Fume Hood Products Catalog

safety, performance and efficiency

for dynamic laboratories

Inspiring progress.

Hamilton SCIENTIFIC

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Fume Hood Technology

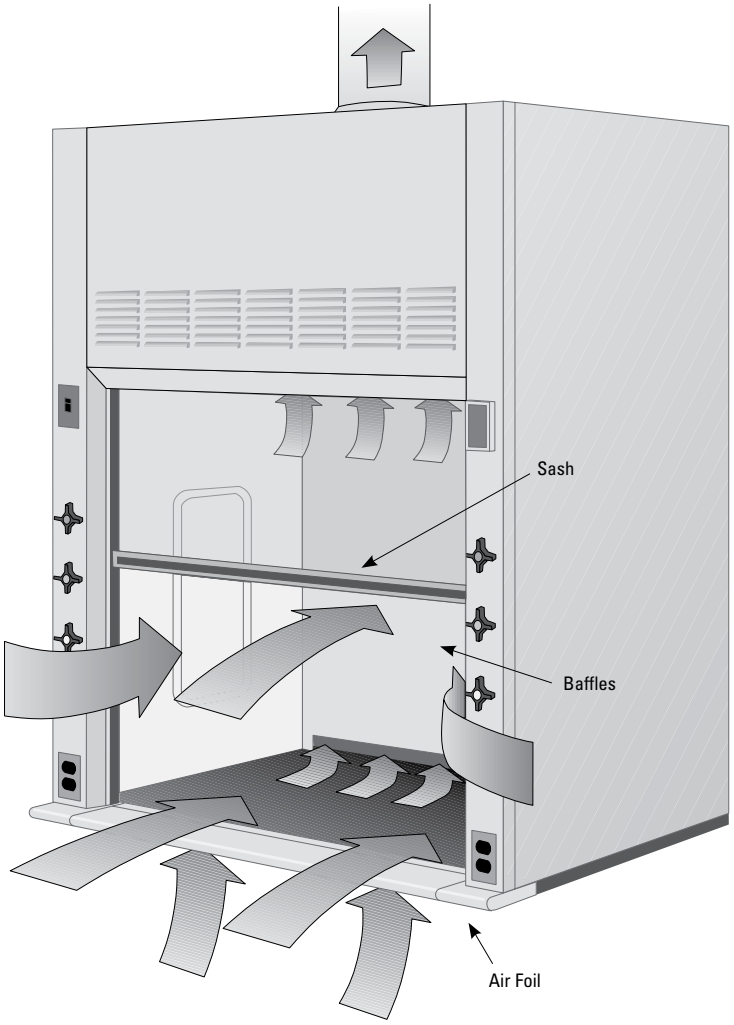
How a Fume Hood Works

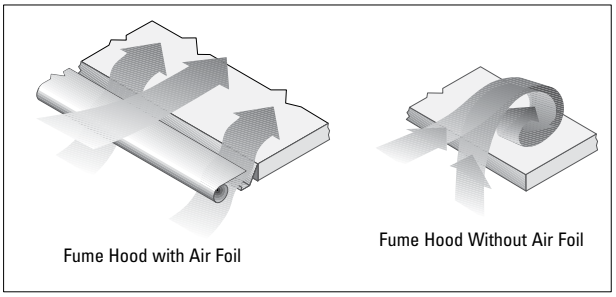
The complexities of fume hood operation become apparent when the many variables involved in exhausting fumes generated in the space are considered.

An adequate "pull" of air, known as **face velocity** is required to move fumes from the fume hood through the ductwork. Face velocity is measured in feet per minute (FPM) at the vertical sash plane. In order to maintain consistent face velocity, a certain quantity of air, or **exhaust volume**, is required. Exhaust volume is measured in cubic feet per minute (CFM).

Sash position also impacts face velocity. The sash is a transparent panel set in the fume hood face.

Airflow patterns into the fume hood are influenced by the **air foil**. Located just beneath the sash, the air foil decreases turbulence of air entering the fume hood. Some fume hoods feature air foils on the left and right sides of the sash as well.





These diagrams illustrate how an air foil can reduce the turbulence of air entering a fume hood, thus improving fume hood containment.

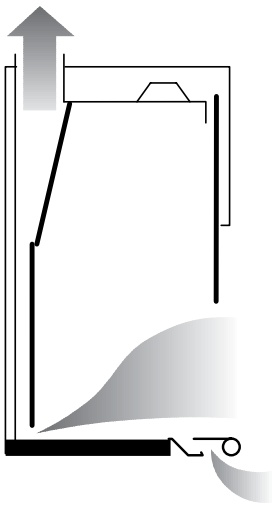
Fume Hood Technology

How a Fume Hood Works (continued)

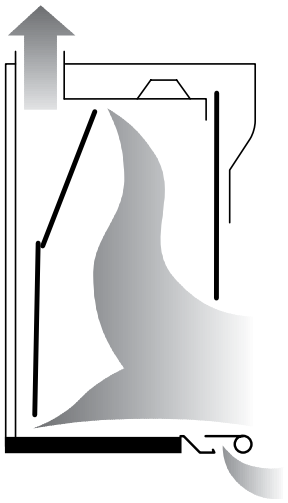
Located across the inside rear of the fume hood, **baffles** control airflow patterns through the fume hood. Baffle panels are located in a position determined to be most effective for the application. A remote adjustment option allows the user to reposition the baffles according to characteristics of effluents generated in the fume hood.

Remote baffle adjustment located on the outside of the fume hood corner post complies with OSHA Lab Standard recommendations.

Baffle Positions

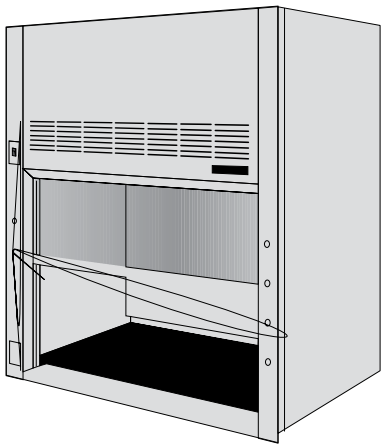


For heavier-than-air gases and fumes generated at the work surface, maximum air flow is provided at the bottom of the fume hood, near the work surface. The top slot is closed, and the center, side and bottom slots are open.



Concept and Pioneer fume hoods only have a fixed baffle for lower face velocity applications.

For lighter-than-air gases and high heat generation, maximum airflow is provided at the top of the fume hood. The top slot is adjusted to wide open, center and side slots remain at normal position, and the bottom slot is reduced.



Sash operating position while work is being performed in the fume hood is a maximum 18" opening for vertical rising sashes.

Fume Hood Technology

Fume Hood Exhaust Systems

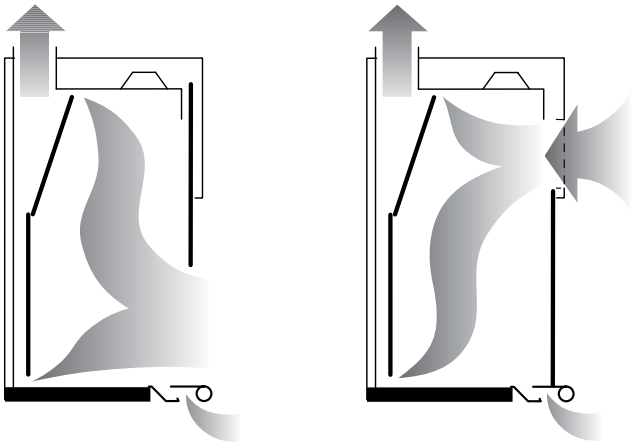
Two types of fume hood exhaust systems are **constant volume (CV) and variable air volume (VAV).** Either system can be used with individual or manifold duct and blower configurations (see page 8). The fume hood exhaust system must be compatible with the room's HVAC system.

The type of fume hood and related exhaust system will depend on the building's HVAC system, the number of fume hood in the lab, and any special or unique requirements. Consult with the Hamilton Scientific representative, Facilities Manager and/or HVAC contractor.

Constant Volume Exhaust Systems

Constant volume fume hoods maintain consistent exhaust volume regardless of sash position. Face velocity varies as the sash is moved. Three types of fume hoods can provide constant volume function: Bypass, Auxiliary Air, and Restricted Bypass.

Bypass Fume Hood with Constant Volume Exhaust Systems



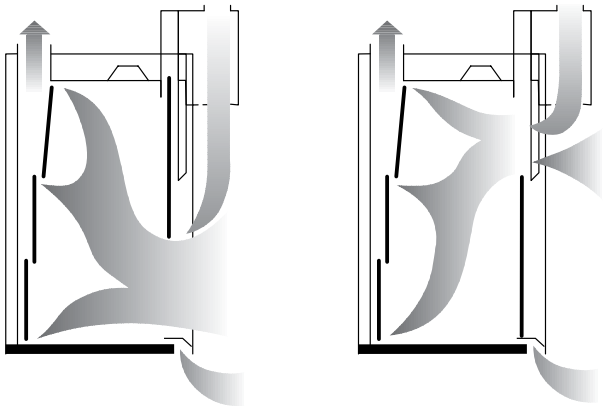
A Constant Volume Bypass fume hood shown first with the sash in the operating position and room air entering from the sash opening, then with the sash closed and room air entering through the louvered and lower bypass openings.

Incorporating a bypass, or additional source of exhaust air when the sash is lowered, is one way to keep face velocities within an acceptable range while maintaining a balance between the room ventilating system and fume hood exhaust volume.

Constant volume fume hoods are equipped with a bypass located above the sash which open as the sash is lowered thereby allowing additional air to enter the fume hood. Hamilton Scientific fume hoods also feature a **lower bypass** located below the bottom air foil sill which continuously purges the work surface area.

The face velocity will increase as the sash is lowered. The bypass acts as a relief to limit the increase in face velocity. This negates adverse effects on papers, powders or flames inside the fume hood.

Auxiliary Air Fume Hood with Constant Volume Exhaust Systems



An Auxiliary Air fume hood shown first with the sash in operating position and auxiliary air entering from the sash opening, then with the sash closed and auxiliary air entering directly into the fume hood compartment.

When there is insufficient room air to supply the fume hood's exhaust volume requirements, an **auxiliary air** fume hood may be recommended.

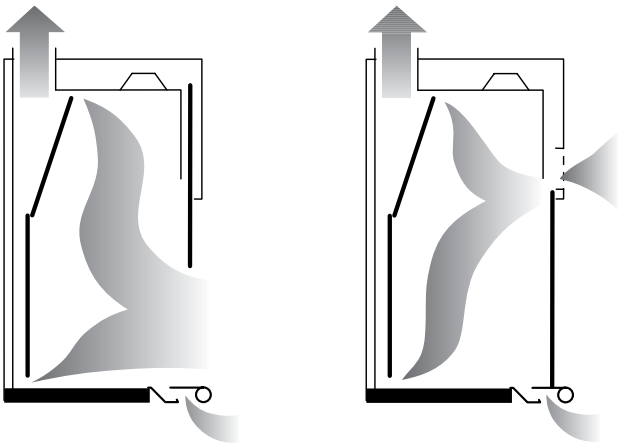
Air is brought in from the outside, heated to room temperature in winter, or cooled to room temperature +20° in summer, then supplied to the fume hood. (Hamilton Scientific fume hoods will reach over 95% efficiency in controlling and capturing the supply air when its temperature falls in the "room air to +20°F" range.)

When the sash is raised, auxiliary air is directed to the fume hood face. When the sash is lowered, auxiliary air enters the fume hood from above.

Operating with 50 to 70% auxiliary supply air, these fume hoods use significantly less room air, which can result in energy savings. However, supply air temperature and moisture content should be carefully controlled to manage containment effects on work performed in the fume hood. Undesirable turbulence at the fume hood face can be minimized by careful balancing of the fume hood with the room ventilation system.

Fume Hood Technology

Restricted Bypass Fume Hood with Constant Volume Exhaust Systems



A Restricted Bypass fume hood shown first with sash in the operating position and air entering through the sash opening, then with sash closed and very little air entering the fume hood compartment.

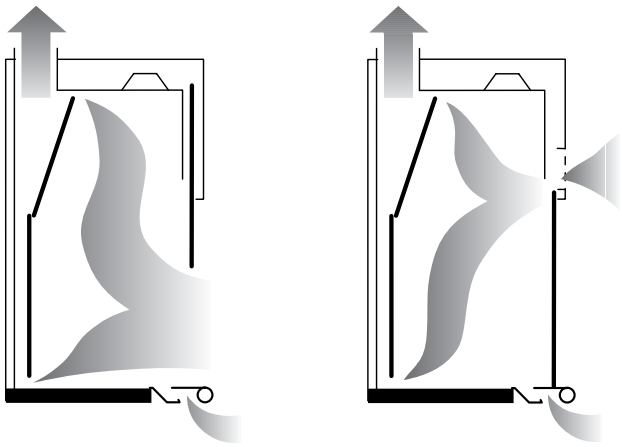
Constant volume operation can be achieved when Restricted Bypass fume hoods are equipped with "face opening reducing devices" and when the exhaust system is sized to maintain operational exhaust volume and face velocity at the reduced opening.

Face opening reducing devices used with restricted bypass fume hood designs include horizontal sashes, combination sashes, and postless sashes. (See page 15.) These modified sash designs can reduce exhaust volumes by as much as 30% to 60%. This reduced exhaust volume enables the bypass to be reduced thus achieving constant volume operation without excessive face velocity increases.

Variable Air Volume (VAV) Exhaust Systems

VAV systems maintain constant face velocities by varying exhaust volume in response to changes in sash position. Maximum air is exhausted when the sash is open; minimum air is exhausted when the sash is closed. A minimum flow of 25 CFM per square foot of interior work space, as stated by NFPA, should be maintained to achieve optimum containment and satisfactory dilution with the sash closed.

Restricted Bypass Fume Hood with VAV Exhaust Systems



A Variable Air Volume (VAV) system with restricted bypass, shown first with sash in the operating position and damper fully open, then with sash closed and damper allowing minimal exhaust.

All VAV systems should be used with a restricted bypass fume hood. Since only the amount of air needed to maintain the specified face velocity is pulled from the room, significant energy savings can be realized when the sash is in a closed position.

Either vertical or horizontal sash configurations can be used effectively in VAV applications.

Important: Correlate multiple VAV fume hood controllers with room air supply units so that sufficient air volume is available for every fume hood and room pressure is maintained.

Hamilton Scientific Fume Hood Products

Fume Hood Technology

Face Velocity, Exhaust Volume, and Static Pressure

Face velocity, exhaust volume, and static pressure are critical parameters in fume hood performance, functioning in unison with the room's HVAC design.

Published Face Velocity Guidelines

The appropriate face velocity will vary depending on usage of the fume hood and the way in which the fume hood has been set up. There are several published guidelines that indicate general ranges for face velocity settings. Additional state and local guidelines for face velocity may exist.

Organization	Reference	Face Velocity
OSHA	29 CFR 1910 • 1450	60-100 FPM
ACGIH	Industrial Ventilation Manual 23rd Edition,	60-100 FPM
ANSI/AIHA	Z9.5, 2003	80-120 FPM
NFPA	NFPA 45, 2000	80-120 FPM
SEFA	SEFA 1, 2006	60-100 FPM

Consult with a planner for the appropriate face velocity for the fume hood selected, taking into account fume hood setup processes and the specific application.

Under typical operating conditions, Hamilton Scientific fume hoods most reliably provide containment at the levels specified by applicable industry standards when operated at a 100 feet per minute face velocity.

For other Hamilton Scientific fume hoods, please refer to the appropriate product specifications and consult with a lab planner to determine an appropriate face velocity for each specific application.

Determining Exhaust Volume

In order to calculate exhaust volume, fume hood type, size and the number of air changes per hour for the lab are required. (Consult with an HVAC professional or mechanical engineer.)

To determine the quantity of room air available for fume hood exhaust (in CFM), use the following equation:

Exhaust volume (CFM) =
Room size (cubic feet) x [room changes per hour ÷ 60]

To determine exhaust volume for a particular fume hood, use the following equation:

Exhaust Volume (CFM) =
Face velocity (FPM) x fume hood opening (ft^2)

Minor discrepancies can be resolved by adjusting fume hood exhaust volume or the amount of air delivered to the room. Choosing an alternative fume hood style or sash configuration may be the only way to reconcile major differences.

As part of the balance contract at installation, a duct traverse should be performed to determine proper fume hood volume.

Static Pressure

Static pressure is the resistance created as air moves through a fume hood. Sometimes referred to as static pressure loss, it is measured in inches of water. Fume hoods operate more efficiently and with less noise at lower static pressure values.

A low fume hood static pressure rating indicates that the fume hood is offering minimal resistance to air flow, resulting in reduced noise and requiring a smaller exhaust fan. A few fume hood design characteristics that also affect static pressure include:

- Larger baffle slots make it easier for air to move through the fume hood
- A larger exhaust outlet enables more air to pass through at lower velocity
- A tapered exhaust collar reduces turbulence
- Together, the correct exhaust collar and baffle configuration will reduce fume hood static pressure

The static pressure rating of the fume hood is very important to correct sizing of the blower system and should be provided to the HVAC contractor to ensure a properly sized exhaust system.

Fume Hood Technology

Glossary

ACGIH – American Conference of Governmental Industrial Hygienists

ADA – Americans with Disabilities Act

Air Foil – Shaped or streamlined member at fume hood entrance designed to enhance movement of air into the fume hood

Air Volume – Rate of air flow, normally expressed in cubic feet per minute (CFM)

ASHRAE – American Society of Heating, Refrigerating and Air Conditioning Engineers, a professional group that sets industry-accepted standards for fume hood testing procedures

Auxiliary Air – Supply or make-up air delivered external to the chamber of a fume hood to reduce air consumption

Baffle – Panels located across back of fume hood interior which control pattern of air moving through the fume hood

Bench – Type of fume hood designed to rest atop a counter or base cabinet

Blower – Air-moving device (or fan) consisting of motor, impeller and scroll

Bypass – Compensating opening that helps maintain constant volume exhaust from fume hood, regardless of sash position

Canopy Fume Hood – Ceiling-suspended ventilating device for non-critical use with heat, water vapor, odors, etc.

CFM – Cubic feet per minute; unit of air volume measurement

Combination Sash – Horizontal panels in a vertically rising frame; see Sash

Constant Volume – Type of fume hood exhaust system that exhausts the same volume of air, regardless of sash position

Containment – Extent to which fumes are confined within the fume hood compartment

Damper – Device installed in duct to control air flow volume

Demonstration Fume Hood – Fume hood accessible from front and back sides used for demonstration purposes

Diversity – Percentage of total fume hood that are in operation at one time

Duct – Round, square, or rectangular tube used to enclose moving air

Duct Velocity – Speed of air moving in duct, measured in feet per minute (FPM)

Entrance – Fume hood front or access opening

Exhaust Collar – Place where exhaust duct connects to fume hood and through which all exhaust air passes

Exhaust Volume/Parameters – Quantity of air exhausted by the fume hood; quantity of air required to maintain desired face velocity, expressed in cubic feet per minute (CFM)

Face Velocity – Speed of air moving into the fume hood through the face opening (through the sash), measured in feet per minute (FPM)

Floor-mounted – Tall or full-height type of fume hood, designed for large or tall apparatus

FPM – Feet Per Minute; measurement of air velocity

Fume Hood – Five-sided ventilated enclosure used in laboratories to collect and exhaust contaminants

Fume Hood Diversity – See **Diversity**

Liner – Fume hood interior sides, back and top, including baffle

Lintel – Portion of fume hood front located above access opening

Louvers – Slit-like openings in the lintel that allow bypass air to enter the fume hood when the sash is closed

LPM – Liters Per Minute; Metric measurement of air volume

Magnehelic – Type of gauge suitable for measuring very low air pressures

Manometer – Device used to measure air pressure differential

Makeup Air – Free or available air needed to permit fume hood to develop face velocity

MPM – Meters Per Minute; Metric measurement for air velocity

NFPA – National Fire Protection Association

Negative Pressure – Pressures lower than one atmosphere

Plenum Chamber – Chamber or enclosure where air moves at reduced velocity and has different pressure from balance of system or atmosphere

Positive Pressure – Pressures higher than one atmosphere

Restricted Bypass Fume Hood – Fume hood operating type, designed with limited bypass area; commonly used in conjunction with Variable Air Volume (VAV) exhaust systems and restricted sash opening designs

Safety Shield – Transparent horizontal panel used in conjunction with a bench fume hood and vertical-rising sash that provides added protection for the user

Sash – Sliding glass panel set in the fume hood face that provides access to the fume hood interior

Sash Operating Position – Position of the sash while work is being performed in fume hood, typically an 18" opening for vertical rising sashes

Sash setup Position – Position of the sash while the fume hood is being loaded with materials to perform work

Service Fitting – Water faucets and gas valves mounted on or fastened to the fume hood

Slot Velocity – Speed of air moving through fume hood baffle openings

Fume Hood Technology

Glossary (continued)

Smoke Stick – Smoke-producing item used in evaluating fume hood airflow patterns and containment performance

Static Pressure – Air pressure, or resistance, in fume hood or duct, expressed in inches of water

Superstructure – Portion of the fume hood supported by base cabinets, the work surface or the floor

Supplemental Air – Air delivered to a fume hood to reduce volume of air exhausted from room, also known as supply air; see **Auxiliary Air**

Total Pressure – Sum of velocity pressure and static pressure as measured in duct

Transport Velocity – Speed of air moving in duct; used when particles must be carried by air stream

UL 1805 – Verifies conformance to electrical, mechanical and airflow characteristics

VAV – See Variable Air Volume

Variable Air Volume – Type of fume hood exhaust system that typically maintains constant fume hood face velocity by adjusting blower motor speed or a balance damper in response to changes in sash position

Velocity – Speed of air, measured in Feet per Minute (FPM)

Velocity Pressure – Force per square inch applied by moving air

Velometer – Instrument used to measure air flow velocity

Volume – Quantity of air, usually measured in cubic feet per minute (CFM)

Water Gauge (WG) – Measuring device using the weight of a column of water, calibrated in inches

Work Surface – Top material; area in fume hood where apparatus rests and where work takes place

General Fume Hood Operating Instructions

Warning

This product is intended for use with certain chemicals that can cause serious injury or illness through inhalation or physical contact. While this product is intended to minimize exposure to certain hazardous chemicals when selected, installed and operated properly, its performance and the safety of the user is affected by a number of factors. These include the HVAC system, the specific chemicals and processes being used, proper operation and the condition of the room.

Before using this fume hood, consult the owner's industrial hygienist or safety representative to make sure: 1) the specific fume hood alarms, controls and the HVAC system have been properly selected and are operating correctly, 2) the fume hood has been tested after installation and routinely thereafter to ensure the fume hood is providing the proper containment for the specific chemicals and processes being used, 3) there has been appropriate training on the correct use of the fume hood and handling of the specific chemicals and the fume hood operating instructions have been reviewed, 4) any personal protective devices that are required are properly selected and provided, and 5) the fume hood is being operated at the appropriate face velocity. The fume hood should never be operated with the sash in the full open position.

Failure to follow these instructions could result in physical injury or illness

1) Do not use this fume hood unless you have received proper training from the owner's industrial hygienist or safety representative.
2) This fume hood is not intended to be used with all chemicals or all chemical processes. Consult the owner's industrial hygienist or safety representative to determine whether the fume hood is appropriate for the chemicals and processes to be used.
3) Verify that the fume hood exhaust system and controls are operating properly and providing the necessary air flow. If in doubt, the owner's industrial hygienist or safety representative should be consulted. It is recommended that the fume hood be equipped with an air flow monitoring device. Before using the fume hood, verify that the monitor is operating properly by testing the monitor.
4) The fume hood should not be operated with the sash in the full open (setup) position. When the fume hood is in use, the opening of the sash glass should be kept at a minimum. On a vertical rising sash, the sash glass should be no higher than 18". Horizontal sliding panels on combination sashes must be closed when sash is raised vertically. The sash should remain closed when the fume hood is not in use.
5) Place chemicals and other work materials at least six (6) inches inside the sash.
6) Do not restrict air flow inside the fume hood. Do not put large items in front of the baffles. Large apparatus should be elevated on blocks. Remove all materials not needed for the immediate work. The fume hood must not be used for storage purposes.
7) Never place your head inside the fume hood.
8) External air movement can affect the performance of the fume hood. Do not operate near open doors, open windows or fans. Avoid rapid body movements. Do not open the fume hood if there are cross-drafts or turbulence in front of the fume hood. Do not open the sash rapidly.
9) If this fume hood is equipped with adjustable baffles, do not adjust the baffles without consulting the owner's industrial hygienist or safety representative.
10) Wear gloves and other protective clothing if contact with contaminants is a hazard.
11) Clean spills immediately.
12) If fumes or odors are present, stop operating the fume hood, close the sash and contact the owner's industrial hygienist or safety representative immediately.
13) It is recommended that this fume hood be tested and certified annually by the owner according to applicable industry and government standards.

Research and testing

Quality Control Testing & Certification

The Hamilton Scientific Fume Hood Test Facility is used for quantitative and qualitative evaluations, quality control and product development purposes.

Testing and certification to ANSI/ASHRAE 110 1995 is standard procedure for each type and size of fume hood.

Testing procedures include the following criteria:

- **Face velocity** profile is generated from a computer which monitors a probe grid. Probes in the grid, which is placed in front of the fume hood, take multiple readings per second.
- **Fume hood containment** is tested using a mannequin with a leak meter mounted to its breathing zone to simulate a person standing in front of a fume hood. When a tracer gas is injected into the fume hood, the meter measures escaping gas.

Inspections are also performed at each critical stage in the manufacturing process to ensure that every fume hood is built to the highest Hamilton Scientific standards.

Testing Custom Fume Hood Designs

If none of the products in the standard offering will meet specific application requirements, Hamilton Scientific technicians will develop a custom fume enclosure to perform to specifications. A prototype may be developed and operating parameters verified in the Fume Hood Test Facility.

Testing for Special Lab Conditions – Before Purchase

Achieving optimum fume hood operation is challenging under any circumstances due to the complexity of the variables involved. By evaluating a specific fume hood under a variety of operating conditions prior to purchase specifications are confirmed before installation.

The Fume Hood Test Facility has a sealed, environmentally controlled chamber where critical aspects of a specific laboratory environment can be recreated.

- The fully adjustable exhaust system can duplicate fume hood operating parameters, including face velocity and exhaust volume.
- Supply air temperatures can be adjusted to simulate both winter and summer conditions.
- The location of air vents, traffic aisles and doorways can be recreated to simulate their impact on containment and face velocities.
- Smoke generation equipment reveals airflow vectors under all conditions.

Prototypes and new designs are routinely subjected to this type of intensive testing. Technicians also will test samples of standard fume hood under specific operating conditions upon request. Customers are encouraged to be present at the Two Rivers facility for this testing.

See Fume Hood in Operation

Visits to the Product Showroom in Two Rivers, Wisconsin are encouraged. Several types of working fume hoods are installed for personal inspection. Contact your local Hamilton Scientific representative to set up an appointment.

Visiting the showroom presents an opportunity to view all lines of Hamilton Scientific laboratory casework, furniture systems, fixtures and accessories.

Ordering Information

Follow the steps in this section to select the best fume hood model for a particular application, then fit it out with appropriate options and accessories.

Please record the following information before beginning:

- Room size (length x width x height)
- Lineal feet of fume hood space required
- Room air changes per hour*
- Lab heat load*
- Type of lab and nature of work performed
- Types of materials handled
- Frequency of use
- Sizes of apparatus to be used in the fume hood

*Consult with the facilities manager or HVAC contractor.

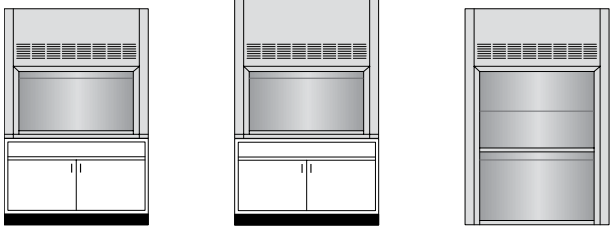
IMPORTANT: Fume hood must be carefully coordinated with the building's HVAC system, sink outlet material, trap material, and building acid waste system. Failure to verify compatibility of these elements can result in costly alterations or less-than-optimal component or system function. **Compatibility is the responsibility of the laboratory specifier, as is compliance with local and state codes.**

Step 1 Select a Physical Style

Bench fume hoods are superstructures designed for installation on base cabinet/work surface assemblies.

High-line fume hoods are bench models designed with extra interior clearance to accommodate apparatus up to 60" (1524 mm) high.

Floor-mounted fume hoods are designed for large, complex laboratory apparatus setups and roll-in equipment. For flexible work and storage arrangements, Floor-mounted fume hoods can be combined with removable shelves and/or an adjustable-height table.



Bench | High-line | Floor Mounted

Step 2 Determine if a Special-Purpose Fume Hood is Required

A Special-Purpose fume hood may be required when, for example:

- Radioactive materials or perchloric acid will be handled in the fume hood.
- Neither a general-purpose high-line nor general-purpose floor-mounted model will accommodate especially tall or large apparatus.
- Wheelchair-bound persons will be using the fume hood.
- A classroom situation calls for special demonstration fume hood.

If any of these conditions apply to a special situation, review special-purpose fume hood product pages. If one of these fume hood meet a particular need, continue with Step 4 to determine the base product number.

If a special-purpose fume hood is required and none of the models in this catalog will meet a specific need, a Hamilton Scientific representative will help design a custom fume hood for the specific requirements.

Special Purpose Fume Hood

Education	ADA	Research/ Chemical	Other
Horizon	Concept ADA	Radioisotope	Canopy
Pass/Through Demonstration		Perchloric Acid	
PaceAire		Postless Sash	
Table Tops			

Step 3 Determine the Appropriate Operating Type

By now a determination of the style and size of fume hood needed, and a decision made that you do not require a special purpose model.

The next step is to determine the operating type that is most appropriate for the particular application.

Refer to pages 4-9 for information on fume hood exhaust systems, and consult with the facilities manager, architect, lab planner, HVAC contractor, or Hamilton Scientific representative if assistance is needed.

The diagram illustrates the operating-type choices available for each style of general purpose fume hood. Review the product page for the fume hood that is preferred. If none of these models are appropriate, a Hamilton Scientific representative will help design a custom fume hood that meets a specific requirement.

General Purpose Fume Hood

Bench	Bench High-line	Floor-mounted
Bypass	Bypass	Bypass
Auxiliary Air	Auxiliary Air	Auxiliary Air
Restricted Bypass	Restricted Bypass	Restricted Bypass
		Restricted Bypass Distillation

Step 4 Select a Liner Material

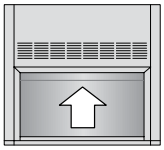
Liner Material	Suffix*	Advantages	Disadvantages
Polyresin	P	High illumination, easy to clean. Strong and resilient. High chemical resistance	
Cement-based Board	R	Low cost.	Low light reflectivity. Difficult to clean. Brittle.
Cement-based Board with White Enamel	E	High light reflectivity, easy to clean.	Brittle.
Stainless Steel	S	Work surface is caulked to superstructure.	Subject to attack by some chemicals.
Stainless Steel	K	Coved corners make this easy to clean. Ideal for Perchloric Acid use.	Subject to attack by some chemicals.
PVC	C	Excellent for highly corrosive applications.	Material loses structural integrity when exposed to high temperatures.

* Suffix for ordering purposes.
See Page 151-152 for more complete liner descriptions.

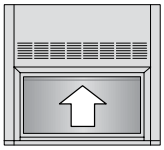
Step 5 Select a Sash Type

The standard sash on most fume hood models is a vertical rising frameless sash. The unique frameless design captures the edge of the sash glass in a vertical sash track located behind the fume hood front corner post. In the event of an explosion, this positive containment design is significantly more effective in retaining the glass sheet than a framed sash. A second benefit of an unframed sash is full width visibility of the fume hood interior.

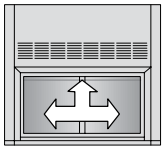
Optional sash configurations include framed vertical rising, horizontal, and combination. If you are interested in energy conservation, compare the exhaust volume value in the Exhaust Parameters chart on the product information page with the exhaust volume indicated for the sash option being considered. The lower the exhaust volume value, the greater is the potential energy savings.



Unframed
Vertical Rising



Framed
Vertical Rising



Combination
Vertical/Horizontal

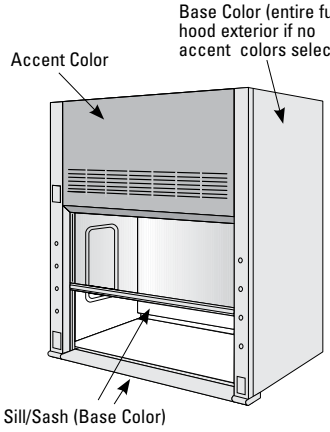
Most fume hood models are available with an optional sash. Sash options applicable to each fume hood model are indicated on the specific product information page.

Sash Types: O = Standard unframed
F = Framed sash option
B = Combination sash option - bench-top fume hood

Step 6 Select a Color

The two-digit color codes are listed separate from the product number. Three selections can be made:

1. **Base Color** - this is side panels and front vertical corner posts if an accent color is selected, or, the entire exterior panel surface if an accent color is not selected.
2. **Accent Color** - a second color applied to the lintel panel above the sash.
3. **Sash/Sill** - sash pull and sill airfoil will be the same color as the base color unless otherwise specified.



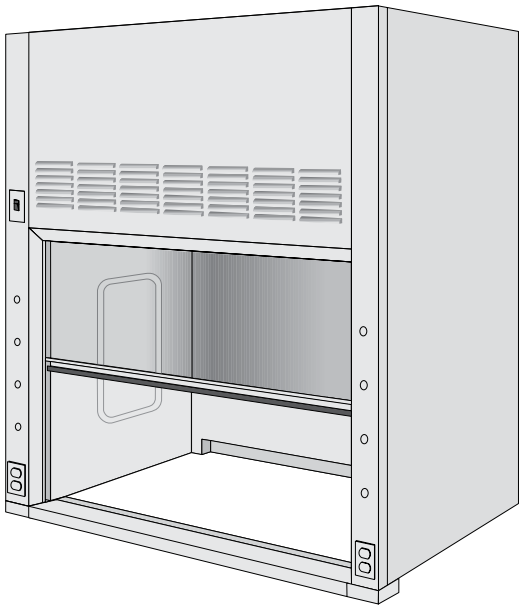
Fume Hood Base and Accent Colors

BK	Black	**IN**	Indigo
BL	Blue	**KK**	Khaki
BS	Blue Slate	**PW**	Petal White
BD	Brown Burgundy	**PM**	Piedmont Green
CH	Chameleon	**PL**	Platinum
DK	Dark Khaki	**PA**	Purple
G1	Dove Grey	**SA**	Sand
G3	Grey Slate	**SS**	Sandstone
HG	Hunter Green	**SW**	Shell White

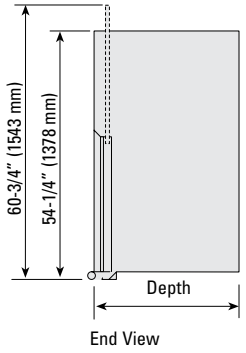
RECOMMENDATION: Prior to making your final selection, please contact your representative to obtain samples.

SafeAire II Restricted Bypass Superstructure

For use with Constant Volume or Variable Air Volume Exhaust Systems



- Designed for installation on 26-1/8" (663 mm) to 42" (1067 mm) deep work surface.
- Recommended for use when an independent VAV controller (supplied by others) is utilized.
- Also recommended for use with horizontal or combination sashes used in conjunction with VAV or constant volume systems.
- Incorporates a 2" (51 mm) bypass above sash when closed to minimize leakage at minimum flow.
- Vertical sash is full-view, laminated safety glass with full-width recessed pull.
- 28-1/2" (724 mm) high opening for setup.
- Two-tube (T-8) fluorescent light fixture, black light switch and flush plate, and two black duplex 120 VAC receptacles and flush plates.
- 96" (2438 mm) wide units have two light fixtures.
- Plugged holes for future service fixture installation standard on both posts.
- Shipped assembled.
- 31-1/4" (794 mm) deep fume hoods require a sink base unit below a rear cupsink.
- UL 1805 classified
- See page 17 for additional product features common to all SafeAire II fume hoods.



Exhaust Parameters							
		100 FPM Vertical Sash 28-1/2" Opening*		100 FPM Vertical Sash 18" Opening*		100 FPM Combination Sash 28-1/2" Opening	
Fume Hood Size	Collar Size	CFM	SP	CFM	SP	CFM	SP
36" (914 mm)	6" x 9" (152 x 229 mm)	520	.22	360	.12	N/A	N/A
48" (1219 mm)	6" x 15" (152 x 381 mm)	760	.18	485	.09	420	.06
60" (1524 mm)	6" x 23" (152 x 584 mm)	1000	.18	660	.09	570	.07
72" (1829 mm)	6" x 23" (152 x 584 mm)	1250	.27	785	.13	690	.12
96" (2438 mm)	6" x 30" (152 x 762 mm)	1710	.26	1081	.09	980	.08

See page 12 for operating instructions.
*Vertical 28-1/2" sash opening is for setup only; operating position is an 18" opening.
Combination sash volume is based on vertically closed horizontally open sash position.

SafeAire II Restricted Bypass Superstructure

For Use With Constant Volume or Variable Air Volume Exhaust Systems

	Base Product Numbers							
	31-1/4" Depth		36" Depth		37-1/4" Depth		43-1/4" Depth	
Width	Fixed Baffle	Remote Baffle Adjustment	Fixed Baffle	Remote Baffle Adjustment	Fixed Baffle	Remote Baffle Adjustment	Fixed Baffle	Remote Baffle Adjustment
36" (914 mm)	54L2766__	54L2768__	60L2766P_	60L2768P_	—	—	—	—
48" (1219 mm)	54L2769__	54L2771__	60L2769P_	60L2771P_	61L2769P_	61L2771P_	62L2769P_	62L2771P_
60" (1524 mm)	54L2772__	54L2774__	60L2772P_	60L2774P_	61L2772P_	61L2774P_	62L2772P_	62L2774P_
72" (1829 mm)	54L2775__	54L2777__	60L2775P_	60L2777P_	61L2775P_	61L2777P_	62L2775P_	62L2777P_
96" (2438 mm)	54L2778__	54L2780__	60L2778P_	60L2780P_	61L2778P_	61L2780P_	62L2778P_	62L2780P_

Liner Materials – Insert suffix in **8th** digit of product number for 31-1/4" depth only:
P – Polyresin
R – Cement-based Board
E – Cement-based Board/White Enamel
S – Stainless Steel (Not available on 36" wide fume hood)
C – PVC

Sash Options – Insert suffix in **9th** digit of product number:

Sash Type	Suffix
Standard	0
Combination	B
Framed	F

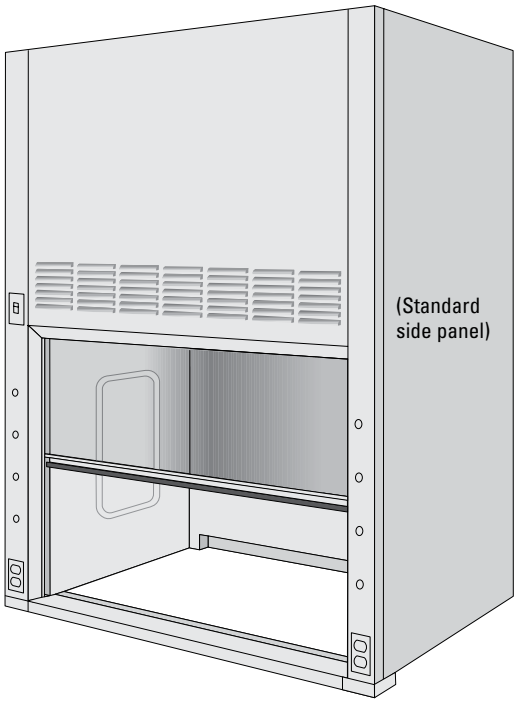
See page 15 for additional sash information.
36" wide fume hood only available with standard sash.

Other Information – To complete the fume hood assembly, refer to the sections listed below:
Fixtures (pages 88-95).
Alarms (page 96).
Work surfaces, cupsinks and traps (pages 98-103).
Base cabinets (pages 105-108).
Ceiling/Blower Enclosures (pages 110-118)
Accessories (pages 119-123).
Order end panels separately (page 117).

SafeAire II High-line Restricted Bypass Superstructure

For use with Constant Volume or Variable Air Volume Exhaust Systems

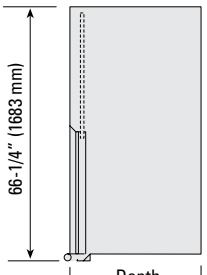
- Designed for installation on 26-1/8" (663 mm) to 42" (1067 mm) deep work surface.
- Extra-height interior to accommodate apparatus up to 60" (1524 mm) high.
- Recommended when an independent VAV controller is used (supplied by others).
- Also recommended for use with horizontal or combination sashes used in conjunction with VAV or constant volume systems.
- Incorporates a 2" (51 mm) bypass above sash when closed to minimize leakage at minimum flow.
- Vertical sash is full-view, laminated safety glass with full-width recessed pull.
- Choice of 28-1/2" (724 mm) or 36" (914 mm) high opening for setup.
- Two-tube (T-8) fluorescent light fixture, black light switch and flush plate, and two black duplex 120 VAC receptacles and flush plates.
- 96" (2438 mm) wide units have two light fixtures.
- Plugged holes for future service fixture installation standard on both posts.
- Shipped assembled.
- 31-1/4" (794 mm) deep fume hoods require a sink base unit below a rear cupsink.
- UL 1805 classified.
- See page 17 for additional product features common to all SafeAire II fume hoods.



Exhaust Parameters

		100 FPM Vertical Sash 28-1/2" Opening*		100 FPM Vertical Sash 18" Opening*		100 FPM Vertical Sash 36" Opening*		100 FPM Horizontal Sash 28-1/2" Opening		100 FPM Horizontal Sash 36" Opening	
Fume Hood Size	Collar Size	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP
48" (1219 mm)	6" x 15" (152 x 381 mm)	760	.18	485	.09	960	.27	420	.06	510	.06
60" (1524 mm)	6" x 23" (152 x 584 mm)	1000	.18	660	.09	1260	.28	570	.07	690	.07
72" (1829 mm)	6" x 23" (152 x 584 mm)	1250	.27	785	.13	1560	.35	690	.12	830	.12
96" (2428 mm)	6" x 30" (152 x 762 mm)	1710	.26	1081	.09	2160	.34	980	.08	1180	.08

See page 12 for operating instructions.
*Vertical 28-1/2" (724 mm) and 36" (914 mm) sash openings are for setup only; operating position is an 18" (45.7 mm) opening. Combination sash volume is based on vertically closed horizontally open sash position.



End View

SafeAire II High-line Restricted Bypass Superstructure

For Use With Constant Volume or Variable Air Volume Exhaust Systems

		Base Product Numbers							
		31-1/4" Depth		36" Depth		37-1/4" Depth		43-1/4" Depth	
Width	Sash Opening Height	Fixed Baffle	Remote Baffle Adjustment	Fixed Baffle	Remote Baffle Adjustment	Fixed Baffle	Remote Baffle Adjustment	Fixed Baffle	Remote Baffle Adjustment
48" (1219 mm)	28-1/2" (724 mm)	54L2801__	54L2803__	60L2801P_	60L2803P_	61L2801P_	61L2803P_	62L2801P_	62L2803P_
48" (1219 mm)	36" (914 mm)	54L2813__	54L2815__	60L2813P_	60L2815P_	61L2813P_	61L2815P_	62L2813P_	62L2815P_
60" (1524 mm)	28-1/2" (724 mm)	54L2804__	54L2806__	60L2804P_	60L2806P_	61L2804P_	61L2806P_	62L2804P_	62L2806P_
60" (1524 mm)	36" (914 mm)	54L2816__	54L2818__	60L2816P_	60L2818P_	61L2816P_	61L2818P_	62L2816P_	62L2818P_
72" (1829 mm)	28-1/2" (724 mm)	54L2807__	54L2809__	60L2807P_	60L2809P_	61L2807P_	61L2809P_	62L2807P_	62L2809P_
72" (1829 mm)	36" (914 mm)	54L2819__	54L2821__	60L2819P_	60L2821P_	61L2819P_	61L2821P_	62L2819P_	62L2821P_
96" (2438 mm)	28-1/2" (724 mm)	54L2810__	54L2812__	60L2810P_	60L2812P_	61L2810P_	61L2812P_	62L2810P_	62L2812P_
96" (2438 mm)	36" (914 mm)	54L2822__	54L2824__	60L2822P_	60L2824P_	61L2822P_	61L2824P_	62L2822P_	62L2824P_

Liner Materials – Insert suffix in **8th** digit of product number for 31-1/4" depth only:
P – Polyresin
R – Cement-based Board
E – Cement-based Board/White Enamel
C – PVC

Sash Options – Insert suffix in **9th** digit of product number:

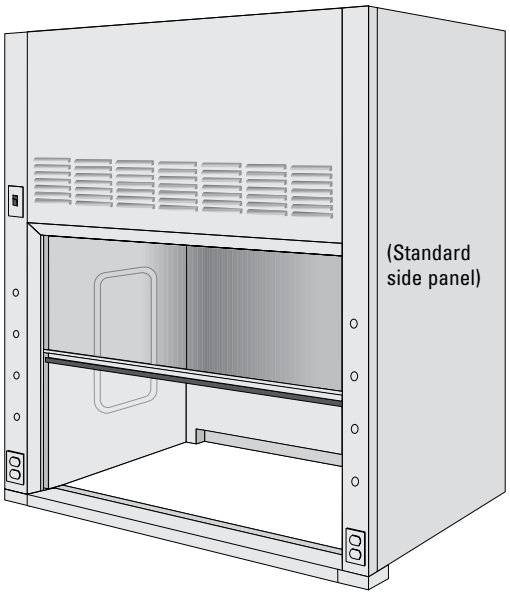
Sash Type	Suffix
Standard	0
Combination	B
Framed	F

See page 15 for additional sash information.

Other Information – To complete the fume hood assembly, refer to the sections listed below:
Fixtures (pages 88-95).
Alarms (page 96)
Work surfaces, cupsinks and traps (pages 98-103).
Base cabinets (pages 105-108).
Ceiling/Blower Enclosures (pages 110-118)
Accessories (pages 119-123).
Order end panels separately (page 117).

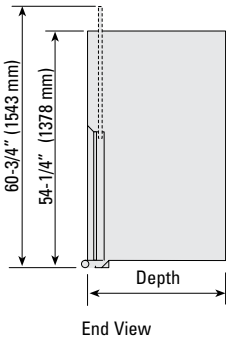
SafeAire II Constant Volume Bypass Superstructure

- Designed for installation on 26-1/8" (663 mm) to 42" (1067 mm) deep work surface.
- Incorporates double bypass to maintain constant exhaust volume at all sash positions.
- Designed to permit exact balancing of room ventilation system with fume hood exhaust volume.
- Vertical sash is full-view, laminated safety glass with full-width recessed pull.
- 28-1/2" (724 mm) high opening for setup.
- Two-tube (T-8) fluorescent light fixture, black light switch and flush plate, and two black duplex 120 VAC receptacles and flush plates.
- 96" (2438 mm) wide units have two light fixtures.
- Plugged holes for future service fixture installation standard on both posts.
- Shipped assembled.
- 31-1/4" (794 mm) deep fume hoods require a sink base unit below a rear cupsink.
- UL 1805 classified.
- See pages 17 for additional product features common to all SafeAire II fume hoods.



Exhaust Volumes

		100 FPM 28-1/2" Sash Opening*		100 FPM 18" Sash Opening*	
Fume Hood Size	Collar Size	CFM	SP	CFM	SP
36" (914 mm)	6" x 9" (152 x 229 mm)	520	.22	360	.12
48" (1219 mm)	6" x 15" (152 x 381 mm)	760	.18	485	.09
60" (1524 mm)	6" x 23" (152 x 584 mm)	1000	.18	660	.09
72" (1829 mm)	6" x 23" (152 x 584 mm)	1250	.27	785	.13
96" (24.8 mm)	6" x 30" (152 x 762 mm)	1710	.26	1081	.09



End View

See page 12 for operating instructions.
*28-1/2" (724 mm) openings are for setup only; operating position is an 18" (457 mm) opening.

SafeAire II Constant Volume Bypass Superstructure

	Base Product Numbers							
	31-1/4" Depth		36" Depth		37-1/4" Depth		43-1/4" Depth	
Width	Fixed Baffle	Remote Baffle Adjustment	Fixed Baffle	Remote Baffle Adjustment	Fixed Baffle	Remote Baffle Adjustment	Fixed Baffle	Remote Baffle Adjustment
36" (914 mm)	54L2586__	54L2588__	60L2586P_	60L2588P_	—	—	—	—
48" (1219 mm)	54L2589__	54L2591__	60L2589P_	60L2591P_	61L2589P_	61L2591P_	62L2589P_	62L2591P_
60" (1524 mm)	54L2592__	54L2594__	60L2592P_	60L2594P_	61L2592P_	61L2594P_	62L2592P_	62L2594P_
72" (1829 mm)	54L2595__	54L2597__	60L2595P_	60L2597P_	61L2595P_	61L2597P_	62L2595P_	62L2597P_
96" (2438 mm)	54L2598__	54L2600__	60L2598P_	60L2600P_	61L2598P_	61L2600P_	62L2598P_	62L2600P_

Liner Materials – Insert suffix in **8th** digit of product number for 31-1/4" depth only:
- P – Polyresin
- R – Cement-based Board
- E – Cement-based Board/White Enamel
- S – Stainless Steel
  (Not available on 36" wide fume hood)
- C – PVC

Sash Options – Insert suffix in **9th** digit of product number:

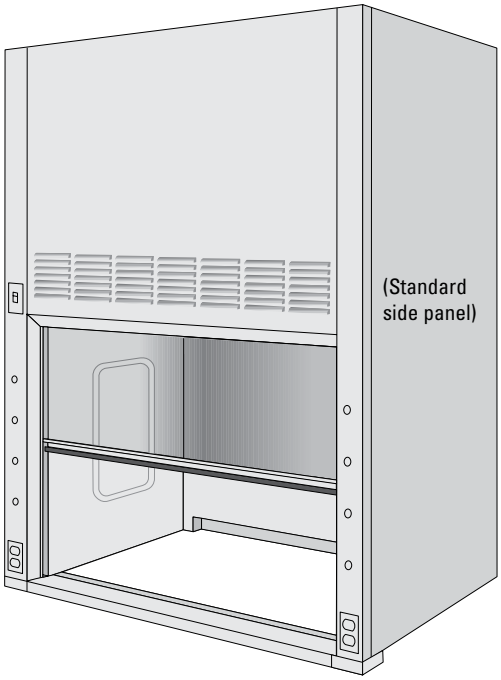
Sash Type	Suffix
Standard	0
Framed	F

See page 15 for additional sash information.
36" wide fume hood only available with standard sash.

Other Information – To complete the fume hood assembly, refer to the sections listed below:
Fixtures (pages 88-95).
Alarms (page 96).
Work surfaces, cupsinks and traps (pages 98-103).
Base cabinets (pages 105-108).
Ceiling/Blower Enclosures (pages 110-118).
Accessories (pages 119-123).
Order end panels separately (page 117).

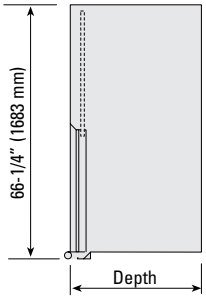
SafeAire II High-line Constant Volume Bypass Superstructure

- Designed for installation on 26-1/8" (663 mm) to 42" (1067 mm) deep work surface.
- Extra-height interior to accommodate apparatus up to 60" (1524 mm) high.
- Incorporates a double bypass to maintain constant exhaust volume at all sash positions.
- Designed to permit exact balancing of room ventilation system with fume hood exhaust volume.
- Vertical sash is full-view, laminated safety glass with full-width recessed pull.
- Choice of 28-1/2" (724 mm) or 36" (914 mm) high opening for setup.
- Two-tube (T-8) fluorescent light fixture, black light switch and flush plate, and two black duplex 120 VAC receptacles and flush plates.
- 96" (2438 mm) wide units have two light fixtures.
- Plugged holes for future service fixture installation standard on both posts.
- Shipped assembled.
- 31-1/4" (794 mm) deep fume hoods require a sink base unit below a rear cupsink.
- UL 1805 classified.
- See page 17 for additional product features common to all SafeAire II fume hoods.



Exhaust Volumes

		100 FPM 28-1/2" Sash Opening*		100 FPM 18" Sash Opening*		100 FPM 36" Sash Opening*	
Fume Hood Size	Collar Size	CFM	SP	CFM	SP	CFM	SP
48" (1219 mm)	6" x 15" (152 x 381 mm)	760	.18	485	.09	960	.27
60" (1524 mm)	6" x 23" (152 x 584 mm)	1000	.18	660	.09	1260	.28
72" (1829 mm)	6" x 23" (152 x 584 mm)	1250	.27	785	.13	1560	.35
96" (2438 mm)	6" x 30" (152 x 762 mm)	1710	.26	1081	.09	2160	.34



End View

See page 12 for operating instructions.
*28-1/2" (724 mm) and 36" (914 mm) openings are for setup only; operating position is an 18" (457 mm) opening.

SafeAire II High-line Constant Volume Bypass Superstructure

		Base Product Numbers							
		31-1/4" Depth		36" Depth		37-1/4" Depth		43-1/4" Depth	
Width	Sash Opening Height	Fixed Baffle	Remote Baffle Adjustment	Fixed Baffle	Remote Baffle Adjustment	Fixed Baffle	Remote Baffle Adjustment	Fixed Baffle	Remote Baffle Adjustment
48" (1219 mm)	28-1/2" (724 mm)	54L2685__	54L2687__	60L2685P_	60L2687P_	61L2685P_	61L2687P_	62L2685P_	62L2687P_
48" (1219 mm)	36" (914 mm)	54L2697__	54L2699__	60L2697P_	60L2699P_	61L2697P_	61L2699P_	62L2697P_	62L2699P_
60" (1524 mm)	28-1/2" (724 mm)	54L2688__	54L2690__	60L2688P_	60L2690P_	61L2688P_	61L2690P_	62L2688P_	62L2690P_
60" (1524 mm)	36" (914 mm)	54L2700__	54L2702__	60L2700P_	60L2702P_	61L2700P_	61L2702P_	62L2700P_	62L2702P_
72" (1829 mm)	28-1/2" (724 mm)	54L2691__	54L2693__	60L2691P_	60L2693P_	61L2691P_	61L2693P_	62L2691P_	62L2693P_
72" (1829 mm)	36" (914 mm)	54L2703__	54L2705__	60L2703P_	60L2705P_	61L2703P_	61L2705P_	62L2703P_	62L2705P_
96" (2438 mm)	28-1/2" (724 mm)	54L2694__	54L2696__	60L2694P_	60L2696P_	61L2694P_	61L2696P_	62L2694P_	62L2696P_
96" (2438 mm)	36" (914 mm)	54L2706__	54L2708__	60L2706P_	60L2708P_	61L2706P_	61L2708P_	62L2706P_	62L2708P_

Liner Materials – Insert suffix in **8th** digit of product number for 31-1/4" depth only:
- P – Polyresin
- R – Cement-based Board
- E – Cement-based Board/White Enamel
- C – PVC

Sash Options – Insert suffix in **9th** digit of product number:

Sash Type	Suffix
Standard	0
Framed	F

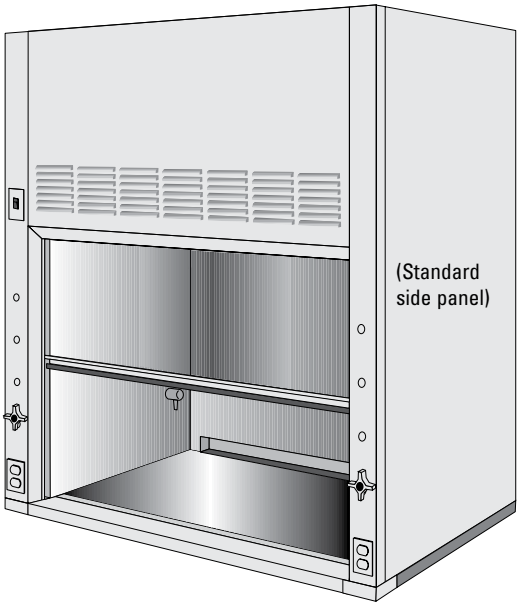
See page 15 for additional sash information.

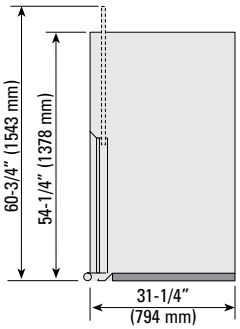
Other Information – To complete the fume hood assembly, refer to the sections listed below:
- Fixtures (pages 88-95).
- Alarms (page 96).
- Work surfaces, cupsinks and traps (pages 98-103).
- Base cabinets (pages 105-108).
- Ceiling/Blower Enclosures (pages 110-118).
- Accessories (pages 119-123).
- Order end panels separately (page 117).

SafeAire II Perchloric Acid Restricted Bypass Superstructure

For Use With Constant Volume or Variable Air Volume Exhaust Systems

- Designed specifically and exclusively for perchloric acid procedures to minimize possibility of fire and explosion.
- One-piece type 304 stainless steel interior includes dished work surface, with all joints coved, welded and ground.
- Optional type 316 stainless steel interior with integral work surface for high abuse applications (Special order – extended leadtime).
- Integral full-width trough at back of work surface for collection and disposal of wash-down waters; double drain for large volumes.
- High-volume spray heads behind upper baffle.
- Vertical sash is full-view, laminated safety glass with full-width recessed pull.
- 28-1/2" (724 mm) high opening for setup.
- One each remote control cold water faucet with vacuum breaker and control valve for fume hood washdown (Additional valves are required for duct washdown).
- Two each 120 VAC black duplex receptacles and flush plates.
- One vapor-proof light with black switch and flush plate on 48" (1219 mm) wide hood; two vapor-proof lights with one black switch and flush plate on 72" (1829 mm) wide fume hood.
- Does not include sidewall access panel.
- Baffles are non-adjustable.
- UL 1805 classified
- Not investigated by UL for use with perchloric acid.
- See page 17 for additional product features common to all SafeAire II fume hoods .





End View

Exhaust Volumes

		100 FPM @ 28-1/2" Sash Opening*		100 FPM @ 18" Sash Opening*	
Fume Hood Size	**Collar Size**	**CFM**	**SP**	**CFM**	**SP**
48" (1219 mm)	6" x 15" (152 x 381 mm)	760	.18	485	.09
72" (1829 mm)	6" x 23" (152 x 584 mm)	1250	.27	785	.13

See page 12 for operating instructions.

*28-1/2" (72.4 mm) openings are for setup only; operating position is an 18" (45.7 mm) opening.

SafeAire II Perchloric Acid Restricted Bypass Superstructure

For Use With Constant Volume or Variable Air Volume Exhaust Systems

Base Product Numbers	
Product No.	**Width**
54L2793K_	48" (1219 mm)
54L2797K_	72" (1829 mm)

Liner Material – Stainless steel Type 304, consult factory for optional Type 316 high-abuse stainless steel.

Sash Options – Insert suffix in **9th** digit of product number:

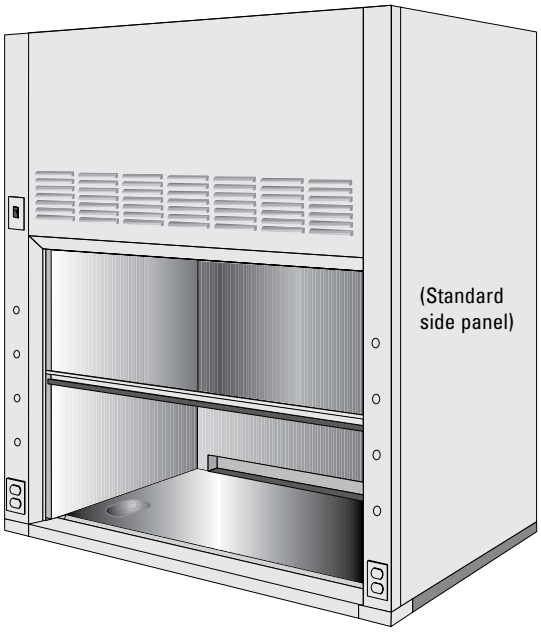
Sash Type	Suffix
Standard	0
Framed	F

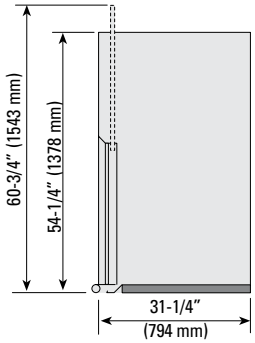
Other Information – To complete the fume hood assembly, refer to the sections listed below:

Fixtures (pages 88-95).
Alarms (page 96).
Ceiling/Blower Enclosures (pages 110-118).
See pages 128-131 for blower requirements.
Order end panels separately (page 117).

SafeAire II Constant Volume Radioisotope Bypass Superstructure

- Designed for handling of radioactive isotopes.
- One-piece type 304 stainless steel interior and work surface with integral cupsink located at left front corner, all corners coved, welded and ground (Relocating cupsink extends leadtime).
- Filter system recommended; see page 125.
- Weight capacity of reinforced work surface is 200 lbs per square foot.
- Incorporates double bypass to maintain constant exhaust volume at all sash positions.
- Designed to permit exact balancing of room ventilation system with hood exhaust volume.
- Vertical sash is full-view, laminated safety glass with full-width recessed pull.
- 28-1/2" (724 mm) high opening for setup.
- Does not include sidewall access panel.
- Two-tube (T-8) fluorescent light fixture, black light switch and flush plate, two 120 VAC black duplex receptacles and flush plates.
- 96" (2438 mm) wide units have two light fixtures.
- Plugged holes for future service fixture installation standard on both posts.
- UL 1805 classified
- Not investigated by UL for use with radiological materials.
- See page 17 for additional product features common to all SafeAire II fume hoods.





End View

Exhaust Volumes

		100 FPM @ 28-1/2" Sash Opening*		100 FPM @ 18" Sash Opening*	
Fume Hood Size	**Collar Size**	**CFM**	**SP**	**CFM**	**SP**
48" (1219 mm)	6" x 15" (152 x 381 mm)	760	.18	485	.09
60" (1524 mm)	6" x 23" (152 x 584 mm)	1000	.18	660	.09
72" (1829 mm)	6" x 23" (152 x 584 mm)	1250	.27	785	.13
96" (2438 mm)	6" x 30" (152 x 762 mm)	1710	.26	1081	.09

See page 12 for operating instructions.
*28-1/2" (724 mm) openings are for setup only; operating position is an 18" (457 mm) opening.

SafeAire II Constant Volume Radioisotope Bypass Superstructure

For Use With Constant Volume Exhaust Systems

Base Product Numbers		
Width	Fixed Baffle	Remote Baffle Adjustment
48" (1219 mm)	54L2733K_	54L2735K_
60" (1524 mm)	54L2736K_	54L2738K_
72" (1829 mm)	54L2739K_	54L2741K_
96" (2438 mm)	54L2742K_	54L2744K_

Liner Material – Stainless Steel, **No Options**

Sash Options – Insert suffix in **9th** digit of product number:

Sash Type	Suffix
Standard	0
Framed	F

Other Information – To complete the fume hood assembly, refer to the sections listed below:

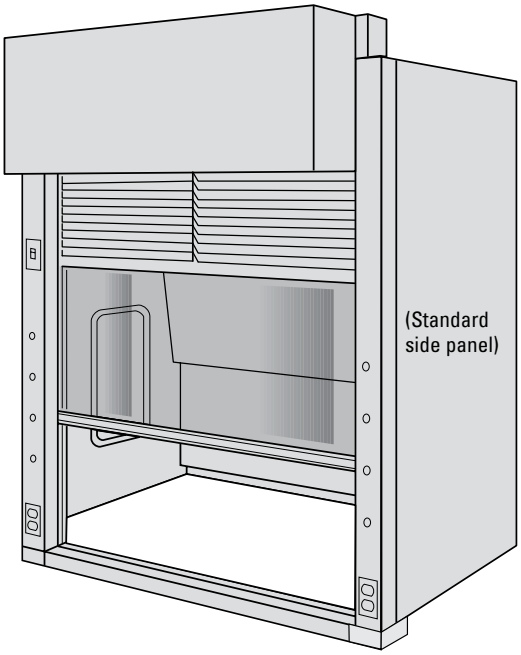
Fixtures (pages 88-95).
Alarms (page 96).
Base cabinets (pages105-108).
Ceiling/Blower Enclosures (pages 110-118)
Accessories (pages 119-123).
Order end panels separately (page 117).

Acid or Flammable Liquid storage cabinets cannot be positioned below the existing cupsinks.

SafeAire II Auxiliary Air Superstructure

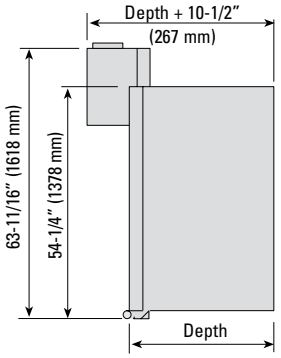
For Use With Constant Volume Exhaust Systems

- Designed to utilize semi-tempered outside air as supply air when total fume hood exhaust volume exceeds room exhaust volume requirements.
- Designed to yield a higher percentage capture rate with lower auxiliary air velocities.
- Vertical sash is full-view, laminated safety glass with full-width recessed pull.
- 28-1/2" (724 mm) high opening for setup.
- Two-tube (T-8) fluorescent light fixture, black light switch and flush plate, and two black duplex 120 VAC receptacles and flush plates.
- 96" (2438 mm) wide units have two light fixtures.
- Plugged holes for future service fixture installation standard on both posts.
- Shipped assembled.
- UL 1805 classified.



Exhaust Volumes

		100 FPM 28-1/2" Sash Opening*		100 FPM 18" Sash Opening*	
Fume Hood Size	Collar Size	CFM	SP	CFM	SP
48" (1219 mm)	6" x 15" (152 x 381 mm)	760	.18	485	.09
60" (1524 mm)	6" x 23" (152 x 584 mm)	1000	.18	660	.09
72" (1829 mm)	6" x 23" (152 x 584 mm)	1250	.27	785	.13
96" (2438 mm)	6" x 30" (152 x 762 mm)	1710	.26	1081	.09



End View

Supply Air Requirements

Percent of Fume Hood Air Requirement	Fume Hood Size	100 FPM 28-1/2" Sash Opening* CFM	SP	100 FPM 18" Sash Opening* CFM	SP
70%	48" (1219 mm)	532	.14	340	.07
	60" (1524 mm)	700	.29	460	.14
	72" (1829 mm)	875	.34	550	.20
	96" (2438 mm)	1197	.31	760	.26
60%	48" (1219 mm)	456	.12	290	.05
	60" (1524 mm)	600	.26	295	.12
	72" (1829 mm)	750	.26	470	.22
	96" (2438 mm)	1026	.33	650	.202
50%	48" (1219 mm)	380	.09	245	.03
	60" (1524 mm)	500	.16	330	.10
	72" (1829 mm)	625	.20	335	.18
	96" (2438 mm)	855	.30	540	.17

See page 12 for operating instructions.
*28-1/2" (724 mm) openings are for setup only; operating position is an 18" (457 mm) opening.

SafeAire II Auxiliary Air Superstructure

For Use With Constant Volume Exhaust Systems

	Base Product Numbers			
	33-13/16" Depth	38-9/16" Depth	39-13/16" Depth	45-13/16" Depth
Width	Fixed Baffle	Fixed Baffle	Fixed Baffle	Fixed Baffle
48" (1219 mm)	54L2625__	60L2625P_	61L2625P_	62L2625P_
60" (1524 mm)	54L2628__	60L2628P_	61L2628P_	62L2628P_
72" (1829 mm)	54L2631__	60L2631P_	61L2631P_	62L2631P_
96" (2438 mm)	54L2634__	60L2634P_	61L2634P_	62L2634P_

Liner Materials – Insert suffix in **8th** digit of product number for 33-13/16" depth only:
P – Polyresin
R – Cement-based board
E – Cement-based board/white enamel
S – Stainless Steel
C – PVC

Sash Options – Insert suffix in **9th** digit of product number:

Sash Type	Suffix
Standard	0
Framed	F

See page 15 for additional sash information.

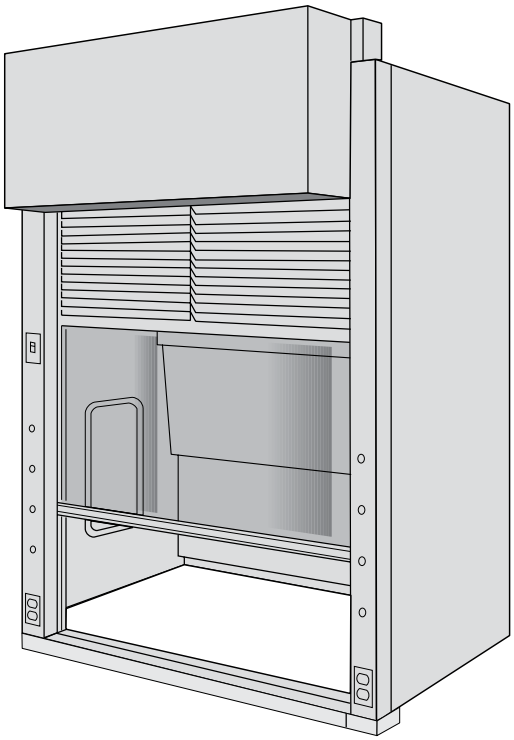
Side Panels – Order separately; see page 117.

Other Information – To complete the fume hood assembly, refer to the sections listed below:
Fixtures (pages 88-95).
Alarms (page 96).
Work surfaces, cupsinks and traps (pages 98-103).
Base cabinets (pages 105-108).
Ceiling/Blower Enclosures (pages 110-118).
Accessories (pages 119-123).

SafeAire II High-line Auxiliary Air Superstructure

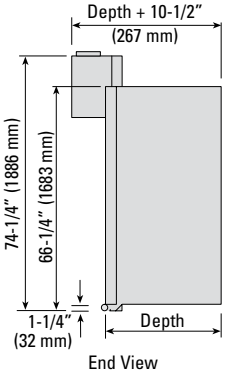
For Use With Constant Volume Exhaust Systems

- Designed to utilize semi-tempered outside air as supply air when total fume hood exhaust volume exceeds room exhaust volume requirement.
- Extra-height interior to accommodate apparatus up to 60" (1524 mm) high.
- Designed to yield a higher percentage capture rate with lower auxiliary air velocities.
- More headroom than standard bench models.
- Vertical sash is full-view, laminated safety glass with full-width recessed pull.
- Choice of 28-1/2" (724 mm) or 36" (914 mm) high opening for setup.
- Two-tube (T-8) fluorescent light fixture, black light switch and flush plate, and two black duplex 120 VAC receptacles and flush plates.
- 96" (2438 mm) wide units have two light fixtures.
- Plugged holes for future service fixture installation standard on both posts.
- Shipped assembled.
- UL 1805 classified.



Exhaust Volumes

		100 FPM @ 28-1/2" Sash Opening*		100 FPM @ 18" Sash Opening*		100 FPM @ 36" Sash Opening*	
Fume Hood Size	**Collar Size**	**CFM**	**SP**	**CFM**	**SP**	**CFM**	**SP**
48" (1219 mm)	6" x 15" (152 x 381 mm)	760	.18	485	.09	960	.27
60" (1524 mm)	6" x 23" (152 x 584 mm)	1000	.18	660	.09	1260	.28
72" (1829 mm)	6" x 23" (152 x 584 mm)	1250	.27	785	.13	1560	.35
96" (2438 mm)	6" x 30" (152 x 762 mm)	1710	.26	1081	.09	2160	.34



Supply Air Requirements

Percent of Fume Hood Air Requirement	Fume Hood Size	100 FPM @ 28-1/2" Sash Opening* CFM	SP	100 FPM @ 18" Sash Opening* CFM	SP	100 FPM @ 36" Sash Opening* CFM	SP
70%	48" (1219 mm)	532	.14	340	.08	672	.16
	60" (1524 mm)	700	.29	460	.14	882	.33
	72" (1829 mm)	875	.34	550	.17	1092	.38
	96" (2438 mm)	1197	.31	760	.24	1517	.41
60%	48" (1219 mm)	456	.12	290	.06	576	.15
	60" (1524 mm)	600	.26	400	.14	756	.30
	72" (1829 mm)	750	.26	470	.16	936	.32
	96" (2438 mm)	1026	.33	650	.21	1296	.37
50%	48" (1219 mm)	380	.09	240	.04	480	.12
	60" (1524 mm)	500	.16	330	.12	630	.22
	72" (1829 mm)	625	.20	390	.13	780	.26
	96" (2438 mm)	855	.30	540	.16	1080	.33

See page 12 for operating instructions.

*28-1/2" (724 mm) and 36" (914 mm) sash openings are for setup only; operating position is an 18" (457 mm) high sash opening.

SafeAIre II High-line Auxiliary Air Superstructure

For Use With Constant Volume Exhaust Systems

		Base Product Numbers			
		33-13/16" Depth	38-9/16" Depth	39-13/16" Depth	45-13/16" Depth
Width	Sash Opening Height	Fixed Baffle	Fixed Baffle	Fixed Baffle	Fixed Baffle
48" (1219 mm)	28-1/2" (724 mm)	54L2709__	60L2709P_	61L2709P_	62L2709P_
48" (1219 mm)	36" (914 mm)	54L2721__	60L2721P_	61L2721P_	62L2721P_
60" (1524 mm)	28-1/2" (724 mm)	54L2712__	60L2712P_	61L2712P_	62L2712P_
60" (1524 mm)	36" (914 mm)	54L2724__	60L2724P_	61L2724P_	62L2724P_
72" (1829 mm)	28-1/2" (724 mm)	54L2715__	60L2715P_	61L2715P_	62L2715P_
72" (1829 mm)	36" (914 mm)	54L2727__	60L2727P_	61L2727P_	62L2727P_
96" (2438 mm)	28-1/2" (724 mm)	54L2718__	60L2718P_	61L2718P_	62L2718P_
96" (2438 mm)	36" (914 mm)	54L2730__	60L2730P_	61L2730P_	62L2730P_

Liner Materials – Insert suffix in 8**th** digit of product number for 33-13/16" depth only:
- P – Polyresin
- R – Cement-based board
- E – Cement-based board/white enamel
- C – PVC

Sash Options – Insert suffix in **9th** digit of product number:

Sash Type	Suffix
Standard	0
Framed	F

See page 15 for additional sash information.

Side Panels – Order separately; see page 117.

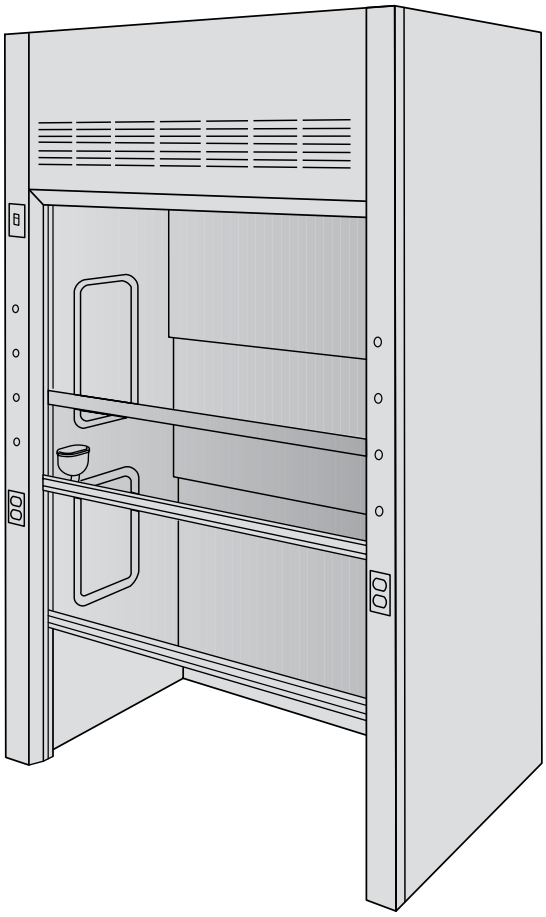
Other Information – To complete the fume hood assembly, refer to the sections listed below:

- Fixtures (pages 88-95)
- Alarms (page 96)
- Work surfaces, cupsinks and traps (pages 98-103)
- Base cabinets (pages 105-108)
- Ceiling/Blower Enclosures (pages 110-118)
- Accessories (pages 119-123)

SafeAire II Restricted Bypass Floor-mounted

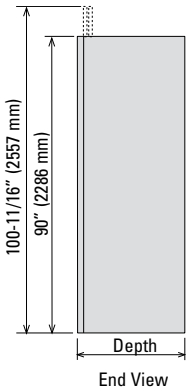
For use with Constant Volume or Variable Air Volume Exhaust Systems

- Three standard depth choices.
- Designed for large and complex laboratory apparatus setups and roll-in equipment.
- Recommended when an independent VAV controller is used (supplied by others).
- Also recommended with horizontal or combination sash used in conjunction with VAV or constant volume systems.
- Incorporates a 2" (51 mm) bypass to minimize leakage and maintain minimum flow.
- Double-hung, vertical sash is full-view, laminated safety glass with full-width recessed pulls.
- Sashes raise completely for easy setup (66-1/2" (1689 mm) sash opening).
- Two side-wall access panels with PVC gasket on left side, one on right.
- One cupsink included at front left location. The 96" (2438 mm) wide fume hood has one cupsink and two access panels at each side.
- Two-tube (T-8) fluorescent light fixture, black light switch and flush plate, and two black duplex 120 VAC receptacles and flush plates.
- 96" (2438 mm) wide units have two light fixtures.
- Plugged holes for future service fixture installation standard on both posts.
- All floor-mounted fume hoods except those with stainless steel liners are shipped knocked-down and require job-site assembly.
- UL 1805 classified.



Exhaust Volumes

		100 FPM @ 31-1/2" Vertical Sash Opening*		100 FPM Combination (Horizontal) Sash Opening	
Fume Hood Size	**Collar Size**	**CFM**	**SP**	**CFM**	**SP**
48" (1219 mm)	6" x 15" (152 x 381 mm)	850	.18	480	.09
60" (1524 mm)	6" x 23" (152 x 584 mm)	1110	.20	670	.09
72" (1829 mm)	6" x 23" (152 x 584 mm)	1380	.32	790	.13
96" (2438 mm)	6" x 30" (152 x 762 mm)	1900	.29	1125	.10



End View

See page 12 for operating instructions.

*Floor mounted fume hood should be operated through a maximum face opening of 18" (457 mm) through a single sash with the other sash closed.

SafeAire II Restricted Bypass Floor-mounted

For Use With Constant Volume or Variable Air Volume Exhaust Systems

	Base Product Numbers		
	32-11/32″ Depth	38-11/32″ Depth	44-11/32″ Depth
Width	Fixed Baffle	Fixed Baffle	Fixed Baffle
48″ (1219 mm)	554S2326__	551S2326P_	552S2326P_
60″ (1524 mm)	554S2329__	551S2329P_	552S2329P_
72″ (1829 mm)	554S2332__	551S2332P_	552S2332P_
96″ (2438 mm)	554S2335__	551S2335P_	552S2335P_

Liner Materials – Insert suffix in **9th** digit of product number for 32-11/32″ depth only:
P – Polyresin
S – Stainless Steel

Sash Options – Insert suffix in **10th** digit of product number:

Sash Type	Suffix
Standard	0
Combination, upper frame only	B
Framed	F

See page 15 for additional sash information.

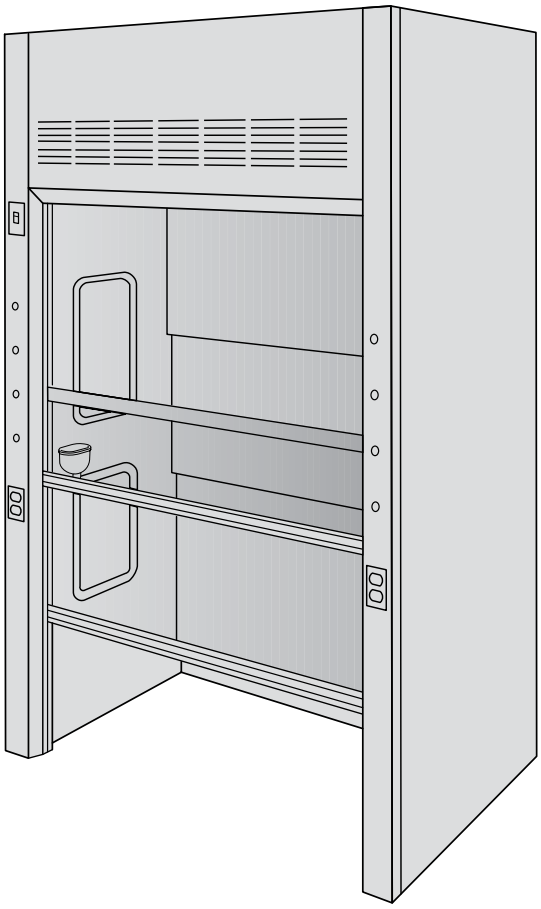
Side Panels – Order separately; see page 120.

Other Information – To complete the fume hood assembly, refer to the sections listed below:
Distillation Shelf (page 59)
Fixtures (pages 88-95)
Alarms (page 96)
Ceiling/Blower Enclosures (pages 110-118)
Accessories (pages 119-123)
Distillation Shelf (page 59)

SafeAire II Constant Volume Floor-mounted

For use with Constant Volume Exhaust Systems

- Three standard depth choices available.
- Designed for large and complex laboratory apparatus setups and roll-in equipment.
- Incorporates double bypass to maintain constant exhaust volume at all sash positions.
- Designed to permit exact balancing of room ventilation system with fume hood exhaust volume.
- Double-hung, vertical sash is full-view, laminated safety glass with full-width recessed pulls
- Sashes raise completely for easy setup (66-1/2" (1689 mm) sash opening).
- Two side-wall access panels with PVC gasket on left side, one on right.
- One cupsink and two side-wall access panels with PVC gasket included at front left location; 96" (2438 mm) wide fume hood has two cupsinks and two access panels at each side.
- Two-tube (T-8) fluorescent light fixture, black light switch and flush plate, and two black duplex 120 VAC receptacles and flush plates.
- 96" (2438 mm) wide units have two light fixtures.
- Plugged holes for future service fixture installation standard on both posts.
- All floor-mounted fume hood except those with stainless steel liners are shipped knocked-down and require job-site assembly.
- UL 1805 classified.



End View

Exhaust Volumes

Fume Hood Size	Collar Size	100 FPM @ 31-1/2" Sash Opening* CFM	SP
48" (1219 mm)	6" x 15" (152 x 381 mm)	850	.18
60" (1524 mm)	6" x 23" (152 x 584 mm)	1110	.20
72" (1829 mm)	6" x 23" (152 x 584 mm)	1380	.32
96" (2438 mm)	6" x 30" (152 x 762 mm)	1900	.29

See page 12 for operating instructions.

*Floor mounted fume hood should be operated through a maximum face opening of 18" (457 mm) through a single sash with the other sash closed.

SafeAire II Constant Volume Floor-mounted

	Base Product Numbers		
	32-11/32" Depth	38-11/32" Depth	44-11/32" Depth
Width	Fixed Baffle	Fixed Baffle	Fixed Baffle
48" (1219 mm)	554S2705__	551S2705P_	552S2705P_
60" (1524 mm)	554S2708__	551S2708P_	552S2708P_
72" (1829 mm)	554S2711__	551S2711P_	552S2711P_
96" (2438 mm)	554S2714__	551S2714P_	552S2714P_

Liner Materials – Insert suffix in **9th** digit of product number for 32-11/32" depth only:
P – Polyresin
S – Stainless Steel

Sash Options – Insert suffix in **10th** digit of product number:

Sash Type	Suffix
Standard	0
Framed	F

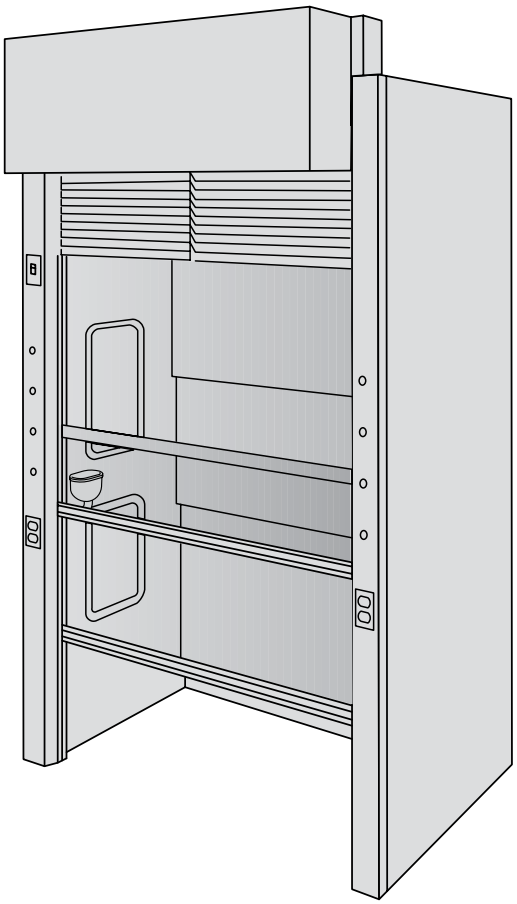
See page 15 for additional sash information.

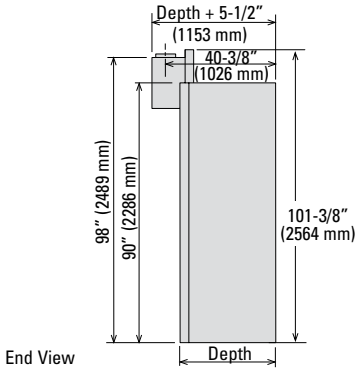
Side Panels – Order separately; see page 120.

Other Information – To complete the fume hood assembly, refer to the sections listed below:
Distillation Shelf (page 59)
Fixtures (pages 88-95)
Alarms (page 96)
Ceiling/Blower Enclosures (pages 110-118)
Accessories (pages 119-123)

SafeAire II Constant Volume Auxiliary Air Floor-mounted

- Three standard depth choices available.
- Designed for large and complex laboratory apparatus setups and roll-in equipment.
- Designed to utilize semi-tempered outside air when total fume hood exhaust volume exceeds room exhaust volume required.
- Designed to yield a higher percentage capture rate with lower auxiliary air velocities.
- Double-hung, vertical sash is full-view, laminated safety glass with full-width recessed pulls.
- Sashes raise completely for easy setup (66-1/2" (1689 mm) sash opening).
- One cupsink and two side-wall access panels with PVC gasket included at front left location. The 96" (2438 mm) wide fume hood has one cupsink and two access panels at each side.
- Two-tube (T-8) fluorescent light fixture, black light switch and flush plate, and two black duplex 120 VAC receptacles and flush plates.
- 96" (2438 mm) wide units have two light fixtures.
- Plugged holes for future service fixture installation standard on both posts.
- All floor-mounted fume hoods except those with stainless steel liners are shipped knocked-down and require job-site assembly.
- UL 1805 classified.





Supply Air Requirements

Percent of Fume Hood Air Requirement	Fume Hood Size	100 FPM @ 31-1/2" Sash Opening* CFM	SP
70%	48" (1219 mm)	532	.14
	60" (1524 mm)	700	.29
	72" (1829 mm)	875	.34
	96" (2438 mm)	1197	.31
60%	48" (1219 mm)	456	.12
	60" (1524 mm)	600	.26
	72" (1829 mm)	750	.26
	96" (2438 mm)	1026	.33

Exhaust Volumes

Fume Hood Size	Collar Size	100 FPM @ 31-1/2" Sash Opening* CFM	SP
48" (1219 mm)	6" x 15" (152 x 381 mm)	850	.18
60" (1524 mm)	6" x 23" (152 x 584 mm)	1110	.20
72" (1829 mm)	6" x 23" (152 x 584 mm)	1380	.32
96" (2438 mm)	6" x 30" (152 x 762 mm)	1900	.29

*Floor-mounted fume hood should be operated through a maximum face opening of 18" (457 mm) through a single sash with the other sash closed.

See page 12 for operating instructions.

SafeAire II Constant Volume Auxiliary Air Floor-mounted

For use with Constant Volume Exhaust Systems

	Base Product Numbers		
	34-15/16" Depth	40-15/16" Depth	46-15/16" Depth
Width	Fixed Baffle	Fixed Baffle	Fixed Baffle
48" (1219 mm)	554S2720__	551S2720P_	552S2720P_
60" (1524 mm)	554S2723__	551S2723P_	552S2723P_
72" (1829 mm)	554S2726__	551S2726P_	552S2726P_
96" (2438 mm)	554S2729__	551S2729P_	552S2729P_

Liner Materials – Insert suffix in **9th** digit of product number for 34-15/16" depth only:
P – Polyresin
S – Stainless Steel

Sash Options – Insert suffix in **10th** digit of product number:

Sash Type	Suffix
Standard	0
Framed	F

See page 15 for additional sash information.

Side Panels – Order separately; see page 120.

Other Information – To complete the fume hood assembly, refer to the sections listed below:
Distillation Shelf (page 59)
Fixtures (pages 88-95)
Alarms (page 96)
Ceiling/Blower Enclosures (pages 110-118)
Accessories (pages 119-123)

SafeAire II Combination Bench/Floor-mounted Constant Volume

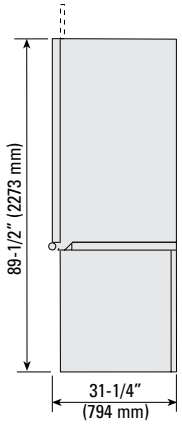
- Combination bench/floor-mounted assembly consisting of fume hood superstructure, work surface and base cabinets.
- Designed for unlimited access to work area for setup of wide apparatus.
- Half of work surface is removable; cupboard base cabinet opens for roll-in capability.
- Air foil design with double bypass to maintain constant exhaust volume at all sash positions.
- Fixed work surface is dished epoxy resin; removable surface is flat stainless steel.
- Choice of left or right side floor-mounted.
- Vertical sash is full-view, laminated safety glass with full-width recessed pull.
- 28-1/2" (724 mm) high opening for setup.
- Polyresin liner; no options.
- Two double-tube (T-8) fluorescent light fixtures, black light switch and flush plate, two 120 VAC black duplex receptacles and flush plates.
- Plugged holes for future service fixture installation standard on both posts.
- 96" (2438 mm) width only.
- Extended lead time.
- UL 1805 classified.

Exhaust Volumes

		100 FPM @ 28-1/2" Sash Opening*	
Fume Hood Size	**Collar Size**	**CFM**	**SP**
96" (2438 mm)	6" x 30" (152 x 762 mm)	1710	.26

See page 12 for operating instructions.

*28-1/2" (724 mm) openings are for setup only; operating position is an 18" (457 mm) opening.



End View

SafeAire II Combination Bench/Floor-mounted Bypass Assembly

For use with Constant Volume Exhaust Systems

Base Product Numbers

Product No.	Walk-In Side
Fixed Baffle	
554S2350P	Left
554S2353P	Right

Liner Material – Polyresin, no options.

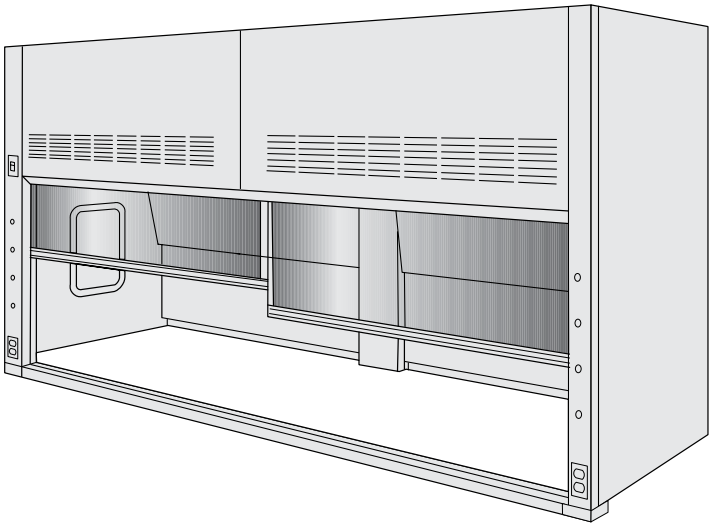
Side Panels – Order separately; see page 117.

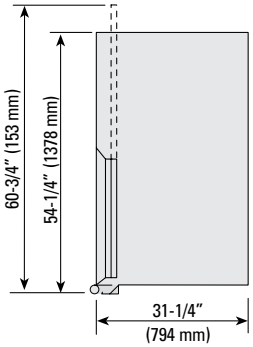
Other Information – To complete the fume hood assembly, refer to the sections listed below:
Fixtures (pages 88-95)
Alarms (page 96)
Ceiling/Blower Enclosures (pages 110-118)
Accessories (pages 119-123)

SafeAire II Framed Postless Sash Restricted Bypass Superstructure

For use with Constant Volume or Variable Air Volume Exhaust Systems

- Designed for unlimited access to work area for setup of wide apparatus.
- Two independently-operating framed vertical sashes are full-view, laminated safety glass with full-width recessed pull and disappearing guides.
- 28-1/2" (724 mm) high opening for setup.
- Incorporates a restricted bypass to eliminate leakage and maintain minimum flow.
- Polyresin liner; no options.
- Two-tube (T-8) fluorescent light fixtures, black light switch and flush plate, two 120 VAC black duplex receptacles and flush plates.
- Plugged holes for future service fixture installation standard on both posts.
- 120" (3049 mm) and 144" (3658 mm) wide units shipped in two sections and require job-site assembly and central support to ceiling.
- Two exhaust collars each on 120" (3049 mm) and 144" (3658 mm) models.
- UL 1805 classified.





End View

Exhaust Volumes
Based on both sashes open

		100 FPM @ 28-1/2" Sash Opening*		100 FPM @ 18" Sash Opening*	
Fume Hood Size	**Collar Size**	**CFM**	**SP**	**CFM**	**SP**
72" (1829 mm)	6" x 23" (152 x 584 mm)	1250	.27	785	.13
96" (2438 mm)	6" x 30" (152 x 762 mm)	1710	.26	1081	.09
120" (3048 mm)	Two 6" x 23" (152 x 584 mm)	2180	.18	1384	.10
144" (3658 mm)	Two 6" x 23" (152 x 584 mm)	2660	.29	1684	.15

See page 12 for operating instructions.

*28-1/2" (724 mm) openings are for setup only; operating position is an 18" (457 mm) opening.

SafeAire II Framed Postless Sash Restricted Bypass Superstructure

For use with Constant Volume or Variable Air Volume Exhaust Systems

Base Product Numbers	
Width	**Fixed Baffle**
72" (1829 mm)	54L2781P_
96" (2438 mm)	54L2784P_
120" (3048 mm)	54L2787P_
144" (3658 mm)	54L2790P_

Liner Material – Polyresin, no options

Sash Type – Insert suffix in **9th** digit of product number:

Sash Type	Suffix
Combination	B
Framed	F

Side Panels – Order separately; see page 117.

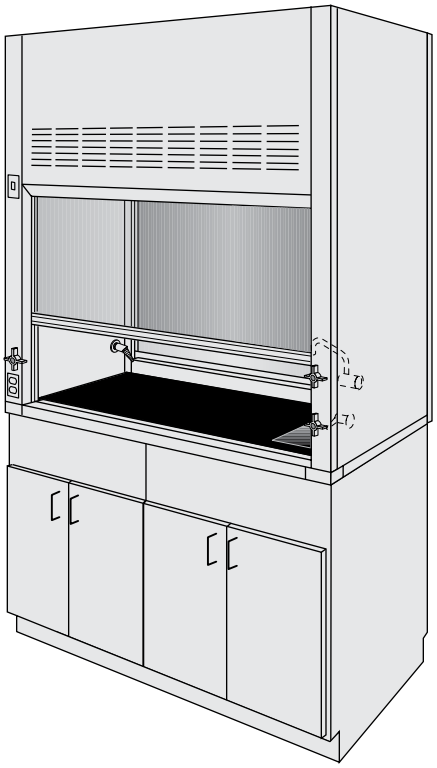
Other Information – To complete the fume hood assembly, refer to the sections listed below:

Fixtures (pages 88-95)
Alarms (page 96)
Work Surfaces, Cupsinks and Traps (pages 98-103)
Base Cabinets (pages 105-108)
Ceiling/Blower Enclosures (pages 110-118)
Accessories (pages 119-123)

SafeAire II Pass-through Demonstration Assembly

For use with Constant Volume or Variable Air Volume Exhaust Systems

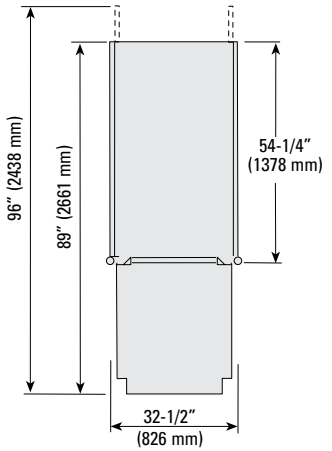
- Designed to permit demonstration and observation from either side.
- Assembly consists of a Restricted Bypass fume hood superstructure, work surface and base cabinets.
- Can be used freestanding or positioned in a wall between a classroom and a prep room.
- Two 30" (762 mm) wide wood base cabinets with double hinged doors and one shelf. Cabinets are not double-faced.
- Work surface is 1-1/4" (32 mm) thick epoxy resin without marine edge.
- Standard fixtures include: one cold water gooseneck faucet; two single gas fixtures; two black duplex AC outlets/flush plates; one 16" x 8" x 7" (406 mm x 203 mm x 178 mm) molded resin sink; two exhaust collars. Maximum two fixtures per side.
- All electrical is pre-wired to a junction box at the top of the fume hood.
- Two full-view vertically rising sashes made of 7/32" (6 mm) laminated safety glass with recessed pulls (one each side).
- 28-1/2" (724 mm) high opening for setup.
- Fixed baffle position.
- Two-tube (T-8) fluorescent light fixture (protected by safety glass panel) and black light switch/flush plate, mounted on each side of fume hood.
- Optional sash interlock 90L162N0 allows only one sash to be opened at a time (special order and extended lead time).
- 60" (1524 mm) wide.
- UL 1805 classified (only with 90L162N0 sash interlock factory installed).



Exhaust Volumes
Based on sash open one side only.

Fume Hood Width	Collar Size (Two Collars)	100 FPM @ 18"* Sash Opening CFM	SP
60" (1524 mm)	6" x 15" (152 x 381 mm)	700	.1

See page 12 for operating instructions.
*28-1/2" (72.4 mm) openings are for setup only; operating position is an 18" (45.7 mm) opening (one side only).



End View

SafeAire II Pass-through Demonstration Assembly

For Use With Constant Volume or Variable Air Volume Exhaust Systems

Base Product Number

Product No.	Width	Liner Material
Complete Assembly		
554C2325E0	60″ (1524 mm)	Cement-based board – white enamel
554C2325P0	60″ (1524 mm)	Polyresin
Superstructure Only		
54L2825E0	60″ (1524 mm)	Cement-based board – white enamel
54L2825P0	60″ (1524 mm)	Polyresin

Optional sash interlock
Order product number 90L162N0; requires extended lead time.

Side Panels – Order separately; see page 117.

Concept Fume Hood Superstructure

Downdraft Bypass

Air flows through the bypass area with increased volume and less resistance for quieter operation.

AutoSash Passive Positioning System

The sash locks in the setup position and automatically returns to the maximum operational height when the lock is released.

Chain & Sprocket Sash Support System

The counterbalance system features a chain and sprocket sash support system with alignment shaft and sash leveling system.

35" High Sightline

Optimum visibility of the fume hood interior.

Improved Combination Sash

Top hung frameless sash panels with ball-bearing rollers for smooth operation. The reduced frame profile with a radiused bottom edge provides maximum interior visibility and minimum turbulence.

Fixed Baffle System

The baffle system requires no adjustment – it's factory tuned for optimal airflow characteristics.

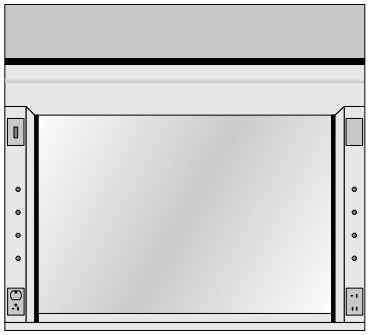
Low Profile Airfoil

Ergonomically designed to provide obstruction free access to the hood interior.

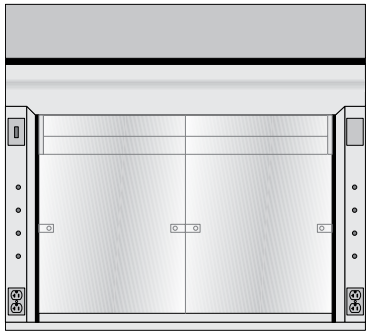
Secondary Trough Additional safeguard for the containment of spills not secured by a dished work surface

Concept Constant Volume and Restricted Bypass

See next page for exhaust volumes.
See Page 98-101 for work surfaces.
Order end panels separately (page 117).



Bypass and restricted bypass vertical rising sash



Restricted bypass combination sash

Product Numbers -

Constant Volume Vertical Rising Unframed Sash

31-1/4" Depth*	37-1/4" Depth	43-1/4" Depth	Width
54L2570P0	61L2570P0	62L2570P0	48" (1219 mm)
54L2571P0	61L2571P0	62L2571P0	60" (1524 mm)
54L2572P0	61L2572P0	62L2572P0	72" (1829 mm)
54L2573P0	61L2573P0	62L2573P0	84" (2134 mm)
54L2574P0	61L2574P0	62L2574P0	96" (2438 mm)

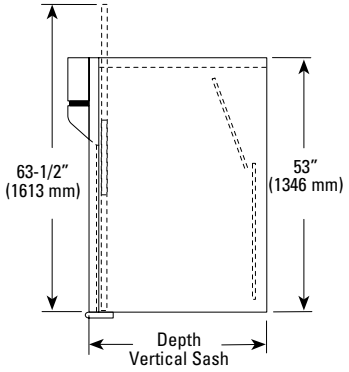
Restricted Bypass Vertical Rising Unframed Sash

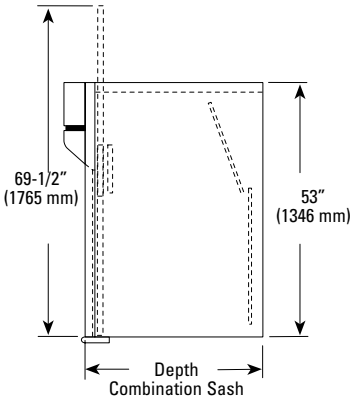
31-1/4" Depth*	37-1/4" Depth	43-1/4" Depth	Width
54L2750P0	61L2750P0	62L2750P0	48" (1219 mm)
54L2751P0	61L2751P0	62L2751P0	60" (1524 mm)
54L2752P0	61L2752P0	62L2752P0	72" (1829 mm)
54L2753P0	61L2753P0	62L2753P0	84" (2134 mm)
54L2754P0	61L2754P0	62L2754P0	96" (2438 mm)

Restricted Bypass Combination Sash

31-1/4" Depth*	37-1/4" Depth	43-1/4" Depth	Width
54L2750PB	61L2750PB	62L2750PB	48" (1219 mm)
54L2751PB	61L2751PB	62L2751PB	60" (1524 mm)
54L2752PB	61L2752PB	62L2752PB	72" (1829 mm)
54L2753PB	61L2753PB	62L2753PB	84" (2134 mm)
54L2754PB	61L2754PB	62L2754PB	96" (24.8 mm)

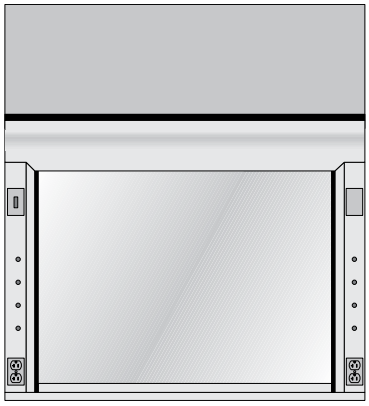
* 31-1/4" (79.4 mm) deep fume hoods require a sink base unit below a rear cupsink.



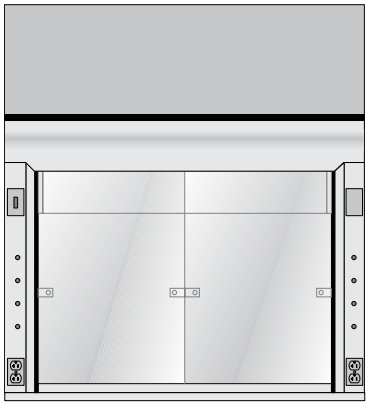


Concept High-line Constant Volume and Restricted Bypass

See next page for exhaust volumes.
See Page 98-101 for work surfaces.
Order end panels separately (page 117).



Vertical rising sash



Combination and Horizontal sash

Product Numbers -

Polyresin Liner, Vertical Rising Sash, Constant Volume

31-1/4" Depth*	37-1/4" Depth	43-1/4" Depth	Width
54L2650P0	61L2650P0	62L2650P0	48" (1219 mm)
54L2651P0	61L2651P0	62L2651P0	60" (1524 mm)
54L2652P0	61L2652P0	62L2652P0	72" (1829 mm)
54L2653P0	61L2653P0	62L2653P0	84" (2134 mm)
54L2654P0	61L2654P0	62L2654P0	96" (2438 mm)

Polyresin Liner, Vertical Rising Sash, Restricted Bypass

31-1/4" Depth*	37-1/4" Depth	43-1/4" Depth	Width
54L2641P0	61L2641P0	62L2641P0	48" (1219 mm)
54L2642P0	61L2642P0	62L2642P0	60" (1524 mm)
54L2643P0	61L2643P0	62L2643P0	72" (1829 mm)
54L2644P0	61L2644P0	62L2644P0	84" (2134 mm)
54L2645P0	61L2645P0	62L2645P0	96" (2438 mm)

Polyresin Liner, Combination Sash, Restricted Bypass

31-1/4" Depth*	37-1/4" Depth	43-1/4" Depth	Width
54L2641PB	61L2641PB	62L2641PB	48" (1219 mm)
54L2642PB	61L2642PB	62L2642PB	60" (1524 mm)
54L2643PB	61L2643PB	62L2643PB	72" (1829 mm)
54L2644PB	61L2644PB	62L2644PB	84" (2134 mm)
54L2645PB	61L2645PB	62L2645PB	96" (2438 mm)

Polyresin Liner, Horizontal Sash, Restricted Bypass

31-1/4" Depth*	37-1/4" Depth	43-1/4" Depth	Width
54L2641PC	61L2641PC	62L2641PC	48" (1219 mm)
54L2642PC	61L2642PC	62L2642PC	60" (1524 mm)
54L2643PC	61L2643PC	62L2643PC	72" (1829 mm)
54L2644PC	61L2644PC	62L2644PC	84" (2134 mm)
54L2645PC	61L2645PC	62L2645PC	96" (2438 mm)

Stainless Steel Liner, Vertical Rising Sash, Constant Volume

31-1/4" Depth*	37-1/4" Depth	43-1/4" Depth	Width
54L2650S0	61L2650S0	62L2650S0	48" (1219 mm)
54L2651S0	61L2651S0	62L2651S0	60" (1524 mm)
54L2652S0	61L2652S0	62L2652S0	72" (1829 mm)
54L2653S0	61L2653S0	62L2653S0	84" (2134 mm)
54L2654S0	61L2654S0	62L2654S0	96" (2438 mm)

Stainless Steel Liner, Vertical Rising Sash, Restricted Bypass

31-1/4" Depth*	37-1/4" Depth	43-1/4" Depth	Width
54L2641S0	61L2641S0	62L2641S0	48" (1219 mm)
54L2642S0	61L2642S0	62L2642S0	60" (1524 mm)
54L2643S0	61L2643S0	62L2643S0	72" (1829 mm)
54L2644S0	61L2644S0	62L2644S0	84" (2134 mm)
54L2645S0	61L2645S0	62L2645S0	96" (2438 mm)

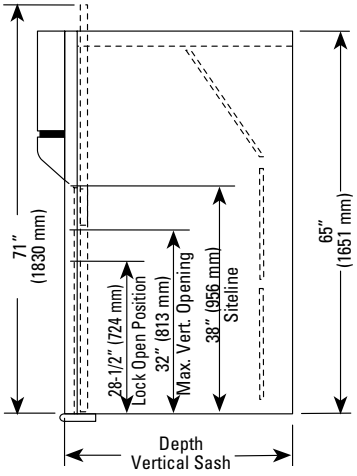
Stainless Steel Liner, Combination Sash, Restricted Bypass

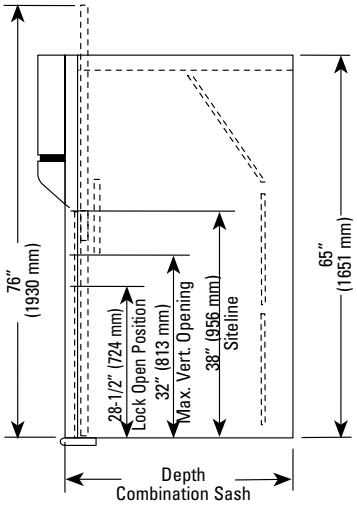
31-1/4" Depth*	37-1/4" Depth	43-1/4" Depth	Width
54L2641SB	61L2641SB	62L2641SB	48" (1219 mm)
54L2642SB	61L2642SB	62L2642SB	60" (1524 mm)
54L2643SB	61L2643SB	62L2643SB	72" (1829 mm)
54L2644SB	61L2644SB	62L2644SB	84" (2134 mm)
54L2645SB	61L2645SB	62L2645SB	96" (2438 mm)

Stainless Steel Liner, Horizontal Sash, Restricted Bypass

31-1/4" Depth*	37-1/4" Depth	43-1/4" Depth	Width
54L2641SC	61L2641SC	62L2641SC	48" (1219 mm)
54L2642SC	61L2642SC	62L2642SC	60" (1524 mm)
54L2643SC	61L2643SC	62L2643SC	72" (1829 mm)
54L2644SC	61L2644SC	62L2644SC	84" (2134 mm)
54L2645SC	61L2645SC	62L2645SC	96" (2438 mm)

* 31-1/4" deep fume hood require a sink base unit below a rear cupsink.





Exhaust Volumes

Concept Fume Hood with Vertical Sash

Fume Hood Width	Exhaust Volume	Vertical Sash Opening Height	Face Velocity	Static Pressure	Exhaust Collar Size
48″	484	18* 28.5*	100 60	.09″	6″ x 15″
60″	634	18* 28.5*	100 60	.09″	6″ x 23″
72″	784	18* 28.5*	100 60	.13″	6″ x 23″
84″	934	18* 28.5*	100 60	.15″	6″ x 26″
96″	1084	18* 28.5*	100 60	.09″	6″ x 30″

* 28-1/2″ and 24″ opening is for setup only; operating position is an 18″ high sash opening.

Concept Fume Hood with Combination Sash

	Sash Opening			Face Velocity			
Exhaust Volume	Vertical Sash Height	Horizontal Sash Opening	Sliding Sash Panels	Vertical**	Horizontal	Static Pressure	Exhaust Collar Size
400	18* 24*	27 x 17.375	2	80 60	100	.07″	6″ x 15″
540	18* 24*	27 x 23.375	2	80 60	100	.07″	6″ x 23″
650	18* 24*	27 x 28.250	4	80 60	100	.11″	6″ x 23″
790	18* 24*	27 x 34.250	4	80 60	100	.13″	6″ x 26″
930	18* 24*	27 x 40.250	4	80 60	100	.07″	6″ x 30″

** Vertical face velocities – nominal.

Minimum Variable Air Volume Face Velocity – 60-FPM

Concept with combination sash

Exhaust Volume CFM S.P.	Vertical Sash Inches	Horizontal Sash CFM - S.P.
400 - .07	24	225 - .02
300 - .04	18	
530 - .07	24	305 - .03
400 - .04	18	
650 - .11	24	370 - .04
500 - .08	18	
775 - .12	24	430 - .04
590 - .07	18	
900 - .07	24	525 - .03
680 - .04	18	

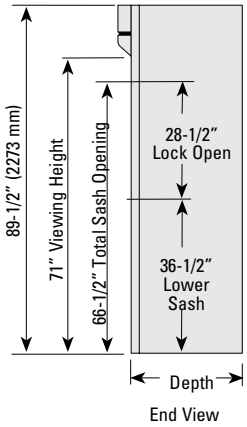
Concept Constant Volume/Restricted Bypass Floor-mounted Fume Hood with Vertical Sash

- Three standard depth choices available.
- Designed for large and complex laboratory apparatus setups and roll-in equipment.
- Double-hung, vertical rising sash is full-view, laminated safety glass with full-width recessed pulls.
- AutoSash upper automatic sash positioning system – sash locks in setup position and automatically returns to maximum operational height of 18" (457 mm) when lock is released.
- Chain and sprocket sash counterbalance system features alignment shaft and sash leveling system.
- Preset fixed baffle system – no adjustment required – factory tuned for optimal airflow characteristics.
- Downdraft bypass – improves airflow through bypass area with increased volume and less resistance for quieter operation.
- One cupsink and two side-wall access panels with PVC gasket included at front left location. 84" (2134 mm) and 96" (2438 mm) wide fume hood have two cupsinks and two access panels at each side.
- Two-tube (T-8) fluorescent light fixture, black light switch and flush plate, and two black duplex 120 VAC receptacles and flush plates.
- 96" (2438 mm) wide units have two light fixtures.
- Plugged holes for future service fixture installation standard on both posts.
- All floor-mounted fume hoods except those with stainless steel liners are shipped knocked-down and require job-site assembly.
- UL 1805 classified.

Exhaust Volume

Fume Hood Width	Based on Upper Sash @ 100 FPM full open			Based on Upper Sash @ 100 FPM open 18"		
	Top Vertical Sash Opening Height*	Exhaust Volume (CFM)	Static Pressure	Top Sash Height*	Exhaust Volume (CFM)	Static Pressure
48"	28.5"	790	0.17	18"	508	0.10
60"	28.5"	1035	0.19	18"	666	0.09
72"	28.5"	1285	0.30	18"	824	0.14
84"	28.5"	1520	0.28	18"	983	0.15
96"	28.5"	1770	0.30	18"	1141	0.11

*Both sashes raise for setup only, operating position is an 18" high sash opening.



End View

Exhaust Volumes

Concept High-line Fume Hood with Vertical Sash

Fume Hood Width	Exhaust Volume	Vertical Sash Opening Height	Face Velocity (Nominal)	Static Pressure	Exhaust Collar Size
48″	510	18* 28.5*	100 65	.09″	6″ x 15″
60″	670	18* 28.5*	100 65	.09″	6″ x 23″
72″	825	18* 28.5*	100 65	.13″	6″ x 23″
84″	980	18* 28.5*	100 65	.15″	6″ x 26″
96″	1150	18* 28.5*	100 65	.09″	6″ x 30″

*28-1/2″ opening is for setup only; operating position is an 18″ high sash opening.

Concept High-line Fume Hood with Combination Sash

			Sash Opening		Face Velocity (Nominal)			
Fume Hood Width	Exhaust Volume	Vertical Sash Height	Horizontal Sash Opening	Sliding Sash Panels	Vertical	Horizontal	Static Pressure	Exhaust Collar Size
48″	510	18* 28.5*	30.5 x 17.375	2	105 65	110	.08″	6″ x 15″
60″	670	18* 28.5*	30.5 x 23.375	2	105 65	110	.09″	6″ x 23″
72″	825	18* 28.5*	30.5 x 28.250	4	105 65	110	.12″	6″ x 23″
84″	980	18* 28.5*	30.5 x 34.250	4	105 65	110	.13″	6″ x 26″
96″	1150	18* 28.5*	30.5 x 40.250	4	105 65	110	.09″	6″ x 30″

*28-1/2″ opening is for setup only; operating position is an 18″ high sash opening.

Concept High-line Fume Hood with Horizontal Sash

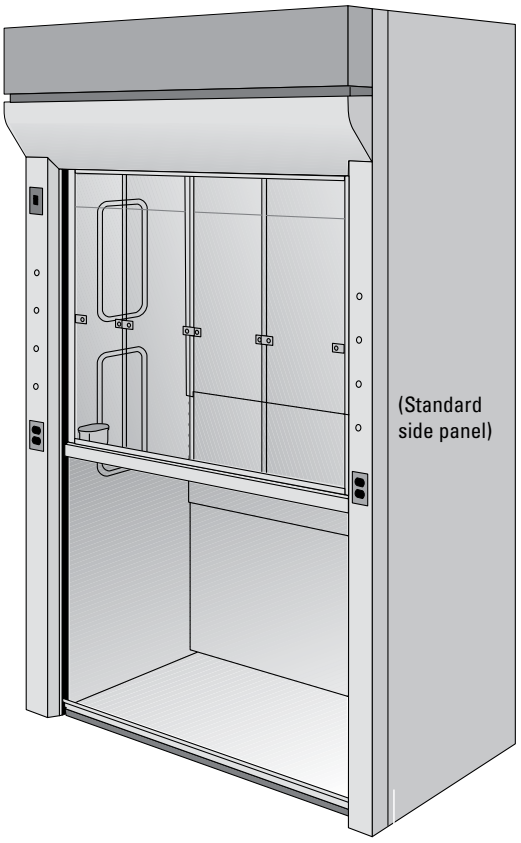
Exhaust volumes based on 100 FPM 31-1/2″ vertical sash opening, bypass* area included.

Fume Hood Width	Exhaust Volume (CFM)	Face Velocity (Nominal)	Static Pressure Loss (Inches W.G.)	Horizontal Sash Opening (Height x Width)
48″	460	100	0.08	31.5 x 17.375
60″	620	100	0.09	31.5 x 23.375
72″	750	100	0.12	31.5 x 28.250
84″	910	100	0.14	31.5 x 34.250
96″	1060	100	0.09	31.5 x 40.250

*Bypass is based on 3″ by the interior width of the fume hood.
(1″ at the sill and 2″ above the sash behind the lintel panel).

Concept Restricted Bypass Floor-mounted Fume Hood with Combination Sash

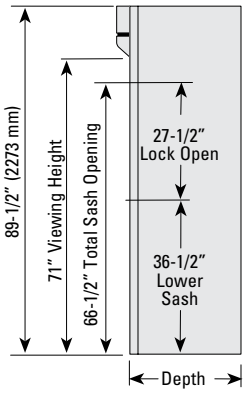
- Three standard depth choices available.
- Designed for large and complex laboratory apparatus setups and roll-in equipment.
- Double-hung, vertical rising top-hung combination sash is full-view, laminated safety glass with full-width recessed pulls.
- AutoSash upper automatic sash positioning system – sash locks in setup position and automatically returns to maximum operational height of 18" (457 mm) when lock is released.
- Chain and sprocket sash counterbalance system features alignment shaft and sash leveling system.
- Preset fixed baffle system, no adjustment required. Factory tuned for optimal airflow characteristics.
- Downdraft bypass improves airflow through bypass area with increased volume and less resistance for quieter operation.
- One cupsink and two side-wall access panels with PVC gasket included at front left location. 84" (2134 mm) and 96" (2438 mm) wide fume hood have two cupsinks and two access panels at each side.
- Two-tube (T-8) fluorescent light fixture, black light switch and flush plate, and two black duplex 120 VAC receptacles and flush plates.
- 96" (2438 mm) wide units have two light fixtures.
- Plugged holes for future service fixture installation standard on both posts.
- All floor-mounted fume hoods except those with stainless steel liners are shipped knocked-down and require job-site assembly.
- UL 1805 classified.



Exhaust Volume

Fume Hood Width	Based on Upper Sash @ 100 FPM full open			Based on Upper Sash @ 100 FPM open 18"				
	Top Vertical Sash Opening Height*	Exhaust Volume (CFM)	Static Pressure	Top Sash Height	Exhaust Volume	Static Pressure	18" Face Velocity	Horizontal Face Velocity
48"	28.5"	790	0.17	18"	508	0.10	100	110
60"	28.5"	1035	0.19	18"	666	0.09	100	110
72"	28.5"	1285	0.30	18"	824	0.14	100	110
84"	28.5"	1520	0.28	18"	983	0.15	100	110
96"	28.5"	1770	0.30	18"	1141	0.11	100	110

*Both sash assemblies raise for setup only, providing a 66-1/2" clearance; however the operating positions are an 18" vertical sash opening on or with the top vertical component closed and the sliding panels opened.



End View

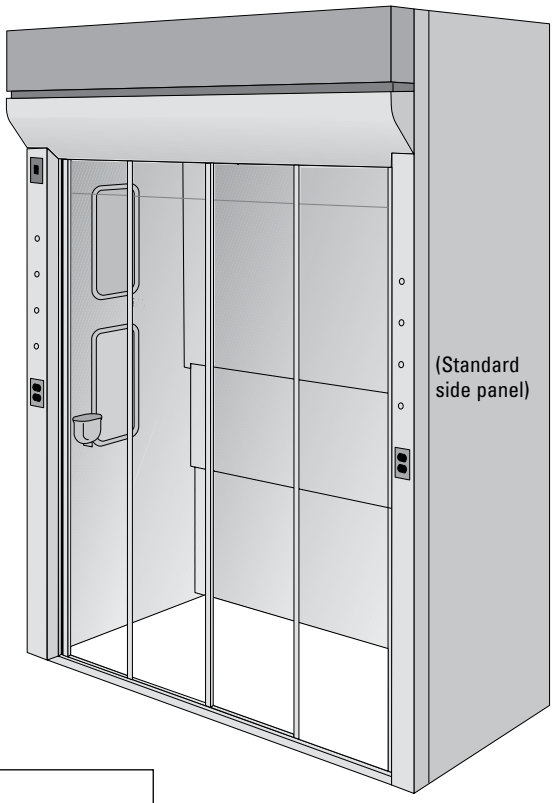
Concept Constant Volume/Restricted Bypass Floor-mounted Fume Hood with Vertical Sash

Product Numbers			
	Depth		
Width	35" (889 mm)	41" (1041 mm)	47" (1194 mm)
Constant Volume fume hood with Stainless Steel Liner			
48" (1219 mm)	554S2741S0	551S2741S0	552S2741S0
60" (1524 mm)	554S2742S0	551S2742S0	552S2742S0
72" (1829 mm)	554S2743S0	551S2743S0	552S2743S0
84" (2134 mm)	554S2744S0	551S2744S0	552S2744S0
96" (2438 mm)	554S2745S0	551S2745S0	552S2745S0
Constant Volume fume hood with Polyresin Liner			
48" (1219 mm)	554S2741P0	551S2741P0	552S2741P0
60" (1524 mm)	554S2742P0	551S2742P0	552S2742P0
72" (1829 mm)	554S2743P0	551S2743P0	552S2743P0
84" (2134 mm)	554S2744P0	551S2744P0	552S2744P0
96" (2438 mm)	554S2745P0	551S2745P0	552S2745P0
Restricted Bypass fume hood with Stainless Steel Liner			
48" (1219 mm)	554S2746S0	551S2746S0	552S2746S0
60" (1524 mm)	554S2747S0	551S2747S0	552S2747S0
72" (1829 mm)	554S2748S0	551S2748S0	552S2748S0
84" (2134 mm)	554S2749S0	551S2749S0	552S2749S0
96" (2438 mm)	554S2750S0	551S2750S0	552S2750S0
Restricted Bypass fume hood with Polyresin Liner			
48" (1219 mm)	554S2746P0	551S2746P0	552S2746P0
60" (1524 mm)	554S2747P0	551S2747P0	552S2747P0
72" (1829 mm)	554S2748P0	551S2748P0	552S2748P0
84" (2134 mm)	554S2749P0	551S2749P0	552S2749P0
96" (2438 mm)	554S2750P0	551S2750P0	552S2750P0

Order end panels separately (page 120).

Concept Restricted Bypass Floor-mounted Fume Hood with Horizontal Sliding Sash

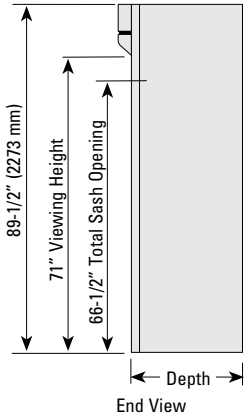
- Three standard depth choices available.
- Designed for large and complex laboratory apparatus setups and roll-in equipment.
- Full-view top-hung horizontal sliding sash with laminated safety glass.
- Preset fixed baffle system, no adjustment required. Factory tuned for optimal airflow characteristics.
- Downdraft bypass – improves airflow through bypass area with increased volume and less resistance for quieter operation.
- One cupsink and two side-wall access panels with PVC gasket included at front left location. 84" (2134 mm) and 96" (2438 mm) wide fume hood have two cupsinks and two access panels at each side.
- Two-tube (T-8) fluorescent light fixture, black light switch and flush plate, and two black duplex 120 VAC receptacles and flush plates.
- 96" (2438 mm) wide units have two light fixtures.
- Plugged holes for future service fixture installation standard on both posts.
- All floor-mounted fume hoods except those with stainless steel liners are shipped knocked-down and require job-site assembly.
- UL 1805 classified.



Product Numbers

Width	Depth 35" (889 mm)	41" (1041 mm)	47" (1194 mm)
Restricted Bypass fume hood with Stainless Steel Liner			
72" (1829 mm)	554S2760SC	551S2760SC	552S2760SC
84" (2134 mm)	554S2761SC	551S2761SC	552S2761SC
96" (2438 mm)	554S2762SC	551S2762SC	552S2762SC
Restricted Bypass fume hood with Polyresin Liner			
72" (1829 mm)	554S2760PC	551S2760PC	552S2760PC
84" (2134 mm)	554S2761PC	551S2761PC	552S2761PC
96" (2438 mm)	554S2762PC	551S2762PC	552S2762PC

Order end panels separately (page 120).



End View

Exhaust Volume

Based on Two Sashes Open @ 100 FPM

Fume Hood Width	Vertical Sash Opening Height	Exhaust Volume (CFM)	Static Pressure	Sash Opening Width
72"	66.5"	1485	0.35	28.5"
84"	66.5"	1770	0.33	35.5"
96"	66.5"	2070	0.35	41.5"

Concept Restricted Bypass Floor-mounted Fume Hood with Combination Sash

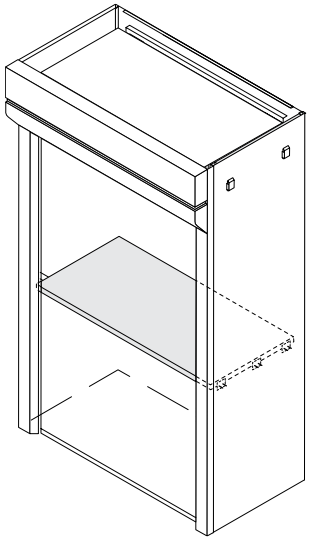
Product Numbers			
	Depth		
Width	35″ (889 mm)	41″ (1041 mm)	47″ (1194 mm)
Restricted Bypass fume hood with and Stainless Steel Liner			
48″ (1219 mm)	554S2751SB	551S2751SB	552S2751SB
60″ (1524 mm)	554S2752SB	551S2752SB	552S2752SB
72″ (1829 mm)	554S2753SB	551S2753SB	552S2753SB
84″ (2134 mm)	554S2754SB	551S2754SB	552S2754SB
96″ (2438 mm)	554S2755SB	551S2755SB	552S2755SB
Restricted Bypass fume hood with and Polyresin Liner			
48″ (1219 mm)	554S2751PB	551S2751PB	552S2751PB
60″ (1524 mm)	554S2752PB	551S2752PB	552S2752PB
72″ (1829 mm)	554S2753PB	551S2753PB	552S2753PB
84″ (2134 mm)	554S2754PB	551S2754PB	552S2754PB
96″ (2438 mm)	554S2755PB	551S2755PB	552S2755PB

Order end panels separately (page 120).

Distillation Shelf for Floor-mounted Fume Hood

- Steel shelf attaches to side walls
- Used with SafeAire II & Concept floor mounted hoods

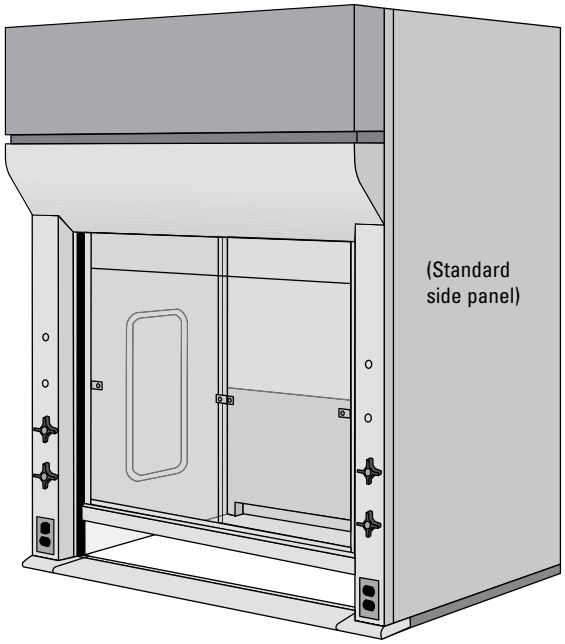
Product No.	Fume Hood Width
For 554S Series	
54L38210	48″ (1219 mm)
54L50210	60″ (1524 mm)
54L62210	72″ (1829 mm)
54L74210	84″ (2134 mm)
54L86210	96″ (2438 mm)
For 551S Series	
54L38270	48″ (1219 mm)
54L50270	60″ (1524 mm)
54L62270	72″ (1829 mm)
54L74270	84″ (2134 mm)
54L86270	96″ (2438 mm)
For 552S Series	
54L38330	48″ (1219 mm)
54L50330	60″ (1524 mm)
54L62330	72″ (1829 mm)
54L74330	84″ (2134 mm)
54L86330	96″ (2438 mm)

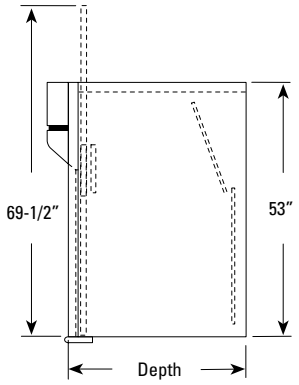


Concept ADA Assemblies

For Use With Constant Volume or Variable Air Volume Exhaust Systems

- Convenient access from standing or sitting position.
- Restricted bypass operating type.
- Interior panels for access to utilities; removable front post for access to fixtures.
- Flush bottom air foil.
- 1-1/4" (32 mm) thick dished epoxy resin work surface for primary containment. Order separately.
- Spill trough assembly for secondary containment – urethane powdercoat finish.
- Baffle screen prevents paper and objects from being exhausted into ductwork.
- Combination horizontal/vertical sash with safety glass viewing panel.
- Auto-sash positions vertical operating height at 18" (457 mm).
- Extra high sash provides clear vision line for standing user, even when hood is located at lower work surface height. 35" (889 mm) sash viewing height.
- Two-tube (T-8) fluorescent light fixture protected by safety glass panel.
- Available in 31-1/4" (794 mm), or 37-1/4" (946 mm) depth.
- Chain/sprocket counter balance.
- Designed for 60-100 FPM face velocities.
- One combination light switch/receptacle and one duplex prewired to a junction box.
- Optional blade handle fixtures are available.





Product Numbers		
Width	**Depth**	**Product Number**
48" (1219 mm)	31.25"	54L2755PB
60" (1524 mm)	31.25"	54L2756PB
72" (1829 mm)	31.25"	54L2757PB
84" (2134 mm)	31.25"	54L2758PB
96" (2438 mm)	31.25"	54L2759PB
Width	**Depth**	**Product Number**
48" (1219 mm)	37.25"	61L2755PB
60" (1524 mm)	37.25"	61L2756PB
72" (1829 mm)	37.25"	61L2757PB
84" (2134 mm)	37.25"	61L2758PB
96" (2438 mm)	37.25"	61L2759PB

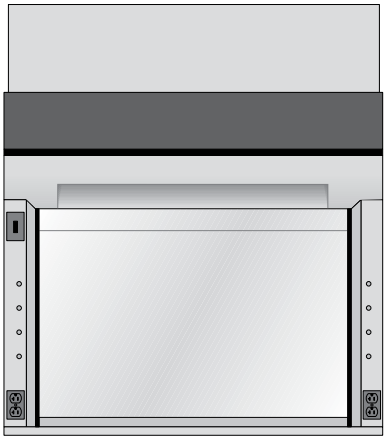
Only available with combination sash
Order side panels separately, see page 115
* 31-1/4" (794 mm) deep Fume Hood requires a sink base unit below a rear cupsink

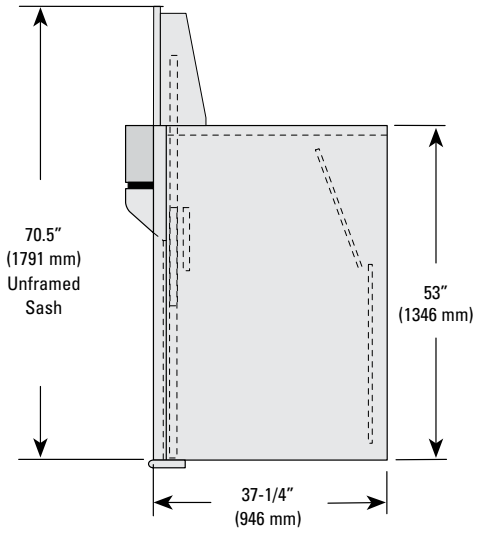
Concept ADA Fume Hood with Combination Sash

		Sash Opening			Face Velocity			
Fume Hood Width	**Vertical Sash Height**	**Exhaust Volume**	**Horizontal Sash Opening**	**Sliding Sash Panels**	**Vertical****	**Horizontal**	**Static Pressure**	**Exhaust Collar Size**
48"	18* 24*	400	27 x 17.375	2	80 60	100	.07"	6" x 15"
60"	18* 24*	540	27 x 23.375	2	80 60	100	.07"	6" x 23"
72"	18* 24*	650	27 x 28.250	4	80 60	100	.11"	6" x 23"
84"	18* 24*	790	27 x 34.250	4	80 60	100	.13"	6" x 26"
96"	18* 24*	930	27 x 40.250	4	80 60	100	.07"	6" x 30"

** Vertical face velocities – nominal
* 24" (610 mm) openings is for setup only
For work surfaces, see pages 99 through 101
For ADA height base cabinets, see page 110

Pioneer Fume Hood Superstructure





Product Numbers	
Restricted Bypass Vertical Rising Unframed Sash	
37-1/4″ Depth	**Width**
61L2655P0	48″
61L2656P0	60″
61L2657P0	72″
61L2658P0	84″
61L2659P0	96″
Includes front ceiling/sash enclosure	

Order end panels separately (page 117).

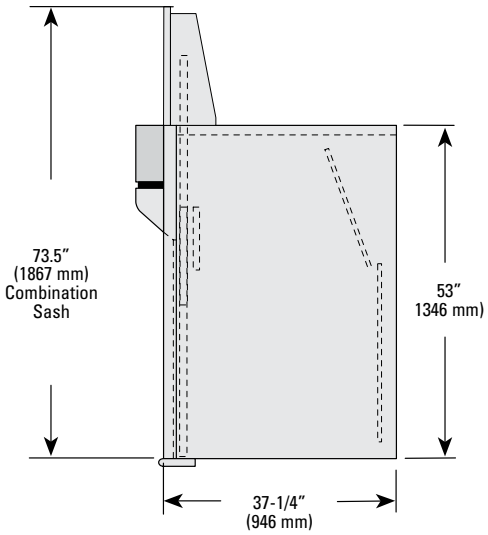
Technical Data

Pioneer Fume Hood with Vertical Sash

Fume Hood Width	Exhaust Volume	Vertical Sash Opening Height	Face Velocity	Static Pressure	Exhaust Collar Size
48″	440	18* 27.5*	92 60	.08″	6″ x 15″
60″	580	18* 27.5*	92 60	.08″	6″ x 23″
72″	715	18* 27.5*	92 60	.12″	6″ x 23″
84″	855	18* 27.5*	92 60	.14″	6″ x 26″
96″	990	18* 27.5*	92 60	.08″	6″ x 30″

*27-1/2″ (699 mm) opening is for setup only; operating position is an 18″ (457 mm) high sash opening.

Pioneer Fume Hood Superstructure



Product Numbers	
Restricted Bypass	**Combination Sash**
37-1/4″ Depth	**Width**
61L2655PB	48″
61L2656PB	60″
61L2657PB	72″
61L2658PB	84″
61L2659PB	96″
Includes front ceiling/sash enclosure	

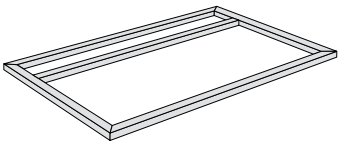
Order end panels separately (page 117).

Technical Data

Pioneer Fume Hood with Combination Sash

Fume Hood Width	Exhaust Volume	Sash Opening			Face Velocity		Static Pressure	Exhaust Collar Size
		Vertical Sash Height	Horizontal Sash Opening	Sliding Sash Panels	Vertical	Horizontal		
48″	440	18 27.5	28.5 x 17.375	2	92 60	110	.08″	6″ x 15″
60″	580	18 27.5	28.5 x 23.375	2	92 60	110	.08″	6″ x 23″
72″	715	18 27.5	28.5 x 28.250	4	92 60	110	.12″	6″ x 23″
84″	855	18 27.5	28.5 x 34.250	4	92 60	110	.14″	6″ x 26″
96″	990	18 27.5	28.5 x 40.250	4	92 60	110	.08″	6″ x 30″

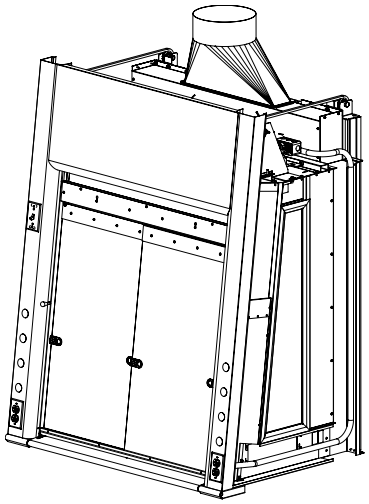
Spacer for Full-height Door Cabinets

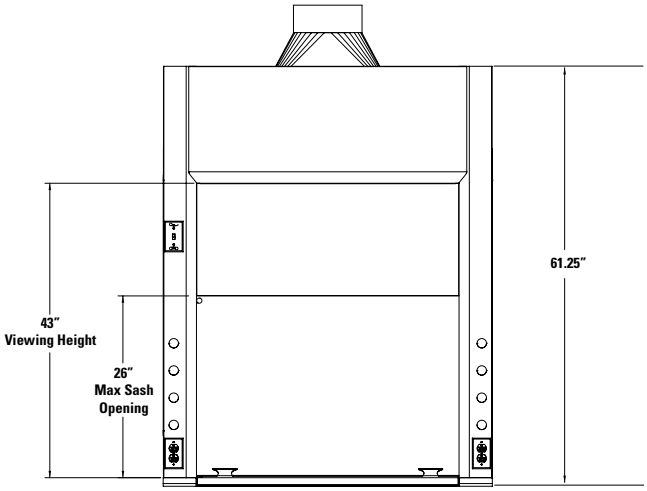


- Pioneer fume hoods incorporate a unique bottom airfoil sill that enhances air flow performance. The sill extends over the cabinet front. Base cabinets with full-height doors or full-overlay upper panels require a spacer between the cabinet and work surface to provide clearance.
- 30-3/4″ depth

Product No.	Width
619S2480	48″
619S2600	60″
619S2720	72″
619S2840	84″
619S2960	96″

Hamilton Scientific Fume Hood Products





Fume hood designed to address the ever-increasing requirements for safety, energy-efficiency and aesthetics.

- The Advantage™ Fume Hood features enhanced ergonomics for user comfort.
- A full-height slanted front viewing area and side viewing panels enable simple and easy monitoring of precious samples.
- With optional low voltage LED lighting, minimal exhaust static pressure, and variable air volume (VAV) compatibility to minimize exhaust air when the sash is down, the Advantage fume hood provides energy-efficient hazard containment.
- The flush sill enhances safety by eliminating possible glassware tripping hazards.
- AutoSash™ technology maximizes laboratory safety by ensuring correct sash positioning.
- An additional trough is positioned at the front of the unit to catch any spills.

Advantage Fume Hood CFMs

Vertical Sash

Fume Hood Width	Exhaust Volume	Vertical Sash Opening	Face Velocity	Static Pressure	Collar Size
48″ (1219 mm)	435	18″ (457 mm)	85	0.1	10″ (254 mm)
		26″ (660 mm)	60		
60″ (1524 mm)	570	18″ (457 mm)	85	0.13	10″ (254 mm)
		26″ (660 mm)	60		
72″ (1829 mm)	700	18″ (457 mm)	85	0.13	12″ (305 mm)
		26″ (660 mm)	60		
84″ (2134 mm)	840	18″ (457 mm)	85	0.12	12″ (305 mm)
		26″ (660 mm)	60		
96″ (2438 mm)	975	18″ (457 mm)	85	0.14	12″ (305 mm)
		26″ (660 mm)	60		

Combination Sash

Fume Hood Width	Exhaust Volume	Vertical Sash Opening	Vertical Face Velocity	Horizontal Sash Opening (H x W)	Horizontal Face Velocity	Static Pressure	Collar Size
48″ (1219 mm)	345	18	70	24-1/2″ x 18-3/4″	100	0.07	10″ (254 mm)
		22	60				
60″ (1524 mm)	455	18	70	24-1/2″ x 24-3/4″	100	0.09	10″ (254 mm)
		22	60				
72″ (1829 mm)	555	18	70	24-1/2″ x 30″	100	0.09	12″ (305 mm)
		22	60				
84″ (2134 mm)	665	18	70	24-1/2″ x 36″	100	0.12	12″ (305 mm)
		22	60				
96″ (2438 mm)	775	18	70	24-1/2″ x 42″	100	0.13	12″ (305 mm)
		22	60				

Vertical Rising Unframed Sash				
	T8 fluorescent lamps		T8 LED lamps	
Width	33-1/2″ Depth	39-1/2″ Depth	33-1/2″ Depth	39-1/2″ Depth
48″	56L250T0	59L250T0	56L250L0	59L250L0
60″	56L251T0	59L251T0	56L251L0	59L251L0
72″	56L252T0	59L252T0	56L252L0	59L252L0
84″	56L253T0	59L253T0	56L253L0	59L253L0
96″	56L254T0	59L254T0	56L254L0	59L254L0

Combination Sash				
	T8 fluorescent lamps		T8 LED lamps	
Width	33-1/2″ Depth	39-1/2″ Depth	33-1/2″ Depth	39-1/2″ Depth
48″	56L250TB	59L250TB	56L250LB	59L250LB
60″	56L251TB	59L251TB	56L251LB	59L251LB
72″	56L252TB	59L252TB	56L252LB	59L252LB
84″	56L253TB	59L253TB	56L253LB	59L253LB
96″	56L254TB	59L254TB	56L254LB	59L254LB

Common Features
- Petal white color steel interior
- Offered only with front loaded fixtures
- 48″ and 60″ fume hood have a 10″ round exhaust collar
- 72″, 84″ and 96″ fume hood have a 12″ round exhaust collar
- Pre-wired with two black duplex receptacles and one black light switch

Replacement LED Bulb		
One standard lamp requires 2 (two) replacement bulbs.	36″ fixture	48″ fixture
	56L31LED	56L41LED

Work Surfaces												
	No Cupsink		Left Front Cupsink		Left Rear Cupsink		Right Front Cupsink		Right Rear Cupsink		2 Front Cupsinks	
	Fume Hood Depth		Fume Hood Depth		Fume Hood Depth		Fume Hood Depth		Fume Hood Depth		Fume Hood Depth	
Width	33-1/2″	39-1/2″	33-1/2″	39-1/2″	33-1/2″	39-1/2″	33-1/2″	39-1/2″	33-1/2″	39-1/2″	33-1/2″	39-1/2″
48″	21L4829000	21L4835000	21L48290LF	21L48350LF	21L48290LR	21L48350LR	21L48290RF	21L48350RF	21L48290RR	21L48350RR	—	—
60″	21L6029000	21L6035000	21L60290LF	21L60350LF	21L60290LR	21L60350LR	21L60290RF	21L60350RF	21L48290RR	21L60350RR	—	—
72″	21L7229000	21L7235000	21L72290LF	21L72350LF	21L72290LR	21L72350LR	21L72290RF	21L72350RF	21L72290RR	21L72350RR	—	—
84″	21L8429000	21L8435000	21L84290LF	21L84350LF	21L84290LR	21L84350LR	21L84290RF	21L84350RF	21L84290RR	21L84350RR	—	—
96″	21L9629000	21L9635000	21L96290LF	21L96350LF	21L96290LR	21L96350LR	21L96290RF	21L96350RF	21L96290RR	21L96350RR	21L96290BF	21L96350BF

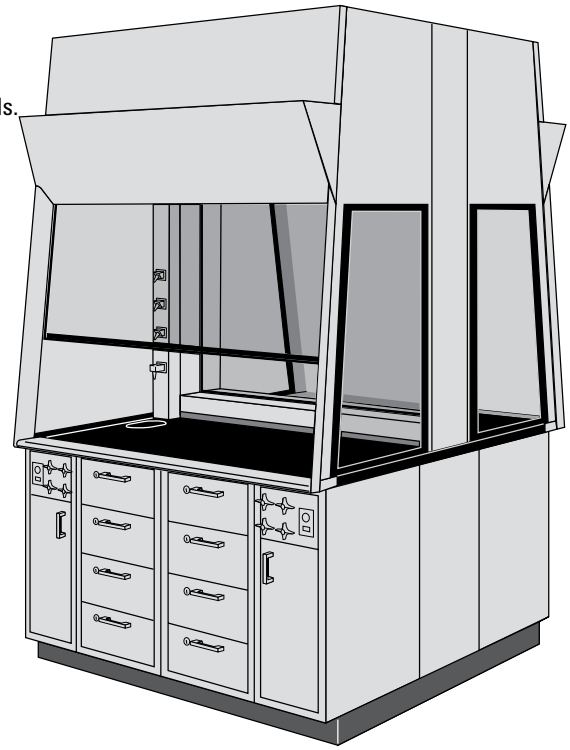
Optional Fume Hood End Panels		
Depth	Left End	Right End
33-1/2″	56LLH34D	56LRH34D
39-1/2″	59LLH40D	59LRH40D

Optional Back Enclosure Panel	
Width	Product No.
48″	54L48600LBEP
60″	54L60600LBEP
72″	54L72600LBEP
84″	54L84600LBEP
96″	54L96600LBEP

Fixtures		
	Product No.	
Front loaded pre-piped gas	32L715GW	Package includes all parts necessary to operate fume hood
Front loaded pre-piped air	32L715AW	
Front loaded pre-piped vac	32L715VW	
Front loaded pre-piped CW	32L715CW	

Horizon Full-view Fume Hood

For Use With Constant Volume or Variable Air Volume Exhaust Systems

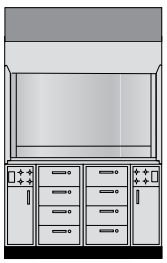


- Designed to facilitate total visibility of the entire lab from any location.
- Single-faced wall style or double-faced island models available; can be "ganged" side-by-side.
- Restricted bypass can be operated as constant volume with supplied header panels.
- Back panel on single units is white polyresin (optional glass back panel is available on extended lead times); side panels and vertical sash are 7/32" (6 mm) laminated safety glass.
- Back, side and sash panels on island units are 7/32" laminated safety glass.
- Services, when specified, include remote control gas, air, vacuum and cold water with 3" x 6" (76 x 152 mm) cupsink. Service controls are base cabinet mounted.
- If services are not specified, plugged fixture holes are provided for future use.
- Automatic 18" (457 mm) sash stop.
- 34" (864 mm) high opening for setup.
- Integral spill trough along front edge of work surface for secondary spill containment.
- Narrow angled front posts for enhanced visibility and airflow.
- Flush sill air foil for easy access to work surface.
- Isolated service drop allows vertical fixture mounting for maximum work surface area.
- Perimeter exhaust slots provide uniform airflow.
- Two-tube (T-8) fluorescent light fixture.
- 48" wide assembly has one combination light switch/receptacle and flush plate in right base cabinet.

  60" wide assembly has one combination light switch/receptacle and flush plate in right base cabinet; one 120 VAC duplex receptacle and flush plate in left base cabinet.

  72" wide assembly has one light switch and flush plate, and one 120 VAC duplex receptacle and flush plate in right base cabinet; one 120 VAC duplex receptacle and flush plate in left base cabinet.
- Optional lattice rack available. Ordered separately.
- Ships knocked-down. Product number includes superstructure, work surface, base cabinets and fillers.
- Not applicable for use in highly corrosive environments.
- UL 1805 classified.
- Order optional alarm separately. Only 54LAFA1000 can be used.
- Order optional fume hood alarm separately. Only 54LAFA1000 can be used.

Standalone or Multiple-unit Assembly Components



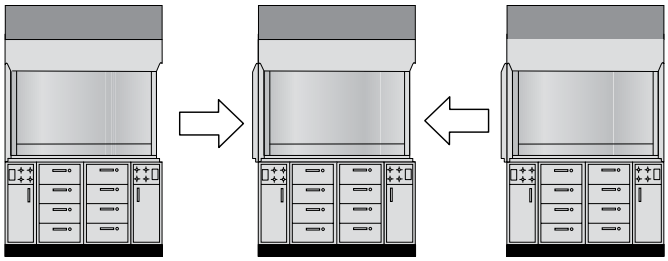
Standalone
Suffix "N"

Instead of double ends between units, Horizon multiple-unit assemblies include a cost-effective common end with a single pane of glass between adjoining units.

Two-unit assemblies include a right and left connector. Three-unit assemblies include a right connector, middle, left connector. Additional middle units can be added for assemblies of more than three units.

When building multiple unit assemblies, assemble fume hood from right unit to left unit.

Left end is referred to as "R" product because it connects on its **right side**.



Left End
Suffix "R"
Right Side Connector

Middle
Suffix "B"

Right End
Suffix "L"
Left Side Connector

Horizon Product Numbers

Stand-alone Assembly Product Numbers

Width	Without Fixtures	Fixtures Right Side Only	Fixtures Both Sides
Single-faced Style			
48″ (1219 mm)	554C403N	554C403NR	(Not Available)
60″ (1524 mm)	554C405N	554C405NR	554C405NB
72″ (1829 mm)	554C409N	554C409NR	554C409NB
Double-faced Style			
48″ (1219 mm)	554C404N	554C404NR	(Not Available)
60″ (1524 mm)	554C406N	554C406NR	554C406NB
72″ (1829 mm)	554C410N	554C410NR	554C410NB

Stand-alone Superstructure Product Numbers

Without Fixtures	Fixtures Right Side Only	Fixtures Both Sides
54L853N0	54L853NR	(Not Available)
54L854N0	54L854NR	54L854NB
54L855N0	54L855NR	54L855NB
54L850N0	54L850NR	(Not Available)
54L851N0	54L851NR	54L851NB
54L852N0	54L852NR	54L852NB

Left-end Assembly Product Numbers

Width	Without Fixtures	Fixtures Right Side Only	Fixtures Both Sides
Single-faced Style			
48″ (1219 mm)	554C403R	554C403RR	(Not Available)
60″ (1524 mm)	554C405R	554C405RR	554C405RB
72″ (1829 mm)	554C409R	554C409RR	554C409RB
Double-faced Style			
48″ (1219 mm)	554C404R	554C404RR	(Not Available)
60″ (1524 mm)	554C406R	554C406RR	554C406RB
72″ (1829 mm)	554C410R	554C410RR	554C410RB

Left-end Superstructure Product Numbers

Without Fixtures	Fixtures Right Side Only	Fixtures Both Sides
54L853R0	54L853RR	(Not Available)
54L854R0	54L854RR	54L854RB
54L855R0	54L855RR	54L855RB
54L850R0	54L850RR	(Not Available)
54L851R0	54L851RR	54L851RB
54L852R0	54L852RR	54L852RB

Middle Assembly Product Numbers

Width	Without Fixtures	Fixtures Right Side Only	Fixtures Both Sides
Single-faced Style			
48″ (1219 mm)	554C403B	554C403BR	(Not Available)
60″ (1524 mm)	554C405B	554C405BR	554C405BB
72″ (1829 mm)	554C409B	554C409BR	554C409BB
Double-faced Style			
48″ (1219 mm)	554C404B	554C404BR	(Not Available)
60″ (1524 mm)	554C406B	554C406BR	554C406BB
72″ (1829 mm)	554C410B	554C410BR	554C410BB

Middle Superstructure Product Numbers

Without Fixtures	Fixtures Right Side Only	Fixtures Both Sides
54L853B0	54L853BR	(Not Available)
54L854B0	54L854BR	54L854BB
54L855B0	54L855BR	54L855BB
54L850B0	54L850BR	(Not Available)
54L851B0	54L851BR	54L851BB
54L852B0	54L852BR	54L852BB

Right-end Assembly Product Numbers

Width	Without Fixtures	Fixtures Right Side Only	Fixtures Both Sides
Single-faced Style			
48″ (1219 mm)	554C403L	554C403LR	(Not Available)
60″ (1524 mm)	554C405L	554C405LR	554C405LB
72″ (1829 mm)	554C409L	554C409LR	554C409LB
Double-faced Style			
48″ (1219 mm)	554C404L	554C404LR	(Not Available)
60″ (1524 mm)	554C406L	554C406LR	554C406LB
72″ (1829 mm)	554C410L	554C410LR	554C410LB

Right-end Superstructure Product Numbers

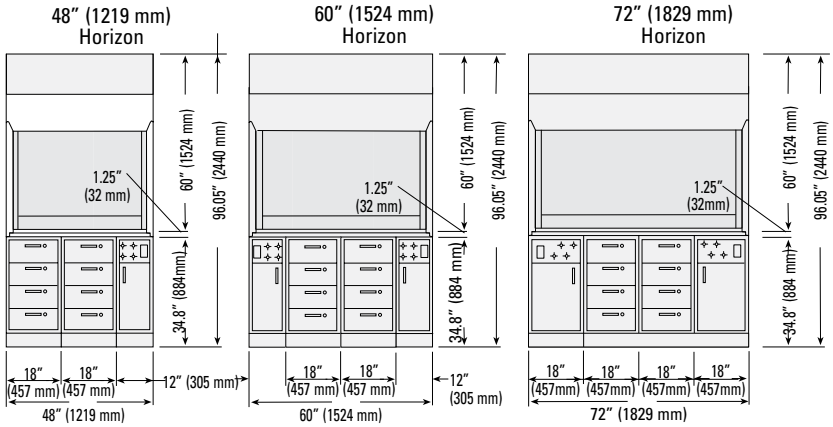
Without Fixtures	Fixtures Right Side Only	Fixtures Both Sides
54L853L0	54L853LR	(Not Available)
54L854L0	54L854LR	54L854LB
54L855L0	54L855LR	54L855LB
54L850L0	54L850LR	(Not Available)
54L851L0	54L851LR	54L851LB
54L852L0	54L852LR	54L852LB

Assemblies includes work surface.

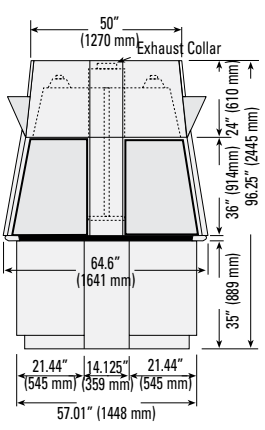
Superstructures do not include work surface. Order separately.

Horizon Dimensions and Operating Parameters

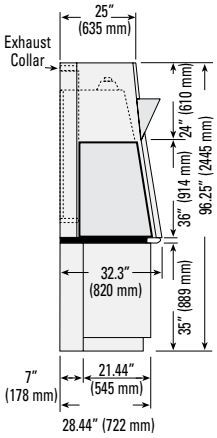
Typical Front Views



End Views



End View – Double Unit



End View – Single Unit
For applications against wall or end of island or peninsula.

Operating Parameters
CV (Constant Volume)

			100 FPM @ 18″ Sash Opening*	
Fume Hood Size	**Configuration**	**Collar Size**	**CFM**	**SP**
48″ (1219 mm)	Singled-sided	4″ x 30″ (102 x 762 mm)	550	.15
48″ (1219 mm)	Double-sided	9″ x 30″ (229 x 762 mm)	1100	.25
60″ (1524 mm)	Single-sided	4″ x 30″ (102 x 762 mm)	700	.18
60″ (1524 mm)	Double-sided	9″ x 30″ (229 x 762 mm)	1400	.30
72″ (1829 mm)	Single-sided	4″ x 30″ (102 x 762 mm)	850	.21
72″ (1829 mm)	Double-sided	9″ x 30″ (229 x 762 mm)	1700	.35

For free-standing use, use a 3-sided U-shaped sink shroud in place of the fillers on each side.
34″ opening for set up only. Operating position is an 18″ opening.

Operating Parameters
VAV (Variable Air Volume)

Fume Hood Size	100 FPM @ 18″ Both sashes open	100 FPM @ 18″ One sash open One sash closed	Both sashes closed**
48″ (1219 mm)	1100	720	340
60″ (1524 mm)	1400	915	430
72″ (1829 mm)	1700	1110	520

**Set to meet NFPA recommendations of 25 CFM per sq. ft. of interior work surface.

- Sash tracking (versus sidewall sensing controls) are recommended when fume hood is applied to a VAV system.
- Utilize only series 54LAFA1000 alarm.
- Use 2 alarms on double-sided fume hood.
- For VAV control applications on the two-sided hood; utilization of two single hoods back to back with optional glass back is recommended.

Plumbing

Coiled tubing is 1/4″ O.D. copper for all services. Plumber required to route to the top or bottom of fume hood for final connection. A field connection is required from valve in the cabinet to the fixture.

Shipping

Fume hood ships knocked down.

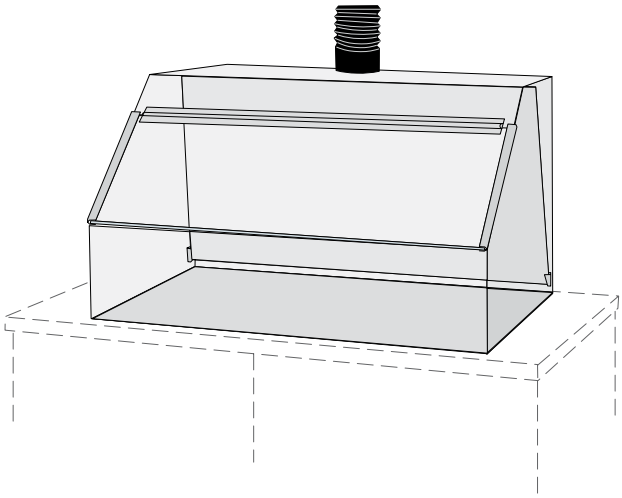
Electrical

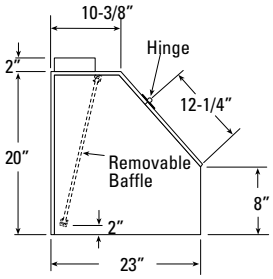
Electrician to connect wiring from junction box in cabinet to top of fume hood.

Table Top Fume Hood

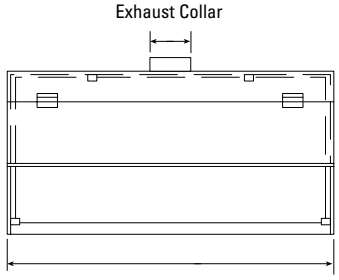
These workstation enclosures provide containment of fumes. Reduced exposure levels have been verified via testing to ASHRAE 110 1995 guidelines. Workstations have been designed to provide maximum comfort and visibility. A baffle system at the rear of the enclosure provides flow patterns and containment levels comparable to laboratory fume hood. Perimeter flow on top, bottom, and sides of enclosure reduce turbulence and reverse flows typical in non-baffled enclosures. This enhanced air flow provides containment at lower face velocities (50 FPM). Units are applicable to balance applications, tissue trimming, pipetting, electronics, and arts lab procedures.

Constructed of clear 1/4" thick acrylic for visibility. All edges are fused and polished to ensure maximum clarity and durability. Hinged access shield for setup and removal of apparatus. Exhaust outlets are 4" diameter on 600 mm and 900 mm models and 6" diameter on 1200 mm models to minimize sound levels. Designed to be connected to new or existing exhaust system with flex-duct (order separately).





End View



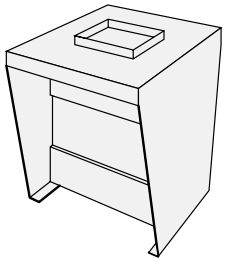
Front View

Table Top Fume Hood				
Product Number	Width	Exhaust Collar Size	50 FPM Face Velocity CFM	Static Pressure
54L27200	23.6" (600 mm)	4" Diameter	66	.25"
54L27300	35.4" (900 mm)	4" Diameter	98	.45"
54L27400	47.2" (1200 mm)	6" Diameter	131	.35"

Flex Duct			
Product Number	Diameter	Length	Material
54L26100	4" Diameter	96"	Polyethylene
54L26200	6" Diameter	96"	Polyethylene

Hamilton Scientific Fume Hood Products

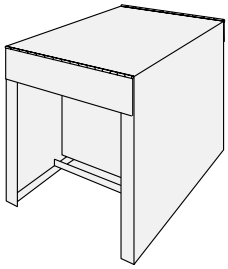
Up-draft Table-top Fume Hood



- Available with extended lead-time
- Designed for use with overhead exhaust system to provide maximum efficiency
- Adjustable, positive-control baffles
- Steel with chemical-resistant powdercoat finish, specify color
- Exhaust collar 2" (51 mm) by 6" (152 mm)
- 16" (406 mm) wide
- 18" (457 mm) high

			Exhaust Volumes	
Product No.	**Depth**	**Description**	**CFM**	**SP**
54L27000	10" (254 mm)	Single-face	200	.50
54L27100	20" (508 mm)	Double-faced	400	.50

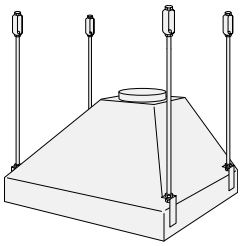
Down-draft Drip-panel Table-top Fume Hood



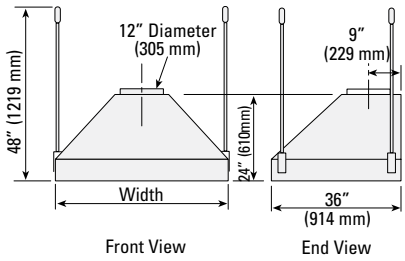
- Designed for use with hinged front top panel to accommodate tall equipment
- Steel with chemical-resistant powdercoat finish, specify color
- Available with extended lead-time
- Exhaust collar 2" (51 mm) by 20" (58 mm)
- 21" (533 mm) wide
- 22" (559 mm) high

			Exhaust Volumes	
Product No.	**Depth**	**Description**	**CFM**	**SP**
54L27600	16-3/4" (425 mm)	Single-face	200	.50
54L27700	29" (508 mm)	Double-faced	400	.50

Canopy Fume Hood



- Designed to collect and exhaust heat, steam and odors when mounted above hot plates, water baths or portable equipment
- Equipped with baffles to maximize slot velocities and control fumes
- Steel with reagent-resistant finish (Optional stainless steel; available with extended leadtime)
- Four 48" (1219 mm) rods with coupler for additional ceiling height
- Connecting ductwork not included
- Exhaust collar is 2" (51 mm) high with 12" (305 mm) diameter, located on a center line 9" (229 mm) from back of fume hood

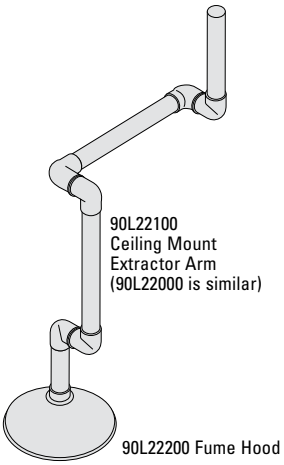


Product Numbers	
Product No.	**Width**
554S8810	36" (914 mm)
554S8820	48" (1219 mm)
554S8830	60" (1524 mm)
554S8840	72" (1829 mm)
554S8850	84" (2134 mm)
554S8860	96" (2438 mm)

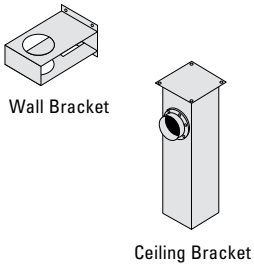
Exhaust Volumes
Based on two sides open, fume hood 42" (1067 mm) off work surface.

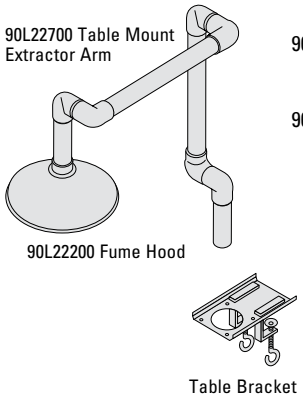
	50 FPM Through Each Open Face	
Fume Hood Size	**CFM**	**SP**
36" (914 mm)	1050	.17
48" (1219 mm)	1225	.20
60" (1524 mm)	1400	.30
72" (1829 mm)	1575	.37
84" (2134 mm)	1750	.45
96" (2438 mm)	1925	.57

3” Diameter Fume Removal System



- Articulated joints let you position arms exactly where you need them.
- Mounts on counter top, wall or ceiling.
- Use for spot ventilation applications.
- Stay-put fitted central joints ensure that arm stays in place.
- Extractor arms are brushed aluminum.
- Elbows and all accessories are white.
- Normal operating CFM is 50 to 75, the maximum is 100 but not recommended.
- Static pressure is 2-1/4” at 75 CFM.

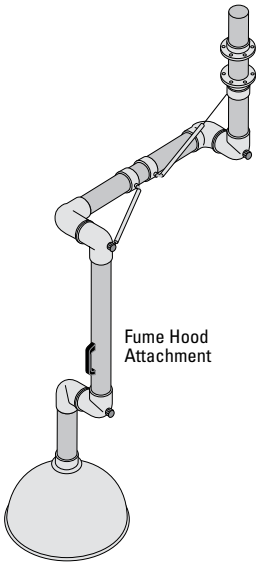


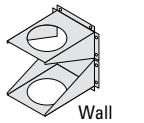


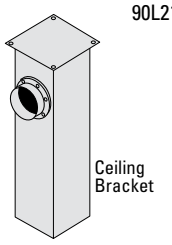
Product No.	Description
90L22000	3” diameter wall mount extractor arm, 41” (1041 mm) working radius
90L22100	3” diameter ceiling mount extractor arm, 41” (1041 mm) working radius
90L22200	8” (203 mm) diameter fume hood attachment, white aluminum
90L22300	Wall bracket, use with 90L22000 arm
90L22400	Ceiling bracket, 20” (58 mm), use with 90L22100 arm
90L22500	Ceiling bracket, 30” (762 mm), use with 90L22100 arm
90L22600	Ceiling bracket, 40” (1016 mm), use with 90L22100 arm
90L22700	Table mount extractor arm, 35” (889 mm) Working radius
90L22800	Table bracket, white powdercoat finish, use with 90L22700 arm

4” Diameter Fume Removal System

- Articulated joints incorporates gas spring cylinders and an ergonomic handle for precision adjustment to point of use.
- Can be mounted from ceiling or wall.
- Designed to handle air volumes up to 235 cfm.
- Armature extends 71” (1803 mm).
- Use for table-top fume removal applications.
- Stay-put fitted central joints ensure that arm stays in place.
- Extractor arms are brushed aluminum with white polypropylene elbows.







Product No.	Description
90L21500	4” diameter wall-mount arm
90L21600	4” diameter ceiling-mount arm
Fume Hood Attachment	
90L21700	8” (203 mm) diameter natural aluminum
90L21900	14” (203 mm) diameter natural aluminum
90L21800	20” (58 mm) diameter opaque polypropylene
Mounting Bracket	
90L21200	Wall-mount bracket (pair) white powdercoat finish
90L21300	Ceiling column – 20” (58 mm), white powdercoat finish
90L21400	Ceiling column – 40” (1016 mm), white powdercoat finish

Forensics Cabinets

Forensics cabinets feature ducted fuming chambers to provide protection for laboratory personnel from dangerous fumes and odors generated during the treatment of evidentiary materials.

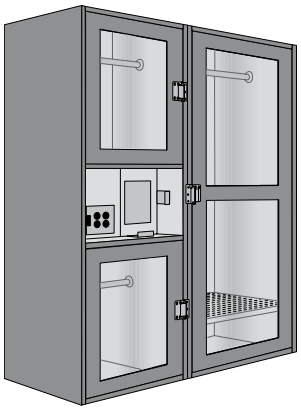
Forensics cabinets are ideal for print analysis and fuming processes using cyanoacrylates.

The cabinets contain individually vented chambers of various sizes designed to minimize overall airflow. Reduced airflow enhances the effectiveness of the fuming process and minimizes fuming time.

Forensics cabinets are available in bench and floor mounted configurations.

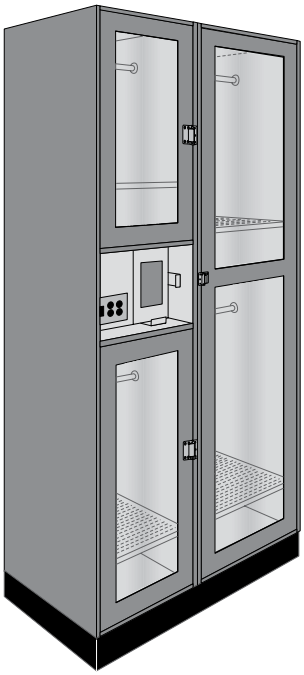
Common Features:

- Three chambers, each chamber can be operated independently.
- Each chamber features a vapor-proof incandescent light fixture.
- Chamber doors include padlock hasp to secure evidence during fuming procedure.
- Hanging rods are provided in each chamber, shelves are provided in the large chamber of the floor-mounted unit.
- Electrical outlets with power cord pass through for routing hot plate cords are provided for each chamber.
- Plastic laminate construction with 45 lb. density particle board core, doweled joinery, Wilsonart® Chemsurf® chemical resistant plastic laminate interior and high pressure plastic laminate exterior.
- Unit is pre-wired to central junction box located on top of cabinet.



Bench Top Unit

- Bench top unit provides a total of 13 cubic feet of containment area.
- Energy efficient – exhausts only 14 cubic feet of air per minute.



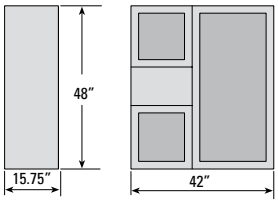
Floor Mounted Unit

- Floor mounted unit provides a total of 31 cubic feet of containment area.
- Energy efficient – exhausts only 31 cubic feet of air per minute.

Ordering Information

Counter Top Unit – Grey Plastic Laminate Exterior

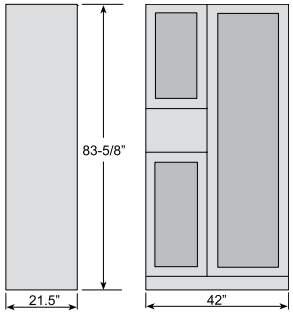
Product Number	Capacity	Exhaust Volume	Exhaust Collar Diameter	Weight
950P200GY	13 Cubic Feet	14 CFM	1.5″ I.D.	230 lbs.



Vent outlet extends 3-1/2″ above top of cabinet at rear.

Floor Mounted Unit – Grey Plastic Laminate Exterior

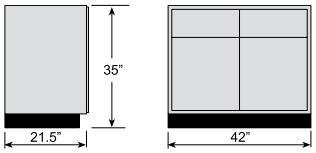
Product Number	Capacity	Exhaust Volume	Exhaust Collar Diameter	Weight
950P201GY	31 Cubic Feet	31 CFM	2″ I.D.	395 lbs.



Vent outlet extends 4″ above top of cabinet at rear.

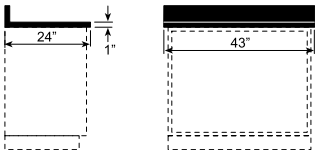
Base Cabinet – Grey Plastic Laminate Exterior

Product No.	Width	Depth	Height	Weight
148P732GY	42″	22″	35″	155 lbs.



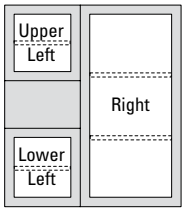
Counter Top – Black Chemsurf

Product No.	Width	Depth	Height	Weight
20L24430	43″	24″	1″	55 lbs.



Shelves

Product No.	For Cabinet Style	Compartment Location
950P2020	Counter Top	Right
950P2030	Floor Mounted	Upper Left
950P2040	Floor Mounted	Lower Left
950P2050	Floor Mounted	Right



Specifications

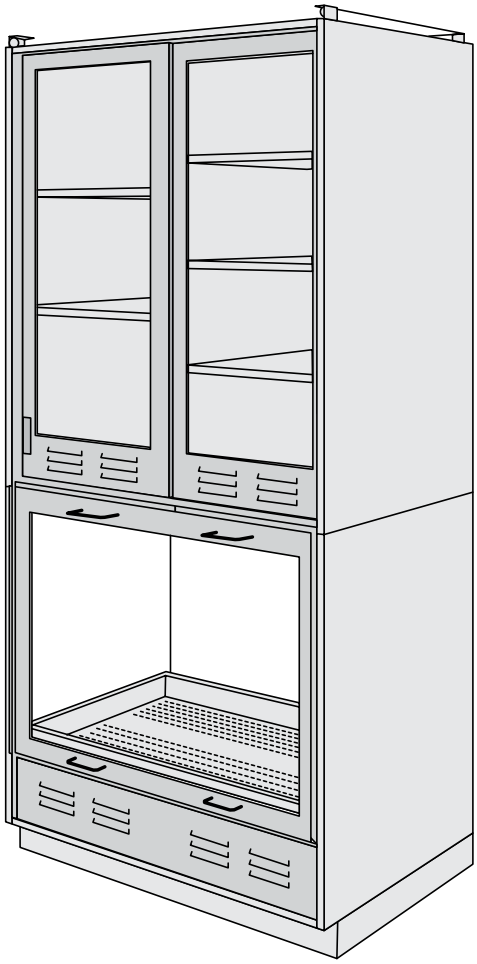
Unit shall consist of three separate fuming chambers of various sizes to allow separate fuming processes concurrently.
Each chamber shall be dampered, lockable, and glazed. Chambers shall have v-strip sealed doors to minimize airflow during fuming process. Each compartment shall include a vapor-proof incandescent light and access to 110 volt AC receptacles.

Construction shall be 45 lb. density particle board core with doweled joinery. Wilsonart Chemsurf chemical resistant plastic laminate interior and high-pressure plastic laminate exterior.

Each unit shall contain a test report verifying proper containment with the chamber closed. Test shall be based on ASHRAE 110 1995 methodology. Containment must be 4.0 AM 0.05 PPM or better.

Vented Chemical Storage Cabinet

- Designed for storage of large volumes of non-flammable chemicals, reagents and samples during processing. Chemical, safety containers and samples can be vertically stacked while containing any noxious fumes that otherwise would enter the laboratory.
- Upper compartment has five half-width adjustable perforated shelves and horizontal sliding framed glass doors with louvers.
- Lower compartment has one heavy-duty perforated pull-out shelf and vertical rising framed glass sash with louvers. Each pull-out shelf can support up to 440 lbs Optional pull-out shelves can be purchased and field installed. Lower cavity can support up to four shelf assemblies
- Upper compartment is 51-1/2" (1302 mm) high and lower compartment is 43-1/2" (1103 mm) high.
- Overall dimensions: 99" (2515 mm) high x 48" (1219 mm) x 28-3/4" (730 mm) deep.
- Duct manifold and shut-off damper is provided and installed by others

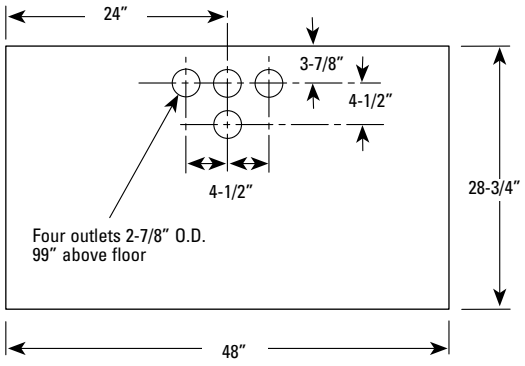


Product No.	
950S1120	Complete Assembly
950S1160	Optional Pull-out Shelf Assembly

Exhaust Parameters

Exhaust Vents	Size	Location
One	2-1/2" I.D. 2-7/8" O.D.	Upper left cavity
One	2-1/2" I.D. 2-7/8" O.D.	Upper right cavity
Two	2-1/2" I.D 2-7/8" O.D.	Lower cavity

Cubic Feet Per Minute	Static Pressure
10 CFM per vent	.15 (Expressed in inches of water)

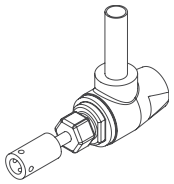


Roughing-in Diagram

Common features:

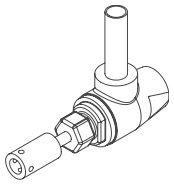
- Fixture has forged brass valve body, black washer and color-coded outlet to match index button.
- Parts exposed in fume hood have acid- and solvent-resistant epoxy finish, color-coded to match index button (unless otherwise noted).
- Gooseneck and outlets have removable serrated hose tip.
- 3/8" (10 mm) IPS coupling brazed to gooseneck styles for accessory attachment.
- Shipped loose for field installation only.
- All standard valves are CSA approved.

Remote Control Service Valves



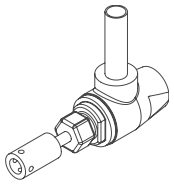
- Single service remote control valve
- Max. working pressure is 80 PSI
- Valves with stem for use with outlet, with hose connector, page 87

Product No.	Service
32L20000	Cold water with stem
32L20001	Distilled water with stem



- Single service remote control valve
- Max. working pressure is 125 PSI
- Valves for oxygen and nitrogen are cleaned for pure gas service

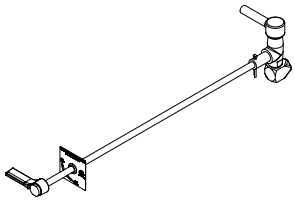
Product No.	Service
32L20200	Gas, air, vacuum with stem
32L20300	Oxygen, nitrogen with stem

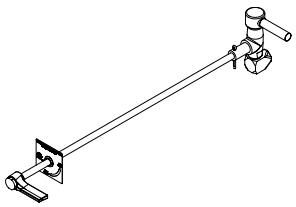


- Single service remote control valve
- Max. working pressure is 20 PSI

Product No.	Service
32L20400	Steam with stem

Remote Control Ball Valve Assembly

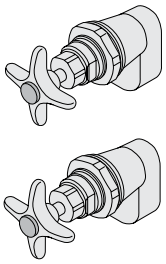




- Remote control service valve is factory assembled, includes guide plate, rod and handle
- Forged brass, chrome-plated lever handle. For other handle finishes, add suffix "FH."
- Colored plastic index disc
- Max. working pressure is 75 PSI
- Suitable for water and gas services

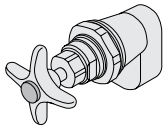
Product No.	
32L20600	Right
32L20700	Left

Front-loaded Service Valves



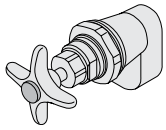
- Two front-loaded service valves for hot and cold water mixing
- Forged brass four-arm handle with clear plastic-coated chrome
- Colored plastic index disc
- Max. working pressure is 80 PSI
- Requires 1-1/4" (32 mm) diameter hole in panel

Product No.	Service
32L26300	Hot and cold water



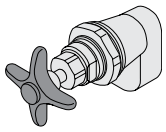
- Front-loaded single service valve
- Forged brass four-arm handle with clear plastic-coated chrome
- Colored plastic index disc
- Max. working pressure is 80 PSI
- Requires 1-1/4" (32 mm) diameter hole in panel

Product No.	Service
32L26400	Hot or cold water
32L26500	Distilled water



- Front-loaded single service valve
- Forged brass four-arm handle with clear plastic-coated chrome
- Colored plastic index disc
- Max. working pressure is 125 PSI
- Requires 1-1/4" (32 mm) diameter hole in panel

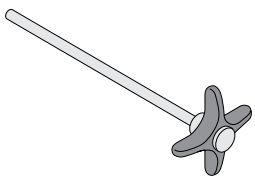
Product No.	Service
32L26600	Gas, air, vacuum
32L26800	Oxygen, nitrogen



- Front-loaded single service valve
- Four-arm heat resistant black handle
- Black plastic index disc
- Max. working pressure is 20 PSI
- Requires 1-1/4" (32 mm) diameter hole in panel

Product No.	Service
32L26700	Steam

Rod and Handle Assembly for Service Valves



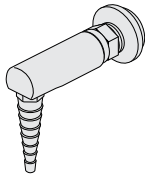
- Rod and handle assembly for remote control service valve
- Black 3/8" (10 mm) diameter aluminum rod
- Black nylon four-arm handle with color-coded index button
- Requires field cut to fit

Product No.	Rod Length
32L24500	7-9/16"
32L24600	11-1/2"
32L24700	31-5/16"

Common features:

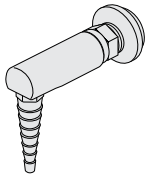
- Fixture has forged brass valve body, black washer and color-coded outlet to match index button.
- Parts exposed in fume hood have acid- and solvent-resistant epoxy finish, color-coded to match index button (unless otherwise noted).
- Goosenecks and outlets have removable serrated hose tip.
- 3/8" (10 mm) IPS coupling brazed to gooseneck styles for accessory attachment.
- Shipped loose for field installation only.
- All standard valves are CSA approved.

Outlet with Hose Connector



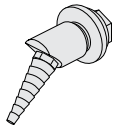
- Powdercoated brass turret and removable ten-serration hose connector positioned at 90 degrees
- Turret supplied with locknut, ferrule and compression fitting for 3/8" copper tubing
- 1/2" I.D. compression inlet
- **For use with remote control service valves with stems**

Product No.	Service
32L25300	Cold Water
32L25500	Hot Water



- Powdercoated brass turret and removable ten-serration hose connector positioned at 90 degrees
- Tin-lined connector and turret
- Turret supplied with locknut, ferrule and compression fitting for 3/8" copper tubing
- 1/2" I.D. compression inlet

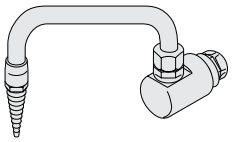
Product No.	Service
32L25400	Distilled Water



- Powdercoated brass turret and removable ten-serration hose connector positioned at a 30 degree angle
- Turret supplied with locknut, ferrule and compression nut
- 1/2" I.D. compression inlet

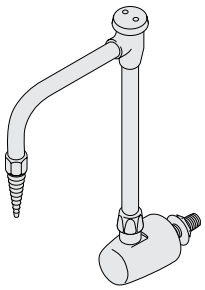
Product No.	Service
32L24800	Generic (color: black)
32L24900	Air
32L25000	Vacuum
32L25100	Gas
32L25200	Nitrogen (Cleaned for pure gas service)
32L25600	Oxygen (Cleaned for pure gas service)

Gooseneck Outlets



- Low profile gooseneck with turret and removable ten-serration hose end
- Turret supplied with locknut, ferrule and compression nut
- 1/2" I.D. compression inlet
- Rigid/swing adapter
- Color: green

Product No.	
32L26900	4" spread gooseneck
32L27000	6" spread gooseneck



- Gooseneck with vacuum breaker, turret and removable ten-serration hose end
- Vandal resistant turret supplied with locknut
- 3/8" NPS inlet

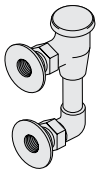
* Vacuum breaker is not recommended inside fume hood per NFPA

Product No.	
32L27100	6" spread gooseneck

Vacuum Breakers for Fume Hood

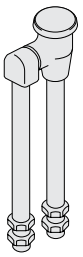
- Brass vacuum breaker with no finish
- For use with hidden applications
- 3/8" IPS female inlet and outlet

Product No.
32L27400



- Brass vacuum breaker assembly with polished chrome finish
- Union connection
- 1/2" IPS female inlet and outlet
- Not for use on Concept and Horizon fume hoods

Product No.
32L27500

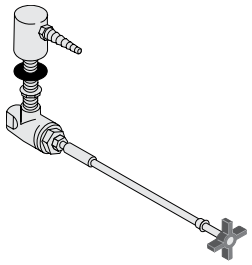


- Brass vacuum breaker assembly with polished chrome finish
- To be used with Concept and Horizon Fume Hood
- Chrome plated locknuts
- 3/8" IPS female inlet and outlet

Product No.
32L27600

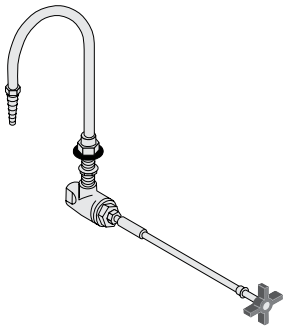
Remote Control Deck-mounted Service Fixtures (continued)

Common Features:
- Fixture has forged brass valve body, black washer and color-coded outlet to match index button.
- Parts exposed in fume hood have acid- and solvent-resistant epoxy finish, color-coded to match index button (unless otherwise noted).
- Goosenecks and outlets have removable serrated hose tip.
- 3/8" (10 mm) IPS coupling brazed to gooseneck styles for accessory attachment.
- Shipped loose for field installation only.
- All standard valves are CSA approved.



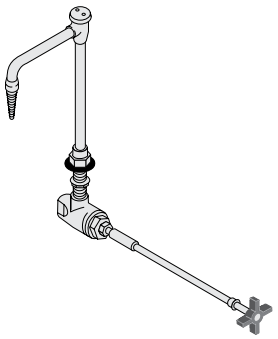
- Deck-mounted single-service valve for air, gases or vacuum
- Mounting hardware for 1-1/4" (32 mm) work surface

Product No.	Service	Top Depth	Mount Location
30L567G0	Gas	36" (914 mm)	Wood Base Cabinet
30L567A0	Air	36" (914 mm)	Wood Base Cabinet
30L567V0	Vacuum	36" (914 mm)	Wood Base Cabinet
30L568G0	Gas	30" (762 mm)	Table Frame, Wood/Steel
30L568A0	Air	30" (762 mm)	Table Frame, Wood/Steel
30L568V0	Vacuum	30" (762 mm)	Table Frame, Wood/Steel
30L569G0	Gas	36" (914 mm)	Table Frame, Wood/Steel
30L569A0	Air	36" (914 mm)	Table Frame, Wood/Steel
30L569V0	Vacuum	36" (914 mm)	Table Frame, Wood/Steel
30L570G0	Gas	30" (762 mm)	Steel Base Cabinet
30L570A0	Air	30" (762 mm)	Steel Base Cabinet
30L570V0	Vacuum	30" (762 mm)	Steel Base Cabinet
30L571G0	Gas	36" (914 mm)	Steel Base Cabinet
30L571A0	Air	36" (914 mm)	Steel Base Cabinet
30L571V0	Vacuum	36" (914 mm)	Steel Base Cabinet
30L572G0	Gas	30" (762 mm)	Wood Base Cabinet
30L572A0	Air	30" (762 mm)	Wood Base Cabinet
30L572V0	Vacuum	30" (762 mm)	Wood Base Cabinet



- Single-service gooseneck
- Washer and lock nut for deck mounting on 1-1/4" (32 mm) work surface
- For use with cupsink installed front or back
- "H0" suffix indicates hot water
- "C0" suffix indicates cold water

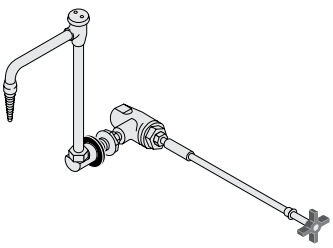
Product No.	Top Depth	Mount Location
32L617H0	36" (914 mm)	Wood Base Cabinet
32L617C0	36" (914 mm)	Wood Base Cabinet
32L618H0	30" (762 mm)	Table Frame, Steel and Wood
32L618C0	30" (762 mm)	Table Frame, Steel and Wood
32L619H0	36" (914 mm)	Table Frame, Steel and Wood
32L619C0	36" (914 mm)	Table Frame, Steel and Wood
32L620H0	30" (762 mm)	Steel Base Cabinet
32L620C0	30" (762 mm)	Steel Base Cabinet
32L621H0	36" (914 mm)	Wood Base Cabinet
32L621C0	36" (914 mm)	Wood Base Cabinet
32L627H0	30" (762 mm)	Wood Base Cabinet
32L627C0	30" (762 mm)	Wood Base Cabinet



- Single-service gooseneck with vacuum breaker
- Washer and lock nut for deck mounting on 1-1/4" (32 mm) work surface
- For use with cupsink installed front or back
- H0 suffix indicates hot water
- C0 suffix indicates cold water

* Vacuum breaker is not recommended inside fume hood per NFPA

Product No.	Top Depth	Mount Location
32L622H0	36" (914 mm)	Wood Base Cabinet
32L622C0	36" (914 mm)	Wood Base Cabinet
32L623H0	30" (762 mm)	Table Frame, Steel and Wood
32L623C0	30" (762 mm)	Table Frame, Steel and Wood
32L624H0	36" (914 mm)	Table Frame, Steel and Wood
32L624C0	36" (914 mm)	Table Frame, Steel and Wood
32L625H0	30" (762 mm)	Steel Base Cabinet
32L625C0	30" (762 mm)	Steel Base Cabinet
32L626H0	36" (914 mm)	Steel Base Cabinet
32L626C0	36" (914 mm)	Steel Base Cabinet
32L628H0	30" (762 mm)	Wood Base Cabinet
32L628C0	30" (762 mm)	Wood Base Cabinet



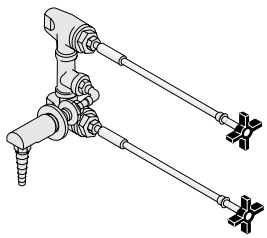
- Single-service color-coded gooseneck
- For use with cupsink installed front or back
- Sidewall mounted
- Add **HW** (hot water) or **CW** (cold water) to end of Product Number for service required
- Extended lead time

Product No.
CA32L552

Common Features:
- Fixture has forged brass valve body, black washer and color-coded outlet to match index button.
- Parts exposed in fume hood have acid- and solvent-resistant epoxy finish, color-coded to match index button (unless otherwise noted).
- Black nylon four-arm handle with nylon color-coded index button.
- Removable serrated tip.
- 3/8" (10 mm) IPS coupling brazed to gooseneck styles for accessory attachment.

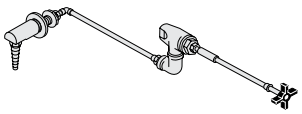
Installation requirements:
- Requires 1" (254 mm) mounting hole on interior end panels.
- Requires 9/16" (143 mm) mounting hole at front posts.

Remote Control Water Faucets (continued)



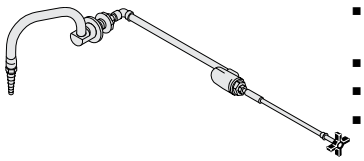
- General mixing faucet
- Turret base with serrated hose end
- Flat mounting flange for wall mount
- For use with cupsink installed front or back
- "WA" suffix indicates front fixtures
- "00" suffix indicates rear fixtures

Product No.	Fume Hood Type	Fixture Location
32L564WA	Auxiliary Air	Front
32L60400	Auxiliary Air	Back
32L565WA	Bypass, VAV, Radioisotope	Front
32L60500	Bypass, VAV, Radioisotope	Back
32L567WA	Bypass & VAV Floor-mounted	Front
32L60600	Bypass & VAV Floor-mounted	Back
32L568WA	Auxiliary Air Floor-mounted	Front
32L60700	Auxiliary Air Floor-mounted	Back



- Single-service water valve
- Turret base with serrated hose end
- Flat mounting flange for wall mount
- For working pressure up to 80 PSI
- For use with rear mounted cupsink

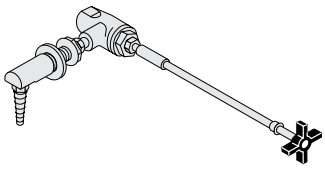
Product No.	Service	Fume Hood Type	Fixture Location
32L595CW	Cold Water	Auxiliary Air	Back
32L595HW	Hot Water	Auxiliary Air	Back
32L596CW	Cold Water	Bypass, VAV, Radioisotope	Back
32L596HW	Hot Water	Bypass, VAV, Radioisotope	Back
32L597CW	Cold Water	Bypass & VAV Floor-mounted	Back
32L597HW	Hot Water	Bypass & VAV Floor-mounted	Back
32L598CW	Cold Water	Auxiliary Air Floor-mounted	Back
32L598HW	Hot Water	Auxiliary Air Floor-mounted	Back



- Single-service color-coded gooseneck
- Sidewall mounted
- For cold water service
- For use with rear mounted cupsink

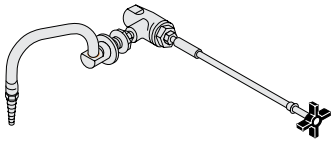
Product No.	Fume Hood Type
32L692CW	Auxiliary Air Bench/High-line
32L693CW	Constant Volume/Restricted Bypass Bench/High-line
32L694CW	Constant Volume/Restricted Bypass Floor-mounted
32L695CW	Auxiliary Air Floor-mounted

Remote Control Water Faucets (continued)



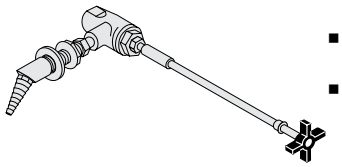
- Single-service water valve
- Turret base with serrated hose end
- Flat mounting flange for wall mount
- For working pressure up to 80 PSI
- For use with cupsink installed at front
- Distilled water fixtures are tin-lined

Product No.	Service	Fume Hood Type	Fixture Location
32L551CW	Cold Water	Auxiliary Air	Front
32L551HW	Hot Water	Auxiliary Air	Front
32L576DW	Distilled Water	Auxiliary Air	Front
32L62900	Steam	Auxiliary Air	Front
32L552CW	Cold Water	Bypass, VAV, Radioisotope	Front
32L552HW	Hot Water	Bypass, VAV, Radioisotope	Front
32L577DW	Distilled Water	Bypass, VAV, Radioisotope	Front
32L63000	Steam	Bypass, VAV, Radioisotope	Front
32L554CW	Cold Water	Bypass & VAV Floor-mounted	Front
32L554HW	Hot Water	Bypass & VAV Floor-mounted	Front
32L579DW	Distilled Water	Bypass & VAV Floor-mounted	Front
32L63100	Steam	Bypass & VAV Floor-mounted	Front
32L555CW	Cold Water	Auxiliary Air Floor-mounted	Front
32L555HW	Hot Water	Auxiliary Air Floor-mounted	Front
32L580DW	Distilled Water	Auxiliary Air Floor-mounted	Front
32L63200	Steam	Auxiliary Air Floor-mounted	Front



- Single-service color-coded gooseneck
- Sidewall mounted
- For cold water service
- For use with front mounted cupsink

Product No.	Fume Hood Type
32L688CW	Auxiliary Air Bench/High-line
32L689CW	Constant Volume/Restricted Bypass Bench/High-line
32L690CW	Constant Volume/Restricted Bypass Floor-mounted
32L691CW	Auxiliary Air Floor-mounted



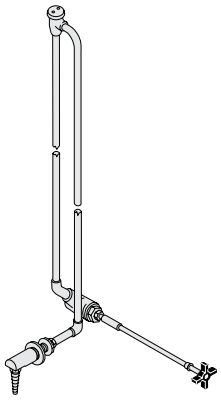
- Panel-mounted single-service valve for air, gases or vacuum
- Color-coded outlet to match index button, with black washer

Product No.	Service	Fume Hood Type
30L496GW	Gas	Auxiliary Air
30L496AW	Air	Auxiliary Air
30L496VW	Vacuum	Auxiliary Air
30L57300	Nitrogen	Auxiliary Air
30L57700	Oxygen	Auxiliary Air
30L497GW	Gas	Bypass, R.B., Radioisotope
30L497AW	Air	Bypass, R.B., Radioisotope
30L497VW	Vacuum	Bypass, R.B., Radioisotope
30L57400	Nitrogen	Bypass, R.B., Radioisotope
30L57800	Oxygen	Bypass, R.B., Radioisotope
30L499GW	Gas	Bypass & R.B. Floor-mounted
30L499AW	Air	Bypass & R.B. Floor-mounted
30L499VW	Vacuum	Bypass & R.B. Floor-mounted
30L57500	Nitrogen	Bypass & R.B. Floor-mounted
30L57900	Oxygen	Bypass & R.B. Floor-mounted
30L500GW	Gas	Auxiliary Air Floor-mounted
30L500AW	Air	Auxiliary Air Floor-mounted
30L500VW	Vacuum	Auxiliary Air Floor-mounted
30L57600	Nitrogen	Auxiliary Air Floor-mounted
30L58000	Oxygen	Auxiliary Air Floor-mounted

Common features:
- Fixture has forged brass valve body, black washer and color-coded outlet to match index button.
- Parts exposed in fume hood have acid- and solvent-resistant epoxy finish, color-coded to match index button (unless otherwise noted).
- Black nylon four-arm handle with nylon color-coded index button.
- Removable serrated tip.
- Can be installed on right or left side.
- For use with cupsink installed front or back.

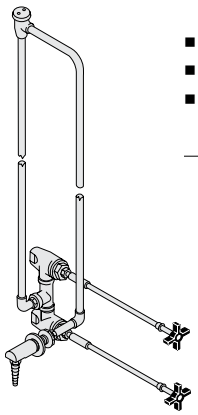
Installation requirements:
- Requires 1" (254 mm) mounting hole at interior end panels.
- Requires 9/16" (143 mm) mounting hole at front posts.

Remote Control Water Faucets with Vacuum Breakers



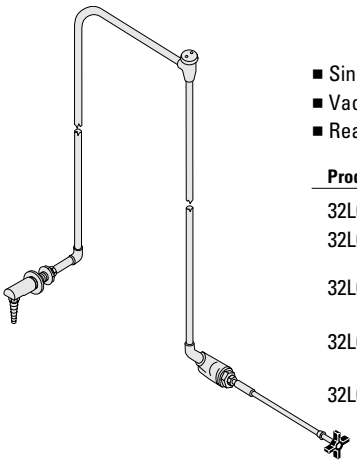
- Single-service assembly
- Vacuum breaker
- Front outlet fixture

Product No.	Fume Hood Type
32L675CW	Auxiliary Air
32L676CW	Bypass, Restricted Bypass, Radioisotope
32L677CW	Floor-mounted, Bypass, Restricted Bypass
32L678CW	Floor-mounted, Auxiliary Air



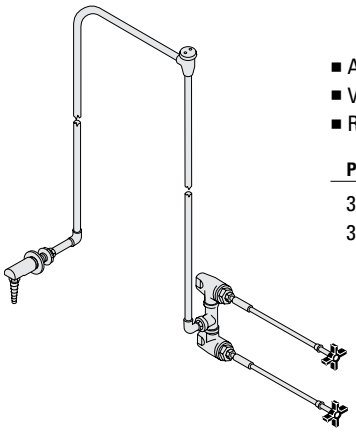
- Assembly for hot and cold water
- Vacuum breaker
- Front outlet fixture

Product No.	Fume Hood Type
32L66800	Auxiliary Air
32L66900	Bypass, Restricted Bypass, Radioisotope
32L67000	Floor-mounted, Auxiliary Air



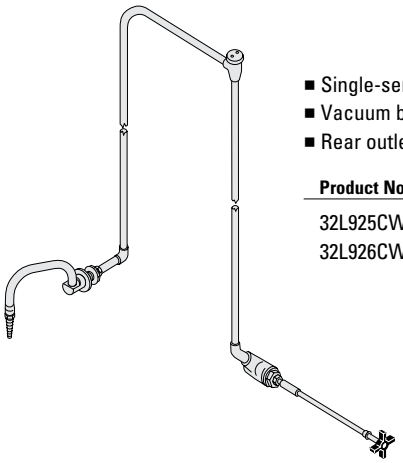
- Single-service assembly
- Vacuum breaker
- Rear outlet fixture

Product No.	Fume Hood Type
32L663CW	Auxiliary Air
32L664CW	Bypass, Restricted Bypass, Radioisotope
32L665CW	Floor-mounted, Bypass, Restricted Bypass
32L666CW	Floor-mounted, Auxiliary Air
32L616CW	Perchloric Acid



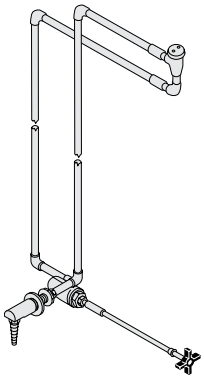
- Assembly for hot and cold water
- Vacuum breaker
- Rear outlet fixture

Product No.	Fume Hood Type
32L67100	Auxiliary Air
32L67200	Bypass, Restricted Bypass, Radioisotope



- Single-service assembly
- Vacuum breaker
- Rear outlet fixture

Product No.	Fume Hood Type
32L925CW	VAV Floor-mounted
32L926CW	Vectrol Floor-mounted



- Single-service assembly
- Top-mount front vacuum breaker
- Front outlet fixture
- Vacuum breaker is exposed

Product No.
32L657CW

Product information:

- For fume hood that are pre-piped for a downward connection, pipes are pivoted upward for shipment and installation on top of the fume hood's work-surface. Prior to making final hookups, disconnect the pipes at the valves, point them down and reinstall.
- All piping configurations listed comply with the following national plumbing codes:

  SPC – Standard Plumbing Code

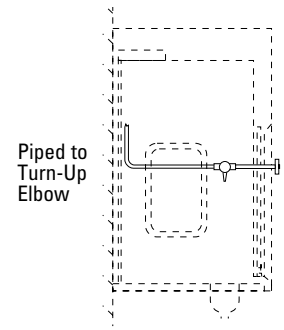
  NPC – National Plumbing Code

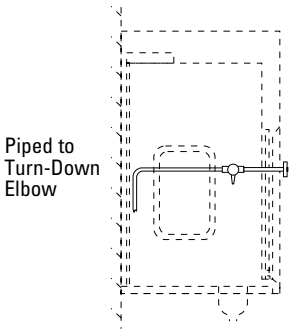
  UPC – Uniform Plumbing Code

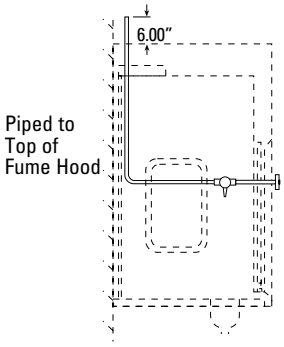
  NSPC – National Standard Plumbing Code.
- All copper pipe is Type "L" copper. Copper pipe joints are either soldered with 95/5 solder or are mechanically attached with compression fittings.
- Front-loaded service fixtures are not available in standard pre-piped configurations.
- **Verify compliance with all state and local codes prior to ordering.**
- Products on this page cannot be shipped loose.

Standard Configurations

The following three pre-piping configurations are available with standard list pricing and standard lead-times.

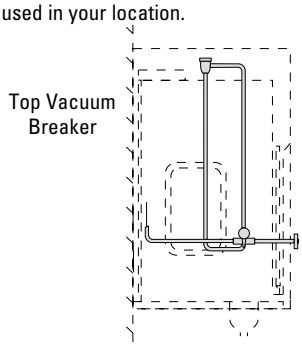


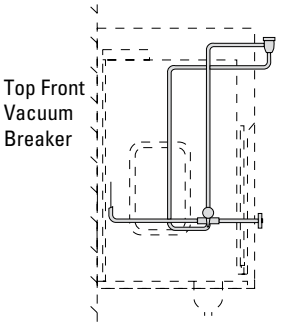




Vacuum Breaker Configurations

Pre-piped cold water fixtures are available with vacuum breakers in two configurations. State and local codes will dictate the version that should be used in your location.





Product Numbers – Standard Pre-piped Fixture Configurations

Product No.	Fixture Type	Pipe Size/Material
To Up Elbow		
32L80200	CW Front	3/8" Copper
32L80300	HW Front	3/8" Copper
32L80500	Steam Front	3/8" Black Iron
32L81400	CW Rear	3/8" Copper
32L81700	CW Front w/ Top VB	3/8" Copper
32L81800	CW Rear w/ Top VB	3/8" Copper
32L82600	H & CW Front	3/8" Copper
32L83000	H & CW Rear	3/8" Copper
32L84600	H & CW Rear w/ Top VB	3/8" Copper
32L85000	H & CW Front w/ Top VB	3/8" Copper
32L91500	CW Rear w/ Top Front VB	3/8" Copper
32L91600	CW Front w/ Top Front VB	3/8" Copper
30L80000	Air Front	3/8" Copper
30L80100	Vacuum Front	3/8" Copper
30L80200	Nitrogen Front	3/8" Copper
30L80300	Oxygen Front	3/8" Copper
30L82100	Gas Front	3/8" Black Iron w/ Coupling
To Down Elbow		
32L80000	CW Front	3/8" Copper
32L80100	HW Front	3/8" Copper
32L80400	Steam Front	3/8" Black Iron
32L81300	CW Rear	3/8" Copper
32L81900	CW Front w/ Top VB	3/8" Copper
32L82000	CW Rear w/ Top VB	3/8" Copper
32L82500	H & CW Front	3/8" Copper
32L82900	H & CW Rear	3/8" Copper
32L91900	CW Rear w/ Top Front VB	3/8" Copper
32L92000	CW Front w/ Top Front VB	3/8" Copper
32L84500	H & CW Rear w/ Top VB	3/8" Copper
32L84900	H & CW Front w/ Top VB	3/8" Copper
30L80500	Air Front	3/8" Copper
30L80600	Vacuum Front	3/8" Copper
30L80700	Nitrogen Front	3/8" Copper
30L80800	Oxygen Front	3/8" Copper
30L82000	Gas Front	3/8" Black Iron w/ Coupling
Piped Up		
32L80800	CW Front	3/8" Copper
32L80900	HW Front	3/8" Copper
32L81100	Steam Front	3/8" Black Iron
32L81600	CW Rear	3/8" Copper
32L82800	H & CW Front	3/8" Copper
32L83200	H & CW Rear	3/8" Copper
32L842CW	CW Rear w/ Top VB	3/8" Copper
32L844CW	CW Front w/ Top VB	3/8" Copper
32L84800	H & CW Rear w/ Top VB	3/8" Copper
32L85200	H & CW Front w/ Top VB	3/8" Copper
30L81000	Air Front	3/8" Copper
30L81100	Vacuum Front	3/8" Copper
30L81200	Nitrogen Front	3/8" Copper
30L81300	Oxygen Front	3/8" Copper
30L82200	Gas Front	3/8" Black Iron w/ Coupling

Common features:

- Fixture has forged brass valve body and outlet.
- Straight front panel mounting only.
- Valve is chrome plated.
- Valve seat can be replaced from the front of fixture.
- Valve handle is chrome-plated with nylon color-coded index button.
- Outlets in fume hood have acid- and solvent-resistant color-coded finish to match index button, with black washer.
- Removable serrated tip.
- Pressure varies with fixture:

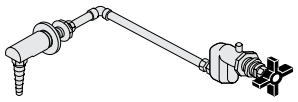
Water	80 PSI
Needle Valve	125 PSI
Steam Valve	20 PSI

- Index buttons are included with fixtures.

Installation requirements:

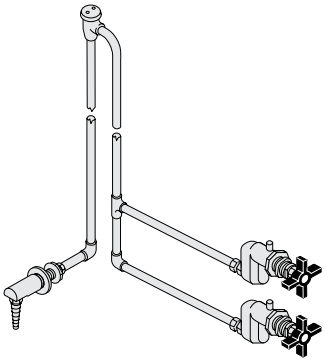
- Requires 1" (25 mm) mounting hole at interior end panels.
- Requires 1-1/4" (32 mm) mounting hole at front posts.

Front-loaded Water Faucets



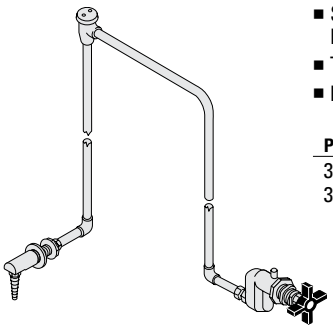
- Single-service valve
- Turret base with serrated hose end
- Without vacuum breaker
- Tin-lined model for distilled water
- For use with cupsink at front or back

Product No.	Service
32L645CW	Cold Water
32L645HW	Hot Water
32L64800	Distilled Water



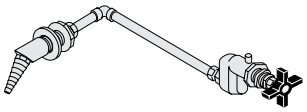
- General mixing faucet, hot and cold water with vacuum breaker
- Turret base with serrated hose end
- For use with cupsink at front or back

Product No.
32L64900



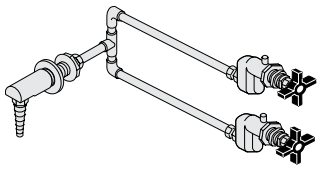
- Single-service valve with vacuum breaker
- Turret base with serrated hose end
- For use with cupsink at front or back

Product No.	Service
32L647CW	Cold Water
32L647HW	Hot Water



- Needle valve service for gases, air and vacuum
- Flat mounting flange with angle serrated hose end

Product No.	Service
30L589GW	Gas
30L589AW	Air
30L589VW	Vacuum
30L589NW	Nitrogen
30L589OW	Oxygen



- General mixing faucet, hot and cold water
- Turret base with serrated hose end
- Without vacuum breaker
- For use with cupsink at front or back

Product No.
32L64600

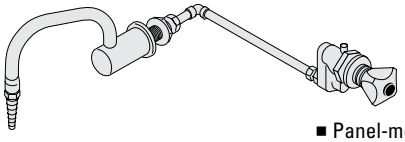
Common features of front loaded colortec valves

- Fixture has brass valve body with white hybrid epoxy/polyester blend finish.
- Color-coded (per media) plastic hooded handle and plastic index button.
- Color-coded (per media) removable serrated hose end with internal shank.
- Shank washer finished in black powdercoat.

Installation requirements

- Shipped loose – for field installation only.
- Requires 1" (25 mm) mounting hole at interior end panels.
- Requires 1-1/4" (32 mm) mounting hole at front posts.

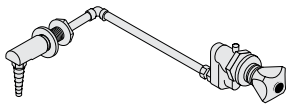
Front-loaded ColorTec Water Faucets



- Panel-mount turret base with 6" (152 mm) rigid gooseneck
- For straight front fume hood
- Serrated hose end and internal shank
- For use with cupsink installed front or back

Product No.	Service
28L152CW	Cold water
28L152HW*	Hot water

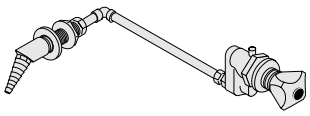
* Available on extended lead time.



- Single-service water valve
- For straight front fume hood
- Serrated hose end and internal shank

Product No.	Service
28L151CW	Cold water
28L151HW	Hot water

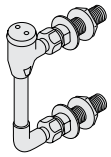
Front-loaded Service Valves



- Single-service valve
- For straight front fume hood
- Panel-mount 30° angle outlet fitting
- Serrated hose end and internal shank
- Oxygen and nitrogen valves are cleaned for pure gas service

Product No.	Service
27L161A0	Air
27L161G0	Gas
27L161V0	Vacuum
27L16200	Oxygen
27L16300	Nitrogen

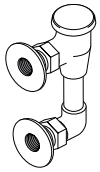
Atmospheric Vacuum Breaker



- 3/8" (10 mm) IPS laboratory vacuum breaker
- Panel-mounted
- 3/8" (10 mm) IPS mounting shank with locknut and washer
- Not for use on Concept/Pioneer or Horizon fume hood

Product No.
28L02700*

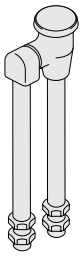
* Available on extended lead time.



- Brass vacuum breaker assembly with white powdercoat finish
- For use with concealed piping
- Union connection
- 3/8" IPS female inlet and outlet
- Not for use on Concept/Pioneer or Horizon fume hoods

Product No.
32L27700

Fixture replacement parts are available in the Hamilton Scientific Fixtures and Accessories catalog.



- Brass vacuum breaker assembly with white finish
- To be used with Concept and Horizon Fume Hood
- Chrome plated locknuts
- 3/8" IPS female inlet and outlet

Product No.
32L28000

Air Flow Alarm Monitor – AFA500

- Continuously monitors flow based on internal fume hood pressure and has field adjustable set points that will activate the alarm signal
- Operations manual is provided
- Features:
  - Low air alarm relay output
  - Simplified push-button calibration
  - Relay input for night setback to mute audible alarm

Specifications:

Alarm range: 30-400 fpm (.15-2.0 m/s)

Field setup: One-point velocity calibration

Accuracy: +or – 10%

Airflow sensor: On-board

Low air alarm delay: fixed five seconds

Relay: Output – 1
Input – 2, night setback & sash high

Analog Output: Not available

Sash High Indication: Yes, using a micro or proximity switch input. With repeat alarm feature factory set to 5 minutes (Can be adjusted via laptop up to 30 minutes)

Night Setback: Yes, using a relay input

External Alarm Indication: Not available

Power: Input 120VAC, 60Hz
Output 15VDC, 500ma

Display, visual: Red LED – Alarm
Green LED – Normal

Alarm Indication: Red LED and audible

Horn Silence: Yes, temporary

Mounting: Semi-flush

Operating Temperature: 55-86°F, 13-30°C

Dimensions: 5.2"H x 3-1/2"W x 2"D (132 x 81 x 51 mm)

Agency Listing: UL and CE

Product No.	Fume Hood Use
Factory Installed (Pre-wired)	
54LAFA0500S4	SafeAire, 3 and 4-foot
54LAFA0500S5	SafeAire, 5-foot
54LAFA0500S6	SafeAire, 6-foot
54LAFA0500S8	SafeAire, 8-foot
54LAFA0500C4	Concept and Pioneer, 4-foot
54LAFA0500C5	Concept and Pioneer, 5-foot
54LAFA0500C6	Concept and Pioneer, 6-foot
54LAFA0500C7	Concept and Pioneer, 7-foot
54LAFA0500C8	Concept and Pioneer, 8-foot
54LAFA0500D0	Demonstration
54LAFA0500S1	10' postless sash fume hood
54LAFA0500S3	12' postless sash fume hood
Field Installed (Cartoned)	
54LAFA0500SC	SafeAire, Concept and Pioneer
54LAFA0500HC	Demonstration

Air Flow Alarm Monitor – AFA1000

- Continuously monitors flow based on internal fume hood pressure and has field adjustable set points that will activate the alarm signal
- Operations manual is provided
- Features:
  - Digital display of face velocity
  - LED alarm indicators
  - Push-button calibration and configuration
  - One programmable output relays
  - Three configurable inputs
  - Com ports for local or network connection

Specifications:

Display/Alarm range: 0-999 fpm (0-5.0 m/s)

Field Setup: Two-point velocity calibration, with on-screen instructions
Accuracy: Sensor/display resolution 1 fpm. Face velocity +or – 10%

Alarm Delays: 0-60 sec.

Relay: Output – 1, Input – 3

Analog Output: Not available

Sash High Indication: Yes, with separate plug-in connection

Night Setback: Yes

External Alarm Indication: Yes

Power: Input 120VAC, 60Hz, Output 15VDC, 500ma

Units: English and metric, user selective

Display, visual: Analog bar graph or fault timeline
Red LED – Alarm
Yellow LED – Caution
Green LED – Normal
Digital display of velocity reading can be turned off

Alarm Indication: Red LED and audible

Horn Silence: Yes, temporary

Airflow sensor: Remote

Low air alarm delay: fixed five seconds

Mounting: Semi-flush

Operating Temperature: 55-86°F, 13-30°C

Dimensions: 5.2"H x 3.2"W x 2"D (132 x 81 x 51 mm)

Agency Listing: UL and CE

Product No.	Fume Hood Use
Factory Installed (Pre-wired)	
54LAFA1000S4	SafeAire, 3 and 4-foot
54LAFA1000S5	SafeAire, 5-foot
54LAFA1000S6	SafeAire, 6-foot
54LAFA1000S8	SafeAire, 8-foot
54LAFA1000C4	Concept and Pioneer, 4-foot
54LAFA1000C5	Concept and Pioneer, 5-foot
54LAFA1000C6	Concept and Pioneer, 6-foot
54LAFA1000C7	Concept and Pioneer, 7-foot
54LAFA1000C8	Concept and Pioneer, 8-foot
54LAFA1000H0	Horizon
54LAFA1000D0	Demonstration
54LAFA1000S1	10' postless sash fume hood
54LAFA1000S3	12' postless sash fume hood
Field Installed (Cartoned)	
54LAFA1000SC	SafeAire, Concept and Pioneer
54LAFA1000HC	Horizon and Demonstration

* Cartoned – alarm only. Attachment, electrical conduit or receptacle are not included.
For use only on constant volume exhaust fume hood/systems.

Proper selection of work surface material is critical for optimum fume hood performance.

	Epoxy Resin	Stainless Steel
Chemical-resistance	S	G
Heat-resistance	S	G
Stain-resistance	G	G
Moisture-resistance	E	S
Impact-resistance	E	S
Abrasion-resistance	G	E
Cleanability	G	E
Sanitation	P	E
Spill Containment	G	G
Maintenance Cost	Low	Low
Smoke Toxicity	Low	Low
Disposal Impact	Low	Low

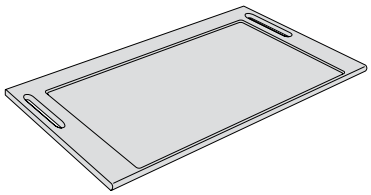
S = Superior E = Excellent G = Good F = Fair P = Poor

Detailed chemical resistance test data is available upon request.

Common features:
- Black epoxy resin work surface.
- Cupsink cutouts sized for product number 34L13200 polyolefin cupsinks. Special cutouts must be specified if alternate cupsinks are selected.
- 1-1/4" (32 mm) thick.

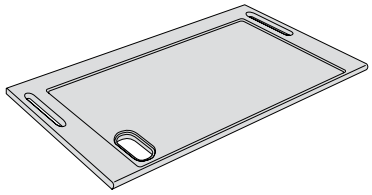
Ordering information:
- Cupsinks and other service fixtures must be ordered separately.

Epoxy Resin for SafeAire II and Concept Fume Hood



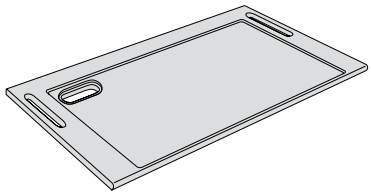
Product Numbers – No Cupsink Cutouts

Width	Work Surface Depth			
	26-1/8 (663 mm) 54L – Fume Hood	30-7/8" (784 mm) 60L – Fume Hood	32-1/8" (815 mm) 61L – Fume Hood	38-1/8" (968 mm) 62L – Fume Hood
36" (914 mm)	21L3626000	21L3631000	—	—
48" (1219 mm)	21L4826000	21L4831000	21L4832000	21L4838000
60" (1524 mm)	21L6026000	21L6031000	21L6032000	21L6038000
72" (1829 mm)	21L7226000	21L7231000	21L7232000	21L7238000
84" (2134 mm)	21L8426000	—	21L8432000	21L8438000
96" (2438 mm)	21L9626000	21L9631000	21L9632000	21L9638000



Product Numbers – Left Front Cupsink Cutout

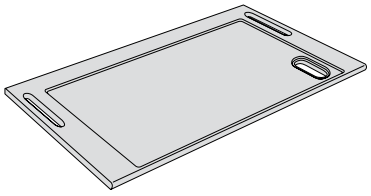
Width	Work Surface Depth			
	26-1/8" (663 mm) 54L – Fume Hood	30-7/8" (784 mm) 60L – Fume Hood	32-1/8" (815 mm) 61L – Fume Hood	38-1/8" (968 mm) 62L – Fume Hood
36" (914 mm)	21L36261LF	21L36311LF	—	—
48" (1219 mm)	21L48261LF	21L48311LF	21L48321LF	21L48381LF
60" (1524 mm)	21L60261LF	21L60311LF	21L60321LF	21L60381LF
72" (1829 mm)	21L72261LF	21L72311LF	21L72321LF	21L72381LF
84" (2134 mm)	21L84261LF	—	21L84321LF	21L84381LF
96" (2438 mm)	21L96261LF	21L96311LF	21L96321LF	21L96381LF



Product Numbers – Left Rear Cupsink Cutout

Width	Work Surface Depth			
	26-1/8" (663 mm) 54L – Fume Hood*	30-7/8" (784 mm) 60L – Fume Hood	32-1/8" (815 mm) 61L – Fume Hood	38-1/8" (968 mm) 62L – Fume Hood
36" (914 mm)	21L36261LR	21L36311LR	—	—
48" (1219 mm)	21L48261LR	21L48311LR	21L48321LR	21L48381LR
60" (1524 mm)	21L60261LR	21L60311LR	21L60321LR	21L60381LR
72" (1829 mm)	21L72261LR	21L72311LR	21L72321LR	21L72381LR
84" (2134 mm)	21L84261LR	—	21L84321LR	21L84381LR
96" (2438 mm)	21L96261LR	21L96311LR	21L96321LR	21L96381LR

*
Rear mounted cupsink requires use of a sink base cabinet.



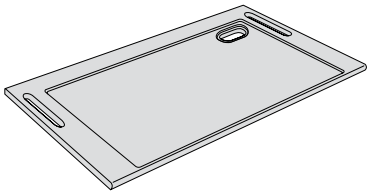
Product Numbers – Right Front Cupsink Cutout

Width	Work Surface Depth			
	26-1/8" (663 mm) 54L – Fume Hood	30-7/8" (784 mm) 60L – Fume Hood	32-1/8" (815 mm) 61L – Fume Hood	38-1/8" (968 mm) 62L – Fume Hood
36" (914 mm)	21L36261RF	21L36311RF	—	—
48" (1219 mm)	21L48261RF	21L48311RF	21L48321RF	21L48381RF
60" (1524 mm)	21L60261RF	21L60311RF	21L60321RF	21L60381RF
72" (1829 mm)	21L72261RF	21L72311RF	21L72321RF	21L72381RF
84" (2134 mm)	21L84261RF	—	21L84321RF	21L84381RF
96" (2438 mm)	21L96261RF	21L96311RF	21L96321RF	21L96381RF

Common features:
- Black epoxy resin work surface.
- Cupsink cutouts sized for product number 34L13200 polyolefin cupsinks. Special cutouts must be specified if alternate cupsinks are selected.
- 1-1/4" (32 mm) thick.

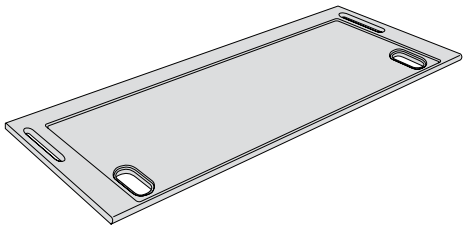
Ordering information:
- Cupsinks and other service fixtures must be ordered separately.

Epoxy Resin for SafeAire II and Concept (continued)



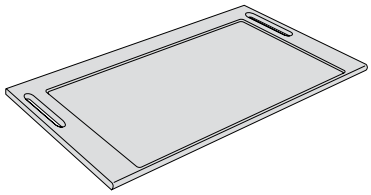
Product Numbers – Right Rear Cupsink Cutout				
	Work Surface Depth			
Width	26-1/8" (663 mm) 54L – Fume Hood*	30-7/8" (784 mm) 60L – Fume Hood	32-1/8" (815 mm) 61L – Fume Hood	38-1/8" (968 mm) 62L – Fume Hood
36" (914 mm)	21L36261RR	21L36311RR	—	—
48" (1219 mm)	21L48261RR	21L48311RR	21L48321RR	21L48381RR
60" (1524 mm)	21L60261RR	21L60311RR	21L60321RR	21L60381RR
72" (1829 mm)	21L72261RR	21L72311RR	21L72321RR	21L72381RR
84" (2134 mm)	21L84261RR	—	21L84321RR	21L84381RR
96" (2438 mm)	21L96261RR	21L96311RR	21L96321RR	21L96381RR

*Rear mounted cupsink requires use of a sink base cabinet.



Product Numbers – Two Front Cupsink Cutouts				
	Work Surface Depth			
Width	26-1/8" (663 mm) 54L – Fume Hood	30-7/8" (784 mm) 60L – Fume Hood	32-1/8" (815 mm) 61L – Fume Hood	38-1/8" (968 mm) 62L – Fume Hood
96" (2438 mm)	21L96262BF	21L96312BF	21L96322BF	21L96382BF

Epoxy Resin for Pioneer



Product No.	Fume Hood Width
21L4830_ _	48" (1219 mm)
21L6030_ _	60" (1524 mm)
21L7230_ _	72" (1829 mm)
21L8430_ _	84" (2134 mm)
21L9630_ _	96" (2438 mm)

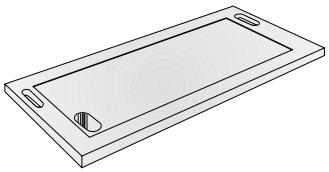
Add the following suffix letters to product numbers at left for cupsink cutout requirements:

000 = No cupsink cutouts
1LF = Left Front
1RF = Right Front
2BF = Both Front Sides (96" width only)
1LR = Left Rear
1RR = Right Rear

Common features:
- Stainless steel work surfaces are No. 304 stainless steel with smooth satin finish.
- 1-1/4" (32 mm) thick.

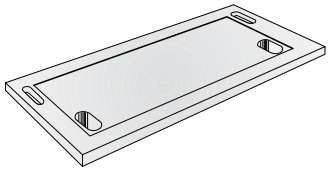
Ordering information:
- Integral cupsinks included, other service fixtures must be ordered separately.
- Special cutouts must be specified if alternate cupsinks are selected.

Stainless Steel for only SafeAire Fume Hood



- Front left cupsink
- 30" deep

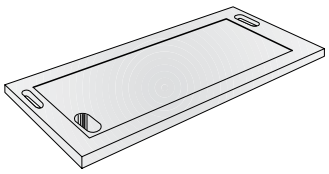
Product No.	Width
20L30500	36" (914 mm)
20L30600	48" (1219 mm)
20L30700	60" (1524 mm)
20L30800	72" (1829 mm)



- Front left and right cupsink
- 30" deep

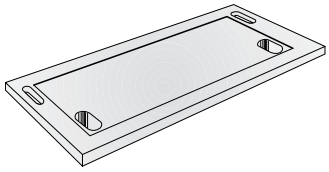
Product No.	Width
20L30900	96" (2438 mm)

Stainless Steel for only SafeAire II Fume Hood



- Front left cupsink
- 26-1/8" deep

Product No.	Width
21L36261LFSS	36" (914 mm)
21L48261LFSS	48" (1219 mm)
21L60261LFSS	60" (1524 mm)
21L72261LFSS	72" (1829 mm)



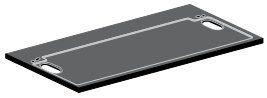
- Front right and left cupsink
- 26-1/8" deep

Product No.	Width
21L96261LFSS	96" (2438 mm)

Common features:
- Work surface for use with Horizon fume hood assemblies.
- Cupsink cutouts sized for product number 34L13200 polyolefin cupsinks. Special cutouts must be specified if alternate cupsinks are selected.
- 1-1/4" (32 mm) thick.

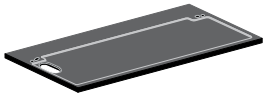
Ordering information:
- Cupsinks and other service fixtures must be ordered separately.
- Horizon fume hood assemblies include a standard black epoxy resin work surface (see page 68-71).

Molded Black Resin for only Horizon Superstructures



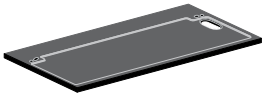
- Two cupsinks

Product No.	Width
20L258BB	48" (1219 mm)
20L259BB	60" (1524 mm)
20L260BB	72" (1829 mm)



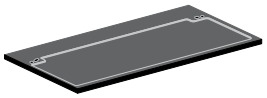
- Left cupsink

Product No.	Width
20L258BL	48" (1219 mm)
20L259BL	60" (1524 mm)
20L260BL	72" (1829 mm)



- Right cupsink

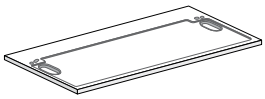
Product No.	Width
20L258BR	48" (1219 mm)
20L259BR	60" (1524 mm)
20L260BR	72" (1829 mm)



- No cupsinks

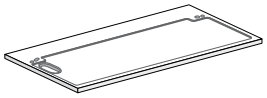
Product No.	Width
20L258BN	48" (1219 mm)
20L259BN	60" (1524 mm)
20L260BN	72" (1829 mm)

Molded White Resin for only Horizon Superstructure



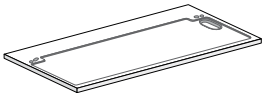
- Two cupsinks

Product No.	Width
20L258WB	48" (1219 mm)
20L259WB	60" (1524 mm)
20L260WB	72" (1829 mm)



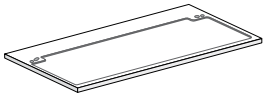
- Left cupsink

Product No.	Width
20L258WL	48" (1219 mm)
20L259WL	60" (1524 mm)
20L260WL	72" (1829 mm)



- Right cupsink

Product No.	Width
20L258WR	48" (1219 mm)
20L259WR	60" (1524 mm)
20L260WR	72" (1829 mm)



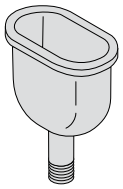
- No cupsinks

Product No.	Width
20L258WN	48" (1219 mm)
20L259WN	60" (1524 mm)
20L260WN	72" (1829 mm)

For use with:
- Work surfaces with cupsink cutouts.

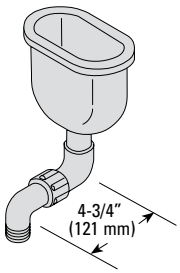
Ordering information:
- Adapters to connect cupsink to plumbing must be ordered separately.
- Coordinate selection of plumbing fixtures, sink outlet material, trap material and building acid waste system.

Polyolefin Oval Cupsinks



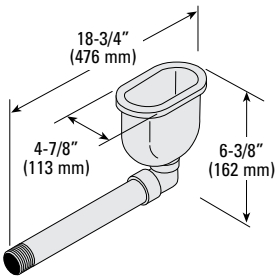
- 7-1/2" (191 mm) x 4-1/2" (114 mm) oval cupsink, 3" x 6" I.D.
- IPS outlet – 1-1/2" (38 mm)
- Overall height – 8-3/16" (208 mm)

Product No.
34L13200



- 7" (178 mm) x 3-7/8" (99 mm) oval panel-mounted cupsink with strainer
- Outlet – 1-1/2" (38 mm)
- Overall height – 6-13/16" (173 mm)

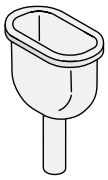
Product No.	2 x 6 I.D.
34L19000	Cupsink Only
34L19400	Cupsink with Elbow



- Shallow cupsink for restricted spaces, ideal for a fume hood installed above an acid or flammable storage cabinet
- Provides for front-mounted location above acid/flammable cabinet with flush front
- 6" (152 mm) x 3" (76 mm) inside dimension
- Outlet – 1-1/2" (38 mm)

Product No.	
34L13700	Shallow Cupsink with Elbow

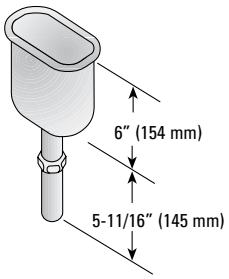
Glass Oval Cupsinks



- 4" (102 mm) x 7" (178 mm) oval cupsink
- Outlet I.D. – 1-1/2" (38 mm)
- Overall height – 11" (279 mm)

Product No.
34L36100

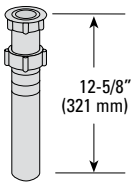
Stainless Steel Oval Cupsinks



- Oval cupsink with 1-1/2" (38 mm) tailpiece
- Overall diameter – 7-5/8" (194 mm) x 4-19/32" (117 mm)
- Outlet – 1-1/2" (38 mm)
- Overall height – 11-3/4" (298 mm)
- Inside diameter – 3-23/32" (94 mm) x 6- 3/4" (172 mm)

Product No.
34L19100

Polyolefin Tailpiece



- 1-1/2" (38 mm) Tailpiece assembly

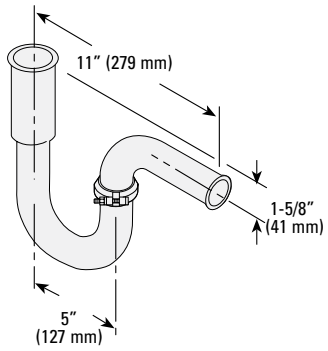
Product No.
34L24500

Adapter Couplings

- Adapts 2" (51 mm) expanded inlet beaded-end trap to 1-1/2" (38 mm) plain-end cupsink tailpiece
- Stainless steel outer band with rubber adapter and adapter seal

Product No.	Tailpiece Outside Diameter
34L26900	1-1/2" (38 mm)
34L27000	1-3/4" (44 mm)

Glass Swivel ”P” Traps

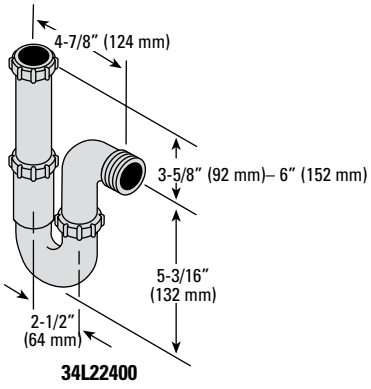


- ”P” swivel trap
- Outlet I.D. – 1-1/2” (38 mm)
- Inlet I.D. – 2” (51 mm)
- Overall height – 8-3/4” (222 mm)

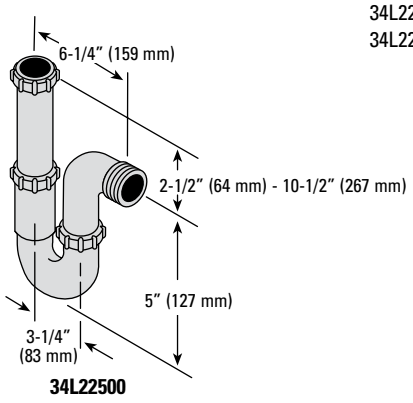
Product No.
34L25700

Polyolefin ”P” Traps

Product No.	Inlet/Outlet
34L22400	1-1/2” (38 mm)
34L22500	2” (51 mm)



34L22400



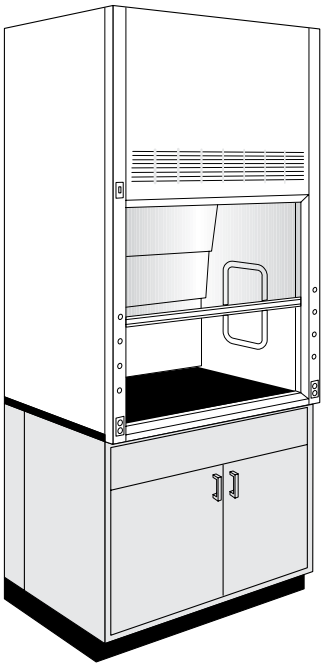
34L22500

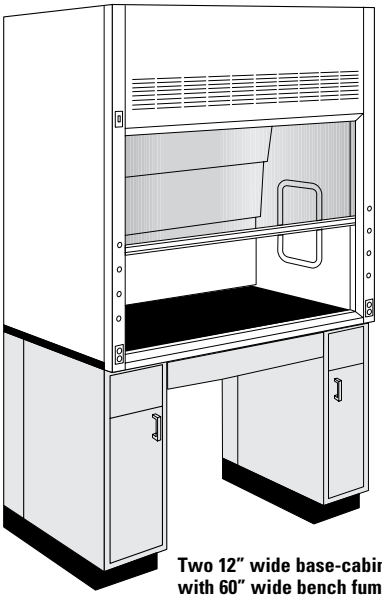
Base cabinets are required to support standard and high-line fume hood.

Select from wood steel or plastic laminate base cabinets, or choose an acid storage or flammable liquid storage cabinet.

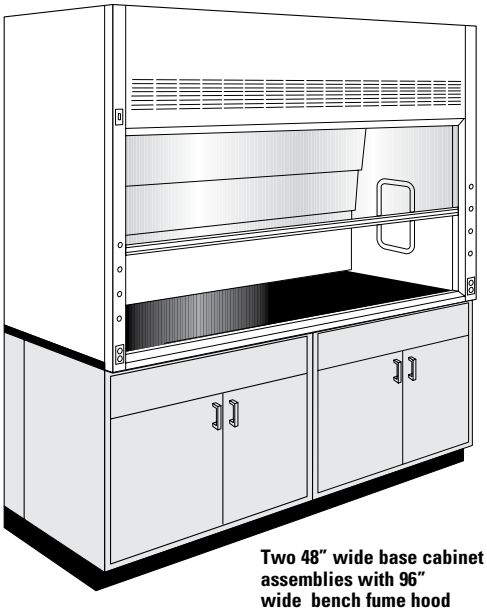
Hamilton Scientific laboratory cabinets are available in steel, wood or plastic laminate. Examples of inset steel and lipped overlay wood base cabinets are shown for reference. Please refer to the appropriate Hamilton Scientific product specification catalog for complete cabinet offerings.

Base cabinet assembly with 48" wide bench high-line fume hood

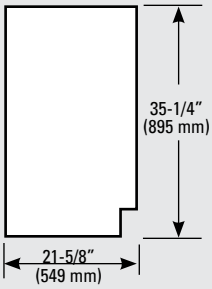




Two 12" wide base-cabinets with 60" wide bench fume hood



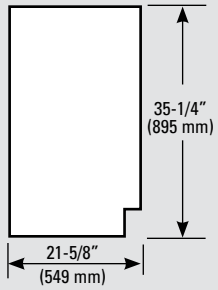
Two 48" wide base cabinet assemblies with 96" wide bench fume hood



Typical End View

For use with:
- Fume hood superstructures.

Common features:
- Solid hinged doors.
- Shelf adjustable in 1/2" (13 mm) increments.
- Standard without locks. To specify locks, change the last digit of the product number from "0" to "L."
- For acid storage units, use product number 34L13700 (shallow front-mounted cupsink) when required.

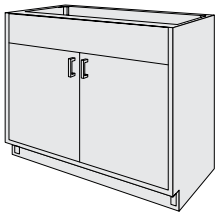


Typical End View

For use with:
- Fume hood superstructures.

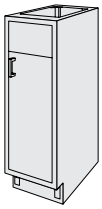
Common features:
- For storage of flammable liquids.
- Two 2" (51 mm) pipe threaded vent outlets with flame arrestors on back of cabinet.
- Rear and top access panel.
- Label included.
- Standard with locks.
- Factory Mutual approved and UL listed.
- In full compliance with NFPA standards and OSHA regulations.
- Do not locate acid/flammable liquid storage cabinets under cupsinks.
- **Cannot be modified.**

Steel Base Cabinets



- Flush front panel above cupboard

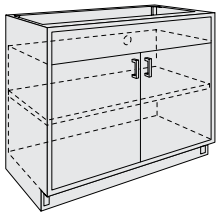
Product No.	Width
121S5320	30" (762 mm)
121S6320	36" (914 mm)
121S7320	42" (1067 mm)
121S8320	48" (1219 mm)



- For use below cupsink
- Flush front panel above cupboard
- Use two or more of these base cabinets to support fume hood superstructure

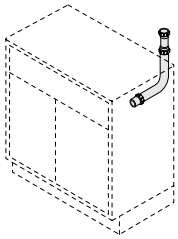
Product No.	Width
Right-hinged (shown)	
122S0320	12" (305 mm)
Left-hinged	
123S0320	12" (305 mm)

Steel Acid Storage Cabinets



- For storage of corrosive materials
- Flush front panel above cupboard
- Chemical-resistant cement-based board lining and shelf surface
- Vent access at rear
- No not use under front mounted cupsinks

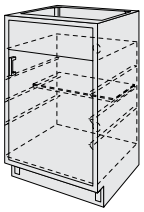
Product No.	Width
144S5320	30" (762 mm)
144S6320	36" (914 mm)
144S7320	42" (1067 mm)
144S8320	48" (1219 mm)



- For standard depth fume hood
- Optional vent assembly for venting acid storage cabinets
- Constructed of polyolefin

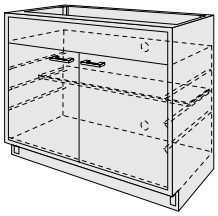
Product No.	
90L06000	For 31-1/4" deep fume hood
90L06300	For extended depth fume hood

Steel Polyethylene Lined Acid Storage Cabinets



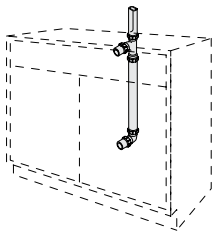
- Standing-height cabinet
- Flush panel above single left- or right-hinged door
- Chemical resistant 3/16" (5 mm) thick molded Polyethylene lining with coved corners and 1" lip at front cabinet opening
- Doors are lined with 1/8" (3 mm) thick polyethylene
- Two vent holes in cabinet back
- Removable back panel
- One half-depth shelf and polyethylene spill tray

Product No.	Width
Right-hinged (shown)	
950S4190	18" (457 mm)
950S4200	24" (610 mm)
Left-hinged	
950S2090	18" (457 mm)
950S2100	24" (610 mm)



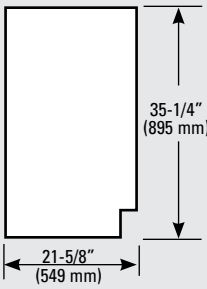
- Flush front top panel
- Chemical resistant 3/16" (5 mm) thick molded Polyethylene lining with coved corners and 1" lip at front cabinet opening
- Doors are lined with 1/8" (3 mm) thick polyethylene
- Two vent holes in cabinet back
- Removable back panel
- One half-depth shelf and polyethylene spill tray

Product No.	Width
950S2280	30" (762 mm)
950S2380	36" (914 mm)
950S2400	48" (1219 mm)



- Polyolefin vent pipes
- For venting polyethylene lined acid storage cabinets shown above
- For 31-1/4" deep fume hood only

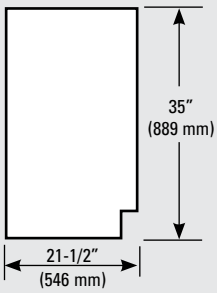
Product No.	Cabinet Type
90L07800	Full-height doors
90L07900	Flush panel



Typical End View

For use with:
- Fume hood superstructures.

Common features:
- For storage of flammable liquids.
- Two 2" (51 mm) pipe threaded vent outlets with flame arrestors on back of cabinet.
- Rear and top access panel.
- Label included.
- Standard with locks.
- Factory Mutual approved and UL listed.
- In full compliance with NFPA standards and OSHA regulations.
- Do not locate acid/flammable liquid storage cabinets without upper flush panel under cupsinks.
- **Cannot be modified.**



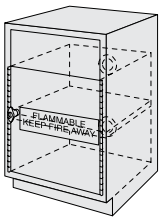
Typical End View

Common features:
- Available with finished or unfinished ends.
- Shelf adjustable in 1-1/4" (32 mm) increments.
- Optional leveling glides provide for exact alignment of adjacent work surfaces.

Ordering information:
- Specify end and lock selection with suffix as follows:

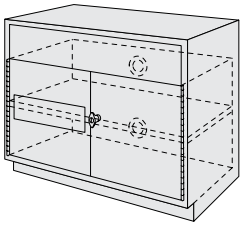
With Finished End	Locks	Without Locks
Right End Finished	K	R
Left End Finished	T	L
Both Ends Finished	D	B
Both Ends Unfinished	P	U

Steel Flammable Liquid Storage Cabinets



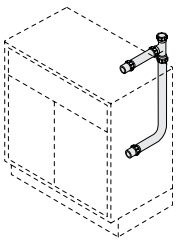
- With flush panel
- Single hinged door
- Shelf adjustable in 1" (25 mm) increments.
- Includes lock
- Two vent outlets at rear of cabinet

Product No.	Capacity	Door Type	Width
Self-closing door			
950S7761	12 gal. (45.4 l)	Right-hinged	24" (610 mm)
950S7771	12 gal. (45.4 l)	Left-hinged	24" (610 mm)
Manual-closing door			
950S7641	12 gal. (45.4 l)	Right-hinged	24" (610 mm)
950S7651	12 gal. (45.4 l)	Left-hinged	24" (610 mm)



- With flush panel
- Double hinged doors
- Shelf adjustable in 1" (25 mm) increments.
- Includes lock
- Two vent outlets at rear of cabinet

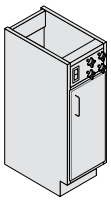
Product No.	Capacity	Width
Self-closing doors		
950S7781	15 gal. (56.8 l)	30" (762 mm)
950S7791	18 gal. (68.1 l)	36" (914 mm)
950S7801	24 gal. (90.8 l)	42" (1067 mm)
950S7811	27 gal. (102.2 l)	48" (1219 mm)
Manual-closing doors		
950S7661	15 gal. (56.8 l)	30" (762 mm)
950S7671	18 gal. (68.1 l)	36" (914 mm)
950S7681	24 gal. (90.8 l)	42" (1067 mm)
950S7691	27 gal. (102.2 l)	48" (1219 mm)



- Optional vent assembly for venting flammable liquid storage cabinets
- Made of polyolefin

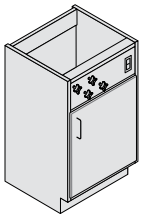
Product No.	
90L19000	For 31-1/4" deep fume hood

Wood Base Cabinets for Horizon Fume Hood



- Inset panel above door
- This cabinet is not available with lock
- Suffix C: With electric, fixtures holes plugged
  Suffix F: With electric, air, gas, vac., and CW mounted
  Suffix R: Electric cutout holes plugged for fixtures

Product No.	Width
Right-hinged door (shown), finished right end, unfinished left end	
204C032C	12" (305 mm)
204C032F	12" (305 mm)
204C032R	12" (305 mm)
Left-hinged, finished left end, unfinished right end	
205C032C	12" (305 mm)
205C032F	12" (305 mm)
205C032R	12" (305 mm)



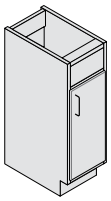
- Inset panel above door
- This cabinet is not available with lock
- Suffix C: With electric, plugs for fixtures
  Suffix F: With electric, fixture handles for air, gas, vac., and CW
  Suffix R: No electric, plugs for fixtures

Product No.	Width
Right-hinged door (shown), finished right end, unfinished left end	
204C232C	18" (457 mm)
204C232F	18" (457 mm)
204C232R	18" (457 mm)
Left-hinged, finished left end, unfinished right end	
205C232C	18" (457 mm)
205C232F	18" (457 mm)
205C232R	18" (457 mm)

204C-series product number with electric includes a switch

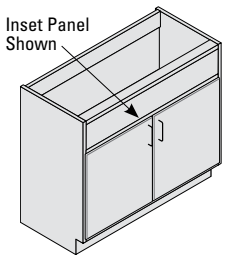
205C-series product number with electric does not include a switch

Wood Base Cabinets



- Inset panel above cupboard

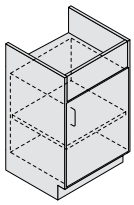
Product No.	Width
Right-hinged (shown)	
121C032	12″ (305 mm)
Left-hinged	
123C032	12″ (305 mm)



- Inset or recessed panel above cupboard

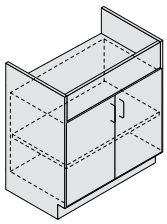
Product No.	Width
121C532	30″ (762 mm)
121C632	36″ (914 mm)
121C732	42″ (1067 mm)
121C832	48″ (1219 mm)
Recessed panel	
120C532	30″ (762 mm)
120C632	36″ (914 mm)
120C732	42″ (1067 mm)
120C832	48″ (1219 mm)

Wood Acid Storage Cabinet



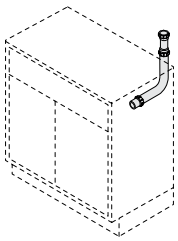
- Inset panel (flush with ends) above right- or left-hinged door
- Chemical resistant 1/4″ (6 mm) cement-based board lining
- Vent access at rear

Product No.	Width
Right-hinged (shown)	
122C432	24″ (610 mm)
Left-hinged	
123C432	24″ (610 mm)



- Inset panel (flush with cabinet ends) above double hinged doors
- Full-height hinged double doors
- Chemical resistant 1/4″ (6 mm) cement-based board lining
- Vent access at rear

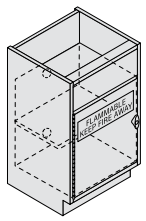
Product No.	Width
144C532	30″ (762 mm)
144C632	36″ (914 mm)
144C732	42″ (1067 mm)
144C832	48″ (1219 mm)



- Polyethylene vent pipe
- For venting cement-based board lined acid storage cabinets
- On all cabinets, vent hole is 10″ from top and from right side

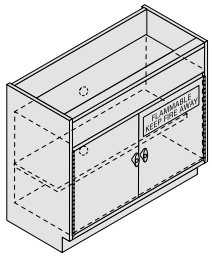
Product No.	For Cabinet Type
90L06600	Inset panel above door

Wood Solvent Storage Cabinets



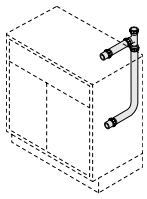
- Top panel inset with cabinet ends
- For storage of flammable liquids
- UL listed and FM approved
- 12 gallon (56 l) capacity

Product No.	Width
Right-hinged	
950C764D	24″ (610 mm)
Left-hinged (shown)	
950C765D	24″ (610 mm)



- Top panel inset with cabinet ends
- For storage of flammable liquids
- UL listed and FM approved

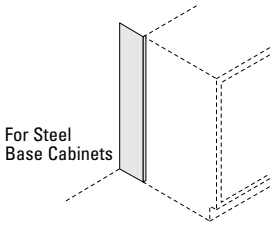
Product No.	Capacity	Width
950C766D	15 gal. (57L)	30″ (762 mm)
950C767D	18 gal. (68L)	36″ (914 mm)
950C768D	24 gal. (91L)	42″ (1066 mm)
950C769D	27 gal. (102L)	48″ (1219 mm)



- Polyolefin vent pipes
- For venting solvent storage base cabinets through fume hood
- For 31-1/4″ deep fume hood only

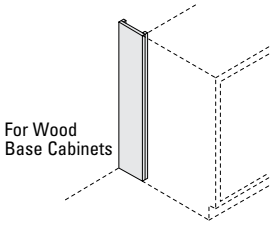
Product No.	Cabinet Type
90L18900	For cabinets with Inset front top panels

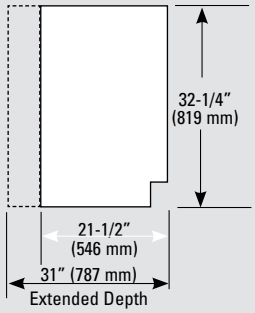
Fume Hood Cabinet Accessories



- Filler end panel
- For enclosing service space at rear of base cabinet

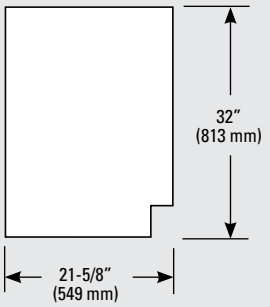
Product No.	Width
For steel cabinets	
611S7320	7-3/8″ (187 mm)
For wood cabinets	
611C7320	7″ (178 mm)





Typical End View

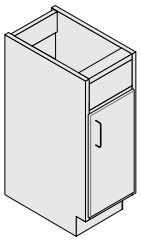
- Add 1/2" (13 mm) to depth for lipped design; add 7/8" (22 mm) to depth for flush and radius design.
- Available with finished or unfinished outside ends
- For extended depth ends, change 7th digit in product number to a 3
- Shelves are adjustable in 1-1/4" (32 mm) increments



Typical End View

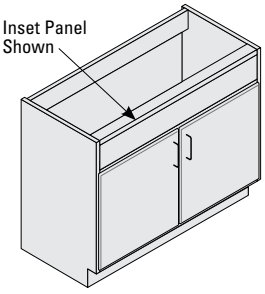
- Shelves are adjustable in 1/2" (13mm) increments.
- Units are standard without locks. Replace the "0" with an "L" in the eighth position of product number to specify a unit with locks for drawers and doors.
- Available with service access in back as noted.

ADA Base Cabinets – Wood



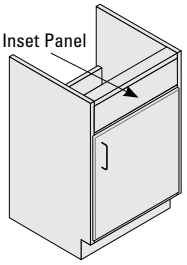
- Inset panel above right- or left-hinged swinging door

Product No.	Width
Right-hinged (shown)	
121C072	12" (305 mm)
Left-hinged	
123C072	12" (305 mm)



- Inset or recessed panel above hinged double doors

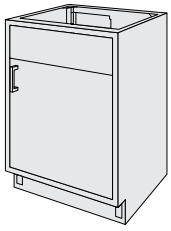
Product No.	Width
Inset panel (flush with cabinet ends)	
121C572	30" (762 mm)
121C672	36" (914 mm)
121C772	42" (1067 mm)
121C872	48" (1219 mm)
Recessed panel	
120C572	30" (762 mm)
120C672	36" (914 mm)
120C772	42" (1067 mm)
120C872	48" (1219 mm)



- Inset panel (flush with cabinet ends) above right- or left-hinged swinging door

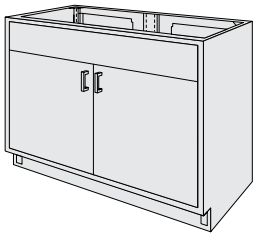
Product No.	Width
Right hinged (shown)	
012C272	18" (457 mm)
Left hinged	
013C272	18" (457 mm)

ADA Base Cabinets – Steel



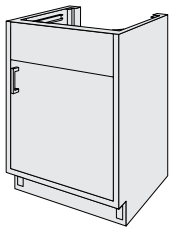
- Flush panel above cupboard with right or left-hinged door
- Removable back panel

Product No.	Width
Right-hinged	
122S0720	12" (305 mm)
122S4720	24" (610 mm)
Left-hinged	
123S0720	12" (305 mm)
123S4720	24" (610 mm)



- Flush panel above cupboard with double swinging doors
- Removable back panel

Product No.	Width
121S5720	30" (762 mm)
121S6720	36" (914 mm)
121S7720	42" (1067 mm)
121S8720	48" (1219 mm)

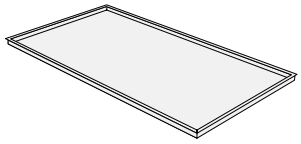


- Flush top panel above left or right-hinged door.
- Back cut out for large sinks.

Product No.	Width
Right hinged	
112C2720	18" (457 mm)
Left hinged	
113C2720	18" (457 mm)

* For 4' ADA fume hoods, use a MAX table frame, Product No. 250H4480. See the TSH MAX System Catalog.

Shelf Protector Trays

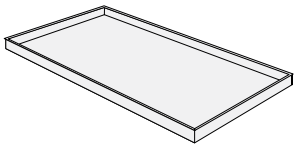


- White polyolefin tray
- Fits into cupboard bottom or on full-depth shelf
- 1" (25 mm) lip on four sides to contain spills

Product No.	Tray Size	Fits Cabinet Width
For Steel Base Cabinets		
90L23191*	23" x 19" (584 x 483 mm)	24" (610 mm)
90L29191*	29" x 19" (737 x 483 mm)	30" (762 mm)
90L35191*	35" x 19" (890 x 483 mm)	36" (914 mm)
90L41191	41" x 19" (1041 x 483 mm)	42" (1067 mm)
90L47191*	47" x 19" (1194 x 483 mm)	48" (1219 mm)
90L57191*	57" x 19" (1148 x 483 mm)	58" (1473 mm)
For Steel & Wood Acid Storage Cabinets and Wood Base Cabinets		
90L21191*	21" x 19" (533 x 483 mm)	24" (610 mm)
90L27191*	27" x 19" (686 x 483 mm)	30" (762 mm)
90L33191*	33" x 19" (838 x 483 mm)	36" (914 mm)
90L39191*	39" x 19" (991 x 483 mm)	42" (1067 mm)
90L45191*	45" x 19" (1143 x 483 mm)	48" (1219 mm)
For Steel & Wood Flammable Storage Base Cabinets		
90L19161*	19" x 16" (483 x 406 mm)	24" (610 mm)
90L25161*	25" x 16" (635 x 406 mm)	30" (762 mm)
90L29161*	29" x 16" (737 x 406 mm)	34" (864 mm)
90L31161*	31" x 16" (787 x 406 mm)	36" (914 mm)
90L37161*	37" x 16" (940 x 406 mm)	42" (1067 mm)
90L43161*	43" x 16" (1092 x 406 mm)	48" (1219 mm)
For Other Steel Flammable Storage Cabinets		
90L14131	13" x 14" (330 x 356 mm)	950S8421
90L25251	25" x 25" (635 x 635 mm)	950S8411
90L37141	37" x 14" (940 x 356 mm)	950S8401

* Available on extended lead time.

Shelf Protector Trays



- White polyolefin tray
- Fits into cupboard bottom or on full-depth shelf
- 2" (129 mm) lip on four sides to contain spills

Product No.	Tray Size	Fits Cabinet Width
For Steel Base Cabinets		
90L23192*	23" x 19" (584 x 483 mm)	24" (610 mm)
90L29192*	29" x 19" (737 x 483 mm)	30" (762 mm)
90L35192*	35" x 19" (890 x 483 mm)	36" (914 mm)
90L41192*	41" x 19" (1041 x 483 mm)	42" (1067 mm)
90L47192*	47" x 19" (1194 x 483 mm)	48" (1219 mm)
90L57192	57" x 19" (1148 x 483 mm)	58" (1473 mm)
For Steel & Wood Acid Storage Cabinets and Wood Base Cabinets		
90L21192*	21" x 19" (533 x 483 mm)	24" (610 mm)
90L27192*	27" x 19" (686 x 483 mm)	30" (762 mm)
90L33192*	33" x 19" (838 x 483 mm)	36" (914 mm)
90L39192*	39" x 19" (991 x 483 mm)	42" (1067 mm)
90L45192*	45" x 19" (1143 x 483 mm)	48" (1219 mm)
For Steel & Wood Flammable Storage Base Cabinets		
90L19162*	19" x 16" (483 x 406 mm)	24" (610 mm)
90L25162*	25" x 16" (635 x 406 mm)	30" (762 mm)
90L29162*	29" x 16" (737 x 406 mm)	34" (864 mm)
90L31162*	31" x 16" (787 x 406 mm)	36" (914 mm)
90L37162*	37" x 16" (940 x 406 mm)	42" (1067 mm)
90L43162*	43" x 16" (1092 x 406 mm)	48" (1219 mm)
For Other Steel Flammable Storage Cabinets		
90L14132	13" x 14" (330 x 356 mm)	950S8421
90L25252	25" x 25" (635 x 635 mm)	950S8411
90L37142	37" x 14" (940 x 356 mm)	950S8401

* Available on extended lead time.

Steel Cabinets Dimensions

Overall Outside Dimensions			Cupboard Inside Dimensions					
			Base Cabinets			Acid Storage Cabinets		
Width	Height	Depth	Width	Height	Depth	Width	Height	Depth
12" (305 mm)	35-1/4" (895 mm)	21-5/8" (549 mm)	11-7/8" (302 mm)	29-3/4" (756 mm)	20" (508 mm)	9-1/2" (241 mm)	22-1/8" (562 mm)	19-1/2" (495 mm)
24" (610 mm)	35-1/4" (895 mm)	21-5/8" (549 mm)	23-7/8" (606 mm)	29-3/4" (756 mm)	20" (508 mm)	21-1/2" (546 mm)	22-1/8" (562 mm)	19-1/2" (495 mm)
30" (762 mm)	35-1/4" (895 mm)	21-5/8" (549 mm)	29-7/8" (759 mm)	29-3/4" (756 mm)	20" (508 mm)	27-1/2" (699 mm)	22-1/8" (562 mm)	19-1/2" (495 mm)
36" (914 mm)	35-1/4" (895 mm)	21-5/8" (549 mm)	35-7/8" (911 mm)	29-3/4" (756 mm)	20" (508 mm)	33-1/2" (699 mm)	22-1/8" (562 mm)	19-1/2" (495 mm)
48" (1219 mm)	35-1/4" (895 mm)	21-5/8" (549 mm)	47-7/8" (1216 mm)	29-3/4" (756 mm)	20" (508 mm)	45-1/2" (1156 mm)	22-1/8" (562 mm)	19-1/2" (495 mm)

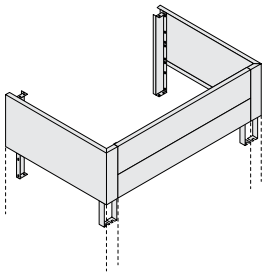
Wood Cabinets Dimensions

Overall Outside Dimensions			Cupboard Inside Dimensions					
			Base Cabinets			Acid Storage Cabinets		
Width	Height	Depth	Width	Height	Depth	Width	Height	Depth
12" (305 mm)	34-3/4" (883 mm)	22" (559 mm)	10-1/2" (267 mm)	20-1/8" (511 mm)	20-7/8" (530 mm)	10" (254 mm)	20" (508 mm)	20-3/8" (518 mm)
24" (610 mm)	34-3/4" (883 mm)	22" (559 mm)	22-1/2" (572 mm)	20-1/8" (511 mm)	20-7/8" (530 mm)	22" (559 mm)	20" (508 mm)	20-3/8" (518 mm)
30" (762 mm)	34-3/4" (883 mm)	22" (559 mm)	28-1/2" (724 mm)	20-1/8" (511 mm)	20-7/8" (530 mm)	28" (711 mm)	20" (508 mm)	20-3/8" (518 mm)
36" (914 mm)	34-3/4" (883 mm)	22" (559 mm)	34-1/2" (876 mm)	20-1/8" (511 mm)	20-7/8" (530 mm)	34" (864 mm)	20" (508 mm)	20-3/8" (518 mm)
48" (1219 mm)	34-3/4" (883 mm)	22" (559 mm)	46-1/2" (1181 mm)	20-1/8" (511 mm)	20-7/8" (530 mm)	46" (1168 mm)	20" (508 mm)	20-3/8" (518 mm)

Product features:

- Provides finished appearance between fume hood and ceiling.
- Conceals and protects fume hood ductwork, electrical conduit and vertical service supply lines.
- Finished to match superstructure.
- 12-1/2" (318 mm) height can be cut down in field for ceilings as low as 8 feet.

For SafeAire II



- Bench and high line only
- Use to enclose space between ceiling and top of fume hood superstructure
- Made of steel, finished to match fume hood superstructure
- Installation hardware included
- Lower front panel is removable for access to light fixture

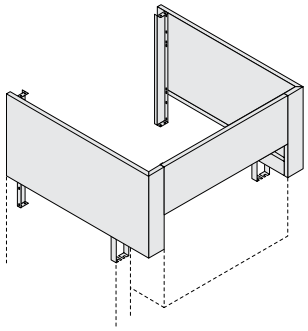
Product No.	Width	Height	Depth
54L0361231	36" (914 mm)	12-1/2" (318 mm)	31-1/4" (794 mm)
54L0361731	36" (914 mm)	17" (431 mm)	31-1/4" (794 mm)
54L0362431	36" (914 mm)	24-1/2" (622 mm)	31-1/4" (794 mm)
54L0362931	36" (914 mm)	29" (737 mm)	31-1/4" (794 mm)
54L0363631	36" (914 mm)	36-1/2" (927 mm)	31-1/4" (794 mm)
54L0481231	48" (1219 mm)	12-1/2" (318 mm)	31-1/4" (794 mm)
54L0481731	48" (1219 mm)	17" (431 mm)	31-1/4" (794 mm)
54L0482431	48" (1219 mm)	24-1/2" (622 mm)	31-1/4" (794 mm)
54L0482931	48" (1219 mm)	29" (737 mm)	31-1/4" (794 mm)
54L0483631	48" (1219 mm)	36-1/2" (927 mm)	31-1/4" (794 mm)
54L0601231	60" (1524 mm)	12-1/2" (318 mm)	31-1/4" (794 mm)
54L0601731	60" (1524 mm)	17" (431 mm)	31-1/4" (794 mm)
54L0602431	60" (1524 mm)	24-1/2" (622 mm)	31-1/4" (794 mm)
54L0602931	60" (1524 mm)	29" (737 mm)	31-1/4" (794 mm)
54L0603631	60" (1524 mm)	36-1/2" (927 mm)	31-1/4" (794 mm)
54L0721231	72" (1829 mm)	12-1/2" (318 mm)	31-1/4" (794 mm)
54L0721731	72" (1829 mm)	17" (431 mm)	31-1/4" (794 mm)
54L0722431	72" (1829 mm)	24-1/2" (622 mm)	31-1/4" (794 mm)
54L0722931	72" (1829 mm)	29" (737 mm)	31-1/4" (794 mm)
54L0723631	72" (1829 mm)	36-1/2" (927 mm)	31-1/4" (794 mm)
54L0961231	96" (2438 mm)	12-1/2" (318 mm)	31-1/4" (794 mm)
54L0961731	96" (2438 mm)	17" (431 mm)	31-1/4" (794 mm)
54L0962431	96" (2438 mm)	24-1/2" (622 mm)	31-1/4" (794 mm)
54L0962931	96" (2438 mm)	29" (737 mm)	31-1/4" (794 mm)
54L0963631	96" (2438 mm)	36-1/2" (927 mm)	31-1/4" (794 mm)
60L0361236	36" (914 mm)	12-1/2" (318 mm)	36" (914 mm)
60L0361736	36" (914 mm)	17" (431 mm)	36" (914 mm)
60L0362436	36" (914 mm)	24-1/2" (622 mm)	36" (914 mm)
60L0362936	36" (914 mm)	29" (737 mm)	36" (914 mm)
60L0363636	36" (914 mm)	36-1/2" (927 mm)	36" (914 mm)
60L0481236	48" (1219 mm)	12-1/2" (318 mm)	36" (914 mm)
60L0481736	48" (1219 mm)	17" (431 mm)	36" (914 mm)
60L0482436	48" (1219 mm)	24-1/2" (622 mm)	36" (914 mm)
60L0482936	48" (1219 mm)	29" (737 mm)	36" (914 mm)
60L0483636	48" (1219 mm)	36-1/2" (927 mm)	36" (914 mm)
60L0601236	60" (1524 mm)	12-1/2" (318 mm)	36" (914 mm)
60L0601736	60" (1524 mm)	17" (431 mm)	36" (914 mm)
60L0602436	60" (1524 mm)	24-1/2" (622 mm)	36" (914 mm)
60L0602936	60" (1524 mm)	29" (737 mm)	36" (914 mm)
60L0603636	60" (1524 mm)	36-1/2" (927 mm)	36" (914 mm)
60L0721236	72" (1829 mm)	12-1/2" (318 mm)	36" (914 mm)
60L0721736	72" (1829 mm)	17" (431 mm)	36" (914 mm)
60L0722436	72" (1829 mm)	24-1/2" (622 mm)	36" (914 mm)
60L0722936	72" (1829 mm)	29" (737 mm)	36" (914 mm)

For Bench and High-line Hood (continued)

Product No.	Width	Height	Depth
60L0723636	72" (1829 mm)	36-1/2" (927 mm)	36" (914 mm)
60L0961236	96" (2438 mm)	12-1/2" (318 mm)	36" (914 mm)
60L0961736	96" (2438 mm)	17" (431 mm)	36" (914 mm)
60L0962436	96" (2438 mm)	24-1/2" (622 mm)	36" (914 mm)
60L0962936	96" (2438 mm)	29" (737 mm)	36" (914 mm)
60L0963636	96" (2438 mm)	36-1/2" (927 mm)	36" (914 mm)
61L0361237	36" (914 mm)	12-1/2" (318 mm)	37-1/4" (946 mm)
61L0361737	36" (914 mm)	17" (431 mm)	37-1/4" (946 mm)
61L0362437	36" (914 mm)	24-1/2" (622 mm)	37-1/4" (946 mm)
61L0362937	36" (914 mm)	29" (737 mm)	37-1/4" (946 mm)
61L0363637	36" (914 mm)	36-1/2" (927 mm)	37-1/4" (946 mm)
61L0481237	48" (1219 mm)	12-1/2" (318 mm)	37-1/4" (946 mm)
61L0481737	48" (1219 mm)	17" (431 mm)	37-1/4" (946 mm)
61L0482437	48" (1219 mm)	24-1/2" (622 mm)	37-1/4" (946 mm)
61L0482937	48" (1219 mm)	29" (737 mm)	37-1/4" (946 mm)
61L0483637	48" (1219 mm)	36-1/2" (927 mm)	37-1/4" (946 mm)
61L0601237	60" (1524 mm)	12-1/2" (318 mm)	37-1/4" (946 mm)
61L0601737	60" (1524 mm)	17" (431 mm)	37-1/4" (946 mm)
61L0602437	60" (1524 mm)	24-1/2" (622 mm)	37-1/4" (946 mm)
61L0602937	60" (1524 mm)	29" (737 mm)	37-1/4" (946 mm)
61L0603637	60" (1524 mm)	36-1/2" (927 mm)	37-1/4" (946 mm)
61L0721237	72" (1829 mm)	12-1/2" (318 mm)	37-1/4" (946 mm)
61L0721737	72" (1829 mm)	17" (431 mm)	37-1/4" (946 mm)
61L0722437	72" (1829 mm)	24-1/2" (622 mm)	37-1/4" (946 mm)
61L0722937	72" (1829 mm)	29" (737 mm)	37-1/4" (946 mm)
61L0723637	72" (1829 mm)	36-1/2" (927 mm)	37-1/4" (946 mm)
61L0961237	96" (2438 mm)	12-1/2" (318 mm)	37-1/4" (946 mm)
61L0961737	96" (2438 mm)	17" (431 mm)	37-1/4" (946 mm)
61L0962437	96" (2438 mm)	24-1/2" (622 mm)	37-1/4" (946 mm)
61L0962937	96" (2438 mm)	29" (737 mm)	37-1/4" (946 mm)
61L0963637	96" (2438 mm)	36-1/2" (927 mm)	37-1/4" (946 mm)
62L0361243	36" (914 mm)	12-1/2" (318 mm)	43-1/4" (1099 mm)
62L0361743	36" (914 mm)	17" (431 mm)	43-1/4" (1099 mm)
62L0362443	36" (914 mm)	24-1/2" (622 mm)	43-1/4" (1099 mm)
62L0362943	36" (914 mm)	29" (737 mm)	43-1/4" (1099 mm)
62L0363643	36" (914 mm)	36-1/2" (927 mm)	43-1/4" (1099 mm)
62L0481243	48" (1219 mm)	12-1/2" (318 mm)	43-1/4" (1099 mm)
62L0481743	48" (1219 mm)	17" (431 mm)	43-1/4" (1099 mm)
62L0482443	48" (1219 mm)	24-1/2" (622 mm)	43-1/4" (1099 mm)
62L0482943	48" (1219 mm)	29" (737 mm)	43-1/4" (1099 mm)
62L0483643	48" (1219 mm)	36-1/2" (927 mm)	43-1/4" (1099 mm)
62L0601243	60" (1524 mm)	12-1/2" (318 mm)	43-1/4" (1099 mm)
62L0601743	60" (1524 mm)	17" (431 mm)	43-1/4" (1099 mm)
62L0602443	60" (1524 mm)	24-1/2" (622 mm)	43-1/4" (1099 mm)
62L0602943	60" (1524 mm)	29" (737 mm)	43-1/4" (1099 mm)
62L0603643	60" (1524 mm)	36-1/2" (927 mm)	43-1/4" (1099 mm)
62L0721243	72" (1829 mm)	12-1/2" (318 mm)	43-1/4" (1099 mm)
62L0721743	72" (1829 mm)	17" (431 mm)	43-1/4" (1099 mm)
62L0722443	72" (1829 mm)	24-1/2" (622 mm)	43-1/4" (1099 mm)
62L0722943	72" (1829 mm)	29" (737 mm)	43-1/4" (1099 mm)
62L0723643	72" (1829 mm)	36-1/2" (927 mm)	43-1/4" (1099 mm)
62L0961243	96" (2438 mm)	12-1/2" (318 mm)	43-1/4" (1099 mm)
62L0961743	96" (2438 mm)	17" (431 mm)	43-1/4" (1099 mm)
62L0962443	96" (2438 mm)	24-1/2" (622 mm)	43-1/4" (1099 mm)
62L0962943	96" (2438 mm)	29" (737 mm)	43-1/4" (1099 mm)
62L0963643	96" (2438 mm)	36-1/2" (927 mm)	43-1/4" (1099 mm)

Installation information: With suspended ceilings, it is suggested that the enclosure assembly extend to the bottom of the ceiling. The hung ceiling should extend over the top of the fume hood and be trimmed around the mechanical connections to ensure proper room pressure control of the HVAC system.

For SafeAire II Auxiliary Air Fume Hood

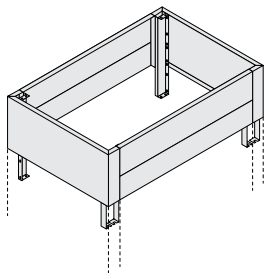


- Bench and high line only
- Use to enclose space between ceiling and top of fume hood superstructure
- Made of steel, finished to match fume hood superstructure
- Installation hardware included
- Add "S" to end of product number to designate for fume hood with stainless steel interior

Product No.	Width	Height	Depth
54L0482434	48" (1219 mm)	24-1/2" (622 mm)	33-13/16" (859 mm)
54L0482934	48" (1219 mm)	29" (737 mm)	33-13/16" (859 mm)
54L0483634	48" (1219 mm)	36-1/2" (927 mm)	33-13/16" (859 mm)
54L0602434	60" (1524 mm)	24-1/2" (622 mm)	33-13/16" (859 mm)
54L0602934	60" (1524 mm)	29" (737 mm)	33-13/16" (859 mm)
54L0603634	60" (1524 mm)	36-1/2" (927 mm)	33-13/16" (859 mm)
54L0722434	72" (1829 mm)	24-1/2" (622 mm)	33-13/16" (859 mm)
54L0722934	72" (1829 mm)	29" (737 mm)	33-13/16" (859 mm)
54L0723634	72" (1829 mm)	36-1/2" (927 mm)	33-13/16" (859 mm)
54L0962434	96" (2438 mm)	24-1/2" (622 mm)	33-13/16" (859 mm)
54L0962934	96" (2438 mm)	29" (737 mm)	33-13/16" (859 mm)
54L0963634	96" (2438 mm)	36-1/2" (927 mm)	33-13/16" (859 mm)
60L0482439	48" (1219 mm)	24-1/2" (622 mm)	38-5/8" (980 mm)
60L0482939	48" (1219 mm)	29" (737 mm)	38-5/8" (980 mm)
60L0483639	48" (1219 mm)	36-1/2" (927 mm)	38-5/8" (980 mm)
60L0602439	60" (1524 mm)	24-1/2" (622 mm)	38-5/8" (980 mm)
60L0602939	60" (1524 mm)	29" (737 mm)	38-5/8" (980 mm)
60L0603639	60" (1524 mm)	36-1/2" (927 mm)	38-5/8" (980 mm)
60L0722439	72" (1829 mm)	24-1/2" (622 mm)	38-5/8" (980 mm)
60L0722939	72" (1829 mm)	29" (737 mm)	38-5/8" (980 mm)
60L0723639	72" (1829 mm)	36-1/2" (927 mm)	38-5/8" (980 mm)
60L0962439	96" (2438 mm)	24-1/2" (622 mm)	38-5/8" (980 mm)
60L0962939	96" (2438 mm)	29" (737 mm)	38-5/8" (980 mm)
60L0963639	96" (2438 mm)	36-1/2" (927 mm)	38-5/8" (980 mm)

Product No.	Width	Height	Depth
61L0482440	48" (1219 mm)	24-1/2" (622 mm)	39-13/16" (1011 mm)
61L0482940	48" (1219 mm)	29" (737 mm)	39-13/16" (1011 mm)
61L0483640	48" (1219 mm)	36-1/2" (927 mm)	39-13/16" (1011 mm)
61L0602440	60" (1524 mm)	24-1/2" (622 mm)	39-13/16" (1011 mm)
61L0602940	60" (1524 mm)	29" (737 mm)	39-13/16" (1011 mm)
61L0603640	60" (1524 mm)	36-1/2" (927 mm)	39-13/16" (1011 mm)
61L0722440	72" (1829 mm)	24-1/2" (622 mm)	39-13/16" (1011 mm)
61L0722940	72" (1829 mm)	29" (737 mm)	39-13/16" (1011 mm)
61L0723640	72" (1829 mm)	36-1/2" (927 mm)	39-13/16" (1011 mm)
61L0962440	96" (2438 mm)	24-1/2" (622 mm)	39-13/16" (1011 mm)
61L0962940	96" (2438 mm)	29" (737 mm)	39-13/16" (1011 mm)
61L0963640	96" (2438 mm)	36-1/2" (927 mm)	39-13/16" (1011 mm)
62L0482446	48" (1219 mm)	24-1/2" (622 mm)	45-13/16" (1164 mm)
62L0482946	48" (1219 mm)	29" (737 mm)	45-13/16" (1164 mm)
62L0483646	48" (1219 mm)	36-1/2" (927 mm)	45-13/16" (1164 mm)
62L0602446	60" (1524 mm)	24-1/2" (622 mm)	45-13/16" (1164 mm)
62L0602946	60" (1524 mm)	29" (737 mm)	45-13/16" (1164 mm)
62L0603646	60" (1524 mm)	36-1/2" (927 mm)	45-13/16" (1164 mm)
62L0722446	72" (1829 mm)	24-1/2" (622 mm)	45-13/16" (1164 mm)
62L0722946	72" (1829 mm)	29" (737 mm)	45-13/16" (1164 mm)
62L0723646	72" (1829 mm)	36-1/2" (927 mm)	45-13/16" (1164 mm)
62L0962446	96" (2438 mm)	24-1/2" (622 mm)	45-13/16" (1164 mm)
62L0962946	96" (2438 mm)	29" (737 mm)	45-13/16" (1164 mm)
62L0963646	96" (2438 mm)	36-1/2" (927 mm)	45-13/16" (1164 mm)

For SafeAire II Demonstration Fume Hood

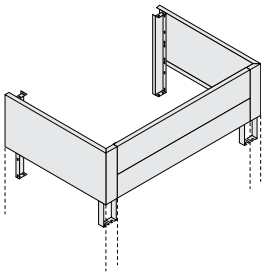


- Use to enclose space between ceiling and top of fume hood superstructure.
- Made of steel, finished to match fume hood superstructure.
- Installation hardware included.
- Add "S" to end of product number to designate for fume hood with stainless steel interior.
- Lower front panel is removable for access to light fixture.

Product No.	Width	Height	Depth
54L0601233	60" (1524 mm)	12-1/2" (318 mm)	32-1/2" (826 mm)
54L0602433	60" (1524 mm)	24-1/2" (622 mm)	32-1/2" (826 mm)
54L0603633	60" (1524 mm)	36-1/2" (927 mm)	32-1/2" (826 mm)

Installation information: With suspended ceilings, it is suggested that the enclosure assembly extend to the bottom of the ceiling. The hung ceiling should extend over the top of the fume hood and be trimmed around the mechanical connections to ensure proper room pressure control of the HVAC system.

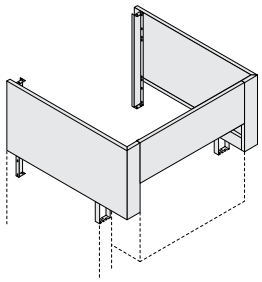
For SafeAire II Floor-mounted Fume Hood



- Use to enclose space between ceiling and top of floor-mounted fume hood
- Made of steel, finished to match fume hood superstructure
- Installation hardware included
- Add "S" to end of product number to designate for fume hood with stainless steel interior
- Lower front panel is removable for access to light fixture

Product No.	Width	Height	Depth
554S0482432	48" (1219 mm)	24-1/2" (622 mm)	32-3/8" (822 mm)
554S0482932	48" (1219 mm)	29" (737 mm)	32-3/8" (822 mm)
554S0483632	48" (1219 mm)	36-1/2" (927 mm)	32-3/8" (822 mm)
554S0602432	60" (1524 mm)	24-1/2" (622 mm)	32-3/8" (822 mm)
554S0602932	60" (1524 mm)	29" (737 mm)	32-3/8" (822 mm)
554S0603632	60" (1524 mm)	36-1/2" (927 mm)	32-3/8" (822 mm)
554S0722432	72" (1829 mm)	24-1/2" (622 mm)	32-3/8" (822 mm)
554S0722932	72" (1829 mm)	29" (737 mm)	32-3/8" (822 mm)
554S0723632	72" (1829 mm)	36-1/2" (927 mm)	32-3/8" (822 mm)
554S0962432	96" (2438 mm)	24-1/2" (622 mm)	32-3/8" (822 mm)
554S0962932	96" (2438 mm)	29" (737 mm)	32-3/8" (822 mm)
554S0963632	96" (2438 mm)	36-1/2" (927 mm)	32-3/8" (822 mm)
551S0482438	48" (1219 mm)	24-1/2" (622 mm)	38-3/8" (974 mm)
551S0482938	48" (1219 mm)	29" (737 mm)	38-3/8" (974 mm)
551S0483638	48" (1219 mm)	36-1/2" (927 mm)	38-3/8" (974 mm)
551S0602438	60" (1524 mm)	24-1/2" (622 mm)	38-3/8" (974 mm)
551S0602938	60" (1524 mm)	29" (737 mm)	38-3/8" (974 mm)
551S0603638	60" (1524 mm)	36-1/2" (927 mm)	38-3/8" (974 mm)
551S0722438	72" (1829 mm)	24-1/2" (622 mm)	38-3/8" (974 mm)
551S0722938	72" (1829 mm)	29" (737 mm)	38-3/8" (974 mm)
551S0723638	72" (1829 mm)	36-1/2" (927 mm)	38-3/8" (974 mm)
551S0962438	96" (2438 mm)	24-1/2" (622 mm)	38-3/8" (974 mm)
551S0962938	96" (2438 mm)	29" (737 mm)	38-3/8" (974 mm)
551S0963638	96" (2438 mm)	36-1/2" (927 mm)	38-3/8" (974 mm)
552S0482444	48" (1219 mm)	24-1/2" (622 mm)	44-3/8" (1126 mm)
552S0482944	48" (1219 mm)	29" (737 mm)	44-3/8" (1126 mm)
552S0483644	48" (1219 mm)	36-1/2" (927 mm)	44-3/8" (1126 mm)
552S0602444	60" (1524 mm)	24-1/2" (622 mm)	44-3/8" (1126 mm)
552S0602944	60" (1524 mm)	29" (737 mm)	44-3/8" (1126 mm)
552S0603644	60" (1524 mm)	36-1/2" (927 mm)	44-3/8" (1126 mm)
552S0722444	72" (1829 mm)	24-1/2" (622 mm)	44-3/8" (1126 mm)
552S0722944	72" (1829 mm)	29" (737 mm)	44-3/8" (1126 mm)
552S0723644	72" (1829 mm)	36-1/2" (927 mm)	44-3/8" (1126 mm)
552S0962444	96" (2438 mm)	24-1/2" (622 mm)	44-3/8" (1126 mm)
552S0962944	96" (2438 mm)	29" (737 mm)	44-3/8" (1126 mm)
552S0963644	96" (2438 mm)	36-1/2" (927 mm)	44-3/8" (1126 mm)

For SafeAire II Auxiliary Air Floor-mounted Fume Hood

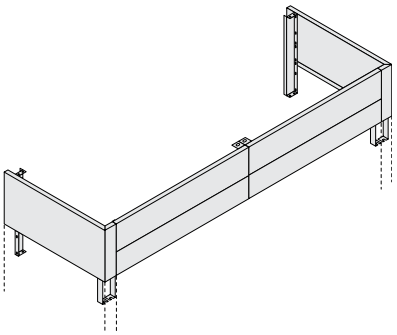


- Use to enclose space between ceiling and top of floor-mounted fume hood
- Made of steel, finished to match fume hood superstructure
- Installation hardware included
- Add "S" to end of product number to designate for fume hood with stainless steel interior

Product No.	Width	Height	Depth
554S0482435	48" (1219 mm)	24-1/2" (622 mm)	34-15/16" (887 mm)
554S0482935	48" (1219 mm)	29" (737 mm)	34-15/16" (887 mm)
554S0483635	48" (1219 mm)	36-1/2" (927 mm)	34-15/16" (887 mm)
554S0602435	60" (1524 mm)	24-1/2" (622 mm)	34-15/16" (887 mm)
554S0602935	60" (1524 mm)	29" (737 mm)	34-15/16" (887 mm)
554S0603635	60" (1524 mm)	36-1/2" (927 mm)	34-15/16" (887 mm)
554S0722435	72" (1829 mm)	24-1/2" (622 mm)	34-15/16" (887 mm)
554S0722935	72" (1829 mm)	29" (737 mm)	34-15/16" (887 mm)
554S0723635	72" (1829 mm)	36-1/2" (927 mm)	34-15/16" (887 mm)
554S0962435	96" (2438 mm)	24-1/2" (622 mm)	34-15/16" (887 mm)
554S0962935	96" (2438 mm)	29" (737 mm)	34-15/16" (887 mm)
554S0963635	96" (2438 mm)	36-1/2" (927 mm)	34-15/16" (887 mm)
551S0482441	48" (1219 mm)	24-1/2" (622 mm)	40-15/16" (1040 mm)
551S0482941	48" (1219 mm)	29" (737 mm)	40-15/16" (1040 mm)
551S0483641	48" (1219 mm)	36-1/2" (927 mm)	40-15/16" (1040 mm)
551S0602441	60" (1524 mm)	24-1/2" (622 mm)	40-15/16" (1040 mm)
551S0602941	60" (1524 mm)	29" (737 mm)	40-15/16" (1040 mm)
551S0603641	60" (1524 mm)	36-1/2" (927 mm)	40-15/16" (1040 mm)
551S0722441	72" (1829 mm)	24-1/2" (622 mm)	40-15/16" (1040 mm)
551S0722941	72" (1829 mm)	29" (737 mm)	40-15/16" (1040 mm)
551S0723641	72" (1829 mm)	36-1/2" (927 mm)	40-15/16" (1040 mm)
551S0962441	96" (2438 mm)	24-1/2" (622 mm)	40-15/16" (1040 mm)
551S0962941	96" (2438 mm)	29" (737 mm)	40-15/16" (1040 mm)
551S0963641	96" (2438 mm)	36-1/2" (927 mm)	40-15/16" (1040 mm)
552S0482447	48" (1219 mm)	24-1/2" (622 mm)	46-15/16" (1192 mm)
552S0482947	48" (1219 mm)	29" (737 mm)	46-15/16" (1192 mm)
552S0483647	48" (1219 mm)	36-1/2" (927 mm)	46-15/16" (1192 mm)
552S0602447	60" (1524 mm)	24-1/2" (622 mm)	46-15/16" (1192 mm)
552S0602947	60" (1524 mm)	29" (737 mm)	46-15/16" (1192 mm)
552S0603647	60" (1524 mm)	36-1/2" (927 mm)	46-15/16" (1192 mm)
552S0722447	72" (1829 mm)	24-1/2" (622 mm)	46-15/16" (1192 mm)
552S0722947	72" (1829 mm)	29" (737 mm)	46-15/16" (1192 mm)
552S0723647	72" (1829 mm)	36-1/2" (927 mm)	46-15/16" (1192 mm)
552S0962447	96" (2438 mm)	24-1/2" (622 mm)	46-15/16" (1192 mm)
552S0962947	96" (2438 mm)	29" (737 mm)	46-15/16" (1192 mm)
552S0963647	96" (2438 mm)	36-1/2" (927 mm)	46-15/16" (1192 mm)

Installation information: With suspended ceilings, it is suggested that the enclosure assembly extend to the bottom of the ceiling. The hung ceiling should extend over the top of the fume hood and be trimmed around the mechanical connections to ensure proper room pressure control of the HVAC system.

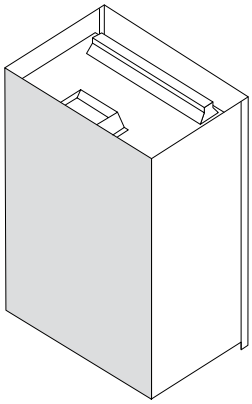
For SafeAire II Postless Sash Fume Hood



- Use to enclose space between ceiling and top of fume hood superstructure
- Made of steel, finished to match fume hood superstructure
- Installation hardware included
- Lower front panel is removable for access to light fixture

Product No.	Width	Height	Depth
54L1201231	120″ (3048 mm)	12-1/2″ (318 mm)	31-1/4″ (794 mm)
54L1201731	120″ (3048 mm)	17″ (432 mm)	31-1/4″ (794 mm)
54L1202431	120″ (3048 mm)	24-1/2″ (622 mm)	31-1/4″ (794 mm)
54L1202931	120″ (3048 mm)	29″ (737 mm)	31-1/4″ (794 mm)
54L1203631	120″ (3048 mm)	36-1/2″ (927 mm)	31-1/4″ (794 mm)
54L1441231	144″ (3658 mm)	12-1/2″ (318 mm)	31-1/4″ (794 mm)
54L1441731	144″ (3658 mm)	17″ (432 mm)	31-1/4″ (794 mm)
54L1442431	144″ (3658 mm)	24-1/2″ (622 mm)	31-1/4″ (794 mm)
54L1442931	144″ (3658 mm)	29″ (737 mm)	31-1/4″ (794 mm)
54L1443631	144″ (3658 mm)	36-1/2″ (927 mm)	31-1/4″ (794 mm)

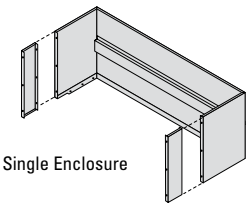
SafeAire II Finished Backs



- Used to enclose back of fume hood superstructure when exposed
- Made of steel, finished to match fume hood superstructure
- Installation hardware included
- These finished backs do not fit on fume hoods with stainless steel interiors; special detailing is required

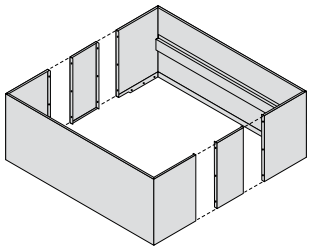
Product No.	Fume Hood Type	
90L19200	36″ (914 mm)	Benchtop
90L19300	48″ (1219 mm)	Benchtop
90L19400	60″ (1524 mm)	Benchtop
90L19500	72″ (1829 mm)	Benchtop
90L19600	96″ (2438 mm)	Benchtop
90L19700	48″ (1219 mm)	High-line
90L19800	60″ (1524 mm)	High-line
90L19900	72″ (1829 mm)	High-line
90L20000	96″ (2438 mm)	High-line
90L20100	48″ (1219 mm)	Floor-mounted
90L20200	60″ (1524 mm)	Floor-mounted
90L20300	72″ (1829 mm)	Floor-mounted
90L20400	96″ (2438 mm)	Floor-mounted

Ceiling Enclosure Panels for Horizon



Single Enclosure

- Use to enclose space between ceiling and top of fume hood superstructure
- All installation hardware provided
- Single ceiling enclosure panel is 23-1/2″ (597 mm) deep and double enclosure panel is 47″ (1194 mm) deep

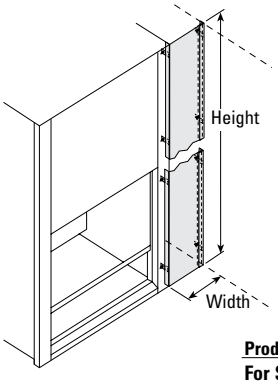


Double Enclosure

Product No.	For Hood With:
Single Ceiling Enclosure	
9-3/4″ (248 mm) height	
54L0481024	48″ (1219 mm)
54L0601024	60″ (1524 mm)
54L0721024	72″ (1829 mm)
21-3/4″ (553 mm) height	
54L0482224	48″ (1219 mm)
54L0602224	60″ (1524 mm)
54L0722224	72″ (1829 mm)
Double Ceiling Enclosure	
9-3/4″ (248 mm) height	
54L0481030	48″ (1219 mm)
54L0601030	60″ (1524 mm)
54L0721030	72″ (1829 mm)
21-3/4″ (553 mm) height	
54L0482230	48″ (1219 mm)
54L0602230	60″ (1524 mm)
54L0722230	72″ (1829 mm)

Installation information: With suspended ceilings, it is suggested that the enclosure assembly extend to the bottom of the ceiling. The hung ceiling should extend over the top of the fume hood and be trimmed around the mechanical connections to ensure proper room pressure control of the HVAC system.

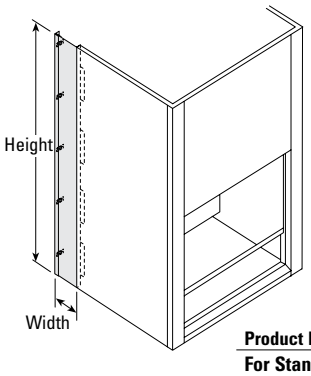
Filler Assembly SafeAire II



- Use to enclose space between wall and side of fume hood or space between back of fume hood and wall
- Made of steel, finished to match fume hood superstructure
- Installation hardware included

Product No.	Height	Width
For Standard Superstructure		
90L15000	54-1/4" (1378 mm)	1" (25 mm)
90L15100	54-1/4" (1378 mm)	2" (51 mm)
90L15200	54-1/4" (1378 mm)	3" (76 mm)
90L15300	54-1/4" (1378 mm)	6" (152 mm)
For High-line Superstructure		
90L15400	66-1/4" (1683 mm)	1" (25 mm)
90L15500	66-1/4" (1683 mm)	2" (51 mm)
90L15600	66-1/4" (1683 mm)	3" (76 mm)
90L15700	66-1/4" (1683 mm)	6" (152 mm)
For Floor-mounted Hood		
90L15800	90" (2286 mm)	1" (25 mm)
90L15900	90" (2286 mm)	2" (51 mm)
90L16000	90" (2286 mm)	3" (76 mm)
90L16100	90" (2286 mm)	6" (152 mm)

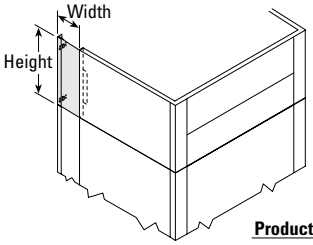
Filler Assembly SafeAire II



- Use to enclose space between wall and back of fume hood superstructure or floor-mounted fume hood
- Made of steel, finished to match fume hood superstructure
- Installation hardware included

Product No.	Height	Width
For Standard Superstructure		
90L150N0	54-1/4" (1378 mm)	1" (25 mm)
90L151N0	54-1/4" (1378 mm)	2" (51 mm)
90L152N0	54-1/4" (1378 mm)	3" (76 mm)
90L153N0	54-1/4" (1378 mm)	6" (152 mm)
For High-line Superstructure		
90L154N0	66-1/4" (1683 mm)	1" (25 mm)
90L155N0	66-1/4" (1683 mm)	2" (51 mm)
90L156N0	66-1/4" (1683 mm)	3" (76 mm)
90L157N0	66-1/4" (1683 mm)	6" (152 mm)
For Floor-mounted Fume Hood		
90L158N0	90" (2286 mm)	1" (25 mm)
90L159N0	90" (2286 mm)	2" (51 mm)
90L160N0	90" (2286 mm)	3" (76 mm)
90L161N0	90" (2286 mm)	6" (152 mm)

Ceiling Fillers SafeAire II

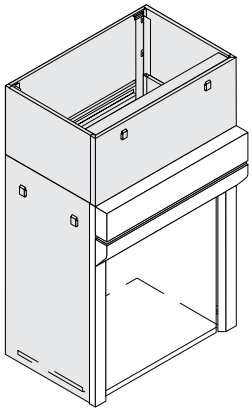


- Use to enclose space between wall and back of ceiling enclosure
- Made of steel, finished to match fume hood superstructure
- Installation hardware included

Product No.	Height	Width
90L138N0	12-1/2" (318 mm)	1" (25 mm)
90L141N0	12-1/2" (318 mm)	2" (51 mm)
90L144N0	12-1/2" (318 mm)	3" (76 mm)
90L147N0	12-1/2" (318 mm)	6" (152 mm)
90L130N0	17" (432 mm)	1" (25 mm)
90L131N0	17" (432 mm)	2" (51 mm)
90L132N0	17" (432 mm)	3" (76 mm)
90L133N0	17" (432 mm)	6" (152 mm)
90L139N0	24-1/2" (622 mm)	1" (25 mm)
90L142N0	24-1/2" (622 mm)	2" (51 mm)
90L145N0	24-1/2" (622 mm)	3" (76 mm)
90L148N0	24-1/2" (622 mm)	6" (152 mm)
90L134N0	29" (737 mm)	1" (25 mm)
90L135N0	29" (737 mm)	2" (51 mm)
90L136N0	29" (737 mm)	3" (76 mm)
90L137N0	29" (737 mm)	6" (152 mm)
90L140N0	36-1/2" (927 mm)	1" (25 mm)
90L143N0	36-1/2" (927 mm)	2" (51 mm)
90L146N0	36-1/2" (927 mm)	3" (76 mm)
90L149N0	36-1/2" (927 mm)	6" (152 mm)

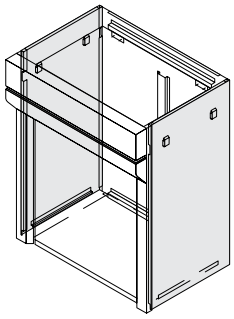
Installation information: With suspended ceilings, it is suggested that the enclosure assembly extend to the bottom of the ceiling. The hung ceiling should extend over the top of the fume hood and be trimmed around the mechanical connections to ensure proper room pressure control of the HVAC system.

For Concept and Pioneer



- Enclosure panels for front, sides and back of Concept and Pioneer fume hood superstructures
- Encloses space between top of superstructure and ceiling
- Made of steel, finished to match fume hood superstructure
- Installation hardware included

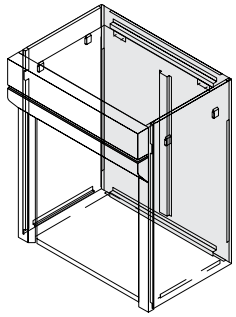
Side Enclosure Panels



- Use to enclose one or both sides of Concept, Pioneer or SafeAire II fume hood superstructures
- Product number is for single panel

Product No.	Fume Hood Depth
For Standard Superstructure	
54L31530FHEP	31-1/4" (794 mm)
54L36530FHEP	36" (914 mm)
54L37530FHEP	37-1/4" (946 mm)
54L43530FHEP	43-1/4" (1099 mm)
For High-line Superstructure	
54L31650FHEP	31-1/4" (794 mm)
54L36650FHEP	36" (914 mm)
54L37650FHEP	37-1/4" (946 mm)
54L43650FHEP	43-1/4" (1099 mm)
For Pass Thru Demonstration Hood	
54L32530FHEP	32" (813 mm)

Lower Back Enclosure Panels

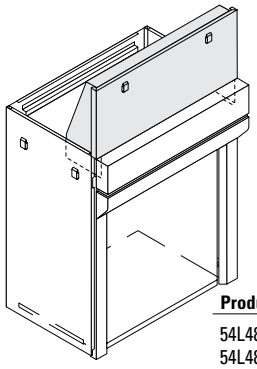


- Use to enclose back of Concept, Pioneer or SafeAire II fume hood superstructure

Product No.	Fume Hood Width
For Standard Superstructure	
54L48530LBEP	48" (1219 mm)
54L60530LBEP	60" (1524 mm)
54L72530LBEP	72" (1829 mm)
54L84530LBEP	84" (2134 mm)
54L96530LBEP	96" (2438 mm)
For High-line Superstructure	
54L48650LBEP	48" (1219 mm)
54L60650LBEP	60" (1524 mm)
54L72650LBEP	72" (1829 mm)
54L84650LBEP	84" (2134 mm)
54L96650LBEP	96" (2438 mm)

Installation information: With suspended ceilings, it is suggested that the enclosure assembly extend to the bottom of the ceiling. The hung ceiling should extend over the top of the fume hood and be trimmed around the mechanical connections to ensure proper room pressure control of the HVAC system.

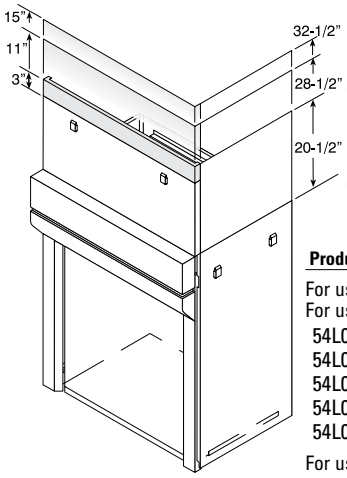
Front Ceiling and Sash Enclosure Panels for Concept



- Use to enclose space between front top and ceiling of Concept superstructure, also provides enclosure for raised sash

Product No.	Fume Hood Width	Height
54L48170FCSE	48" (1219 mm)	17-1/2" (445 mm)
54L48200FCSE	48" (1219 mm)	20-1/2" (521 mm)
54L48280FCSE	48" (1219 mm)	28-1/2" (724 mm)
54L48320FCSE	48" (1219 mm)	32-1/2" (826 mm)
54L60170FCSE	60" (1524 mm)	17-1/2" (445 mm)
54L60200FCSE	60" (1524 mm)	20-1/2" (521 mm)
54L60280FCSE	60" (1524 mm)	28-1/2" (724 mm)
54L60320FCSE	60" (1524 mm)	32-1/2" (826 mm)
54L72170FCSE	72" (1829 mm)	17-1/2" (445 mm)
54L72200FCSE	72" (1829 mm)	20-1/2" (521 mm)
54L72280FCSE	72" (1829 mm)	28-1/2" (724 mm)
54L72320FCSE	72" (1829 mm)	32-1/2" (826 mm)
54L84170FCSE	84" (2134 mm)	17-1/2" (445 mm)
54L84200FCSE	84" (2134 mm)	20-1/2" (521 mm)
54L84280FCSE	84" (2134 mm)	28-1/2" (724 mm)
54L84320FCSE	84" (2134 mm)	32-1/2" (826 mm)
54L96170FCSE	96" (2438 mm)	17-1/2" (445 mm)
54L96200FCSE	96" (2438 mm)	20-1/2" (521 mm)
54L96280FCSE	96" (2438 mm)	28-1/2" (724 mm)
54L96320FCSE	96" (2438 mm)	32-1/2" (826 mm)

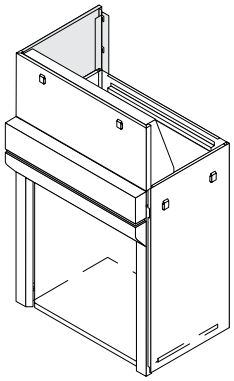
Front Ceiling Enclosure Panels for Pioneer



- Use to enclose space between front top ceiling/sash enclosure panel and room ceiling of Pioneer fume hood superstructure
- 17-1/2" high front ceiling and sash enclosure panel is standard on Pioneer fume hood having an unframed sash
- 20-1/2" high front ceiling panel is standard on combination sash fume hood

Product No.	Fume Hood Width	Panel Height
For use with 20-1/2" high side enclosure panels. For use only on unframed sash hood.		
54L04803	48" (1219 mm)	3" (76 mm)
54L06003	60" (1524 mm)	3" (76 mm)
54L07203	72" (1829 mm)	3" (76 mm)
54L08403	84" (2134 mm)	3" (76 mm)
54L09603	96" (2438 mm)	3" (76 mm)
For use with 28-1/2" high side enclosure panels		
54L04811	48" (1219 mm)	11" (279 mm)
54L06011	60" (1524 mm)	11" (279 mm)
54L07211	72" (1829 mm)	11" (279 mm)
54L08411	84" (2134 mm)	11" (279 mm)
54L09611	96" (2438 mm)	11" (279 mm)
For use with 32-1/2" high side enclosure panels		
54L04815	48" (1219 mm)	15" (381 mm)
54L06015	60" (1524 mm)	15" (381 mm)
54L07215	72" (1829 mm)	15" (381 mm)
54L08415	84" (2134 mm)	15" (381 mm)
54L09615	96" (2438 mm)	15" (381 mm)

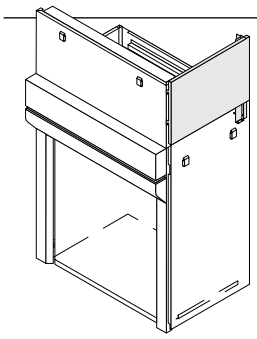
Left Ceiling Enclosure Panels – Superstructures



- Use to enclose space at left side of Concept and Pioneer between lower left side panel and ceiling
- 17-1/2" high panel is limited to **Pioneer fume hood having an unframed sash**
- Requires front ceiling and sash enclosure panels

Product No.	Fume Hood Depth	Height
54L31170LCEP	31-1/4" (794 mm)	17-1/2" (445 mm)
54L37170LCEP	37-1/4" (946 mm)	17-1/2" (445 mm)
54L43170LCEP	43-1/4" (1099 mm)	17-1/2" (445 mm)
54L31200LCEP	31-1/4" (794 mm)	20-1/2" (521 mm)
54L37200LCEP	37-1/4" (946 mm)	20-1/2" (521 mm)
54L43200LCEP	43-1/4" (1099 mm)	20-1/2" (521 mm)
54L31280LCEP	31-1/4" (794 mm)	28-1/2" (724 mm)
54L37280LCEP	37-1/4" (946 mm)	28-1/2" (724 mm)
54L43280LCEP	43-1/4" (1099 mm)	28-1/2" (724 mm)
54L31320LCEP	31-1/4" (794 mm)	32-1/2" (826 mm)
54L37320LCEP	37-1/4" (946 mm)	32-1/2" (826 mm)
54L43320LCEP	43-1/4" (1099 mm)	32-1/2" (826 mm)

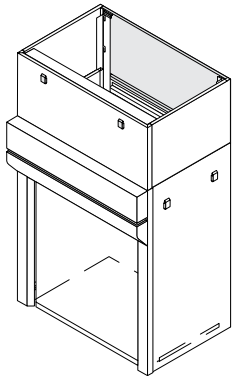
Right Ceiling Enclosure Panels – Superstructures



- Use to enclose space at right side of Concept and Pioneer between lower right side panel and ceiling
- 17-1/2" high panel is limited to **Pioneer having an unframed sash**
- Requires front ceiling and sash enclosure panels

Product No.	Fume Hood Depth	Height
54L31170RCEP	31-1/4" (794 mm)	17-1/2" (445 mm)
54L37170RCEP	37-1/4" (946 mm)	17-1/2" (445 mm)
54L43170RCEP	43-1/4" (1099 mm)	17-1/2" (445 mm)
54L31200RCEP	31-1/4" (794 mm)	20-1/2" (521 mm)
54L37200RCEP	37-1/4" (946 mm)	20-1/2" (521 mm)
54L43200RCEP	43-1/4" (1099 mm)	20-1/2" (521 mm)
54L31280RCEP	31-1/4" (794 mm)	28-1/2" (724 mm)
54L37280RCEP	37-1/4" (946 mm)	28-1/2" (724 mm)
54L43280RCEP	43-1/4" (1099 mm)	28-1/2" (724 mm)
54L31320RCEP	31-1/4" (794 mm)	32-1/2" (826 mm)
54L37320RCEP	37-1/4" (946 mm)	32-1/2" (826 mm)
54L43320RCEP	43-1/4" (1099 mm)	32-1/2" (826 mm)

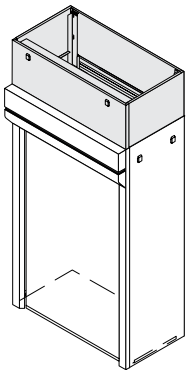
Upper Back Ceiling Enclosure Panels – Superstructures



- Use to enclose space between lower back panel and ceiling of Concept and Hamilton Pioneer superstructure
- 17-1/2" high panel is limited to **Pioneer fume hood having an unframed sash**
- Requires front ceiling and sash enclosure, left and right ceiling enclosure panels

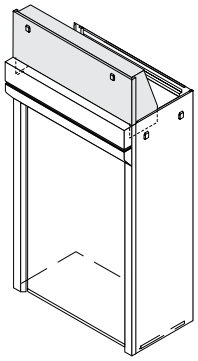
Product No.	Fume Hood Width	Height
54L48170UBCE	48" (1219 mm)	17-1/2" (445 mm)
54L48200UBCE	48" (1219 mm)	20-1/2" (521 mm)
54L48280UBCE	48" (1219 mm)	28-1/2" (724 mm)
54L48320UBCE	48" (1219 mm)	32-1/2" (826 mm)
54L60170UBCE	60" (1524 mm)	17-1/2" (445 mm)
54L60200UBCE	60" (1524 mm)	20-1/2" (521 mm)
54L60280UBCE	60" (1524 mm)	28-1/2" (724 mm)
54L60320UBCE	60" (1524 mm)	32-1/2" (826 mm)
54L72170UBCE	72" (1829 mm)	17-1/2" (445 mm)
54L72200UBCE	72" (1829 mm)	20-1/2" (521 mm)
54L72280UBCE	72" (1829 mm)	28-1/2" (724 mm)
54L72320UBCE	72" (1829 mm)	32-1/2" (826 mm)
54L84170UBCE	84" (2134 mm)	17-1/2" (445 mm)
54L84200UBCE	84" (2134 mm)	20-1/2" (521 mm)
54L84280UBCE	84" (2134 mm)	28-1/2" (724 mm)
54L84320UBCE	84" (2134 mm)	32-1/2" (826 mm)
54L96170UBCE	96" (2438 mm)	17-1/2" (445 mm)
54L96200UBCE	96" (2438 mm)	20-1/2" (521 mm)
54L96280UBCE	96" (2438 mm)	28-1/2" (724 mm)
54L96320UBCE	96" (2438 mm)	32-1/2" (826 mm)

Installation information: With suspended ceilings, it is suggested that the enclosure assembly extend to the bottom of the ceiling. The hung ceiling should extend over the top of the fume hood and be trimmed around the mechanical connections to ensure proper room pressure control of the HVAC system.



- Enclosure panels for front, both sides and back of Concept Floor-mounted fume hood. Encloses space between top of superstructure and ceiling
- Made of steel, finished to match fume hood superstructure
- Installation hardware included

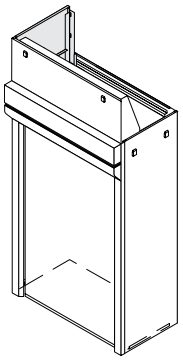
Front Ceiling and Sash Enclosure Panels for Floor-mounted Fume Hood



- Use to enclose space between front top and ceiling of Concept floor-mounted fume hood
- Provides enclosure for raised sash

Product No.	Fume Hood Width	Height
54L48175FCSE	48″ (1219 mm)	17-1/2″ (445 mm)
54L48205FCSE	48″ (1219 mm)	20-1/2″ (521 mm)
54L48285FCSE	48″ (1219 mm)	28-1/2″ (724 mm)
54L48325FCSE	48″ (1219 mm)	32-1/2″ (826 mm)
54L60175FCSE	60″ (1524 mm)	17-1/2″ (445 mm)
54L60205FCSE	60″ (1524 mm)	20-1/2″ (521 mm)
54L60285FCSE	60″ (1524 mm)	28-1/2″ (724 mm)
54L60325FCSE	60″ (1524 mm)	32-1/2″ (826 mm)
54L72175FCSE	72″ (1829 mm)	17-1/2″ (445 mm)
54L72205FCSE	72″ (1829 mm)	20-1/2″ (521 mm)
54L72285FCSE	72″ (1829 mm)	28-1/2″ (724 mm)
54L72325FCSE	72″ (1829 mm)	32-1/2″ (826 mm)
54L84175FCSE	84″ (2134 mm)	17-1/2″ (445 mm)
54L84205FCSE	84″ (2134 mm)	20-1/2″ (521 mm)
54L84285FCSE	84″ (2134 mm)	28-1/2″ (724 mm)
54L84325FCSE	84″ (2134 mm)	32-1/2″ (826 mm)
54L96175FCSE	96″ (2438 mm)	17-1/2″ (445 mm)
54L96205FCSE	96″ (2438 mm)	20-1/2″ (521 mm)
54L96285FCSE	96″ (2438 mm)	28-1/2″ (724 mm)
54L96325FCSE	96″ (2438 mm)	32-1/2″ (826 mm)

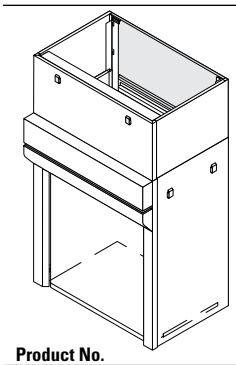
Left Ceiling Enclosure Panel – for Floor Mounted Fume Hood



- Use to enclose space at left side of Concept Floor-mounted fume hood between lower left side panel and ceiling
- Requires front ceiling and sash enclosure panels

Product No.	Fume Hood Depth	Height
54L35170LCEP	35" (889 mm)	17-1/2" (445 mm)
54L41170LCEP	41" (1041 mm)	17-1/2" (445 mm)
54L47170LCEP	47" (1194 mm)	17-1/2" (445 mm)
54L35200LCEP	35" (889 mm)	20-1/2" (521 mm)
54L41200LCEP	41" (1041 mm)	20-1/2" (521 mm)
54L47200LCEP	47" (1194 mm)	20-1/2" (521 mm)
54L35280LCEP	35" (889 mm)	28-1/2" (724 mm)
54L41280LCEP	41" (1041 mm)	28-1/2" (724 mm)
54L47280LCEP	47" (1194 mm)	28-1/2" (724 mm)
54L35320LCEP	35" (889 mm)	32-1/2" (826 mm)
54L41320LCEP	41" (1041 mm)	32-1/2" (826 mm)
54L47320LCEP	47" (1194 mm)	32-1/2" (826 mm)

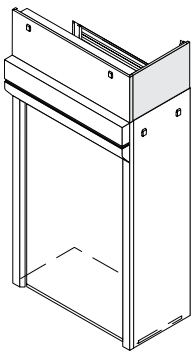
Upper Back Ceiling Enclosure Panels – for Floor Mounted Fume Hood



- Use to enclose space between lower back panel and ceiling of Concept floor mounted fume hood.
- 17-1/2" high panel is limited to **Pioneer fume hood having an unframed sash.**
- Requires front ceiling and sash enclosure, left and right ceiling enclosure panels.

Product No.	Fume Hood Width	Height
54L48170UBCE	48" (1219 mm)	17-1/2" (445 mm)
54L48200UBCE	48" (1219 mm)	20-1/2" (521 mm)
54L48280UBCE	48" (1219 mm)	28-1/2" (724 mm)
54L48320UBCE	48" (1219 mm)	32-1/2" (826 mm)
54L60170UBCE	60" (1524 mm)	17-1/2" (445 mm)
54L60200UBCE	60" (1524 mm)	20-1/2" (521 mm)
54L60280UBCE	60" (1524 mm)	28-1/2" (724 mm)
54L60320UBCE	60" (1524 mm)	32-1/2" (826 mm)
54L72170UBCE	72" (1829 mm)	17-1/2" (445 mm)
54L72200UBCE	72" (1829 mm)	20-1/2" (521 mm)
54L72280UBCE	72" (1829 mm)	28-1/2" (724 mm)
54L72320UBCE	72" (1829 mm)	32-1/2" (826 mm)
54L84170UBCE	84" (2134 mm)	17-1/2" (445 mm)
54L84200UBCE	84" (2134 mm)	20-1/2" (521 mm)
54L84280UBCE	84" (2134 mm)	28-1/2" (724 mm)
54L84320UBCE	84" (2134 mm)	32-1/2" (826 mm)
54L96170UBCE	96" (2438 mm)	17-1/2" (445 mm)
54L96200UBCE	96" (2438 mm)	20-1/2" (521 mm)
54L96280UBCE	96" (2438 mm)	28-1/2" (724 mm)
54L96320UBCE	96" (2438 mm)	32-1/2" (826 mm)

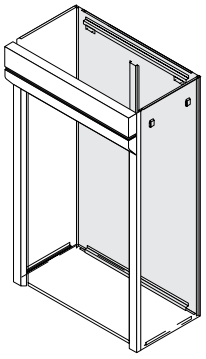
Right Ceiling Enclosure Panel – for Floor Mounted Fume Hood



- Use to enclose space at right side of Concept Floor-mounted fume hood between lower right side panel and ceiling.
- Requires front ceiling and sash enclosure panels.

Product No.	Fume Hood Depth	Height
54L35170RCEP	35" (889 mm)	17-1/2" (445 mm)
54L41170RCEP	41" (1041 mm)	17-1/2" (445 mm)
54L47170RCEP	47" (1194 mm)	17-1/2" (445 mm)
54L35200RCEP	35" (889 mm)	20-1/2" (521 mm)
54L41200RCEP	41" (1041 mm)	20-1/2" (521 mm)
54L47200RCEP	47" (1194 mm)	20-1/2" (521 mm)
54L35280RCEP	35" (889 mm)	28-1/2" (724 mm)
54L41280RCEP	41" (1041 mm)	28-1/2" (724 mm)
54L47280RCEP	47" (1194 mm)	28-1/2" (724 mm)
54L35320RCEP	35" (889 mm)	32-1/2" (826 mm)
54L41320RCEP	41" (1041 mm)	32-1/2" (826 mm)
54L47320RCEP	47" (1194 mm)	32-1/2" (826 mm)

Lower Back Enclosure Panel– for Floor Mounted Fume Hood



- Use to enclose back of Concept Floor-mounted fume hood.

Product No.	Fume Hood Width
54L48895LBEP	48" (1219 mm)
54L60895LBEP	60" (1524 mm)
54L72895LBEP	72" (1829 mm)
54L84895LBEP	84" (2134 mm)
54L96895LBEP	96" (2438 mm)

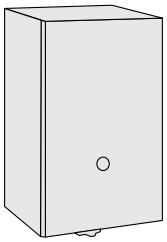
Side Enclosure Panels– for Floor Mounted Fume Hood

- Use to enclose one or both sides of SafeAire II or Concept Superstructurers.

Product No.	Fume Hood Depth
	SafeAire II
54L33900FHEP	554S series
54L38900FHEP	551S series
54L44900FHEP	552S series
	Concept
54L35890FHEP	554S series
54L41890FHEP	551S series
54L48890FHEP	552S series

Ordering information:
- Include the following information when ordering: product number, voltage, amps, watts and cycle of blower.

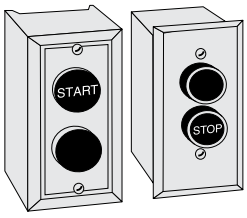
Magnetic Fan Motor Starter



- Integral-HP magnetic AC motor starter for single and three-phase motors from 1 to 10 HP
- Designed for full-voltage starting of motors
- Single-phase starter for use with self-starting, single-phase motors up to 3 HP/115 volts and 7-1/2 HP/230 volts
- Use with Remote Control Station for Motor Starter shown below
- Protection against positive overload and low-voltage release
- Heater coil not included
- Must be installed in or on a wall near the fume hood
- Extended lead time

				NEMA Contact Ratings - 60 Cycle				
				Max HP 1-Phase		Max HP 3-Phase		
Product No.	Max. Amps.	NEMA Size	Poles	115V	230V	208V	240V	460V
36L19000	18	0	2	1	–	–	–	–
36L19100	18	0	2	–	2	–	–	–
36L19300	18	0	3	–	2	–	3	–
36L19400	18	0	3	–	–	–	–	5
36L19600	27	1	3	–	3	–	7-1/2	–

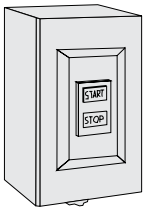
Remote Control Station for Motor Starter



- Remote control station for use with Magnetic Fan Motor Starter
- Vertical or horizontal mounting.
- NEMA Type 1 general-purpose construction
- Surface-mount station has steel base and tight-fitting wrap-around cover
- Flush-mount station has stainless steel flat cover and mounting strap
- Extended lead time

Product No.	Mount
36L19800	Surface
36L19900	Flush

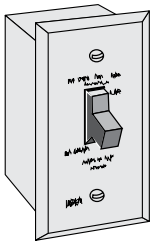
Manual Fan Motor Starter



- Integral-HP manual AC motor starter for single and three-phase motors from 1 to 10 HP
- Designed for full-voltage starting of motors
- Built-in start/stop buttons
- Thermal overload protection
- Heater coil not included
- Must be installed in or on a wall near the fume hood
- Extended lead time

			NEMA Contact Ratings – 60 Cycle			
			Max HP 1-Phase		Max HP 3-Phase	
Product No.	NEMA Size	Poles	115V	230V	230V	460/575V
36L20000	0	2	1	2	–	–
36L20100	0	3	–	–	3	5
36L20200	1	3	–	–	7-1/2	10

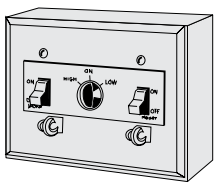
Manual Snap-switch Fan Motor Starter



- Fractional HP manual AC motor starter for all single-phase motors up to one HP
- Mounted in single gang receptacle box with flush stainless steel face plate
- Double pole switch for up to 1 HP, single-phase, 60-cycle, 115/230 Vac motor
- Thermal overload protection
- Heater coil not included
- Special order/extended lead time

Product No.
36L20300

Two-Speed Manual Motor Starter



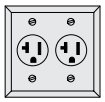
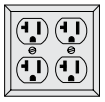
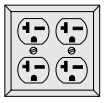
- For use with all two-speed blowers
- On-off selector switch for both high or low speed selection
- Two on/off switches with pilot lights and thermal overload protection
- NEMA Type 1, either as stainless steel plate for flush mounting, or as enclosure for surface mounting
- Heater coil not included
- Must be installed in or on a wall or base cabinet near the fume hood
- Extended lead time

Product No.	Mount
36L20400	Surface
36L20500	Flush

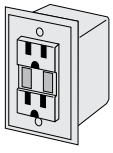
Outlets

Product features

- UL listed.
- All fixtures on this page are ivory with chrome flush plate unless noted with:
  - * = Black Plastic Flush Plate and Device
  - S = Stainless Steel Flush Plate
  - H = Hospital Grade
- 240 Volt outlets are available on special order.
- Only flush single-faced electric outlets fit on fume hood front upright post.
- Electrical fixtures are not recommended inside fume hood per NFPA-45.

Receptacle Configuration		Box Style: Flush Single-faced	Box Style: Flush 2-Gang Single-faced
Polarized 3-wire, grounding type, 120V, 20 Amp, NEMA 5-20R		36L13300 36L20700*	– NA –
		– NA –	36L15100
Polarized 3-wire, grounding type 120V, 20 Amp, NEMA 5-20R		36L11200 36L112S0 36L112H0 36L21200*	– NA –
		– NA – 36L120H0	36L12000
Polarized 3-wire, grounding type combination, 120V, 20 Amp, NEMA 5-20R 240 V, 15 Amp, NEMA 6-20R		– NA –	36L09000
Polarized 3-wire, grounding type 240V, 20 Amp, NEMA 6-20R		36L12300 36L21300*	– NA –
		– NA –	36L12900
Polarized 3-wire, grounding type		36L10900 36L109S0 36L209S0	– NA –

Ground Fault Interrupter



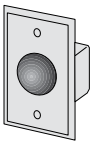
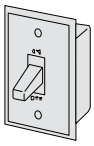
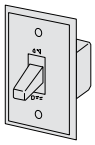
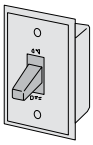
- For protection against line-to-ground shock hazards.
- 120V, 20 amp, NEMA-5-20R.
- Flush mounted with black plastic face plate.

Product No.
36L20600

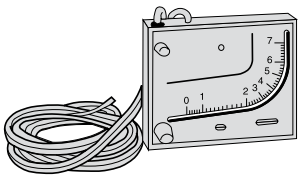
Switches & Pilot Lights

Product features

- UL listed.
- All fixtures on this page are ivory with chrome flush plate unless noted with:
  - * = Black plastic flush plate and device
  - S = Stainless steel
- For use on motor blowers up to 3/4 h.p.

	Product No.	Pilot Light	Pole		Volt		Amps
			Single	Double	120	240	20
 Pilot Light Only	36L13100	X			X		–
	36L131S0	X			X		–
	36L24400*	X			X		–
 Toggle Switches	36L11600			X		X	X
	36L24100*			X		X	X
	36L11100		X		X		X
	36L111S0		X		X		X
	36L21100*		X		X		X
	36L211S0		X		X		X
 Lighted Toggle Switch	36L12100	X	X		X		X
	36L121S0	X	X		X		X
	36L12600	X		X		X	X
	36L24200*	X	X		X		X
	36L24300*	X		X		X	X

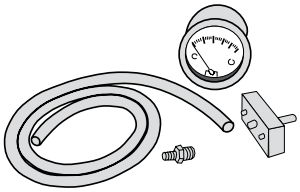
Manometer



- Used with filters in fume removal system.
- Inclined vertical, liquid-filled gauge continuously measures pressure differentials to monitor filter conditions.
- 0–3" WC operating range.
- Assembly includes 8 feet of double tubing, two connectors, mounting screws, one bottle of red gauge oil, and instructions.
- Extended lead time required for delivery.

Product No.
54L25600

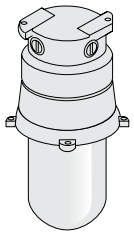
Static Pressure Gauge



- Compact Minihelic® dial-type gauge to sense static pressure and determine airflow.
- Flush- or surface-mounted with optional bracket.
- Includes tube adapter, sensor set, 42" (1067 mm) long tubing and instructions.
- Extended lead time.

Product No.	Width
54L31200	0–1
54L31300	0–3 - for use with HEPA filter

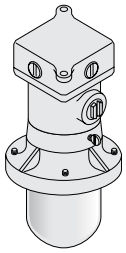
Vapor-proof Incandescent Light



- Provides alternate interior fume hood illumination for procedures requiring vapor-proof incandescent lighting
- Uses one 100-watt bulb
- 120V, 60-cycle
- One light is adequate for three- and four-foot fume hood; two lights recommended for five- six- and eight-foot fume hood
- 3-3/4" (95 mm) diameter
- 6" (152 mm) deep
- Extended lead time

Product No.
54L21400

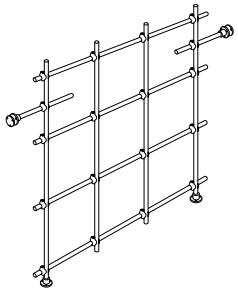
Classified Explosion-proof Light



- For use in hazardous atmosphere conditions
- UL listed to the following National Electric code classes:
  Class I – Division 1, 2 – Group C, D
- Uses one 150-watt bulb
- 120V, 60-cycle
- One light is adequate for three and four-foot fume hood; two lights recommended for five, six and eight-foot fume hood

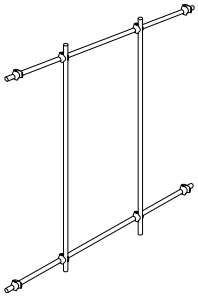
Product No.
54L21600

Lattice Rod Assemblies



- For all SafeAire, SafeAire II, Pioneer and Concept fume hoods
- Solid 1/2" (13 mm) aluminum rod lattice to support interior fume hood apparatus
- Fastening hardware included

Product No.	Fume Hood Width
26L15000	48" (1219 mm)
26L15100	60" (1524 mm)
26L15200	72" (1829 mm)
26L15300	96" (2438 mm)

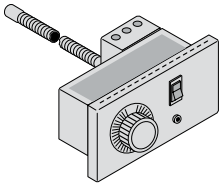


- For Horizon fume hood
- Solid 1/2" (13 mm) aluminum rod lattice – 30" (762 mm) height
- Two horizontal and two vertical rods.
- Fastening hardware included

Product No.	Fume Hood Width
26L15800	48" (1219 mm)
26L15900	60" (1524 mm)
26L16000	72" (1829 mm)

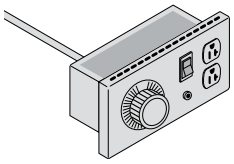
Variac Voltage Transformers

- Designed for factory installation in the front flush panel of base cabinets to provide a variable voltage source for heating devices
- "O" suffix indicates a junction box attached to the rear of the enclosure
- "A" suffix indicates a 42" long twist-lock cord plug
- Flush Variac units in base cabinets will create a nonstandard cabinet



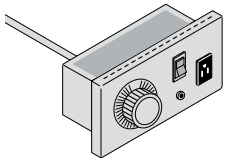
- Includes a switch and pilot light
- Input – 120VAC, 50/60 Hz
  Output – One variable junction box 0-120VAC, 10AMP

Product No.	
36L290S0	For all steel cabinets
36L290W0	For wood and plastic laminate cabinets



- Includes a switch and pilot light, one constant duplex electrical receptacle 120VAC 16AMP
- Input – 120VAC, 50/60 Hz
  Output – 0-120VAC, 10AMP

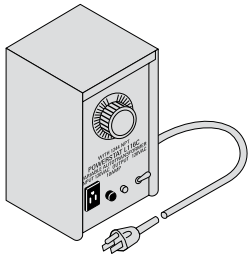
Product No.	
36L288S0	For all steel cabinets
36L288W0	For wood and plastic laminate cabinets
36L288SA	For all steel cabinets
36L288WA	For wood and plastic laminate cabinets



- Includes a switch and pilot light, one single electrical receptacle
- Input – 120VAC, 50/60 Hz
  Output – one variable outlet, 0-120VAC, 10AMP

Product No.	
36L289S0	For all steel cabinets
36L289W0	For wood and plastic laminate cabinets
36L289SA	For all steel cabinets
36L289WA	For wood and plastic laminate cabinets

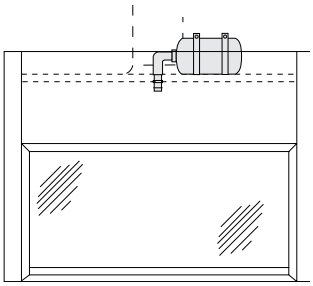
Free-Standing Variac Voltage Transformer



- Variable auto-transformer free-standing module designed for installation on the counter top
- Input, 120VAC, 50/60 Hz – output, 0-140VAC, 10AMP
- Includes integral toggle switch, fuse holder, single electrical receptacle and power-on light
- Supplied with 72" long power cord with receptacle plug

Product No.	
36L26700	(Special order)

Automatic Fire Extinguisher

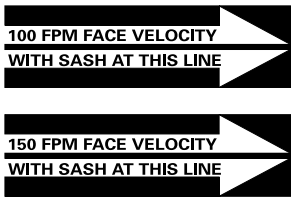


- Dry chemical system
- Includes dry chemicals, distribution piping, heads and activating link
- Fume-resistant plastic finish on all exposed parts
- Activating link set to operate at 300°F (148°C)
- Extended lead time required for delivery
- Requires field installation

Product No.	Fume Hood Width
Fume hood with all liners except "S" & "K"	
54L48600	48" (1219 mm)
54L48700	60" (1524 mm)
54L48800	72" (1829 mm)
54L48900	96" (2438 mm)
Fume hood with "S" liners*	
54L4860S	48" (1219 mm)
54L4870S	60" (1524 mm)
54L4880S	72" (1829 mm)
54L4890S	96" (2438 mm)
Fume hood with "K" liners*	
54L4860K	48" (1219 mm)
54L4870K	60" (1524 mm)
54L4880K	72" (1829 mm)
54L4890K	96" (2438 mm)

*Fume hood with "S" & "K" liners and Hamilton Concept are nonstandard when ordering fire extinguishers

Face Velocity Labels

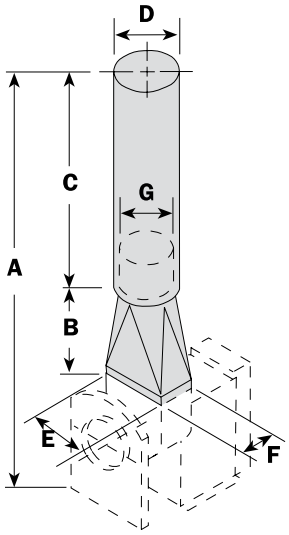


- Mount on left or right post of vertical-rising sash fume hood
- Identifies face velocity in relation to sash position
- Peel-and-stick, fume- and reagent-resistant plastic material

Product No.	Post Orientation
100 FPM (black)	
90L10000	Left
90L07600	Right
150 FPM (red)	
90L10100	Left
90L07700	Right

Zero-static Exhaust Outlets

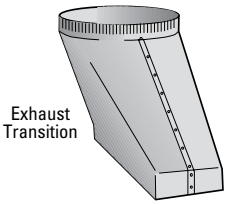
- Roof-top stack outlet for vertical fume hood exhaust discharge
- For roof-mounted blowers only
- Designed to minimize re-entrainment by ducting fumes above roof surface dead air area
- Weather- and corrosion-resistant stainless steel, for weather protection without additional back-pressure
- This assembly may be required by code in some states

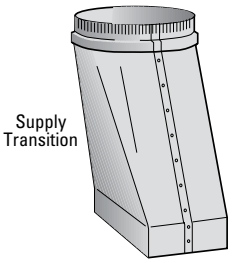


Product No.	For Use With Blower	A	B	C	D	E*	F*	G
54L411	55L753 thru 55L758	81-7/8″ (2080 mm)	16″ (406 mm)	46″ (1168 mm)	9″ (229 mm)	8-1/4″ (210 mm)	5-3/8″ (137 mm)	8″ (203 mm)
54L412	55L759 thru 55L766	82-1/8″ (2086 mm)	16″ (406 mm)	46″ (1168 mm)	10″ (254 mm)	10-3/4″ (273 mm)	6-1/2″ (165 mm)	9″ (229 mm)
54L413	55L767 thru 55L772 55L785 and 55L786	87-1/8″ (2213 mm)	16″ (406 mm)	50″ (1270 mm)	11″ (279 mm)	11-3/4″ (298 mm)	8″ (203 mm)	10″ (254 mm)
54L414	55L773 thru 55L778 55L787 and 55L788	104-1/2″ (2654 mm)	16″ (406 mm)	62″ (1575 mm)	14″ (356 mm)	13-1/4″ (337 mm)	9-5/8″ (244 mm)	13″ (330 mm)
54L415	55L779 thru 55L782 55L789	111-3/8″ (2829 mm)	18″ (457 mm)	66″ (1676 mm)	15″ (381 mm)	14-3/8″ (365 mm)	10-3/4″ (273 mm)	14″ (356 mm)
54L416	55L783 and 55L784 55L790	120-3/4″ (3067 mm)	18″ (457 mm)	74″ (1880 mm)	17″ (432 mm)	16-1/4″ (413 mm)	11-3/4″ (298 mm)	16″ (406 mm)

*Blower exhaust outlet.

Duct Transitions

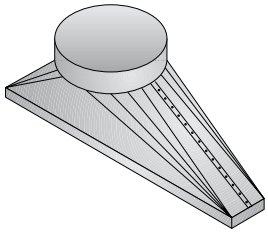




- Metal ductwork connecting fume hood exhaust or supply system to building exhaust or supply system
- Exhaust transitions made in 22 gauge type 304 stainless steel (rectangular duct to round duct)
- Supply transitions made in 22 gauge galvanized steel (round duct to rectangular duct)
- 16" (406 mm) high

Product No.	Duct O.D.
Exhaust transitions	
■ For 316 stainless steel, add suffix S6 to the product number	
54L90100	6" x 9" to 8" round (152 x 229 to 203 mm round)
54L90200	6" x 15" to 10" round (152 x 381 to 254 mm round)
54L90300	6" x 23" to 12" round (152 x 584 to 305 mm round)
54L90900	6" x 26" to 12" round (152 x 660 to 305 mm Round)
54L90400	6" x 30" to 14" round (152 x 762 to 356 mm round)
Supply transitions	
■ For 316 stainless steel, add suffix S6 to the product number	
54L90500	9" round to 6" x 12" (203 mm round to 152 x 305 mm)
54L90600	10" round to 6" x 15" (254 mm round to 152 x 381 mm)
54L90700	11" round to 6" x 18" (279 mm round to 152 x 457 mm)
54L90800	12" round to 6" x 24" (305 mm round to 152 x 610 mm)

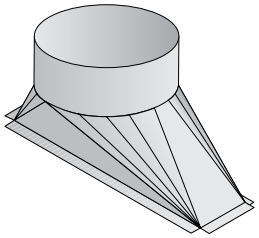
Exhaust Duct Transitions – for Horizon Only



- Low profile transition from fume hood to duct for use where ceiling heights are lower than normal
- Designed to reduce static pressure
- Made of 22 gauge type 304 stainless steel
- 13" (328 mm) overall height

Product No.	Fume Hood Width	Base Size	Outlet Diameter
For single fume hood			
54L91400	48" (1219 mm)	4" x 30" (102 x 762 mm)	10" (254 mm)
54L91400	60" (1524 mm)	4" x 30" (102 x 762 mm)	10" (254 mm)
54L91500	72" (1829 mm)	4" x 30" (102 x 762 mm)	12" (305 mm)
For double fume hood			
54L91600	48" (1219 mm)	9" x 30" (229 x 762 mm)	12" (305 mm)
54L91600	60" (1524 mm)	9" x 30" (229 x 762 mm)	12" (305 mm)
54L91700	72" (1829 mm)	9" x 30" (229 x 762 mm)	14" (356 mm)

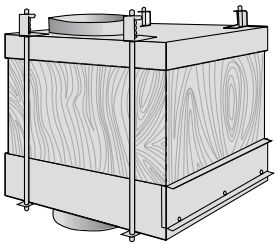
Combination Exhaust Collar/Transitions



- Replaces standout rectangular vent exhaust collar
- Cannot be used with stainless steel-lined fume hood
- Low profile transition from fume hood to duct for use where ceiling heights are lower than normal
- Designed to reduce static pressure
- Made of 22 gauge type 304 stainless steel
- 13-1/2" (343 mm) high
- Shipped separate unless ordered as nonstandard

Product No.	Fume Hood Width	Base Size	Outlet Diameter
54L91000	48" (1219 mm)	6" x 20-1/2" (152 x 521 mm)	10" (254 mm)
54L91100	60" (1524 mm)	6" x 26-1/2" (152 x 673 mm)	12" (305 mm)
54L91200	72" (1829 mm)	6" x 32-1/2" (152 x 826 mm)	12" (305 mm)
54L91800	84" (2134 mm)	6" x 35-1/2" (152 x 902 mm)	12" (305 mm)
54L91300	96" (2438 mm)	6" x 38-1/2" (152 x 978 mm)	14" (356 mm)

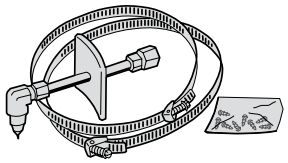
Exhaust Filter Pack Assemblies



- Wood HEPA filter with steel frame; for inside use only
- Eliminates exhaust of particulate contaminants and maintains clean conditions in duct downstream of rough filter
- For 12" (305 mm) diameter intake and exhaust collar
- Includes HEPA filter, rough filter and minihelic assembly
- HEPA filter traps and retains particles as small as 0.3 to 0.5 microns
- Access to filter exchange from front and sides
- Set of replacement filters consisting of HEPA and rough filters
- Requires duct transition (order separately) when mounted on top of fume hood
- 1.6 total S.P. (clean) @ 1250 CFM
- Extended delivery time required

Product Numbers						
Mild Steel Frame	Stainless Steel Frame	Replacement Filters	Width	Height	Depth	Capacity
54L29600	54L29800	54L25400	24" (610 mm)	24" (610 mm)	24" (610 mm)	1300 CFM
54L29700	54L29900	54L30000	24" (610 mm)	24" (610 mm)	30" (762 mm)	1500 CFM

Perchloric Acid Duct Nozzle Assembly

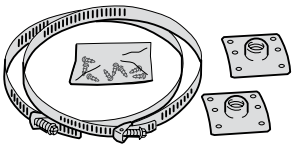


- Designed for provide a positive, fine spray for perchloric acid duct washdown
- For 12" (305 mm) diameter duct; may be field cut for smaller duct diameters
- Stainless steel and fluorocarbon plastic
- Large nozzle orifice minimizes plugging
- Installation hardware (bands, screws and fittings for 1/4" diameter IPS pipe) included
- Available on extended lead time

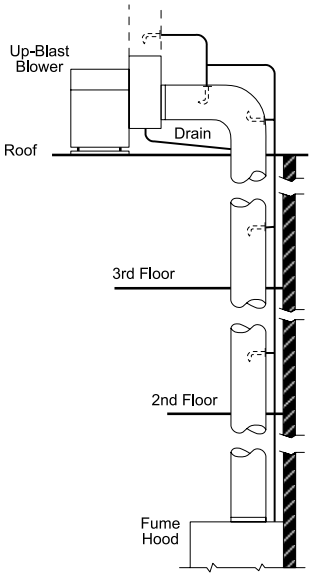
Frequent washdown of perchloric systems will reduce explosion hazards. A 30-40 second washdown after fume hood usage is sufficient. Remove all apparatus from fume hood interior before washdown.

Product No.	Water Volume for Each Nozzle							
54L33300	Water pressure (PSI)	20	30	40	50	60	70	80
	Flow rate (GPM)	1.9	2.3	2.7	3.0	3.3	3.5	3.8

Perchloric Acid Blower/Duct Drain Connection



- Assembly including one set of two stainless steel and fluorocarbon plastic drains to provide connection between blower and duct for disposal of washdown waters
- Stainless steel and fluorocarbon plastic
- Attachment to blower scroll by screws, to duct by stainless steel bands or screws (provided)
- Sized for 1/2" diameter IPS pipe
- Connecting pipe not included
- Available on extended lead time

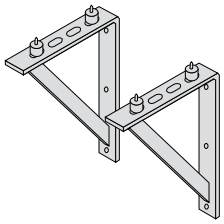


Locate nozzles approximately every five feet and in each elbow. Fume Hood drains will handle 30 GPM. With long duct systems, stage washdown to prevent overflow. Washdown system should drain empty through fume hood nozzles.

Frequent wash- and wipe-down of perchloric systems will reduce explosion hazards and extend liner life. A 30-40 second washdown after fume hood usage is sufficient. Remove all apparatus from fume hood interior before washdown.

Product No.
54L33500

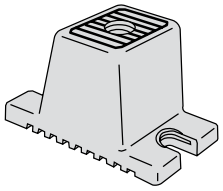
Wall-hung Blower Mounting Brackets



- Provides stable base for wall-mounted blowers
- Includes shock-absorbing adjustable motor mounts
- Installation hardware included
- Brackets sold in pairs
- Reference blower dimensions

Product No.	Height	Depth
54L22000	18" (457 mm)	18" (457 mm)
54L22200	25" (635 mm)	25" (635 mm)
54L22400	30" (762 mm)	30" (762 mm)

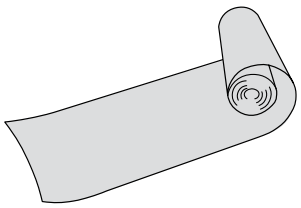
Blower Mounting Pads



- Neoprene vibration isolators designed to absorb vibration and maintain secure mount
- Maximum deflection (under heaviest load range) is 0.30 inches

Product No.	For Use with Blower	Pads/Package
54L54900	55L753 thru 55L772 55L785 and 55L786	4
54L55000	55L773 thru 55L778 55L787 and 55L788 55L811 thru 55L814	6

Silicone Duct Wrap



- Fiberglass cloth provides vibration damping connection between blower and duct, or between fume hood collar and duct
- Allows connector to serve as transition for differences in diameter or for minor offsets
- Fume-, vapor- and condensation-resistant
- Installed with duct tape or silicone cement (not provided)
- Not suitable for perchloric acid systems

Product No.	Width	Length
54L33100	5"(127 mm)	72"(1829 mm)

Duct Work

Round ducts are more efficient and less expensive than rectangular ducts, and are highly recommended for fume hood supply and exhaust systems.

The optimum diameter for the specific system will be determined by duct system static pressure and exhaust volume.

Duct Material

The ideal duct material is resistant to corrosive fumes, fireproof, lightweight, low in cost and smooth on its interior surface.

Commonly used:

- Stainless Steel Types #302, 304 and 316
- Polyvinyl chloride (PVC)
- Polyvinyl steel (PVS)

Recommended Duct Air Velocity

Moderate duct air velocities (approximately 1600 FPM) are high enough to evaporate moisture and other condensates that might form in the duct system, but low enough to minimize static pressure and associated noise.

Certain conditions may dictate the need for higher duct velocities. In these cases, an increase in static pressure and noise is to be expected.

Controlling Duct and System Noise

To minimize noise associated with a fume hood duct system, static pressure must also be minimized. (See discussion of static pressure in Understanding Fume Hood Technology, page 10.) Undersized ducts and tight duct elbows also can contribute to unacceptable noise levels.

Selecting a Fume Hood Blower

Proceed through the following steps, in order presented, to select the most appropriate blower for the fume hood application.

The steps required for selecting a blower are as follows:

Step 1: Identifying Fume Hood Exhaust Volume & Static Pressure Loss (SPL)
Step 2: Determining Optimum Duct Diameter
Step 3: Calculating Total Duct Length
Step 4: Calculating Duct SPL
Step 5: Calculating Total System SPL
Step 6: Choosing a blower with the capacity to move system exhaust volume at total system SPL

The grey boxes appearing within these instructions include an example of selecting a blower for a 72" (1828 mm) Restricted Bypass Fume Hood.

Important: This process is intended only for selecting a blower for an **individual** fume hood/exhaust system, with the blower located on the building exterior at the discharge end of the exhaust duct. Consult with an HVAC professional to select a blower for a manifold system.

Step 1 Identify Fume Hood Exhaust Volume & Static Pressure Loss (SPL)

Turn to the specific product page in this catalog that describes the fume hood selected. Exhaust volume (CFM) and static pressure (SP) values are provided in the Operating Parameters chart.

For definitions of exhaust volume and static pressure and their role in fume hood dynamics, refer to page 9 in Understanding Fume Hood Technology.

Fume Hood Exhaust Volume **(A):** _____ CFM

Fume Hood SPL* **(B):** _____ inches WG

Example: 54L2774P0 (5') (Page 19)

Fume Hood Exhaust Volume **(A)** ___**1000**___ CFM

Fume Hood SPL* **(B):** ___**.18**___ inches WG

* For **Auxiliary Air** fume hood, use the Static Pressure Value from the Supply Air Requirements chart (not the Operating Parameters chart) on the product information page of the specified unit.

Determining the Proper Blower and Duct System

Diameter and Area of a Round Duct

Diameter	Area (Square Inches)	Area (Square Feet)
2″ (51 mm)	3.141	.0218
3″ (76 mm)	7.068	.0491
4″ (106 mm)	12.566	.0872
5″ (127 mm)	19.635	.1364
6″ (152 mm)	28.274	.1964
7″ (178 mm)	38.485	.2673
8″ (203 mm)	50.285	.3491
9″ (229 mm)	63.617	.4418
10″ (254 mm)	78.540	.5454
12″ (305 mm)	113.098	.7854
14″ (356 mm)	153.938	1.0690
16″ (406 mm)	201.062	1.3960
18″ (457 mm)	254.470	1.7670
20″ (508 mm)	314.160	2.1820
24″ (607 mm)	452.390	3.1420

Straight Duct Length Equivalent for 90 degree Elbows

Duct diameter	8″	10″	12″	14″	16″	18″	20″	24″
Linear feet	15	20	25	30	36	41	46	57

Values in these charts are based on performance characteristics of round ducts. If the application requires the use of rectangular ducts, calculate the round duct diameter equivalents using the conversion information on the next page.

Calculations for 10 Feet of Metal Duct Handling Air

Duct Diameter	CFM	Static Pressure Loss - WG	Duct Velocity FPM
8″ (203 mm)	390	.025″	1120
8″ (203 mm)	520	.045″	1490
8″ (203 mm)	650	.068″	1865
8″ (203 mm)	788	.097″	2260
10″ (254 mm)	400	.009″	735
10″ (254 mm)	570	.017″	1055
10″ (254 mm)	630	.021″	1155
10″ (254 mm)	760	.030″	1400
10″ (254 mm)	850	.037″	1580
10″ (254 mm)	950	.045″	1745
10″ (254 mm)	1060	.056″	1945
10″ (254 mm)	1140	.064″	2090
10″ (254 mm)	1270	.079″	2330
12″ (305 mm)	600	.008″	760
12″ (305 mm)	750	.011″	950
12″ (305 mm)	840	.015″	1125
12″ (305 mm)	900	.017″	1270
12″ (305 mm)	940	.018″	1330
12″ (305 mm)	1000	.020″	1375
12″ (305 mm)	1110	.024″	1415
12″ (305 mm)	1250	.030″	1625
12″ (305 mm)	1390	.037″	1790
12″ (305 mm)	1500	.043″	1900
12″ (305 mm)	1560	.046″	1975
12″ (305 mm)	1670	.052″	2175
12″ (305 mm)	1870	.064″	2380
14″ (357 mm)	800	.006″	750
14″ (357 mm)	1000	.009″	935
14″ (357 mm)	1200	.013″	1125
14″ (357 mm)	1430	.018″	1335
14″ (357 mm)	1710	.026″	1600
14″ (357 mm)	1900	.032″	1780
14″ (357 mm)	2380	.048″	2230
14″ (357 mm)	2140	.038″	2005
14″ (357 mm)	2380	.048″	2230
14″ (357 mm)	2570	.055″	2400
14″ (357 mm)	2860	.067″	2730
16″ (406 mm)	1000	.0048″	725
16″ (406 mm)	1200	.0067″	875
16″ (406 mm)	1400	.0080″	960
16″ (406 mm)	1600	.0120″	1175
16″ (406 mm)	1800	.0150″	1300
16″ (406 mm)	2000	.0180″	1425
16″ (406 mm)	2200	.0220″	1600
16″ (406 mm)	2400	.0250″	1750
16″ (406 mm)	2600	.0280″	1875
16″ (406 mm)	2800	.0330″	2010
16″ (406 mm)	3000	.0380″	2175
18″ (457 mm)	1800	.008″	1010
18″ (457 mm)	2000	.010″	1175
18″ (457 mm)	2200	.012″	1275
18″ (457 mm)	2400	.014″	1370
18″ (457 mm)	2600	.016″	1475
18″ (457 mm)	2800	.019″	1600
18″ (457 mm)	3000	.022″	1700
18″ (457 mm)	3200	.024″	1825
18″ (457 mm)	3500	.028″	2000
18″ (457 mm)	3500	.028″	2000

Step 2 Determine Optimum Duct Diameter

Reference corresponding chart on previous page. Based on exhaust volume selected in Step 1, the ideal duct velocity should range from 1300 to 1600 FPM, which will help to determine the proper duct diameter.

Example:

1000 CFM Based on 10 feet of duct length the Static Pressure Loss = **.020" wg** (Duct Velocity = 1375 FPM)
Duct Diameter Selected = 12"

Step 3 Calculate Total Duct Length

Total duct length will be used in determining Duct System SPL.

Length of straight duct **(D):** _____ linear feet
(Use plan drawings for reference, if necessary.)

Number of elbows **(E):** _____

Length equivalent per elbow **(F)** (per chart below): _____ linear feet

Multiply the number of elbows **(E)** by the length equivalent of elbows **(F)** for the total elbow length equivalent **(G)**.

(E) x (F) = _____ linear feet **(G)**

Add length of straight duct **(D)** to total elbow length equivalent **(G)** for total duct length **(H)**.

(D) + (G) = _____ linear feet **(H)**

Straight Duct Length Equivalent for 90º Elbows*

Duct diameter	.8"	10"	12"	14"	16"	18"	20"	24"
Linear feet	15	20	25	30	36	41	46	57

*Based on smooth inside surface and elbows with radius 1.5 times duct diameter

To calculate straight duct length equivalents for elbows with radii other than 90°, multiply the 90° equivalent from above table by the value as shown below.

Elbow Radius	Multiply 90º Equivalent By
60°	.67
45°	.50
30°	.33

Example:

Length of straight duct **(D):** 30 linear feet
Number of elbows **(E):** 3 elbows
Length equivalent per elbow **(F) =** 30 linear feet
(E) x (F) = 3 x 30 = 90 linear feet **(G)**
(D) + (G) = 30 + 90 **=120** linear feet **(H)**

Step 4 Calculate Duct Static Pressure Loss (SPL)

Divide total duct length (H) by 10 in order to use the values on the operating parameters table for 10 feet of duct.

(H) ÷ 10 = _____ **(I)**

Refer to the line in the operating parameters table that was chosen in Step 3.

Multiply 10-foot duct SPL **(C)** by duct length **(I)** for total duct SPL **(J)**

(C) x (I) = _____ inches WG **(J)**

Example:

(H) ÷ 10 = 120 ÷ 10 = 12 **10-ft lengths (I)**
(C) x **(I)** = .020 x 12 = .24 inches WG **(J)**

Step 5 Determine Total System Static Pressure Loss (SPL)

Add total Fume Hood SPL (B) to duct SPL (J) for total system SPL **(K)**.

(B) + (J) =_____ inches WG **(K)**

Example:

(B) + (J) = .18 + .24 = .42 inches WG **(K)**

Summary

Exhaust volume **(A)** = _____CFM

Total system SPL **(K)** = _____inches WG

Example:
Exhaust volume = **1000**
Total static pressure loss = **.42**

Step 6 Select a Blower

Select a blower from the next five pages with the capacity to move the system Exhaust Volume **(A)** at the Total System SPL **(K)**.

V-belt Drive Blowers are most desirable, as they can be adjusted to compensate for minor discrepancies in duct fabrication, room pressure and other building conditions that may cause deviations from anticipated fume hood face velocities.

High-pressure Blowers feature V-belt drives and backward curved fan blades that are designed for higher static pressures.

Direct-drive Blowers are the most economical, but offer no adjustment capabilities.

To select a blower model:

- Determine the preferred general operating type (V-Belt, High Pressure or Direct Drive). Turn to the appropriate product page in this catalog.
- Find the total system SPL **(K)** in the Blower Ordering Chart. (Round up to the nearest quarter inch.)
- Look vertically down the CFM column to find the total system Exhaust Volume **(A)**.
- If more than one blower model will fulfill this criteria, make a selection based on lowest motor horsepower and low RPM first, then inlet size closest to duct diameter. Ideally, the blower inlet size and duct diameter are the same. If this is not possible, choose an inlet size larger than the ductwork.
- Finally, choose a blower product number for either a 115-volt or 230-volt model. Generally, motors of 3/4 HP and up operate more cost-effectively in a 230-volt configuration.

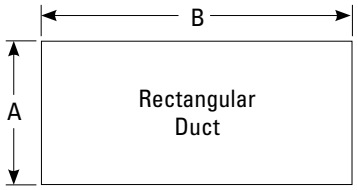
Example:

Round .42 to .5 for Static Pressure Loss & at 1000 CFM Blower Best Fit 55L769.

Rectangular-to-Round Duct Conversions

All of the calculations in this section are based on the use of round ducts. If building conditions or other circumstances dictate the use of square or rectangular ducts, use the following chart to find the round duct diameter equivalent.

Begin by finding the cross section area of the duct by multiplying height **(A)** by width **(B)**. If duct area falls between the values listed in the table, choose the closest value.



Rectangular-To-Round Duct Equivalents

Rectangular Duct Area

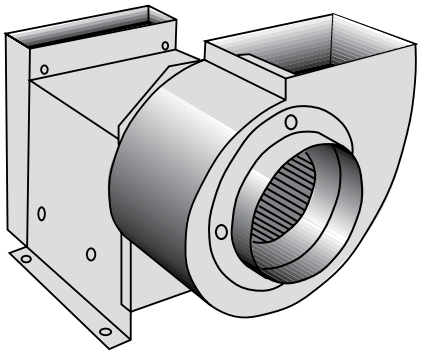
Square Inches Equivalent	Square Feet	Round Duct
50.285	.349	8″
78.540	.5454	10″
113.098	.7854	12″
153.938	1.0690	14″
254.470	1.7670	18″

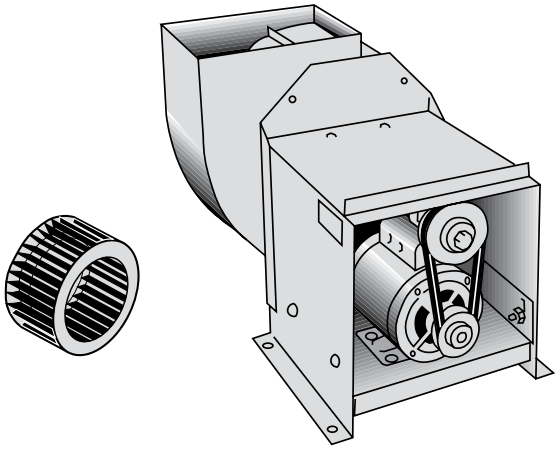
V-belt Drive Blowers

Forward Curve

- Adjustable fan speeds can compensate for variations between planned and actual duct and system characteristics.
- 115-volt or 230-volt, 60-cycle, single-phase operation; other electric specifications available upon request.
- Clockwise rotation standard. Contact factory for optional counterclockwise rotation.
- Housing constructed of steel; fan wheel constructed of aluminum.
- Housing interior and impellers coated with fume resistant finish.
- Weather housing included.

Caution: Advise factory if blower is for perchloric acid application, as it must be modified to eliminate organic material in airflow.





Product Numbers

Product No.	Motor HP	Inlet O.D.
115-Volt Blowers		
55L753	1/6	8″ (203 mm)
55L759	1/6	9″ (229 mm)
55L761	1/4	9″ (229 mm)
55L767	1/4	10″ (254 mm)
55L811	1/4	13-1/4″ (337 mm)
55L755	1/3	8″ (203 mm)
55L769	1/3	10″ (254 mm)
55L773	1/3	13-1/4″ (337 mm)
55L757	1/2	8″ (203 mm)
55L763	1/2	9″ (229 mm)
55L771	1/2	10″ (254 mm)
55L813	1/2	13-1/4″ (337 mm)
55L779	1/2	14-1/2″ (368 mm)
55L765	3/4	9″ (229 mm)
55L809	3/4	10″ (254 mm)
55L775	3/4	13-1/4″ (337 mm)
55L777	1	13-1/4″ (337 mm)
55L781	1	14-1/2″ (368 mm)
55L783	1	16-1/8″ (410 mm)
230-Volt Blowers		
55L754	1/6	8″ (203 mm)
55L760	1/6	9″ (229 mm)
55L762	1/4	9″ (229 mm)
55L768	1/4	10″ (254 mm)
55L812	1/4	13-1/4″ (337 mm)
55L756	1/3	8″ (203 mm)
55L770	1/3	10″ (254 mm)
55L774	1/3	13-1/4″ (337 mm)
55L758	1/2	8″ (203 mm)
55L764	1/2	9″ (229 mm)
55L772	1/2	10″ (254 mm)
55L814	1/2	13-1/4″ (337 mm)
55L780	1/2	14-1/2″ (368 mm)
55L766	3/4	9″ (229 mm)
55L810	3/4	10″ (254 mm)
55L776	3/4	13-1/4″ (337 mm)
55L778	1	13-1/4″ (337 mm)
55L782	1	14-1/2″ (368 mm)
55L784	1	16-1/8″ (410 mm)

Ordering information:

- Use the Exhaust Characteristics Table on page 133 to choose a specific blower model.
- Use the Total System Static Pressure Loss **(K)** as the basis of selection.
- Locate the Exhaust Volume value **(A)** for the system.
- Choose an Inlet Size that is the same or slightly larger than the ductwork.
- Choose the lowest possible horsepower.
- Choose from 115-volt or 230-volt models.

Installation information:

- Refer to Blower Roughing-in Details, pages 147.

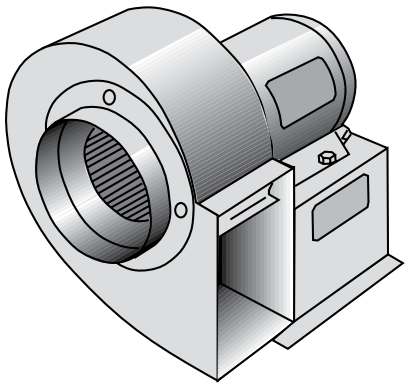
Exhaust Characteristics of V-belt Drive Utility Blower

Catalog No.		Motor	Inlet	Blower Capacity in CFM (Cubic feet per minute) Static Pressure Loss (SP)													
115 VOLT	230 VOLT	HP	O.D.	1/4" SP		1/2" SP		3/4" SP		1" SP		1-1/4" SP		1-1/2" SP		1-3/4" SP		2" SP	
				CFM	RPM	CFM	RPM	CFM	RPM	CFM	RPM	CFM	RPM	CFM	RPM	CFM	RPM	CFM	RPM
55L753	55L754	1/6	8"	503	1021	385	1081	326	1324	262	1529	–	–	–	–	–	–	–	–
				658	1210	602	1316	555	1428	496	1558	–	–	–	–	–	–	–	–
55L755	55L756	1/3	8"	770	1362	645	1362	500	1362	415	1529	400	1710	350	1873	300	2023	–	–
				859	1482	817	1568	770	1645	603	1729	510	1821	500	1923	200	2036	–	–
55L757	55L758	1/2	8"	920	1556	810	1556	680	1556	560	1556	490	1710	430	1873	450	2023	400	2163
				998	1685	962	1751	918	1819	880	1890	844	1960	812	2042	710	2124	680	2216
55L759	55L760	1/6	9"	725	817	550	842	500	1031	–	–	–	–	–	–	–	–	–	–
				819	881	761	971	690	1075	–	–	–	–	–	–	–	–	–	–
55L761	55L762	1/4	9"	824	883	655	883	600	1031	500	1192	450	1336	–	–	–	–	–	–
				949	992	905	1056	842	1144	796	1242	726	1340	–	–	–	–	–	–
55L763	55L764	1/2	9"	1141	1167	1080	1167	889	1167	842	1167	796	1331	749	1460	670	1576	600	1684
				1217	1238	1189	1272	1151	1325	1111	1389	1058	1463	1009	1535	960	1611	913	1694
55L765	55L766	3/4	9"	1123	1167	1080	1167	889	1167	842	1167	800	1331	760	1460	700	1576	630	1684
				1404	1412	1377	1433	1350	1473	1320	1520	1279	1576	1283	1638	1191	1703	1146	1765
55L767	55L768	1/4	10"	931	695	770	727	640	888	–	–	–	–	–	–	–	–	–	–
				1166	794	1060	874	975	940	–	–	–	–	–	–	–	–	–	–
55L769	55L770	1/3	10"	931	695	830	739	763	888	700	1022	–	–	–	–	–	–	–	–
				1305	860	1200	926	1113	994	1032	1059	–	–	–	–	–	–	–	–
55L771	55L772	1/2	10"	1357	883	1081	883	1050	883	950	1022	911	1144	845	1252	–	–	–	–
				1526	967	1432	1031	1348	1089	1272	1142	1208	1198	1113	1261	–	–	–	–
55L809	55L810	3/4	10"	1638	1021	1410	1021	1208	1021	1080	1021	1010	1144	950	1252	895	1208	851	1447
				1763	1090	1688	1140	168	1196	1535	1250	1472	1297	1417	1344	1346	1393	1272	1453
55L811	55L812	1/4	13-1/4"	1201	545	945	593	730	726	–	–	–	–	–	–	–	–	–	–
				1502	623	1330	677	1144	744	–	–	–	–	–	–	–	–	–	–
55L773	55L774	1/3	13-1/4"	1201	545	1030	593	1000	731	955	837	–	–	–	–	–	–	–	–
				1681	675	1522	721	1352	775	1180	844	–	–	–	–	–	–	–	–
55L813	55L814	1/2	13-1/4"	1544	629	1285	629	1201	764	1150	840	1090	937	–	–	–	–	–	–
				1966	760	1836	801	1699	844	1544	891	1395	950	–	–	–	–	–	–
55L775	55L776	3/4	13-1/4"	2049	778	1716	778	1373	778	1287	854	1205	948	1155	1025	1001	1107	–	–
				2284	858	2170	894	2045	928	1925	966	1795	1009	1673	1058	1544	1115	–	–
55L777	55L778	1	13-1/4"	2145	817	1888	817	1552	817	1544	891	1544	968	1459	1035	1459	1110	1459	1183
				2536	938	2431	970	2321	1000	2219	1035	2102	1070	1979	1107	1863	1151	1750	1207
55L779	55L780	1/2	14-1/2"	1677	594	1355	594	1177	669	1110	774	–	–	–	–	–	–	–	–
				2053	693	1918	722	1813	758	1678	804	–	–	–	–	–	–	–	–
55L781	55L782	1	14-1/2"	2366	778	2137	778	1892	778	1785	778	1711	887	1665	948	1640	1023	–	–
				2647	856	2536	881	2428	904	2346	931	2253	961	2150	998	2015	1039	–	–
55L783	55L784	1	16-1/8"	2862	594	2452	594	2050	594	2000	676	1955	740	1920	819	1895	874	–	–
				3291	668	3169	696	3018	726	2856	758	2680	796	2496	837	2320	884	–	–

Direct Drive Blowers

Basic Blower Models

- For use when CFM exhaust requirements need not be exact, and when space and budget are limited.
- Recommended for use with a balance damper. (supplied by other)
- Backward curved blades with high RPM settings.
- 115-volt or 230-volt, 60-cycle, single-phase operation; other electric specifications available.
- Low-pressure and high-pressure units available.
- Permits simplified mounting for any angle of discharge; discharge position changeable in field.
- Blower housing made of steel; fan wheel made of aluminum. Models 55L791–55L796 have steel fan wheel.
- Interior of housing and fan wheel coated with fume-resistant finish; optional coatings available.
- Optional weather housing recommended for outdoor use.



Product Numbers – Low Pressure Models

Product No.	Motor HP	RPM
115-volt blowers		
55L797	1/4	1150
55L799	1/3	1750
55L801	1/3	1150
55L803	3/4	1150
230-volt blowers		
55L800	1/3	1750
55L802	1/3	1150
55L804	3/4	1150
55L805	2	1150

Product Numbers – High Pressure Models

Product No.	Motor HP	RPM
115-volt blowers		
55L806	1	1150
230-volt blowers		
55L807	1	1750
55L808	2	1150

Ordering information:

- Use the Total System Static Pressure Loss **(K)** as the basis of selection.
- Determine if a high-pressure or low-pressure blower would best fit the application.
- Locate the Exhaust Volume value **(A)** for the system.
- Choose an Inlet Size that is the same or slightly larger than the ductwork.
- Choose the lowest possible horsepower.
- Choose from 115-volt or 230-volt models.

Installation information:

- Refer to Blower Roughing-in details.

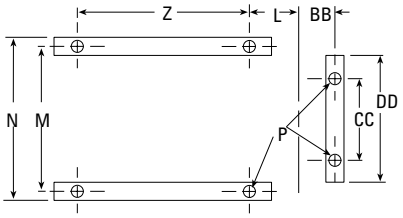
Exhaust Characteristics – Low Pressure Models

Product No.		Blower Capacity										
115 Volt	230 Volt	Motor HP	Fan RPM	Free Air CFM RPM	1/8" SP CFM RPM	1/4" SP CFM RPM	3/8" SP CFM RPM	1/2" SP CFM RPM	5/8" SP CFM RPM	3/4" SP CFM RPM	1" SP CFM RPM	1-1/4" SP CFM RPM
55L791	55L792	1/4	1750	184 1630	169 1500	144 1275	112 995	– –	– –	– –	– –	– –
55L793	55L794	1/4	1150	390 1880	330 1590	250 1205	100 480	– –	– –	– –	– –	– –
55L795	55L796	1/4	1750	595 2865	560 2700	515 2480	470 2265	420 2025	365 1760	300 1445	– –	– –
55L797	–	1/6	1150	760 2570	680 2300	620 2095	535 1810	430 1455	– –	– –	– –	– –
55L799	55L800	1/3	1750	1150 3885	1085 3665	1050 3550	1005 3400	960 3240	915 3090	865 2920	750 2535	580 1960
55L801	55L802	1/3	1150	1180 2520	1160 2480	1125 2400	1090 2325	1035 2210	963 2060	855 1825	– –	– –
55L803	55L804	3/4	1150	1260 3240	1970 3095	1870 2940	1800 2830	1710 2690	1605 2525	1500 2355	1290 2030	1020 1605
–	55L805	2	1150	3350 3900	3275 3815	3195 3725	3115 3630	3025 3530	2940 3430	2850 3320	2660 3100	2450 2855

Exhaust Characteristics – High Pressure Models

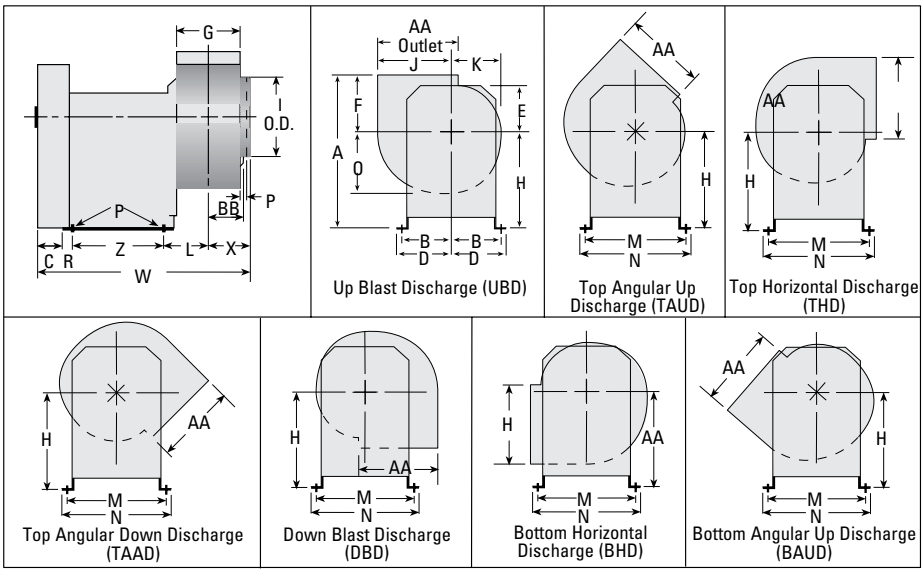
Product No.		Blower Capacity										
115 Volt	230 Volt	Motor HP	Fan RPM	Free Air CFM RPM	1/8" SP CFM RPM	1/4" SP CFM RPM	3/8" SP CFM RPM	1/2" SP CFM RPM	5/8" SP CFM RPM	3/4" SP CFM RPM	1" SP CFM RPM	1-1/4" SP CFM RPM
55L806	55L807	1	1750	1720 3670	1675 3580	1620 3460	1550 3310	1445 3085	1290 2755	1100 2345	– –	– –
–	55L808	2	1750	2910 4510	2800 4380	2680 4150	2550 3900	2415 3795	2240 3520	2130 3345	1990 3130	1850 2910

For V-belt Drive Blowers



Foundation Plan

Support bracket required on blowers with 13-1/4" O.D. inlet and larger.



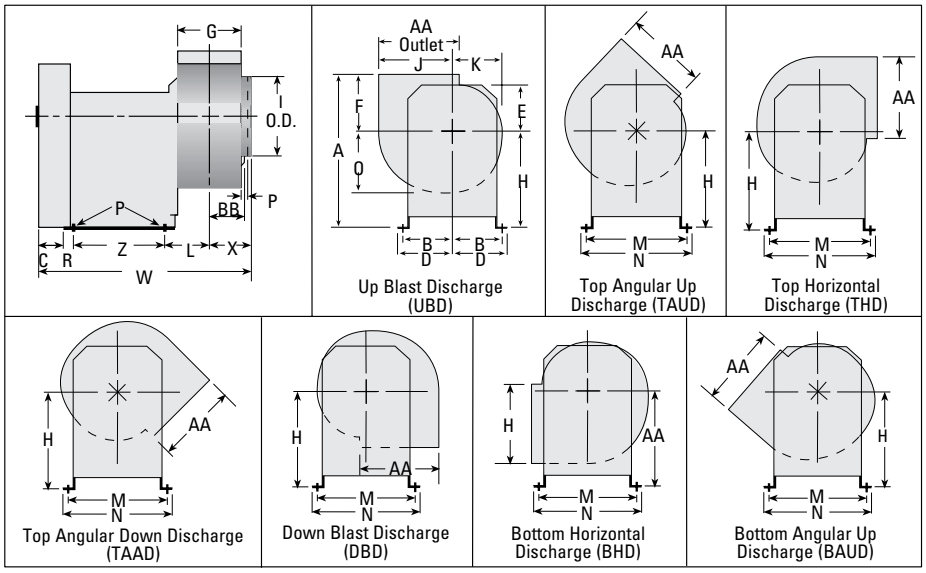
V-Belt Drive Blowers viewed from "Drive" Side

	Blower Product No.					
Diameter	55L753 thru 55L758	55L767 thru 55L772 55L759 thru 55L766	55L773 thru 55L778 55L809 and 55L810	55L811 thru 55L814	55L779 thru 55L782	55L783 and 55L784
A	20-7/8"	21-1/8"	22-1/8"	27-1/2"	28-3/8"	29-3/4"
B	5-5/8"	6-1/4"	7-1/4"	8-3/4"	9-3/4"	10-5/16"
C	3"	3"	3"	3"	3"	3"
D	6-7/16"	7"	7-13/16"	9-1/2"	10-1/2"	11-1/16"
E	4-5/8"	5-5/8"	6-3/4"	8-1/2"	9-3/8"	10-3/8"
F	6-7/8"	7-1/8"	8-1/8"	10-1/2"	11-3/8"	12-3/8"
G	5-3/8"	6-1/2"	8"	9-5/8"	10-3/4"	11-3/4"
H	14"	14"	14"	17"	17"	17-3/8"
I	8"	9"	10"	13-1/4"	14-1/2"	16-1/8"
J	7-7/8"	9-3/16"	10-11/16"	13-1/4"	14-3/8"	16-1/4"
K	6"	6-3/4"	7-7/8"	10-1/8"	11-1/8"	12-3/8"
L	4-3/16"	4-3/16"	5-19/32"	6-15/32"	6-15/16"	7-7/16"
M	11-1/4"	12-1/2"	14-1/2"	17-1/2"	19-1/2"	20-5/8"
N	12-7/8"	14"	15-5/8"	19"	21"	22-1/8"
O	6-3/4"	7-3/4"	9-1/8"	11-1/2"	12-5/8"	14-1/8"
P	9/16"	9/16"	9/16"	9/16"	9/16"	9/16"
R	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
W	23-7/16"	24-5/8"	26-7/32"	28-11/32"	29-7/16"	30-7/16"
Z	11"	11"	11"	11"	11"	11"
AA	8-1/4"	10-3/4"	11-3/4"	13-1/4"	14-3/8"	16-1/4"
BB	–	–	–	5-5/8"	6-3/16"	16-11/16"
CC	–	–	–	14-3/4"	16"	17-5/8"
DD	–	–	–	16-3/8"	17-5/8"	19-1/4"

Dimensions shown are nominal. Some variations may occur in manufacturing and installation.

For High Pressure Blowers

- Support bracket required on blowers with 13-1/4" O.D. inlet and larger.
- Inlet and outlet designed for slip connections.



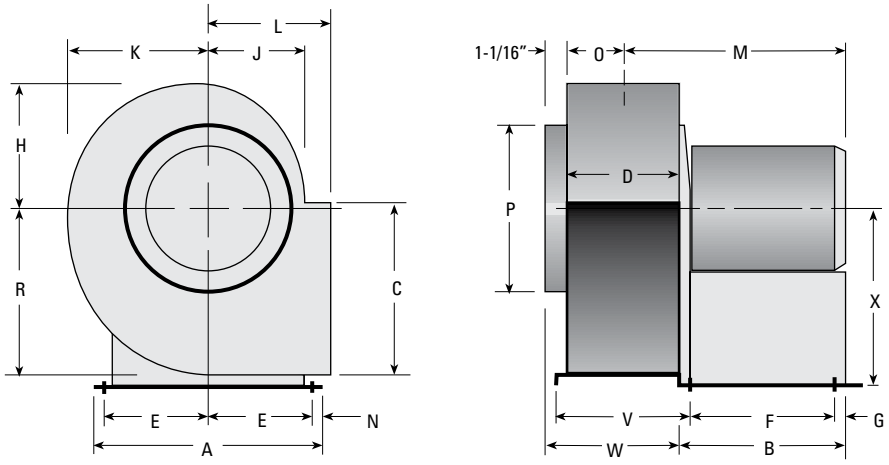
High-pressure Blowers viewed from "Drive" Side

	Blower Product No.			
Diameter	55L785 and 55L786	55L787 and 55L788	55L789	55L790
A	22-1/16"	27-1/2"	28-3/8"	29-3/4"
B	7-1/4"	8-3/4"	9-3/4"	10-5/16"
C	3"	3"	3"	3"
D	7-13/16"	9-1/2"	10-1/2"	11-11/16"
E	6-11/16"	8-1/2"	9-3/8"	10-3/8"
F	8-1/16"	10-1/2"	11-3/8"	12-3/8"
G	8"	9-5/8"	10-3/4"	11-3/4"
H	14"	17"	17"	17-3/8"
I	10"	13-1/4"	14-1/2"	16-1/8"
J	10-3/4"	13-1/4"	14-3/8"	16-1/4"
K	7-7/8"	10-1/8"	11-1/8"	12-3/8"
L	5-19/32"	6-15/32"	6-15/16"	7-7/16"
M	14-1/2"	17-1/2"	19-1/2"	20-5/8"
N	15-5/8"	19"	21"	22-1/8"
O	9-1/8"	11-1/2"	12-5/8"	14-1/8"
P	9/16"	9/16"	9/16"	9/16"
R	1-1/2"	1-1/2"	1-1/2"	1-1/2"
W	26-7/32"	28-11/32"	29-7/16"	30-3/8"
X	5-1/8"	6-3/8"	7"	7-1/16"
Z	11"	11"	11"	11"
AA	11-3/4"	13-1/4"	14-3/8"	16-1/4"
BB	–	5-5/8"	6-3/16"	6-1/16"

Dimensions shown are nominal. Some variations may occur in manufacturing and installation.

For Direct-drive Blowers

- Housing permits simplified mounting for angle of discharge.
- Discharge position can be easily changed in the field.



Direct-drive Blowers

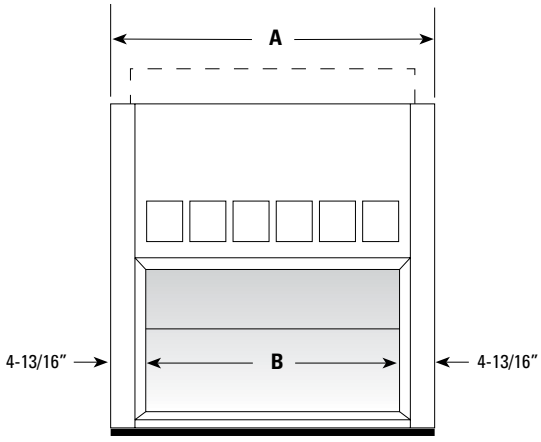
	Blower Product No.					
	55L791 and 55L792	55L793 thru 55L796	55L797 thru 55L799	55L801 and 55L802 55L806 and 55L807	55L803 and 55L804 55L808	55L805
	Wheel					
Diameter	4-1/2" x 2-1/2"	6" x 3"	7-5/8" x 3-5/8	9" x 4-1/4"	10-5/8" x 5-1/4"	12-1/4" x 6-1/2"
A	8-3/8"	9-3/8"	11"	12-1/8"	14-3/4"	16-3/8"
B	7"	8"	8"	8"	11-1/2"	13"
C	5-1/8"	7-3/8"	8-1/4"	10-3/4"	11-3/4"	13-1/4"
D	3-3/8"	4-1/4"	5-3/8"	6-1/2"	8"	9-5/8"
E	3-3/4"	4-1/4"	5"	5-3/8"	6-7/8"	7-3/8"
F	6"	7"	7"	7"	10"	9-3/4"
G	1/2"	1/2"	1/2"	1/2"	3/4"	2-1/2"
H	3-1/2"	5"	6"	6-3/4"	8"	10-1/8"
J	3-1/8"	4"	4-5/8"	5-3/8"	6-3/4"	8-1/2"
K	3-3/4"	6"	6-3/4"	7-3/4"	9-1/8"	11-1/2"
L	4-1/8"	5"	6-7/8"	7-1/8"	8-1/8"	10-1/2"
M*	9-7/8"	10-7/8"	10-7/8"	16-1/8"	16-1/2"	–
N	3/8"	3/8"	3/8"	3/8"	3/8"	3/16"
O	2-3/4"	3-1/4"	3-3/4"	4-3/8"	5"	6-1/2"
P	5"	6"	8"	9"	10"	13-1/4"
R	4-5/8"	7-1/8"	8"	9-1/4"	10-3/4"	13-1/4"
V	–	–	–	–	–	11-1/4"
W	–	–	–	–	–	11-1/4"
X	8-1/2"	8-1/2"	8-1/2"	9-7/8"	11-1/4"	17"

*Varies with motor.

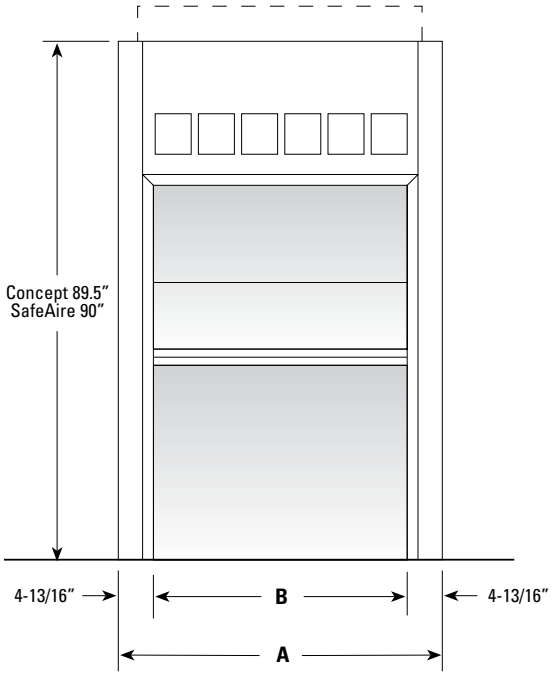
Dimensions shown are nominal. Some variations may occur in manufacturing and installation.

Typical Front Views

Unless otherwise noted these dimensions apply to all SafeAire II, Advantage, Infinity, Concept and Pioneer fume hoods.



Superstructures

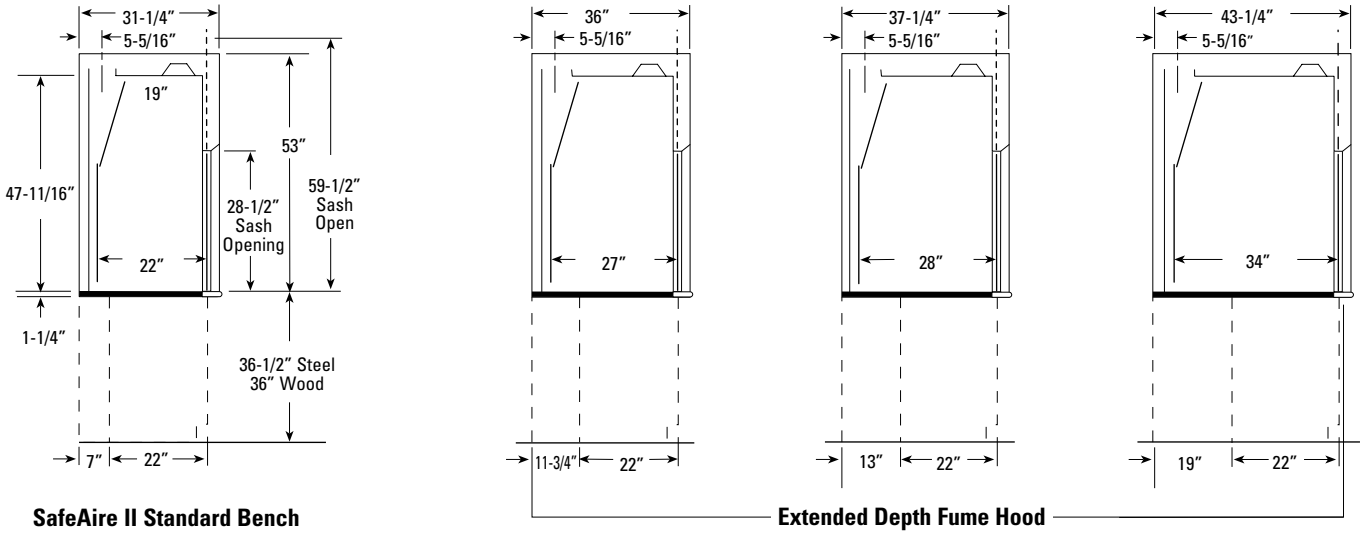


Floor-mounted

Fume Hood Width	Superstructure A	Superstructure B	High-line Superstructure A	High-line Superstructure B	Floor-mounted A	Floor-mounted B
36″ (914 mm)	36″ (914 mm)	26-3/8″ (670 mm)	36″ (914 mm)	26-3/8″ (670 mm)	36″ (914 mm)	26-3/8″ (670 mm)
48″ (1219 mm)	48″ (1219 mm)	38-3/8″ (975 mm)	48″ (1219 mm)	38-3/8″ (975 mm)	48″ (1219 mm)	38-3/8″ (975 mm)
60″ (1524 mm)	60″ (1524 mm)	50-3/8″ (1279 mm)	60″ (1524 mm)	50-3/8″ (1279 mm)	60″ (1524 mm)	50-3/8″ (1279 mm)
72″ (1829 mm)	72″ (1829 mm)	62-3/8″ (1584 mm)	72″ (1829 mm)	62-3/8″ (1584 mm)	72″ (1829 mm)	62-3/8″ (1584 mm)
84″ (2134 mm)	84″ (2134 mm)	74-3/8″ (1889 mm)	84″ (2134 mm)	74-3/8″ (1889 mm)	84″ (2134 mm)	74-3/8″ (1889 mm)
96″ (2438 mm)	96″ (2438 mm)	86-3/8″ (2194 mm)	96″ (2438 mm)	86-3/8″ (2194 mm)	96″ (2438 mm)	86-3/8″ (2194 mm)
120″ (3048 mm)	120″ (3048 mm)	111-5/8″ (2835 mm)	—	—	—	—
144″ (3658 mm)	144″ (3658 mm)	135-5/8″ (3445 mm)	—	—	—	—

Typical End Views

These dimensions apply to general-purpose and special-purpose fume hood unless otherwise noted on specific fume hood catalog page.

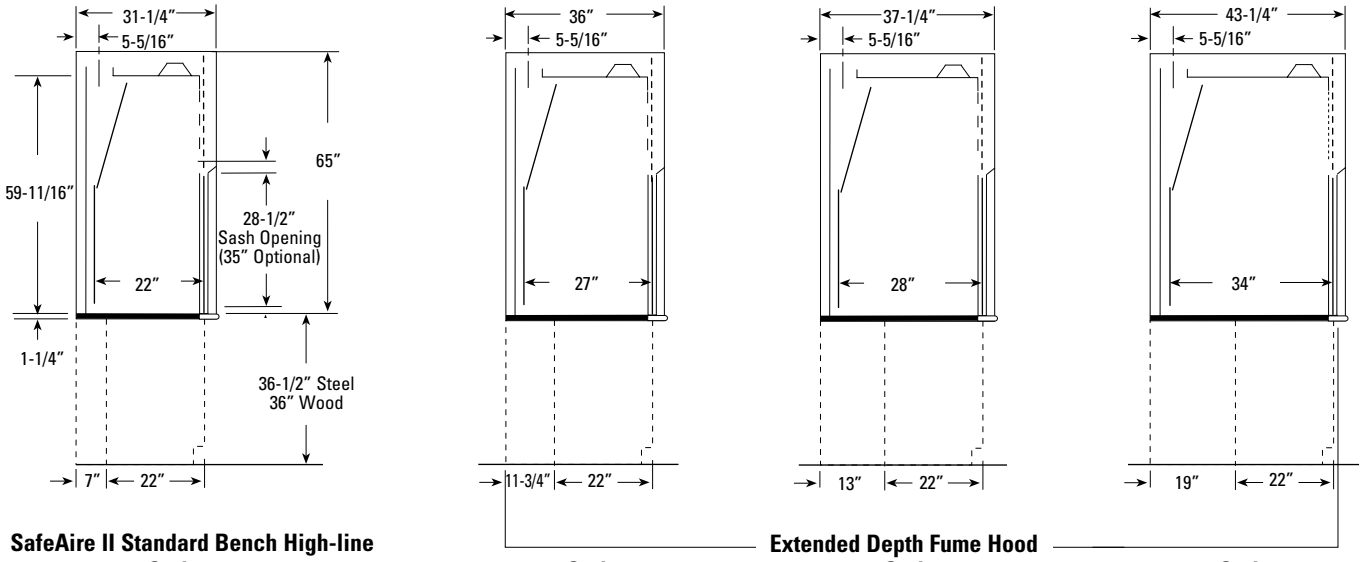


SafeAire II Standard Bench
54-Series

60-Series

Extended Depth Fume Hood
61-Series

62-Series

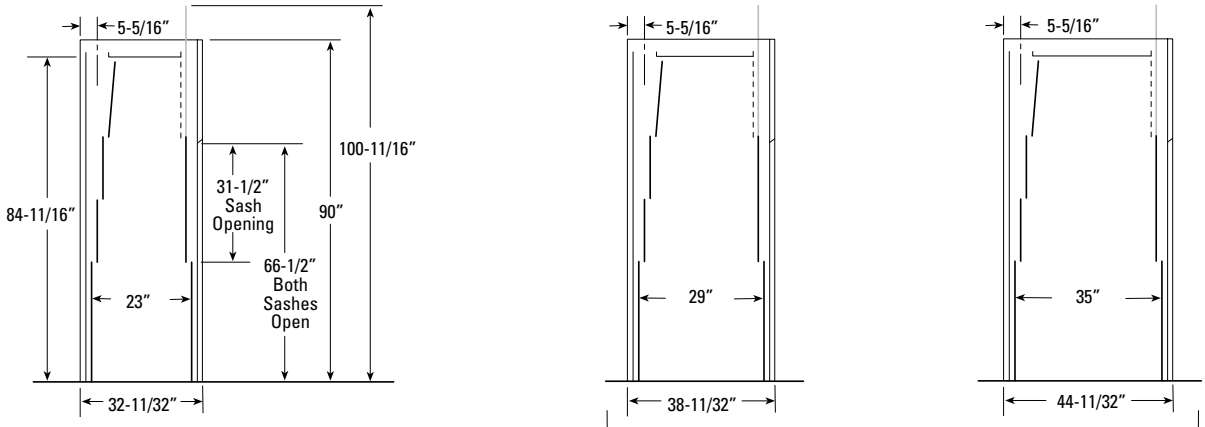


SafeAire II Standard Bench High-line
54-Series

60-Series

Extended Depth Fume Hood
61-Series

62-Series



SafeAire Floor-mounted
554-Series

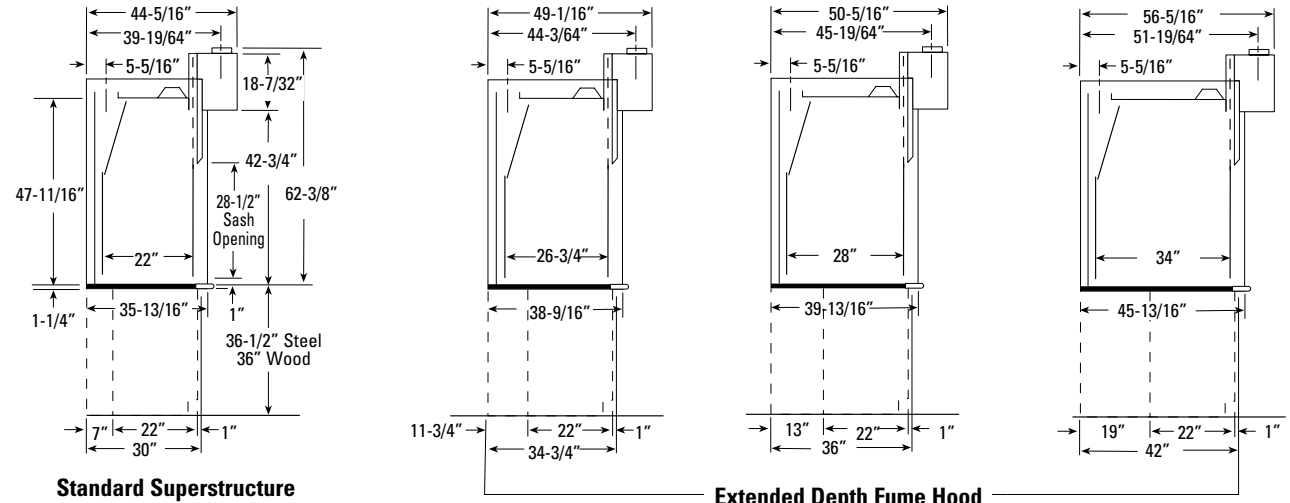
Extended Depth Fume Hood

551-Series

552-Series

SafeAire II Auxiliary Air Typical End Views

These dimensions apply to general-purpose and special-purpose fume hood unless otherwise noted on specific fume hood catalog page.

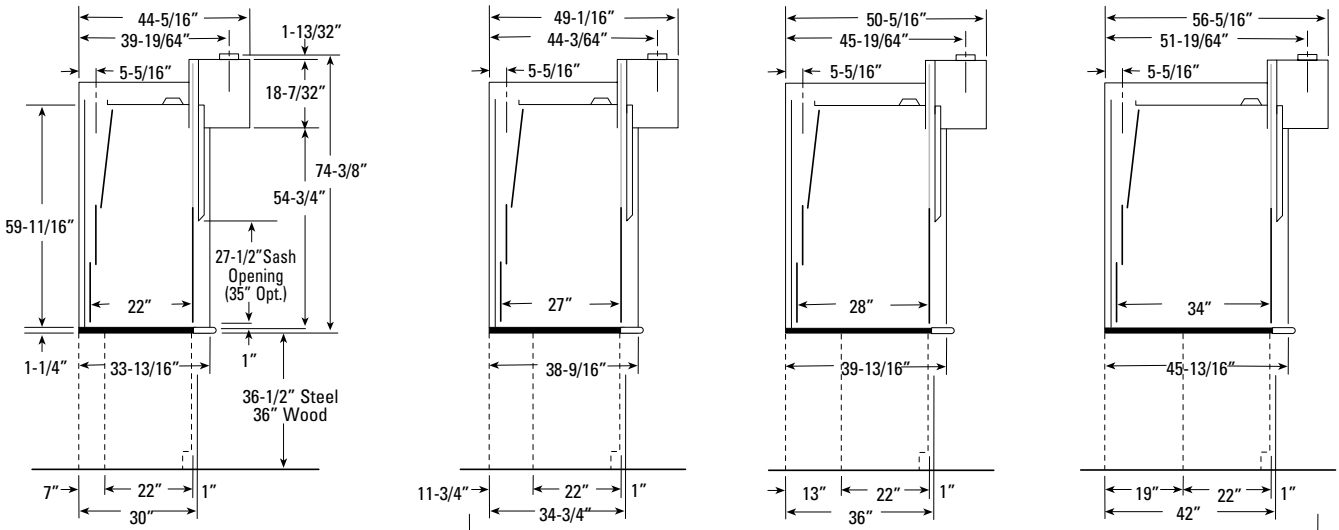


Standard Superstructure
54-Series

60-Series

Extended Depth Fume Hood
61-Series

62-Series

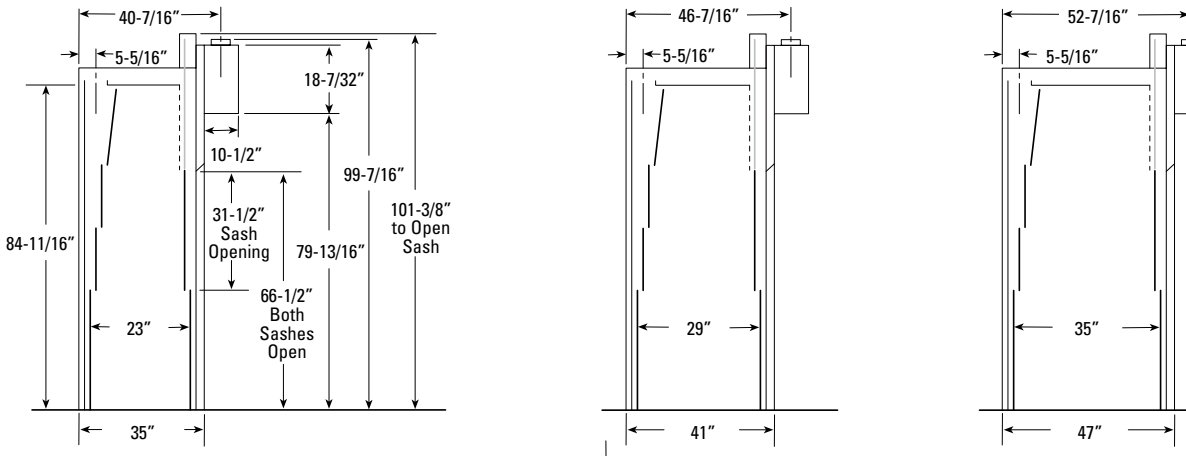


Standard High-line Superstructure
54-Series

60-Series

Extended Depth Fume Hood
61-Series

62-Series



Floor-mounted
554-Series

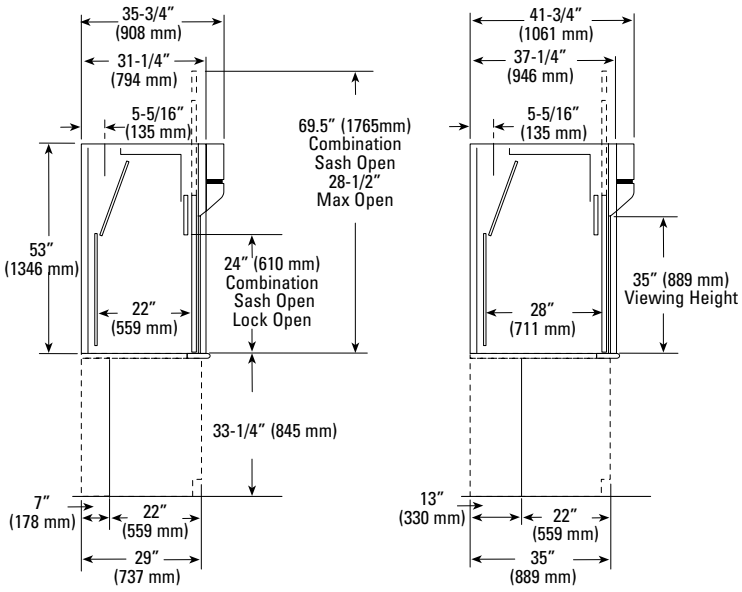
Extended Depth Fume Hood

551-Series

552-Series

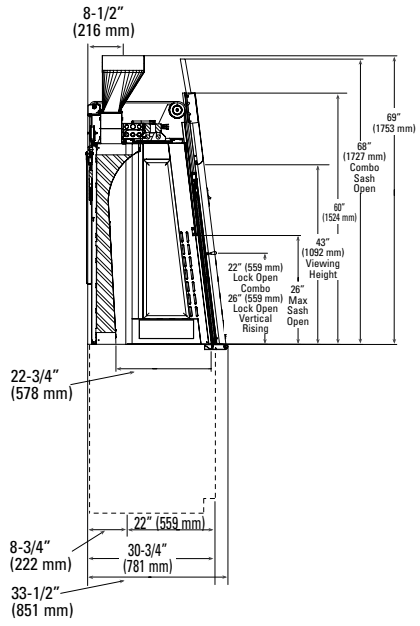
Typical End Views

These dimensions apply to general-purpose and special-purpose fume hood unless otherwise noted on specific fume hood catalog page.

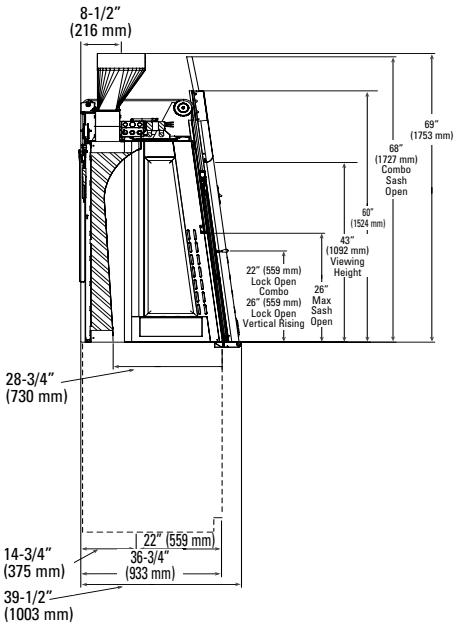


Concept ADA Fume Hood Assemblies

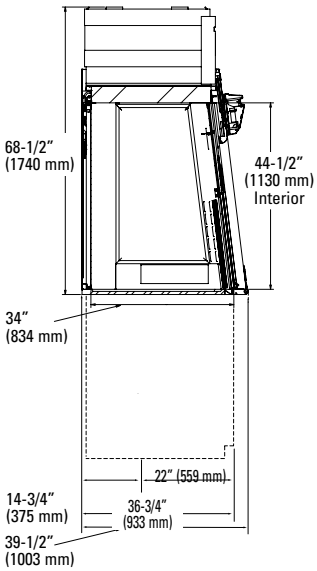
54-Series **61-Series**



Advantage Hood Side View
56-Series

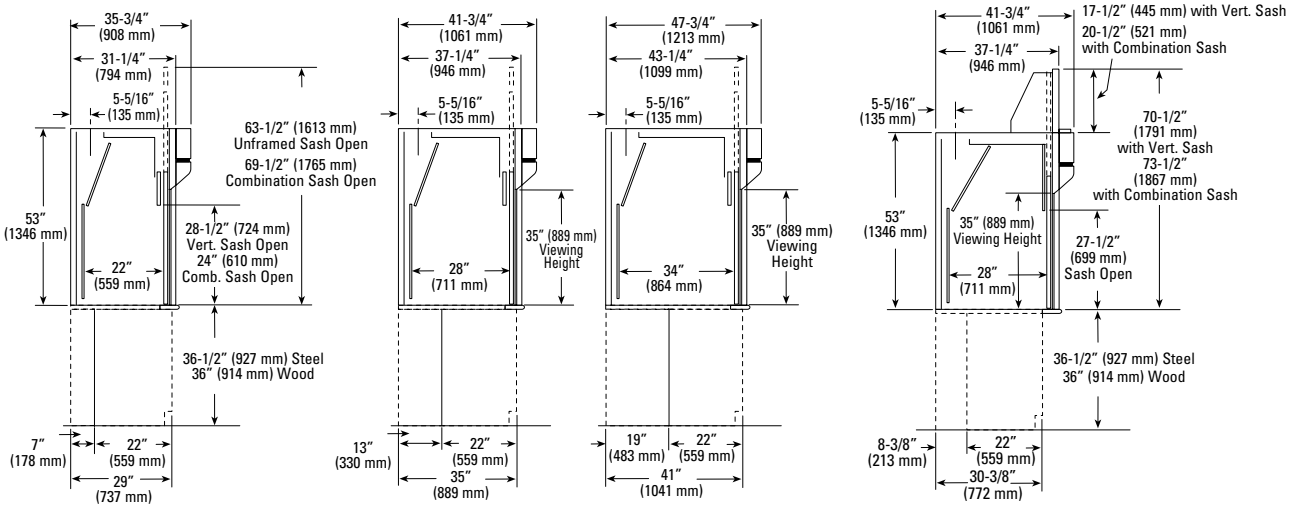


Advantage Hood Side View
59-Series



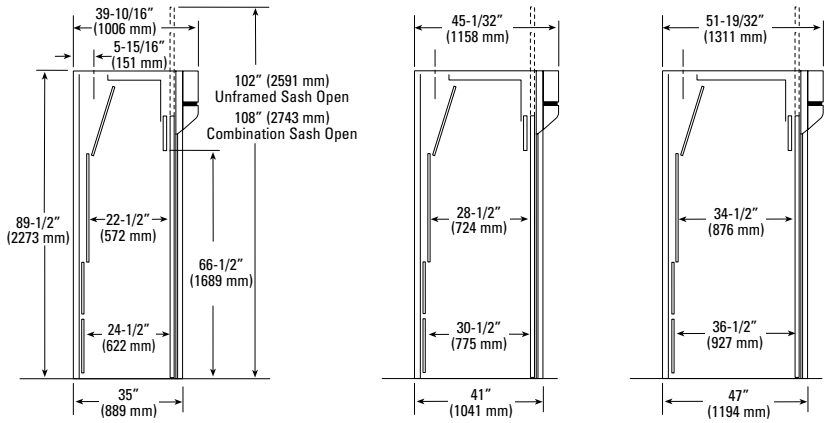
Infinity Hood Side View
59-Series

Concept Typical End Views



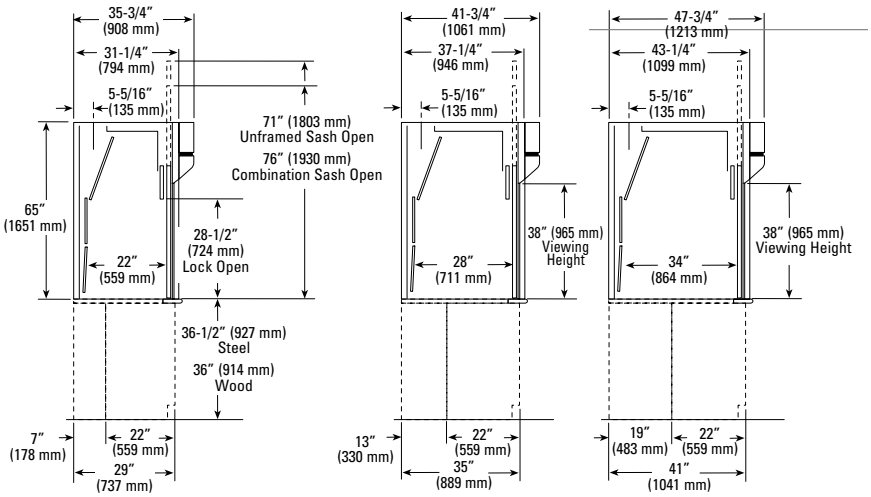
Concept Fume Hood Assemblies

54-Series **61-Series** **62-Series** **Pioneer Fume Hood Assemblies** **61-Series**



Concept Floor-mounted Fume Hood Assemblies

554-Series **551-Series** **552-Series**



Concept Hi-line Fume Hood Assemblies

54-Series **61-Series** **62-Series**

For Pre-piped Fume Hood

General information:

- Fume hood service line connections for water, waste, gas, air and vacuum will vary, depending on the point of origin and number of services provided.
- Services may be brought up from below, through the floor, or down from the ceiling through the fume hood wall.
- Any other method of supplying services may require special scribing or installation procedures

Product information:

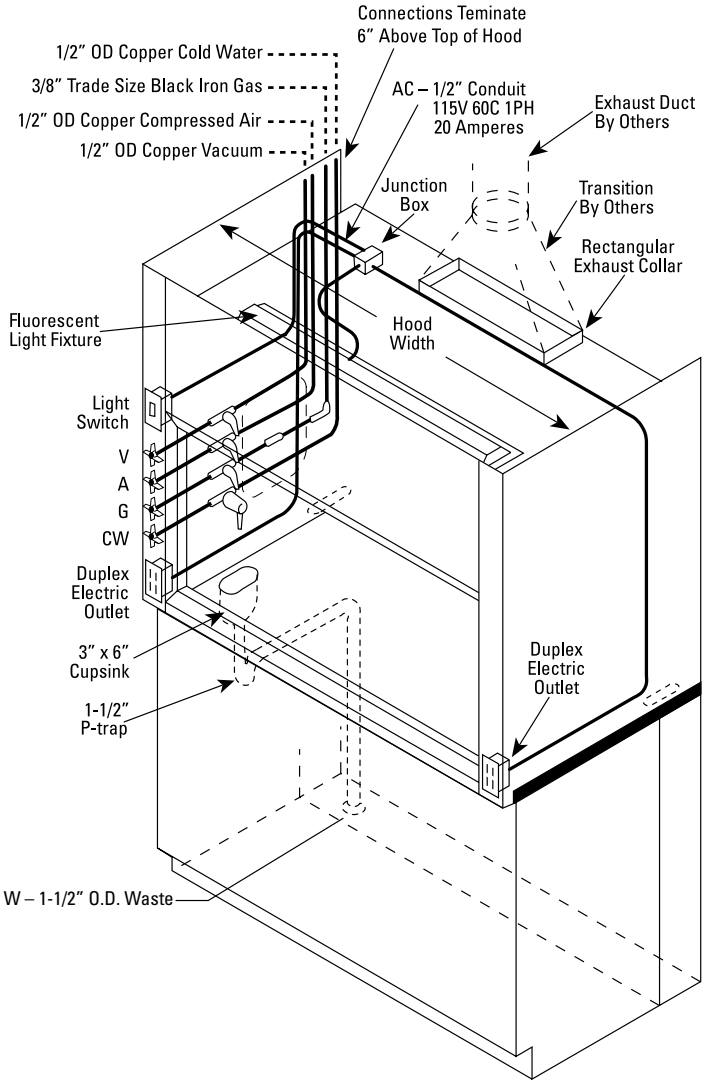
- Pre-piped fume hood include plumbing to elbow or to bottom or top of fume hood as specified.
- Material selections are as follows:

  Water pipe – copper
  Air pipe – copper (standard); black iron (optional)
  Gas pipe – black Iron
  Vacuum pipe – copper (standard); black iron (optional)

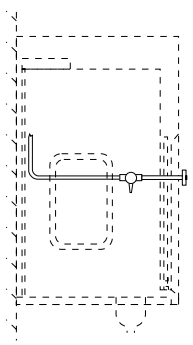
Installation information:

- Piping and connectors required for final connection to building lines are not furnished.
- Because of code requirements and variable building conditions, connection components should be furnished by appropriate contractor.
- Refer to roughing-in details for the specific type of fume hood for location of service outlets.

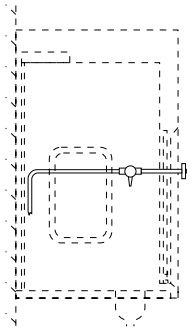
Typical Layout
Pre-piped and pre-wired fume hood installation,
Show in roughed-in from above.



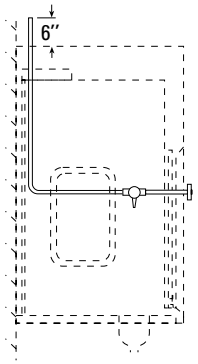
Standard Configurations – The four pre-piped configurations below are available with standard pricing and lead times



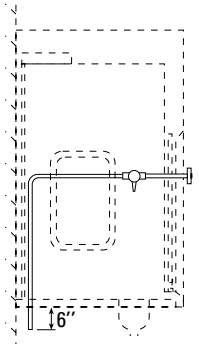
Piped to Turned-up Elbow



Piped to Turned-down Elbow



Piped to Top of Fume Hood



Piped to Bottom of Fume Hood

Note: For shipping purposes piping risers are turned up; they must be turned down when fume hood is installed.

For Pre-wired Fume Hood

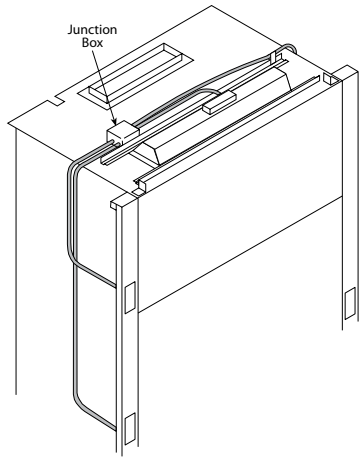
Product information:

- Pre-wired electrical service connections are available as an option and must be ordered separately.
- All electrical services in fume hood post are pre-wired to a single junction box on top of fume hood.
- All electrical services for items included in base cabinet(s) must be ordered separately.
  (e.g. VARIACS.)
- Contact your Hamilton Scientific representative for pricing and delivery information.

Installation information:

- Fume Hood ordered with pre-wired option will have all electrical services in fume hood post pre-wired to a single junction box on top of the fume hood.

Pre-wired Fume Hood



Factory Pre-wiring of Standard Fume Hood

Used as a pre-wire line for the standard set of electrical devices on any standard fume hood superstructure. One line is required for each device. In addition, it may be used to pre-wire one (1) additional standard, cataloged, 36L series product on each fume hood corner post. Please note that two-gang devices are not included, as these items will not fit in a standard fume hood corner post.

This product number does not represent a product that can be ordered by itself. The product should be used in conjunction with a fume hood superstructure ordered with a fixture location sheet.

Standard attached fume hood safety monitors do not require a pre-wire line.

Product No.
54L79900

For Bench Fume Hood

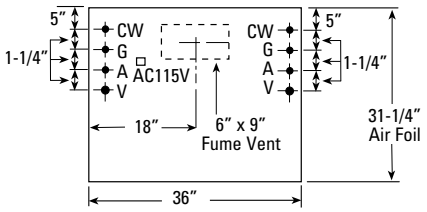
Dimensions – all bench fume hood except auxiliary air:

- Top of exhaust vent: Bench Hood
  88-1/4″ (2242 mm) above finished floor with steel base.
  87-3/4″ (2229 mm) above finished floor with wood base.
- Top of exhaust vent: Bench High-line Hood
  100-1/4″ (2546 mm) above finished floor with steel base.
  99-3/4″ (2534 mm) above finished floor with wood base.
- Duct connection must overlap vent by maximum of 1-1/4″ (32 mm). (See page 125 for Duct Transition.)
- Top of supply inlet: 98-15/16″ (2513 mm) above finished floor with steel base. 98-7/16″ (2500 mm) above finished floor with wood base.
- Duct connection must overlap inlet by maximum of 1-7/8″ (48 mm).

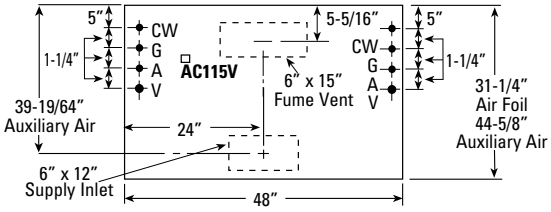
Symbols:

CW – Cold Water
HW – Hot Water
G – Gas
A – Compressed Air
V – Vacuum
W – Waste
AC – 115 or 230 Volt

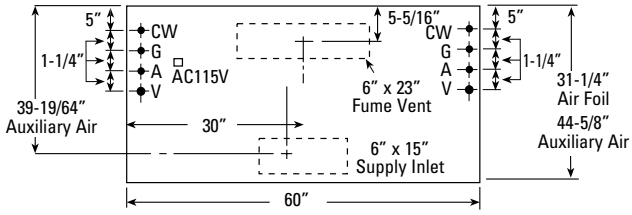
Dimensions – bench auxiliary air fume hood only:



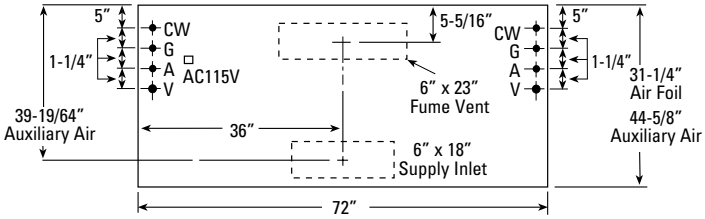
36″ Wide Bench Fume Hood



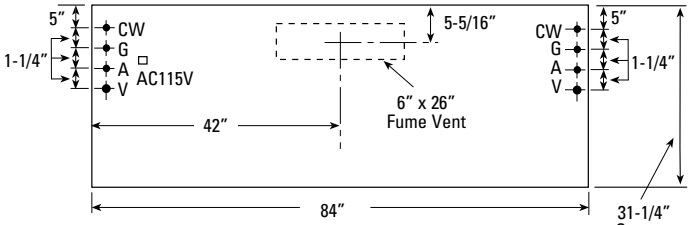
48″ Wide Bench Fume Hood



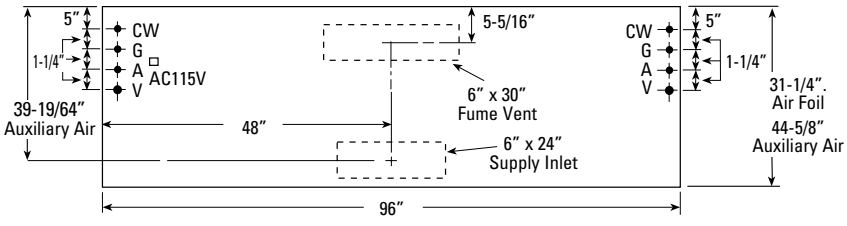
60″ Wide Bench Fume Hood



72″ Wide Bench Fume Hood



84″ Wide Bench Fume Hood
Concept and Pioneer Only



96″ Wide Bench Fume Hood

- Optional depth fume hood – add either 4.75″, 6.00″ or 12.00″ to overall depth dimension.
- See page 147 for details relating to rough-in from above fume hood.

For Floor-mounted Fume Hood

Dimensions – all floor-mounted fume hood except auxiliary air:

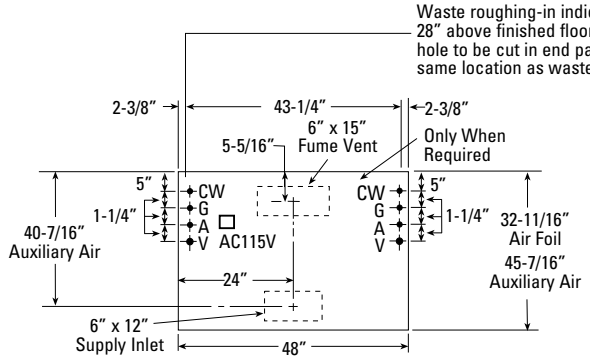
- Top of exhaust vent is 88-7/16" (2246 mm) above finished floor (87-15/16" [2237mm] for Concept).
- Duct connection must overlap vent by maximum of 1-1/4" (32 mm). (See page 125 for Duct Transition.)

Dimensions – Floor-mounted auxiliary air fume hood only:

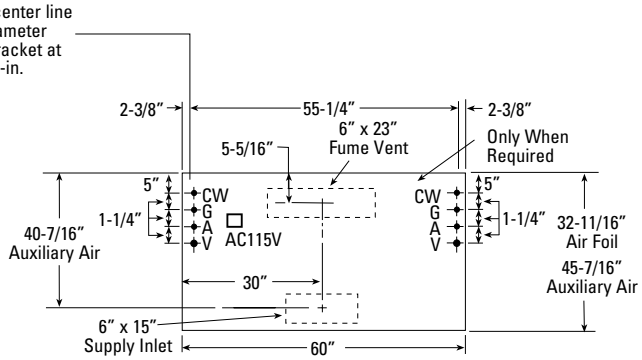
- Top of supply inlet 99-7/16" (2526 mm) above finished floor.
- Duct connection must overlap inlet by maximum of 1-7/8" (48 mm).

Symbols:

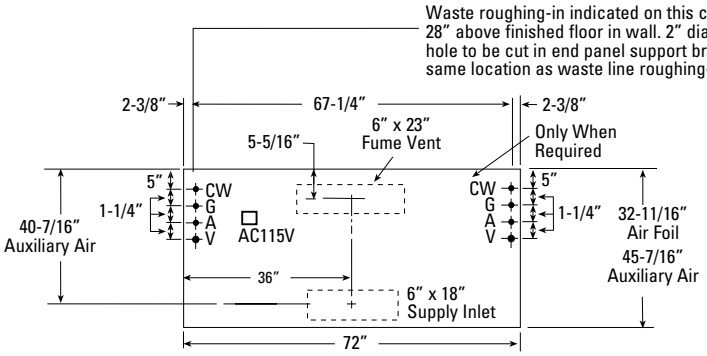
CW – Cold Water
HW – Hot Water
G – Gas
A – Compressed Air
V – Vacuum
W – Waste
AC – 115 or 230 Volt



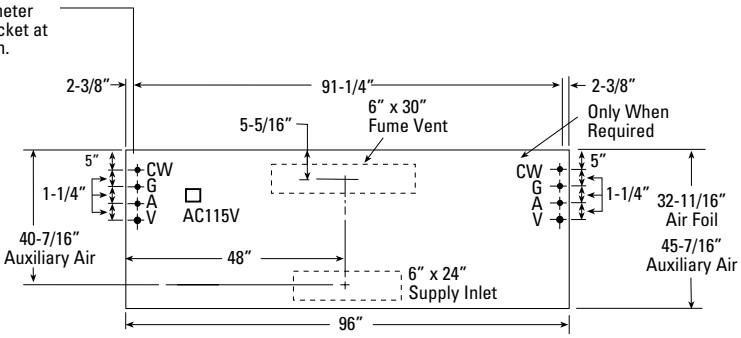
48" Wide Floor-mounted Fume Hood



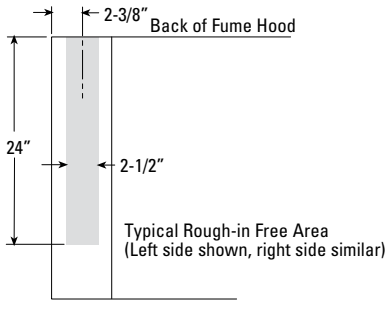
60" Wide Floor-mounted Fume Hood



72" Wide Floor-mounted Fume Hood



96" Wide Floor-mounted Fume Hood



- Optional depth Fume Hood – add either 6" or 12" to overall depth dimension.
- Waste on Concept Fume Hood is located on the floor in either sideport – or 9" off the floor if routed to the back.

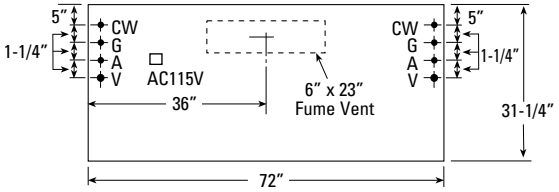
For Postless Sash Fume Hood

Dimensions – all postless sash fume hood:

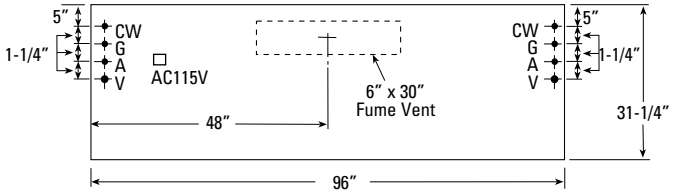
- Top of exhaust vent:
  88-1/4" (2242 mm) above finished floor with steel base.
  87-3/4" (2229 mm) above finished floor with wood base.
- Duct connection must overlap inlet by maximum of 1-1/4" (32 mm).
- Suggested roughing-in dimensions are from floor.

Symbols:

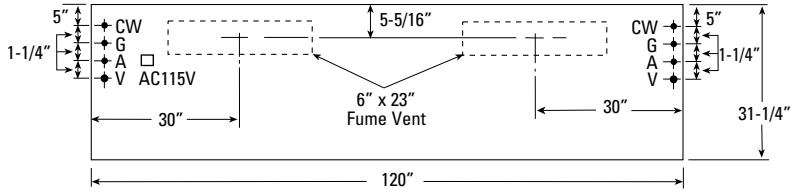
CW – Cold Water
HW – Hot Water
G – Gas
A – Compressed Air
V – Vacuum
W – Waste
AC – 115 or 230 Volt



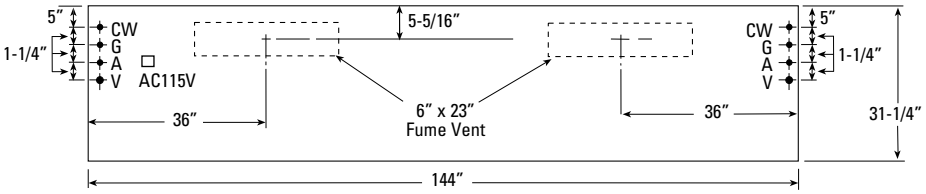
72" Wide Postless Sash Fume Hood



96" Wide Postless Sash Fume Hood



120" Wide Postless Sash Fume Hood



144" Wide Postless Sash Fume Hood

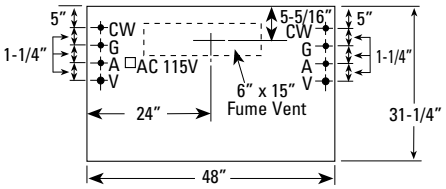
Dimensions – all radioisotope and perchloric acid fume hood:

- Top of exhaust vent: Bench Fume Hood
  88-1/4" (2242 mm) above finished floor with steel base.
  87-3/4" (2229 mm) above finished floor with wood base.
- Top of exhaust vent: Bench High-line Fume Hood
  100-1/4" (2546 mm) above finished floor with steel base.
  99-3/4" (2534 mm) above finished floor with wood base.
- Duct connection must overlap vent by maximum of 1-1/4" (32 mm). (See page 125 for Duct Transition.)
- Suggested roughing-in dimensions are from floor.

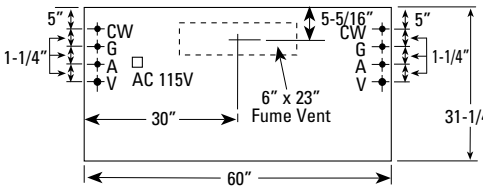
Symbols:

CW – Cold Water
HW – Hot Water
G – Gas
A – Compressed Air
V – Vacuum
W – Waste
AC – 115 or 230 Volt

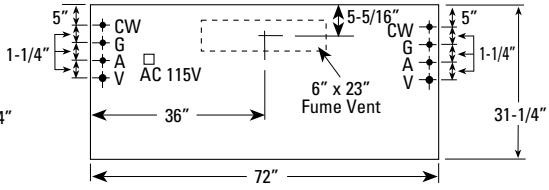
For Radioisotope Fume Hood



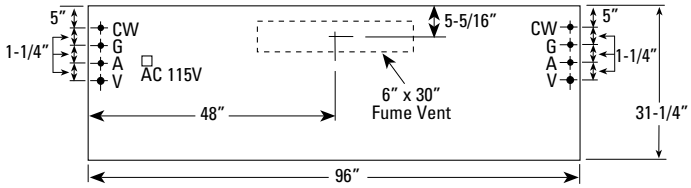
48" Wide Radioisotope Fume Hood



60" Wide Radioisotope Fume Hood

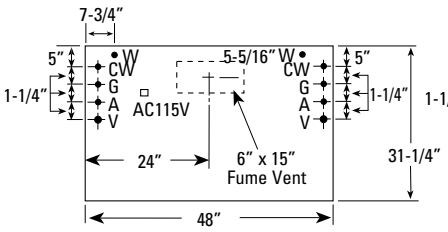


72" Wide Radioisotope Fume Hood

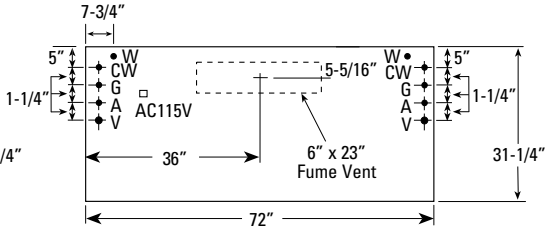


96" Wide Radioisotope Fume Hood

For Perchloric Acid Fume Hood

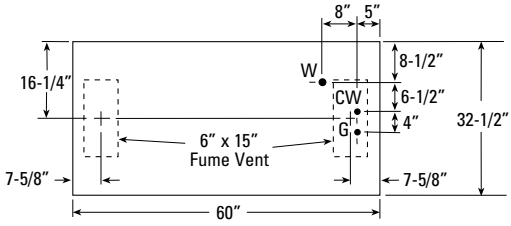


48" Wide Perchloric Acid Fume Hood



72" Wide Perchloric Acid Fume Hood

For Pass Through/Demonstration Fume Hood



60" Wide Pass-through/Demonstration Fume Hood

Hamilton Scientific Fume Hood Products

Dimensions – Advantage:

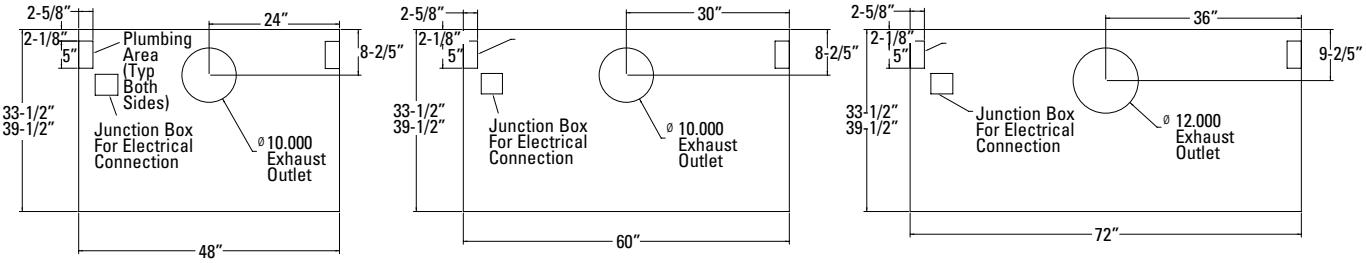
- Top of exhaust vent: Advantage Fume Hood 95" (2413 mm) above finished floor with 36" (914 mm) high base cabinet.
- Duct connection must overlap vent by maximum of 1-1/4" (32 mm). (See page 125 for Duct Transition.)
- Rectangular to round transition included

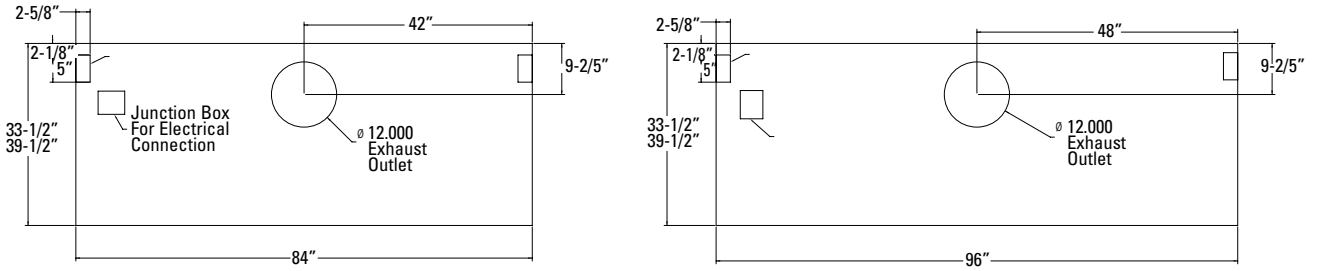
Symbols:

CW – Cold Water
HW – Hot Water
G – Gas
A – Compressed Air
V – Vacuum
W – Waste
AC – 115 or 230 Volt

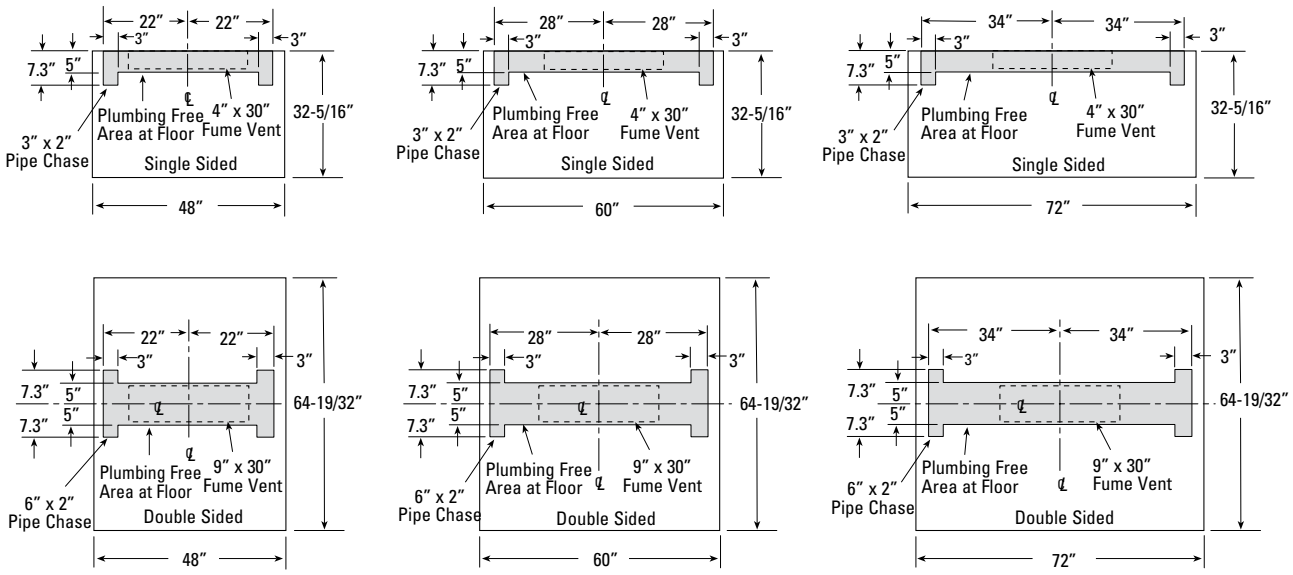
Fixture information for Advantage Fume Hood:

- Four fixtures per post maximum
- Use 1/4" soft copper lines only – black iron and steam lines will not fit





Horizon Fume Hood



Example of Specification for SafeAire and SafeAire II

Part 1 – General

1.01 Fume Hood General Design Requirements

A. Negative variations of face velocity shall not exceed 20% of the average face velocity.

B. Average illumination of work area: Minimum 80 foot candles.

C. Fume hood shall be designed to minimize static pressure loss with adequate slot area and rectangular exhaust collar configuration. Maximum static pressure loss readings shall not exceed the following maximum with sash in full open position:
Measured S.P.L. (w.g.): .30 inches

D. Maximum variation in exhaust CFM, static pressure and average face velocity as a result of baffle adjustment shall not exceed 5% for any baffle position.

E. Noise Criteria: Test data of octave band analysis verifying fume hood is capable of a 50 NC value when connected to a 50 NC HVAC source. Reading taken 3' in front of open sash at 100 FPM face velocity. Submit test report.

F. Fume Hood must be UL 1805 labeled.

1.02 Linear Surface Finish Performance Requirements

(At specifier's option, insert applicable performance requirements for type C, E, R, P or S liners.)

1.03 Submittals

A. Test reports: Submit test reports on each size and type of fume hood verifying conformance to test performance specified.

1.04 Quality Assurance

A. Single source responsibility: Fume hood casework, work surfaces, and other laboratory equipment and accessories shall be manufactured or furnished by a single laboratory furniture company.

1. Five years or more experience in manufacture of laboratory fume hood and equipment of type specified.
2. UL 1805 labeled fume hood.

Part 2 – Products

2.01 Manufacturer

A. Casework and equipment manufacturer:
Hamilton Scientific L.L.C., 1716 Lawrence Drive, STE 1 De Pere, WI 54115

2.02 Fume Hood Materials

A. Steel: High quality, cold rolled steel meeting requirements of ASTM A1008.

B. Stainless Steel: Type 304.

C. Ceiling enclosure panels: Minimum 18 gauge steel, upward directional louvers.

D. Safety glass: 7/32" (6 mm) thick laminated safety glass.

E. Sash cables: Stainless steel, uncoated, 1/8" diameter military spec. quality (MIL-DTL-83420).

F. Sash guides: Corrosion-resistant poly-vinyl chloride.

G. Pulley assembly for sash cable: 2" diameter, zinc dichromate finish, ball bearing type, with cable retaining device. (Nylon tire not acceptable.)

H. Sash Pull: Full width corrosion-resistant, stainless steel or steel with chemical-resistant powdercoating.

I. Gaskets: 70 durometer PVC for interior access panels. Gasket interior access panels to eliminate air leakage and to retain liquids inside fume hood.

J. Fasteners:

1. Interior fastening devices concealed. Exposed screws not acceptable.
2. Exterior panel member fastening devices to be corrosion-resistant, non-metallic material. Exposed screws not acceptable.

K. Interior Liners:

The liner consists of all interior surfaces, including sides, back, top, and baffles. Not all liner materials are available for every fume hood model; refer to the product information page for options applicable to a specific fume hood.

All liner materials have low flame ratings and meet NFPA-45 standards. Descriptions of each follow below:

1. **White Polyresin "P"** – The preferred fume hood liner material, white polyresin is a press-molded, heat-converted catalyzed glass polyester sheet. A premium quality material, polyresin is excellent for use in high-abuse areas because of its excellent corrosion resistance. With a working temperature of 160°C, polyresin is flame-retardant and self-extinguishing. Scratches are less obvious because the white color extends throughout the material thickness.
2. **Cement-based Board "R"** – The most economical fume hood liner material, cement-based board is a chemically resistant mixture of Portland cement and non-asbestos fibers formed under pressure into dense, light grey, 1/4" (6 mm) thick monolithic sheets. Low light reflectivity is a disadvantage. A reliable material under normal and light-duty use, cement-based board usually is specified when budgets are limited.
3. **Cement-based Board with White Enamel Finish "E"** – cement-based board is covered and sealed with a chemical fume and splash-resistant enamel finish to provide a brighter, more comfortable working area. The enamel finish is also easier to clean.
4. **Stainless Steel "S"** – All interior liner surfaces and baffles are fabricated of 16 gauge, Type 304 stainless steel with a number 4 finish. The liner top is spot-welded to the sides, and the dished work surface is attached and caulked to the sides and back. Rear vertical corners have a 1/2" (13 mm) radius for easy cleanup.

5. **Stainless Steel "K"** – Standard without interior access panels, Type K interiors are suitable for radioisotope and perchloric acid fume hood. Made of 16 gauge Type 304 stainless steel with a number 4 finish, these interiors are welded, ground and polished to eliminate any seams or cracks where contaminants might collect. This fully coved, seamless interior simplifies cleanup and decontamination procedures.
6. **PVC "C"** – White in color, 1/4" (6 mm) thick Type 1, Grade 1 with flame rating of less than 25. This liner is an excellent choice for highly corrosive applications.

2.03 Fume Hood Construction

A. Superstructure: Rigid, self-supporting assembly of double wall construction, maximum 4-7/8" (124 mm) thick. Panels must be attached to a full frame construction, minimum 14 gauge galvanized members. Panels and brackets attached to eliminate screw heads and metallic bracketry from fume hood interior.

B. Exhaust outlet: Rectangular with ends radiused.

C. Access opening perimeter: Air foil or streamlined shape with all right angle corners radiused or angled. Bottom foil shall provide access areas for electrical cords.

D. Fume hood sash: Full view type with clear, unobstructed, side-to-side view of fume hood interior and service fixture connections.

1. Counter balance system: Single weight, sprocket and chain, counter balance system which prevents sash tilting and permits ease of operation at any point along full width pull. Maximum 7 pounds pull required to raise or lower sash throughout its full 18" height of operating sash opening. Life cycle test sash and weight. Provide independent test data. Open and close sash against rubber bumper stops.

E. Fume hood liner: Polyresin (designated by suffix "P"). Reinforced polyester panel; smooth finish and white color in final appearance. Flexural strength: 14,000 psi. Flame spread: 25 or less per UL 723 and ASTM E84-80.

F. Baffles: Provide exhaust slots full height on vertical sides of the baffle with upper and lower slots adjustable. All baffle supports/brackets to be non-metallic.

G. Electrical Services: Three wire grounding type receptacles rated at 120 VAC at 20 amperes.

H. Work surfaces: 1-1/4" (32 mm)thick surface, dished a nominal 1/2" (13 mm)to contain spills.

2.04 Restricted Bypass Fume Hood

A.

Bypass shall be sufficient in size to allow 25% flow with sash closed. Bypass must be achieved through grill or louver on face of front lintel panel for SafeAire and SafeAire II and from top front of Concept.

2.05 Bypass Fume Hood

A. Bypass shall be sufficient in size to allow sash as it is nearly closed (6") to provide no more than four times increase in face velocity as measured when the sash was full open.

2.06 Metal Finish

A. Preparation: Spray clean metal with a heated cleaner/ phosphate solution, pretreat with iron phosphate spray, water rinse, and neutral final seal.

B. Application: Electrostatically apply urethane powdercoat of selected color and bake in controlled high temperature oven.

1. Exterior and interior surfaces exposed to view: 1.5 mil., average and 1.2 mil., minimum coverage.

2.07 Source Quality Control Testing of Fume Hood

A. Evaluation of manufacturer's standard product shall take place in manufacturer's own test facility, with testing personnel, samples, apparatus, instruments, and test materials supplied by the manufacturer at no cost to the Owner.

B. Fume Hood shall achieve a rating of 4.0 AM 0.05 PPM or better when subjected to ASHRAE 110 1995 test procedures.

2.08 Field Quality Control Testing of Fume Hood

A. Field testing requirements:

1. Perform tests after installation is complete, the building ventilation system has been balanced, all connections have been made, and written verification has been submitted that the above conditions have been met.

B. Test procedure SEFA 2006.

Horizon

Part 1 – General

1.01 Scope

A. The work of this section consists of fume hood workstations and related items.

1.

Furnishing and installation of fume hood, including superstructure, fixtures, work top and base cabinet.

1.02 Submittals

A. Shop Drawings: Submit complete shop drawings of all work on this section to architect for approval.

B. Samples: Submit samples of all finish materials to the Architect for approval.

1. Sample of non-metallic glass retaining extrusion.

C. Product Data: Submit complete manufacturer's product data covering each item of equipment to architect for approval. Proof of manufacturer of Fume Hood of similar design for a minimum of five years on five separate projects.

Part 2 – Products

2.01 Type and Manufacturers

A. Manufacturers: Subject to compliance with these minimum specified requirements, provide Fume Hood as manufactured by:

1. Hamilton Scientific
1716 Lawrence Drive, STE 1
De Pere, WI 54115

B. Equipment Manufacturer: Only those manufacturers that equal this specification for design, construction and finish will be acceptable. Standard products are not necessarily considered equal unless meeting these minimum construction requirements. The owner's representative shall make the determination of equal products. The supplier shall be liable to meet these minimum requirements at no additional cost to the owner.

C. UL 1805 labeled.

2.02 Fume Hood (Horizon)

A. Construction of this shall provide a ventilated work area to protect operators from chemical fumes.

B. Shall operate with sash open at 18" and provide upper body protection from sash viewing portion above 18" (457 mm) opening.

C. Sash must automatically self-close to 18" (457 mm) position when left at any dimension above the 18" (457 mm) design working height, except when locked full open for setup.

D. A manual non-exposed lock open feature shall be actuated from the front post to retain sash in full open setup position.

E. Sash shall be glazed with 7/32" (6 mm) laminated safety glass. End panels shall be of 7/32" (6 mm) laminated safety glass.

F. Center dividing panel between operators on either side of the fume hood shall be single panel 7/32" (6 mm) laminated safety glass. Multiple panels or baffles not acceptable. Lexan or similar plastic glazing not permitted.

G. Lower 34" (864 mm) of fume hood above work surface must constitute a minimum of 75% clear glass glazing to maximize sight line.

H. Shall be double sided (center bench) for operators to work on both sides (refer to drawings for layout), or single sided of like construction.

I. Exhaust ventilation shall be provided at the work surface for heavy gases and in upper area for light gases. Vertical ventilation slots shall be provided on both sides of fume hood interior to purge sidewalls of fume hood and create a perimeter slot area. A single point rectangular exhaust connection at top of fume hood is required.

J. Safety glass end panels and center divider panel shall be framed with PVC extrusions.

K. Sash shall be counterbalanced with single weight attached with continuous military spec. grade stainless steel cable. Sash and counterbalance system to be life tested to 100,000 cycles with no sign of failure.

L. Sash shall be retained in full-height sash track both sides of sash, with polyvinyl chloride extrusions.

M. Provide top of bottom sill flush with top of work surface incorporating a trough for secondary containment of Shall be capable of achieving a 4.0 AM 0.05 rating when subjected to the ASHRAE 110 1995 tracer gas test performed with the sash at the 18" opening.

O. Structure shall be of 18 gauge, 16 gauge, and 14 gauge cold rolled furniture steel, finished with acid and solvent-resistant urethane powdercoat finish. Visible screws or other fasteners shall not be permitted on fume hood interior or exterior.

P. Service Fixtures and Fittings – Provision shall be made inside of fume hood to locate mechanical outlets off of work surface. Mechanical lines must not be exposed to contaminated fume hood or exhaust plenum areas. Remote control of services to be base cabinet located.

Q. Work surfaces: 1-1/4" (32 mm) thick surface, dished a nominal one-half inch to contain spills.

R. Fume Hood shipped knocked down, field assembly required.

Hamilton Scientific Fume Hood Products

Dimension are nominal and illustrations and specifications are based on the latest product information available at the time of publication. The right is reserved to make changes at any time without notice.

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