggle switch

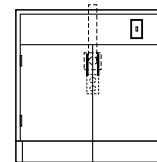
mounted in the top front rail. (Wiring is not included.) Cabinets are also furnished with a 1 1/2" (38mm) diameter PVC vent pipe for venting or access to the hood above. (Requires a 2" (51mm) hole in the hood worksurface.) The toespace rail is attached to the door to allow total access to the cabinet. Cabinet inside clearance at the floor is 16 1/2" (419mm) front-to-back, 27" (686mm) high, and 3" (76mm) less than

the overall cabinet length. Vent location: 11 5/8" (295mm) from top of cabinet

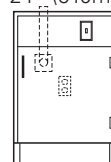
- G35M372224L** 5" (127mm) Right on Centerline
- G35M372224-** 5" (127mm) Left on Centerline
- G35M372230-** on Centerline
- G35M372236-** on Centerline
- G35M372248-** on Centerline



G35M372224L
24" (610mm) L



G35M372230- 30" (762mm) L
G35M372236- 36" (914mm) L
G35M372248- 48" (1219mm) L

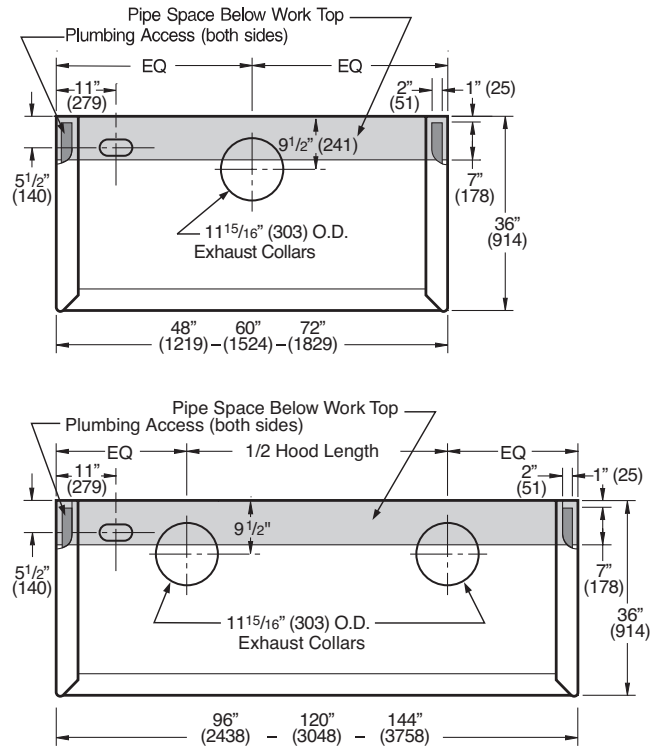


G35M372224-
24" (610mm) L

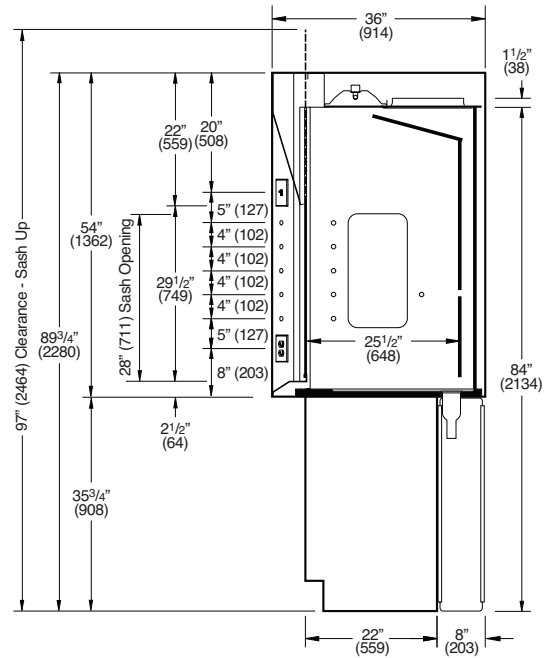
FUME HOOD TECHNICAL DATA

Bench Hood – Rough-In & Dimensional Information

Rough-In for CBH Bench Hoods

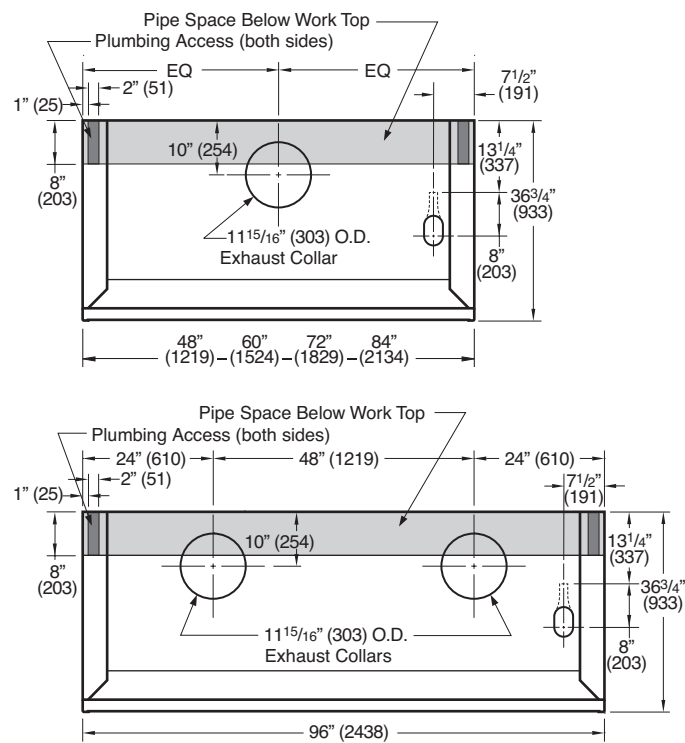


Vertical Section CBH Bench Hoods

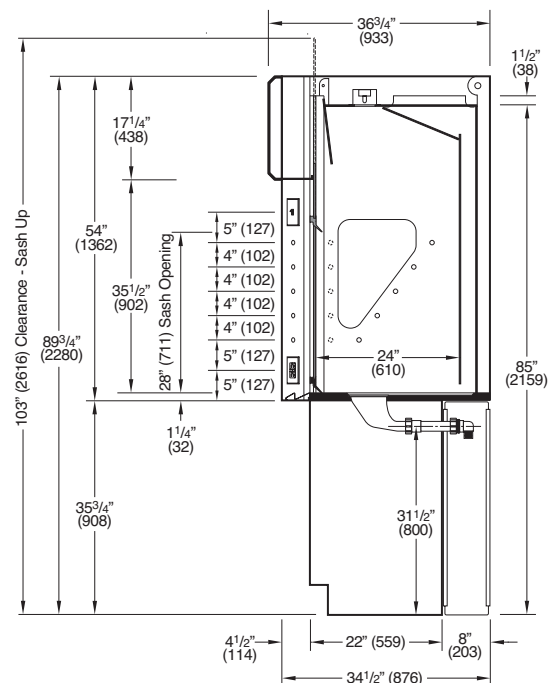


Bench Hood – Rough-In & Dimensional Information

Rough-In for HPH Bench Hoods



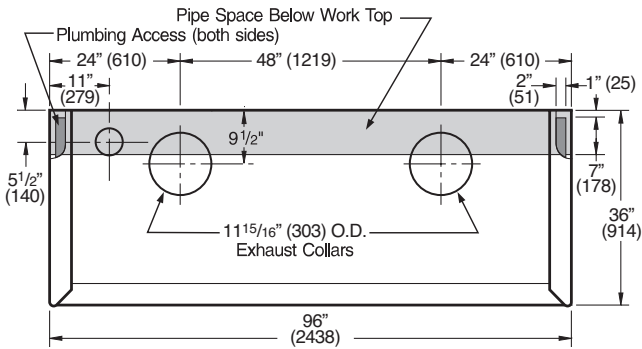
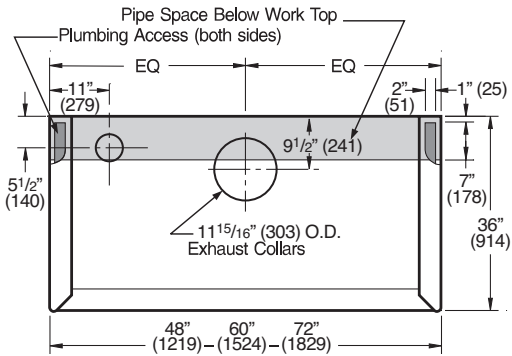
Vertical Section HPH Bench Hoods



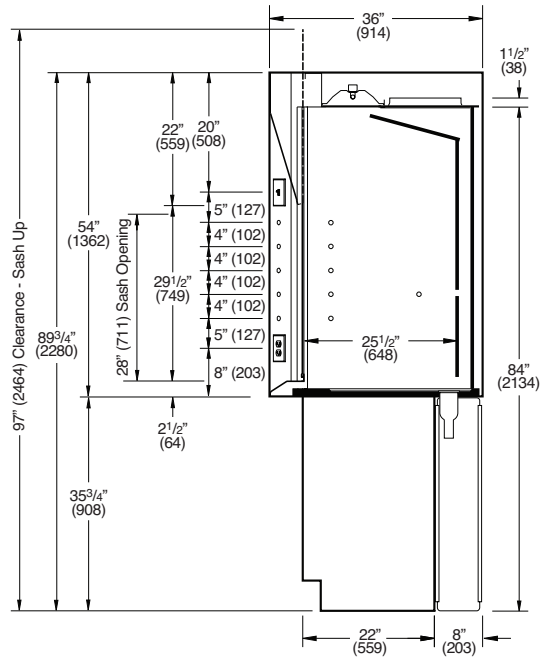
FUME HOOD TECHNICAL DATA

Isotope Hood – Rough-In & Dimensional Information

Rough-In for IBH Hood

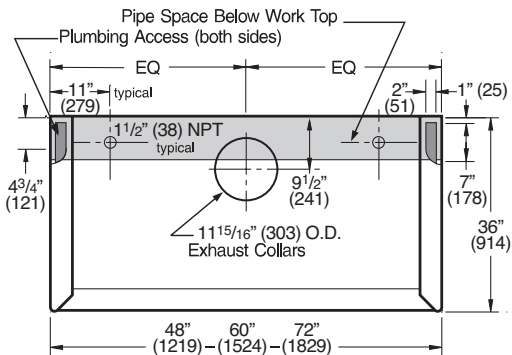


Vertical Section IBH Hood

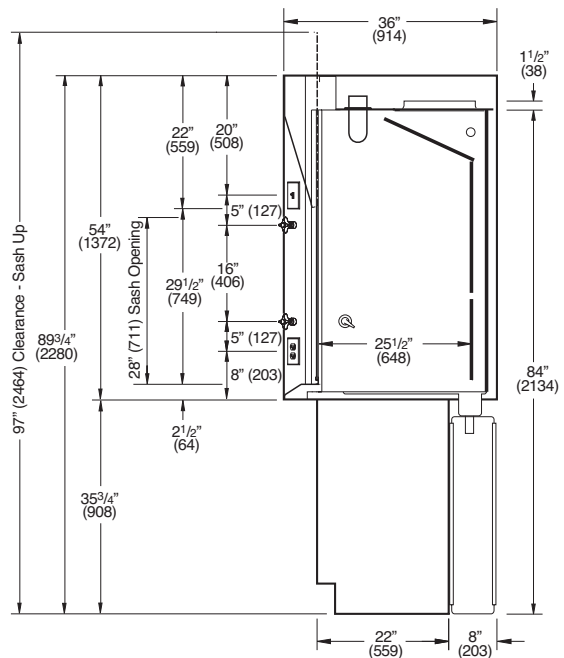


Perchloric Hood – Rough-In & Dimensional Information

Rough-In for PBH Hood

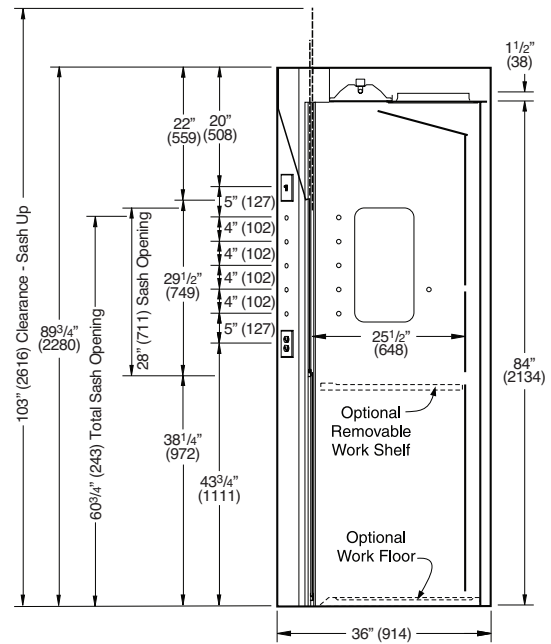
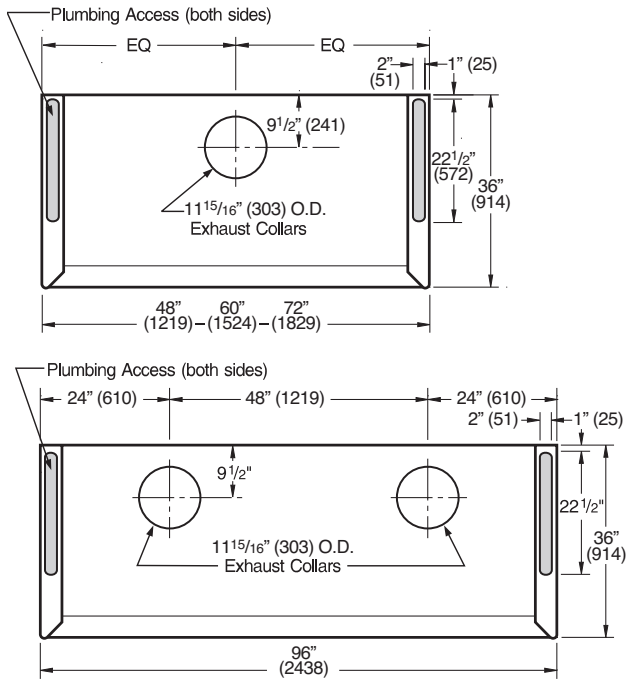


Vertical Section PBH Hood

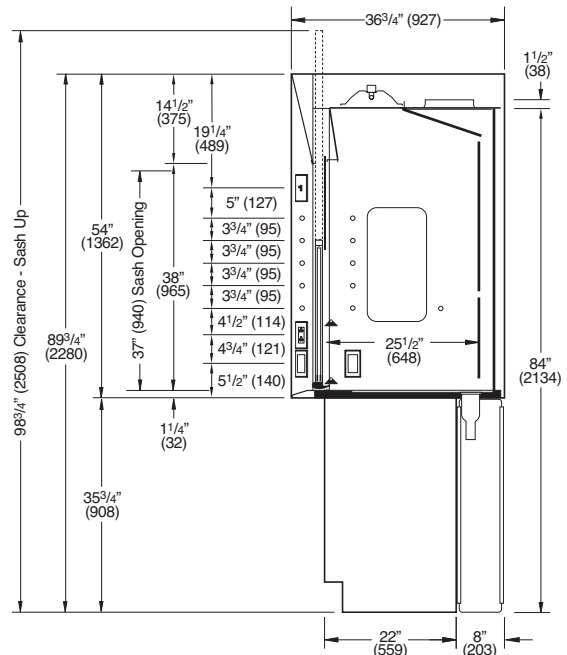
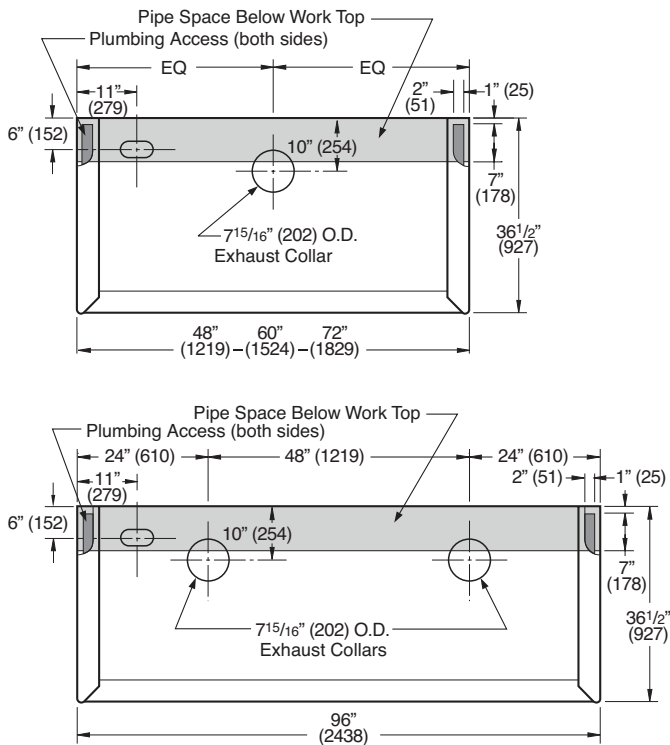


SUPREME AIR FUME HOOD TECHNICAL DATA

CWH Vertical Sash Walk-In-Hoods - Rough-In Information & Dimensional Information



Dynamic Barrier Bench Hood - Rough-In Information & Dimensional Information



RECOMMENDED FUME HOOD WORK PRACTICES

A Safe, Healthy Work Environment

Most people think of a scientific laboratory as a clean, safe place to work. But for the people who work in a laboratory filled with flammable and toxic chemicals, harmful vapors, gases and corrosive acids, it can be an extremely hazardous place.

By containing harmful contaminants and venting them out of the work area, laboratory fume hoods help create and maintain a safe, healthy environment for you, the laboratory worker, and your co-workers.

Your fume hood is designed to protect you by providing an enclosed work area

that has an air barrier between you and the harmful materials you work with. Behind this protective air barrier, the hood's directional air flow carries harmful contaminants away from you toward the rear of the hood. Also, the properly tuned hood and its exhaust system dilutes the contaminants with large volumes of air and safely exhausts them.

If anything interferes with the protective air barrier or the fume hood or disrupts the proper air flow, the hood's ability to protect you and your co-workers may be seriously reduced.

Based on years of knowledge and experience, outlined here are a number of basic safety practices for you and your co-workers to follow when choosing, using and maintaining laboratory fume hoods. We urge you to familiarize yourself with the recommended fume hood work practices on these pages and, even more important, to make a habit of applying them every day. We think you'll agree, it's the best way to help ensure a safe, healthy work area for you and your co-workers.

The Right Fume Hood for the Job

If your laboratory fume hood is to properly protect you, it must be designed for the type of work you're doing.

For example, if you work with radioisotopes, carcinogens or other toxic materials for which decontamination is important, you should always use

a hood with a nonabsorbent lining that is designed to be easily decontaminated. If you work with large volumes of flammable substances, you may need a hood equipped with such features as a non-absorbent lining, explosion-proof lights and electrical receptacles, a fire-suppression system,

and a spark-resistant exhaust fan. If you use perchloric acid heated above ambient temperature then you need a hood and exhaust system specifically designed for this hazard. To be sure your fume hood is the right one for the work you're doing, contact your local laboratory specialist.

Checking Fume Hood Performance

To confirm that your fume hood exhaust system is working properly, you should equip the hood with an air flow monitor. Inspect both the monitor and the system periodically for malfunctions. For some applications a pressure gauge (e.g. No. 844 Inclined Manometer) connected to the exhaust duct is sufficient. The safe pressure range should be marked on the gauge. When using more hazardous contaminants, a fume hood alarm such as the Air Alert 300 or Digital Face Velocity Alarms should be used. These alarms provide both a visual and audible warning when the exhaust flow becomes unsafe.

If your hood is equipped with a variable air volume controller (VAV) with alarm capabilities, then an additional alarm is not necessary.

You should have a qualified technician thoroughly test your fume hood before you use it the first time and at least once a year after that. You should

also have your hood tested after any modification to the laboratory ventilation system or other factors which may affect hood exhaust capability or room air flow patterns.

Fume hoods are provided with one of three baffle configurations: fixed, internally adjustable, or internal single point adjustable.

On the fixed baffle configuration the size of the slots in the baffle are optimized to provide the best performance for general purpose use.

On the adjustable baffle options the size of the slots in the baffle can be adjusted to provide control over the air flow patterns within the hood. In the internally adjustable baffles the size of the upper and lower slots is adjusted by moving baffle strips. In the internal remote adjustable baffle option, an adjustment knob rotates a damper behind the lower rear baffle to change the relative size of the slots.

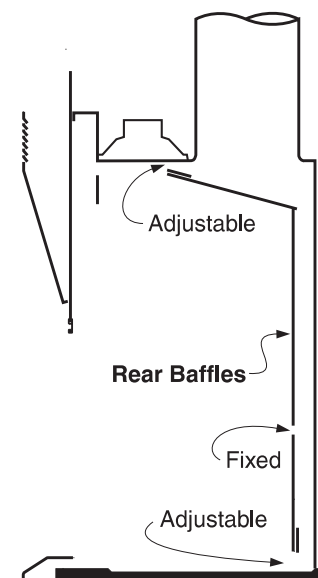


Figure 1. Rear Baffle Arrangements for Internally Adjustable Baffles

RECOMMENDED FUME HOOD WORK PRACTICES

Checking Fume Hood Performance (continued)

In most uses of the fume hood, the contaminants quickly mix with air to form mixtures which have almost the same density as air. In these cases, **Baffle Position A (Figure 2)** gives the best performance as it provides good flow in both the lower and upper parts of the hood work area.

When a large hot plate is used in the hood, the heat will cause the contaminants to rise within the hood. **Baffle Position B (Figure 2)** allows for more air to be exhausted from the upper part of the work area and gives the best containment in this instance.

If large volumes of very dense vapors are given off in the hood they will tend to sink within the hood. In this case, the amount of air drawn through the lower work area should be increased by using **Baffle Position C (Figure 2)**. Before setting up apparatus in the hood verify that the baffle setting is correct for the procedure to be performed.

Figure 2- Baffle Position A
Slot Adjustment for Normal Operation

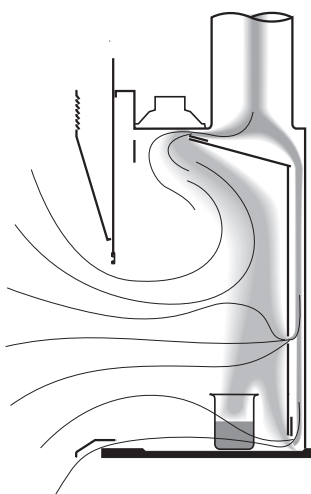


Figure 2- Baffle Position B
Slot Adjustment for Large Hot Plates

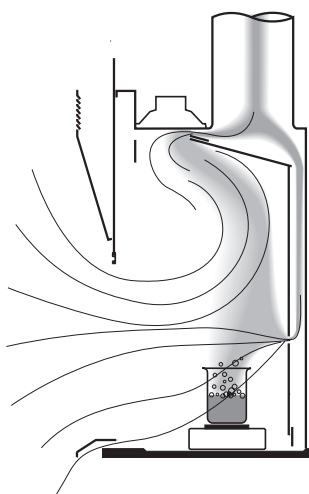
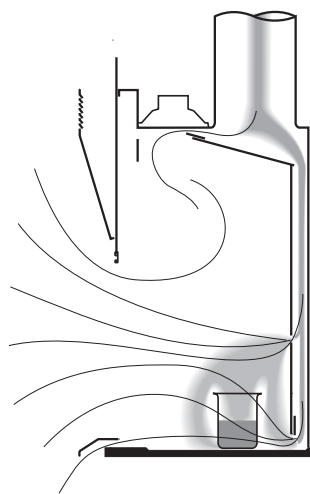


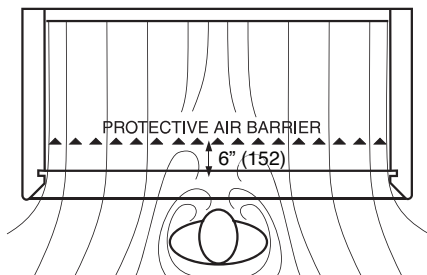
Figure 2- Baffle Position C
Slot Adjustment for Heavy Gases and Vapors



Maintaining the Protective Air Barrier for a Safe Work Area

When you stand in front of a laboratory fume hood, the air passing your body to enter the hood forms a zone of low air pressure directly in front of you which extends into the hood for about four inches. Since contaminants may enter this turbulent area from inside the hood, you should keep all hazardous materials at least six inches inside the hood, behind the protective air barrier (See Figure 3).

Figure 3 Formation of Protective Air Barrier

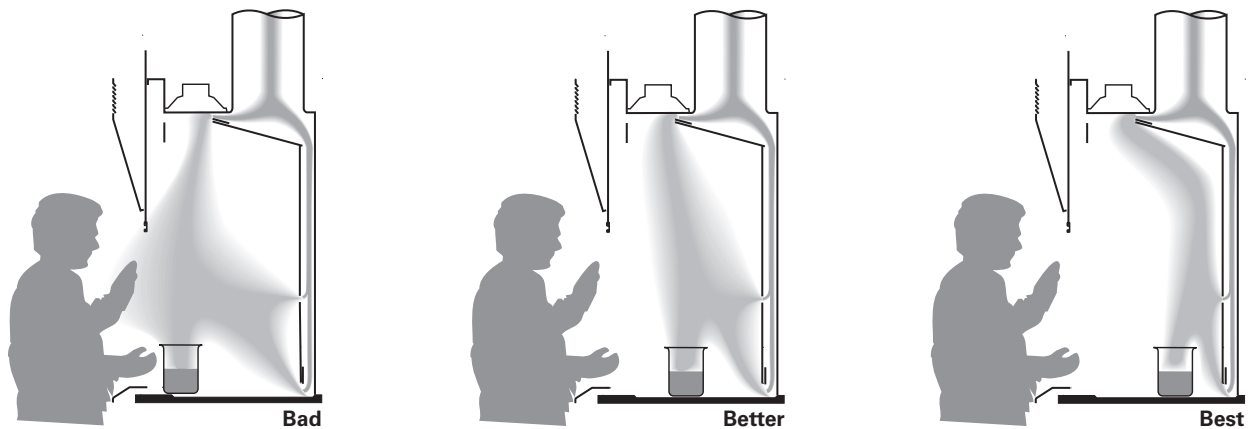


RECOMMENDED FUME HOOD WORK PRACTICES

Maintaining the Protective Air Barrier for a Safe Work Area (continued)

The farther behind the fume hood protective air barrier you place the source of contaminants, the greater the protection the hood provides you. Therefore, you should place the equipment and contaminants you're using as far back inside the hood as you can, being careful not to block the lower slot in the rear baffle (**See Figure 4**). You should never place apparatus so far back that you have to put your head into the hood while your procedure is generating contaminants.

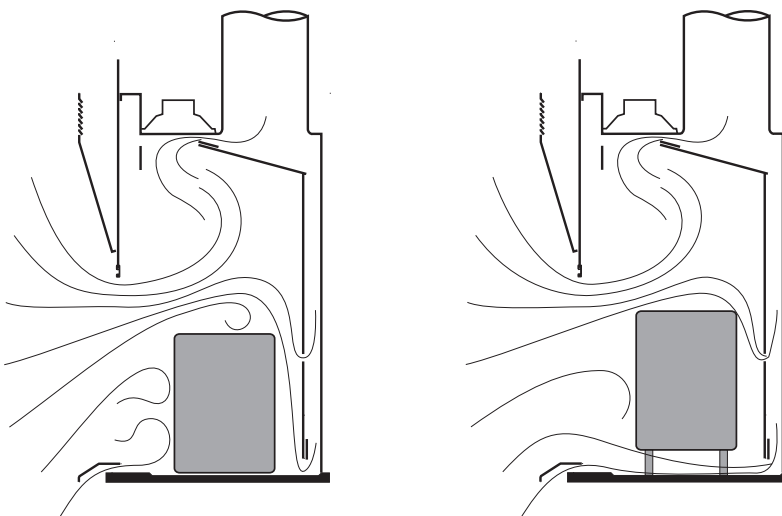
Figure 4 Effect of placement of contaminate source



Large containers or equipment such as furnaces, incubators and oil baths often interfere with air flow inside the fume hood by causing reverse flows and dead spots which may allow contaminants to escape from the hood. Putting large, bulky equipment you are using on legs will help reduce reverse air flows by allowing air to circulate beneath the equipment (**See Figure 5**). The fume hood should not be used for storage of chemicals and apparatus. You should remove all but the containers and equipment you're actually using from the hood. The air velocities used to provide containment in fume hoods are relatively low (in the range of 100 feet per minute (.51 m/s)) and the air flow patterns are easily disrupted. You should avoid making rapid movements while working at the hood or walking past the hood.

When you're working at your fume hood, you should always open the sash only as far as you need to for access to your work area.

Figure 5 Effect of large equipment

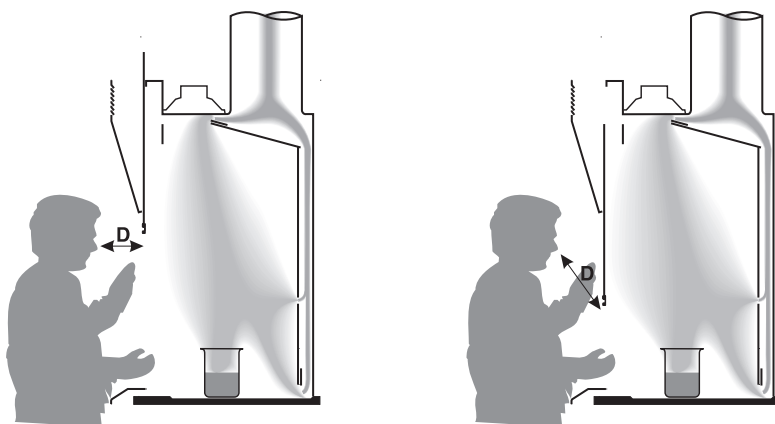


RECOMMENDED FUME HOOD WORK PRACTICES

Maintaining the Protective Air Barrier for a Safe Work Area (continued)

The lowered sash increases the distance (**D in Figure 6**) between your breathing zone and the area where contaminants may escape. Also, the smaller hood face area makes the hood less susceptible to room drafts and other external air disturbances. The sash also protects you by replacing part of the protective air barrier with a solid barrier against contaminants and splashing chemicals.

Figure 6 Effect of lowering the sash

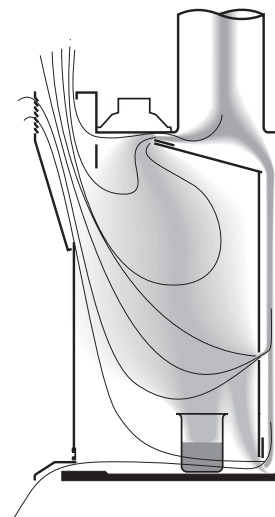


The lowered sash however, could create another problem because contaminants are present in the area behind the sash and may lead to increased corrosion of equipment in the hood. With a lowered sash, it is important for the operator to wear gloves when skin contact with airborne contaminants is objectionable. If your hood has horizontal sashes, be sure they're all in place when you're working with contaminants inside the hood. Operating the hood with any of the sashes removed reduces the protection they provide by decreasing the velocity of the air entering the hood face. If you remove any hood sashes while setting up equipment, be sure to replace them before beginning the actual procedure. If the hood has a sash stop with manual override to limit sash travel or is marked for a safe sash height, then the sash should not be raised above this point while contaminants are being generated within the hood.

If you don't need continuous access to the equipment inside the fume hood, you should close the sash completely (**See Figure 7**). The closed sash will protect you from the flying debris of a small explosion or runaway reaction. It will eliminate the effects of room drafts or other adverse air currents. You should note, however, that keeping the sash closed can lead to increased corrosion of equipment inside the hood because any contaminants will be dispersed throughout the hood interior.

Figure 7

Airflow through By-Pass with Sash Closed



Fume Hood Checklist

- The hood is the correct type for the work to be performed.
- The flow monitoring device indicates adequate air flow.
- The baffle setting is correct for the intended use.
- There are no unnecessary chemicals in the hood.
- All equipment is at least six inches behind the hood face.
- All procedures are performed with the laboratory worker's head remaining outside the hood.
- Equipment with large flat surfaces parallel to the hood face is placed on stands with legs.
- The sash is lowered to the minimum possible height.
- All safety equipment is close to the hood in case of fire or explosion.
- All laboratory workers are following the procedures outlined in this booklet, as well as any additional fume hood safety guidelines supplied by the hood manufacturer.

Glossary of Hood Terms and Definitions

Access Opening: Part of the fume hood or glove box through which work is performed - entrance.

ACGIH: American Conference of Government Industrial Hygienists.

Air Foil: Curved or angular member at front of hood designed to reduce air turbulence.

Air Volume: Quantity of air normally expressed in cubic feet per minute.

Arrangement No.9: Fan configuration in which the motor is mounted out-board of the impeller shaft support frame.

Anemometer: Instrument for measuring low air velocities.

ASHRAE: American Society of Heating, Refrigerating and Air Conditioning Engineers.

Auxiliary Air: Air delivered directly to fume hood to reduce room air consumption - sometimes called supply or supplemental air.

Backward Inclined Blade Fan: Fan with large flat blades with the tips inclined away from the direction of rotation. Most suitable for highly corrosive applications. Recommended for most hood exhaust applications.

Baffle: Panel or panels located at rear of the hood interior which aid in distributing the flow pattern of air into and through the hood.

By-pass Hood: Hood which contains a by-pass and, usually, air foils - also called a constant volume hood.

Centrifugal Fans: Fan having a scroll-type housing and air flows perpendicular to the shaft on which the impeller wheel is mounted.

CFM: Cubic feet per minute - unit of air volume measurement.

Cross Draft: A flow of air that blows into or across the hood face.

Damper: Device installed in duct to control air volume - can either be pneumatically, electrically, or manually operated.

Differential Pressure: Difference in static pressure between two locations.

Duct: Round, Square or rectangular tube used to enclose moving air.

Duct Velocity: Speed of air moving in duct (measured in FPM)

Dynamic Barrier By-pass: A louvered front-to-back by-pass system located above the top sash that introduces by-pass air behind the operating sash plane to provide a buffer zone between the contaminated hood interior and the hood operator.

Face: Front opening of hood through which the user works.

Face Velocity: Speed of air moving into fume hood at face opening usually expressed in units of feet per minute.

Glossary of Hood Terms and Definitions (con't)

Fan: Air moving device consisting of a motor, impeller and housing- sometimes called a blower.

Forward Inclined Blade Fan: Fan with small, curved blades with the tips inclined in the direction of rotation. Best suited for less corrosive applications and auxiliary air supply.

FPM: Feet per minute; measurement of air velocity.

Fume Hood: A ventilated, enclosed work space, with an open front, intended to capture, contain and exhaust airborne contaminants generated within it- also called a laboratory hood.

Included Angle: Angle formed by and between two intersecting straight lines.

Kem-FP Coating: A fluoropolymer resin coating that exhibits outstanding chemical resistance. Is virtually unaffected by all commonly used corrosive chemicals.

Liner: Material used in the interior of the hood which is exposed to contaminants.

Louvered Panel: A panel with louvers to allow by-pass air to enter the hood when the sash is closed.

Make-up Air: Free or available air needed to permit fume hood to develop face velocity.

Manometer: Device used to measure air pressure differential- usually calibrated in inches of water.

Negative Pressure: Pressures lower than atmospheric pressure (Less than one atmosphere).

Perchloric Acid: A colorless, syrupy hygroscopic liquid, HClO_4 , used chiefly as a reagent in analytical chemistry. Explosively unstable when crystallized or when in contact with combustible materials at elevated temperatures.

Pitot Tube: Device for measuring velocity of air in a duct.

Positive Pressure: Pressures higher than atmospheric pressure (More than one atmosphere.)

Restricted By-Pass Fume Hood: Basic type of hood design with limited by-pass area. Commonly used in conjunction with "VAV" Variable Air Volume controls.

Safety Shield: Horizontal sliding transparent panel at face of hood which the user places in front of his body to protect himself from small explosions inside of hood.

Sash: Movable panel set in hood face, usually transparent and can be either vertical rising or horizontal sliding.

Side Walls (End Walls): The area between the interior hood liner, and the exterior end panel (4" (102mm) nominal dimension)

Smoke Candle: Device producing large quantities of smoke for testing hoods - also called smoke bomb.

Static Pressure: air pressure exerted perpendicular to the direction of flow, usually expressed in units of inches of water.

Superstructure: Part of hood assembly that excludes work top, base cabinets, auxiliary air chamber, and plumbing and electrical fixtures.

Supplemental (Supply) Air: Air delivered directly to fume hood to reduce room air consumption- also called auxiliary air.

V-Belt Drive Fan: Fan on which the motor is connected to the impeller wheel via a v-belt, sheaves, and an impeller wheel shaft. Allow the impeller wheel speed to be varied by using an adjustable motor sheave.

Variable Air Volume (VAV): Type of fume hood that utilizes controller to maintain constant face velocity by adjusting blower motor speed or balance damper in response to changes in sash position.

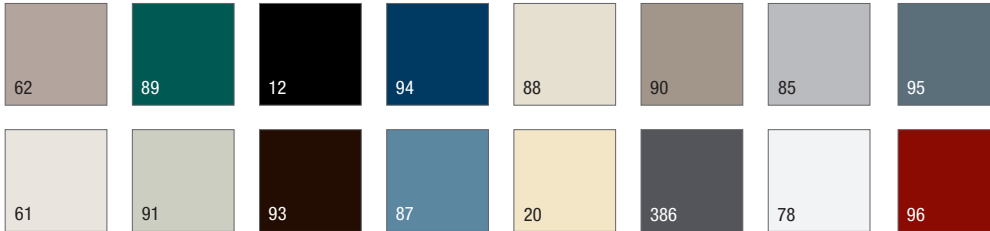
Velocity: Speed of air- measured in feet per minute.

Walk-in Hood: Floor-mounted, full height hood designed to accommodate tall apparatus and permit roll-in of instruments and equipment.



Fume Hoods

Available in these colors:*



- | | |
|----------------|------------------|
| 62 Driftwood | 61 Light Neutral |
| 89 Midori | 91 Sage |
| 12 Black | 93 Chocolate |
| 94 True Blue | 87 Mountain Blue |
| 88 Malt | 20 Sand Tan |
| 90 Amazon | 386 Force Grey |
| 85 Satin Grey | 78 Snow White |
| 95 Stormy Blue | 96 Wineberry |

* Final color result above may not appear as exactly as shown. Contact your local E.H. Price representative for exact specifications.

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06/03/2014

