# Supreme Air Venturi Laboratory Fume Hoods





encouraging new discovery ... Worldwide





# VENTUR



Sin.

## Venturi Effect

1

0

"A short tube with tapering constriction in the middle that causes an increase in velocity of flow...or creating suction." *Oxford Dictionary* **Giovanni Batista Venturi** – (1746-1822)

The Venturi Port accelerates the airflow in the lower corners of the hood opening. *patent pending* 



# VENTUR Supreme Air Kewaunee Scientific Corporation

## Kewaunee's Venturi Fume Hood Offering

- Constant Volume
- Variable Air Volume
- Bench Mounted Hoods
  - 24"- 30"- 36" interior depths
  - 48" and 60" interior heights
  - 28" and 35" sash heights
- Floor Mounted Hoods
  - 24"- 30"- 36" -48" interior depths
  - 83" interior height
  - 74" viewing height
- ADA Accessible
- Sash offerings
- Vertical
  - Split Vertical
  - Horizontal
  - Combination
  - Split Combination
- Liner Options:
  - KMER Epoxy Resin
  - Kemglass FRP
  - Stainless Steel
  - Phenolic Resin

## Contents

Venturi Fume Hood Features 2
Venturi Selection Guide3
Part Number Explanation4
Guide to Fume Selection 6
General Purpose Bench Hoods8
Split Sash Bench Hoods14
ADA Bench Hoods 18
LX Series Bench Hoods22
LX Series Split Sash Hoods30
V40 - Isotope Hoods
V45 - Perchloric Acid Hoods 40
Floor Mounted Hoods42
Distillation Hoods48
Venturi Fume Hood Options 50
Electrical Fixtures55
Pre-wired 55
Work Tops 58
Cupsinks 60
Ceiling Enclosures61
Service Fittings62
Base Cabinets
Trim70
Fume Hood Accessories71
Pre-wired & Pre-piped73
Recommended Work Practices 74
Glossary of Term & Definitions 78
Index 82
Typical Installations84
Fume Hood Testing Facilities85



Supreme Air Venturi V05 Vertical Rising Sash Bench Hood





# **Venturi Fume Hood Features**



Light & Sash Stop Controller

## **General Features**

- LED interior lighting with 15 intensity and 3 color settings
- Large viewing height
- Unparalleled containment
- Low Flow/High Performance
- Energy Efficient
- Venturi post design improves corner airflow
- Electromechanical sash stop integrated into sash track (mechanical sash stop on floor mounted hoods)
- Flush airfoil for easy user access
- Easily removable, gasketed Access Panels
- Two GFCI protected duplex receptacles in each corner post
- Room for five service fittings per side post
- Sash handle notched at each end for cord pass-through



Venturi Port & Notched Sash Handle

## Belt Driven Sash & Pulley System





# **Venturi Fume Hood Selection Guide**

## **Bench Mounted Fume Hoods**

	Sash Interior Opening Height Sash Type Height		Available Interior Depths			Available Exterior Lengths									
General I	Purpose Hoods				24"	30"	36"	48"	48"	-09	72"	-96	120"	144"	
V05		48"	Vertical	28"	•	•	•		•	•	•	•			page 8-9
<b>V</b> 06		48"	Combination	28"	•	•	•		•	•	•	•			page 10-11
<b>V07</b>		48"	Horizontal	31"	•	•	•		•	•	•	•			page 12-13
Split Sas	<b>h Hoods</b> (Extra Len	ıgth)			24"	30"	36"	48"	48"	-09	72"		120"	144"	
V10		48"	Vertical	28"	•	•	•					•	•	•	page 14-15
V11		48"	Combination	28"	•	•	•					•	•	•	page 16-17
LX Series Fume Hoods (Extra Height)			24"	30"	36"	48"	48"	-09	72"	-96	120"	144"			
V25		60"	Vertical	28" - 35"	•	•	•		•	•	•	•			page 22-25
V26		60"	Combination	28" - 35"	•	•	•		•	•	•	•			page 26-29
LX Series	s Split Sash Hood	<b>ls</b> (Extra L	ength & Extra Heig	ht)	24"	30"	36"	48"	48"	-09	72"	-96	120"	144"	
<b>V30</b>		60"	Vertical	28" - 35"	•	•	•					•	•	•	page 30-33
V36		60"	Combination	28" - 35"	•	•	•					•	•	•	page 34-37
ADA Hoo	ods				24"	30"	36"	48"	48"	-09	72"	-96	120"	144"	
V15		51"	Vertical	28"	•				•	•	•				page 18-19
V16		51"	Combination	28"	•				•	•	•				page 20-21
Specialty	Hoods				24"	30"	36"	48"	48"	-09	72"	-96	120"	144"	
V40	Isotope	48"	Vertical	28"	•				•	•	•	•			page 38-39
V45	Perchloric Acid	48"	Vertical	28"	•				•	•	•				page 40-41

## **Floor Mounted Fume Hoods**

	Interior Height	Sash Type	Sash Height Opening	Sash Available eight Interior pening Depths		Available Exterior Lengths								
General Purpose Hoods				24"	30"	36"	48"	48"	-09	72"	-96	120"	144"	
V65	83¾"	Vertical	64¼"	•	•	•	•	•	•	•	•			page 42-43
V66	83¾"	Combination	64¼"	•	•	•	•	•	•	•	•			page 44-45
V67	83¾"	Horizontal	68"	•	•	•	•			•	•	•		page 46-47
Distillation Fume Hoods				24"	30"	36"	48"	48"	-09	72"	-96	120"	144"	
<b>V</b> 90	83"	Vertical	63"	•	•	•		•	•	•	•			page 48-49



# Part Number Explanation

#### **Venturi Fume Hood Catalog Number Explanation**



**Receptacle Grade & Type** 

S = Specification Grade - 20 amp-120 VAC - GFCI

- **Receptacle Color** Black = K
  - Ivory =  $\mathbf{V}$ White = W

  - Grev = G
  - $\text{Red} = \mathbf{R}$

# **Part Number Explanation**

## Venturi Fume Hood Catalog Number Explanation

# V05F282472KN-G1,F1,SK-A1,V...

Options

		See list below	
Option Codes:			
Airflow Modification		Stainless Steel Parts	
<b>V</b> = VAV Bypass	page 52	<ul> <li>C = Stainless Steel Duct Collar (Type 316)</li> <li>O = Stainless Steel Airfoil (Type 304)</li> </ul>	page 53 page 54
Airflow Safety		<b>O2</b> = Stainless Steel Airfoil (Type 316)	page 54
A1 = Air Alert 600 for Vertical Sash	page 52	<b>Q</b> = Stainless Steel Sash Pull (Type 304)	page 54
A2 = Air Alert 600 for Combo Sash	page 52		
<b>A3</b> = Air Alert 300	page 52	Sash Operators	
L = Sash Stop Label	page 52	<b>R1</b> = Auto Sash Return	page 56
		<b>R2</b> = Push Button Sash Operator	page 56
Fittings & Fixtures		<b>R3</b> = Proximity Sash Operator	page 56
<b>B1</b> = Vapor Proof Light & Switch	page 57		
<b>B2</b> = Explosion Proof Light & Switch	page 57	Miscellaneous Options	
K = Fan/Blower Switch	page 55	D = Distillation Rack Preparation	page 53
<b>P1</b> = Cord Port (one in each post)	page 56	E = Fire Supression System	page 57
U/U2 = Pre-wired/UL Listed	page 55	<ul> <li>S = Safety Shield</li> <li>T = Tissue Screen</li> <li>W = Work Shelf Supports</li> </ul>	page 53 page 54 page 57



# **Guide to Fume Hood Selection**

#### Introduction

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

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

The hood must be large enough to accommodate the required apparatus

#### Low Exhaust Volume Hoods

Low Exhaust Volume (LEV) fume hoods are designed to have a lower exhaust requirement than a traditional fume hood of the same size running at 100 FPM with a fully opened sash by operating with a face velocity of 60 FPM or less through the same sash opening and offering containment levels equal to, or superior to, the traditional fume hood. LEV hoods are required by SEFA to be able to pass ASHRAE 110 with a performance rating equal to or better than 4.0 AM 0.05, and 4.0 AI/AU 0.10. LEV fume hoods offer a suite of new features not found on traditional fume hoods, such as innovative bypass designs, baffle conformations, and aerodynamic flush airfoils and radiused fascias. These fume hoods are designed to go anywhere a traditional fume hood might go. They are able to be

within the prescribed safe work area of the hood (6" behind the plane of the sash and 2" in front of the back baffle). The configuration of the hood should be such that apparatus can be moved in and out of the hood easily. The sash opening of the hood must allow sufficient access for safely manipulating the apparatus within the hood. The interior of the hood must resist the corrosive effects of chemicals. The hood understructure

should provide for storage of the required chemicals and/or apparatus for the work being done in the hood.

The total operating cost of a hood is greatly affected by its exhaust air requirements. The annual cost of heating and cooling the air exhausted by the hood can be as high as the initial cost of the hood itself. Choosing the proper hood type, sash configuration, and ventilation system can significantly reduce these costs.

incorporated into either Constant Air Volume (CAV) or Variable Air Volume (VAV) systems.

**Dynamic Barrier Bypasses** are designed for LEV fume hoods being used in a CAV system. In a CAV system the exhaust volume to the hood is always the same, so as the sash height increases or decreases, the velocity decreases or increases, respectively. This type of bypass has a dynamic slot that opens wider as the sash is closed. This works with constant volume fume hoods since it allows additional air to enter the bypass above the sash, otherwise there would be a much larger increase in velocity when the sash is fully closed. The design of the Dynamic Barrier Bypass directs the air entering the fume hood so that it

sweeps down the back of the sash, providing an extra barrier of protection for the user.

**Vertical Bypasses** are designed for LEV fume hoods being used in a VAV system. VAV systems are designed to vary the fume hoods exhaust rate so when the sash is open, the face velocity is always the same and when the sash is closed, the exhaust rate decreases to a minimum value decided by the users EHS or Safety Management department based on ANSI/AIHA Z9.5. This type of bypass is designed to have a small opening that doesn't change size regardless of sash height with the bypass panel running parallel to the sash. This opening is required by the VAV system so that it can operate as designed.

#### **Face Velocity**

In a laboratory fume hood, the control of contaminants is achieved by drawing air through the face (sash) opening. The face velocity is defined as the average velocity of the air in this opening and is expressed in units of feet per minute (FPM). The Occupational Safety and Health Administration (OSHA) in its Laboratory Standard does not specify a required fume hood face velocity. As a result, hood users must look to published guidelines for recommendations on proper face

velocities. The most authoritative of these published guidelines is the ANSI/AIHA Z9.5 American National Standard for Laboratory Ventilation. This publication recommends using an average face velocity of between 60 and 120 feet per minute.

Newer technologies (like Kewaunee's Venturi series) have allowed face velocities below 60 FPM to show good containment. Part of the reasoning for these newer, lower face velocities is that the face velocity by itself does not define the protection level of a

fume hood. There are other factors which are as important such as: the design of the hood, the location of the hood within the laboratory, the quality of the supply air distribution, and most importantly the work practices of the user. The ANSI/AIHA Z9.5 recommendation assumes that these factors have been optimized through proper design and work rules.

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

#### **Baffle Design**

Venturi fume hoods come with fixed

performance for general purpose use. slots in the rear baffles. The size of the The Venturi baffle technology works in a need for baffle adjustment. slots are optimized to provide the best both heavier-than-air and lighter-than-

air applications. Therefore there is not

For answers to frequently asked questions about Kewaunee fume hoods visit the Kewaunee web site at: http://www.kewaunee.com/lab/knowledge-center/fags/fume-hoods.aspx

# Guide to Fume Hood Selection (continued)

## Configurations

Bench hoods are set on a worksurface Distillation hoods are used where approximately 36" above the floor and provide a convenient work area for the convenient access to the floor of the standing position.

Floor mounted hoods are used where taller apparatus is required or equipment is rolled into the hood.

taller apparatus is required and hood is needed.

ADA fume hoods are designed in accordance with the guidelines for the Americans with Disabilities Act with controls lowered to improve accessibility. These hoods are also used when a sitting position is desired for work at the hood. They provide the same size work area as the corresponding bench hoods.

#### **Sash Arrangements**

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

Auto-Return Vertical Sash hoods use a vertical sash that will automatically

return to a pre-set position if released from a higher position. A full-open lockout is provided for set-ups.

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

Combination vertical rising/horizontal

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

#### **Special Purpose Fume Hoods**

Isotope hoods are designed for use with radioactive materials. The Type 304L stainless steel cove corner seamless welded construction eases cleaning and decontamination.

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

#### Liner Material

KMER, Kemglass, and Phenolic **Resin** are general purpose liners with very good to excellent chemical resistance. Stainless Steel is usually used where cleanability and/or heat resistance are the prime requirements.

Phenolic Resin (T) liner is reinforced with cellulose fibers and is surfaced with white melamine material. The brown phenolic resin is visible at the edges of the sheet material.

Kemglass (G) is white fiberglass reinforced polyester sheet material. **KMER (K)** is a white modified epoxy resin sheet, reinforced with glass fibers.

Type 304L Stainless Steel (S) and Type 316L Stainless Steel (L) is 14 gauge stainless steel sheet with a No. 4 finish.

	RESISTANCE CHEMICAL RESISTANCE								
LINER MATERIAL	TO HEAT	ACIDS	CLEANABILITY						
Phenolic Resin	G	E	E	G					
Kemglass	G	E	G	G					
KMER	G	E	E	G					
Stainless Steel	E	F	E	E					

HOOD LINER CHARACTERISTICS

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

#### **Work Tops**

**Epoxy Resin** work tops are available in four colors, have excellent chemical resistance, and good heat resistance. They are the normal choice for general purpose hoods and highly

corrosive applications.

Stainless Steel work tops are available in Types 304L and 316L. They are used where cleanability and heat resistance are important. Type

316 is preferred where improved chemical resistance is desired.

The work top is specified by a separate part number for all hoods except Isotope and Perchloric Acid hoods.

For answers to frequently asked questions about Kewaunee fume hoods visit the Kewaunee web site at: www. kewaunee.com/fume/faq.shtml



# V05 – General Purpose Bench Fume Hood

## with Vertical Rising Sash



Additional Parts Rec Complete Fume Hoo	uired for a od Assembly	
Work Top	see page 58	
Cupsink	see page 60	
Ceiling Enclosure	see page 61	
Service Fittings	see page 62	
Base Cabinets	see page 66	

## **Accessories Included:**

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 LED light fixture with illumination and color controller
- 1 Electromechanical sash stop with push button override

part no. code	Available Sizes:
28	Sash Opening Height: 28 inches / 711mm
	Inside Depth:
24	24 inches / 610mm
30	30 inches / 762mm
36	36 inches / 914mm
	Overall Length:
48	48 inches / 1219mm
60	60 inches / 1524mm
72	72 inches / 1829mm
96	96 inches / 2438mm

Available Liner Types:	part no. code
Kemglass Fiberglass reinforced polyester 1805 UL classified	G
KMER Kewaunee Modified Epoxy Resin	К
Type 316L Stainless Steel 1805 UL classified	L
Type 304L Stainless Steel 1805 UL classified	S
Phenolic Resin	т

part no. code	Available Sash Frames:
Ν	Frameless
М	Powder Coated Steel
<b>C</b>	Tura 2041 Otairalaga Otagi

Type 304L Stainless Steel S



## **Airflow (CFM) Requirements**

28" High Sash Opening									18"	High Sa	sh Ope	ning				
Face	4'-0" / 48" 5'-0" / 60'		/ 60"	6'-0" / 72" 8'-0" /		/ 96"	4'-0"	4'-0" / 48"		5'-0" / 60"		6'-0" / 72"		8'-0" / 96"		
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP
100 FPM	790	0.40	1030	0.50	1270	0.60	1750	0.45	510	0.20	670	0.25	830	0.30	1150	0.20
80 FPM	630	0.25	820	0.35	1020	0.40	1400	0.30	410	0.15	540	0.15	670	0.20	920	0.15
60 FPM	470	0.15	620	0.20	760	0.25	1050	0.20	310	0.10	400	0.10	500	0.10	690	0.10
50 FPM	390	0.10	510	0.15	630	0.15	880	0.10	260	0.05	340	0.10	420	0.10	570	0.05

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

	ANSI Z9.5 Minimum Flow Rate											
Inside Depth		150 Air Cha	anges/Hour			375 Air Changes/Hour						
	4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"			
24" deep	80 CFM	100 CFM	120 CFM	170 CFM		190 CFM	240 CFM	300 CFM	410 CFM			
30" deep	90 CFM	120 CFM	150 CFM	200 CFM		230 CFM	290 CFM	360 CFM	500 CFM			
36" deep	110 CFM	140 CFM	170 CFM	240 CFM		270 CFM	350 CFM	430 CFM	590 CFM			







8' Rough-in



	Dimensions – Length										
Α	48"	60"	72"	96"							
В	39"	51"	63"	87"							



Dimensions – Depth							
С	24" 30" 36"						
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	48 <sup>1</sup> /2"				
Ε	9"	15"	21"				



# V06 – General Purpose Bench Fume Hood

## with Combination Vertical Rising/Horizontal Sash



Additional Parts Req Complete Fume Hoo	Additional Parts Required for a Complete Fume Hood Assembly					
Work Top	see page 58					
Cupsink	see page 60					
Ceiling Enclosure	see page 61					
Service Fittings	see page 62					
Base Cabinets	see page 66					

## Accessories Included:

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 LED light fixture with illumination and color controller
- 1 Electromechanical sash stop with push button override

part no. code	Available Sizes:
28	Sash Opening Height: 28 inches / 711mm
	Inside Depth:
24	24 inches / 610mm
30	30 inches / 762mm
36	36 inches / 914mm
	Overall Length:
48	48 inches / 1219mm
60	60 inches / 1524mm
72	72 inches / 1829mm
96	96 inches / 2438mm

Available Liner Types:	part no. code
Kemglass Fiberglass reinforced polyester 1805 UL classified	G
KMER Kewaunee Modified Epoxy Resin	К
Type 316L Stainless Steel 1805 UL classified	L
Type 304L Stainless Steel 1805 UL classified	S
Phenolic Resin	т

code	Available Sash Frames:
М	Powder Coated Steel
S	Type 304L Stainless Steel

oort no



# V06

## **Airflow (CFM) Requirements**

	18" High Sash Opening								Sash Cl	osed – F	Panels F	ull Ope	n			
Face	4'-0"	/ 48"	5'-0"	/ 60"	6'-0"	/ 72"	8'-0"	/ 96"	4'-	)" / 48"	5'-0"	/ 60"	6'-0"	/ 72"	8'-0"	/ 96"
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFN	SP	CFM	SP	CFM	SP	CFM	SP
100 FPM	500	0.20	660	0.25	810	0.30	1120	0.20	460	0.15	600	0.20	750	0.20	1030	0.20
80 FPM	400	0.15	520	0.15	650	0.20	890	0.15	370	0.10	480	0.15	600	0.15	830	0.15
60 FPM	300	0.10	390	0.10	490	0.10	670	0.10	280	0.05	360	0.10	450	0.10	620	0.10
50 FPM	250	0.05	330	0.10	410	0.10	560	0.05	230	0.05	300	0.05	380	0.10	520	0.05

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

ANSI Z9.5 Minimum Flow Rate									
Inside		150 Air Cha	anges/Hour				375 Air Cha	anges/Hour	
Depth	4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"
24" deep	80 CFM	100 CFM	120 CFM	170 CFM		190 CFM	240 CFM	300 CFM	410 CFM
30" deep	90 CFM	120 CFM	150 CFM	200 CFM		230 CFM	290 CFM	360 CFM	500 CFM
36" deep	110 CFM	140 CFM	170 CFM	240 CFM		270 CFM	350 CFM	430 CFM	590 CFM





8' Rough-in



	Dime	ensions –	Length	
Α	48"	60"	72"	96"
В	39"	51"	63"	87"



Dimensions – Depth							
С	24"	30"	36"				
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> / <sub>2</sub> "	48 <sup>1</sup> /2"				
Ε	9"	15"	21"				



# V07 – General Purpose Bench Fume Hood

## with Horizontal Sash



Additional Parts Required for a Complete Fume Hood Assembly					
Work Top	see page 58				
Cupsink	see page 60				
Ceiling Enclosure	see page 61				
Service Fittings	see page 62				
Base Cabinets	see page 66				

## **Accessories Included:**

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 LED light fixture with illumination and color controller

part no. code	Available Sizes:
31	Sash Opening Height: 31 inches / 787mm
	Inside Depth:
24	24 inches / 610mm
30	30 inches / 762mm
36	36 inches / 914mm
	Overall Length:
48	48 inches / 1219mm
60	60 inches / 1524mm
72	72 inches / 1829mm
96	96 inches / 2438mm

Available Liner Types:	part no. code
Kemglass Fiberglass reinforced polyester 1805 UL classified	G
KMER Kewaunee Modified Epoxy Resin	K
Type 316L Stainless Steel 1805 UL classified	L
Type 304L Stainless Steel 1805 UL classified	S
Phenolic Resin	т

Available Sash Frames:	part no. code
Frameless	Ν



#### **Airflow (CFM) Requirements**

	Panels Fully Open									
Face Velocity	4'-0"	/ 48"	5'-0"	/ 60"	6'-0"	/ 72"	8'-0" / 96"			
	CFM	SP	CFM	SP	CFM	SP	CFM	SP		
100 FPM	560	0.20	740	0.25	910	0.30	1260	0.25		
80 FPM	450	0.15	590	0.20	730	0.20	1010	0.15		
60 FPM	340	0.10	440	0.10	550	0.15	760	0.10		
50 FPM	280	0.05	370	0.10	460	0.10	630	0.10		

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

ANSI Z9.5 Minimum Flow Rate									
Inside		150 Air Ch	anges/Hour			375 Air Changes/Hour			
Depth	4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"
24" deep	80 CFM	100 CFM	120 CFM	170 CFM		190 CFM	240 CFM	300 CFM	410 CFM
30" deep	90 CFM	120 CFM	150 CFM	200 CFM		230 CFM	290 CFM	360 CFM	500 CFM
36" deep	110 CFM	140 CFM	170 CFM	240 CFM		270 CFM	350 CFM	430 CFM	590 CFM



4'-5'-6' Rough-in



51"

В

39"

63"

87"



8' Rough-in



Dimensions – Depth							
С	24"	30"	36"				
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	<b>48</b> <sup>1</sup> /2"				
Е	9"	15"	21"				



# V10 – General Purpose Bench Fume Hood

## with Split Vertical Rising Sash



equired for a bod Assembly	
see page 58	
see page 60	
see page 61	
see page 62	
see page 66	
	see page 58 see page 60 see page 61 see page 62 see page 66

## Accessories Included:

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 2 LED light fixture with illumination and color controller
- 2 Electromechanical sash stops with push button override

part no. code	Available Sizes:
28	Sash Opening Height: 28 inches / 711mm
	Inside Depth:
24	24 inches / 610mm
30	30 inches / 762mm
36	36 inches / 914mm
	Overall Length:
96	96 inches / 2438mm
20	120 inches / 3048mm
44	144 inches / 3658mm

part no. code	<b>Available Liner Types:</b>
G	Kemglass Fiberglass reinforced polyester 1805 UL classified
К	KMER Kewaunee Modified Epoxy Resin
L	Type 316L Stainless Steel 1805 UL classified
S	Type 304L Stainless Steel 1805 UL classified
т	Phenolic Resin

code	Available Sash Frames:
М	Powder Coated Steel
S	Type 304L Stainless Steel

nort no





#### **Airflow (CFM) Requirements**

	28" High Sash Opening						1	8" High Sa	ish Openir	ıg			
Face	8'-0" / 96"		10'-0" / 120"		12'-0" / 144"		8'-0'	8'-0" / 96"		10'-0" / 120"		12'-0" / 144"	
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	
100 FPM	1750	0.45	2240	0.55	2720	0.65	1150	0.20	1460	0.25	1780	0.30	
80 FPM	1400	0.30	1790	0.35	2180	0.45	920	0.15	1170	0.15	1430	0.25	
60 FPM	1050	0.20	1340	0.25	1630	0.30	690	0.10	880	0.10	1070	0.15	
50 FPM	880	0.10	1120	0.15	1360	0.20	570	0.05	730	0.10	890	0.10	

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

ANSI Z9.5 Minimum Flow Rate								
Inside		150 Air Changes/Hour			375 Air Changes/Hour			
Depth	8'-0" / 96"	10'-0" / 120"	12'-0" / 144"		8'-0" / 96"	10'-0" / 120"	12'-0" / 144"	
24" deep	170 CFM	210 СFM	260 CFM		410 CFM	520 CFM	630 CFM	
30" deep	200 CFM	260 CFM	310 CFM		500 CFM	630 CFM	770 CFM	
36" deep	240 CFM	300 CFM	370 CFM		590 CFM	750 CFM	910 CFM	



8'-10'-12' Rough-in





Dimensions – Depth							
С	24"	30"	36"				
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	48 <sup>1</sup> /2"				
Е	9"	15"	21"				



# V11 – General Purpose Bench Fume Hood

## with Split Combination Vertical Rising/Horizontal Sash



equired for a bod Assembly	
see page 58	
see page 60	
see page 61	
see page 62	
see page 66	
	see page 58 see page 60 see page 61 see page 62 see page 66

## Accessories Included:

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 2 LED light fixture with illumination and color controller
- 2 Electromechanical sash stops with push button override

part no. code	Available Sizes:
28	Sash Opening Height: 28 inches / 711mm
	Inside Depth:
24	24 inches / 610mm
30	30 inches / 762mm
36	36 inches / 914mm
	Overall Length:
96	96 inches / 2438mm
20	120 inches / 3048mm
44	144 inches / 3658mm

part no. code	Available Liner Types:
G	Kemglass Fiberglass reinforced polyester 1805 UL classified
К	KMER Kewaunee Modified Epoxy Resin
L	Type 316L Stainless Steel 1805 UL classified
S	Type 304L Stainless Steel 1805 UL classified
т	Phenolic Resin

code	Available Sash Frames:
М	Powder Coated Steel
S	Type 304L Stainless Steel

nort no



# V11

## **Airflow (CFM) Requirements**

		18	8" High Sa	sh Openir	ıg		Sash	Closed – F	anels Full	Open		
Face	8'-0"	/ 96"	10'-0" / 120"		12'-0" / 144"		8'-0"	/ 96"	10'-0"	/ 120"	12'-0"	/ 144"
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP
100 FPM	1120	0.20	1430	0.25	1740	0.30	930	0.15	1220	0.20	1500	0.25
80 FPM	890	0.15	1140	0.15	1390	0.25	750	0.10	970	0.15	1200	0.15
60 FPM	670	0.10	860	0.10	1040	0.15	560	0.05	730	0.10	900	0.10
50 FPM	560	0.05	710	0.10	870	0.10	470	0.05	610	0.05	750	0.10

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

ANSI Z9.5 Minimum Flow Rate											
Inside		150 Air Changes/Hour			375 Air Changes/Hour						
Depth	8'-0" / 96"	8'-0" / 96" 10'-0" / 120" 12'-0" / 144"			8'-0" / 96"	10'-0" / 120"	12'-0" / 144"				
24" deep	170 CFM	210 CFM	260 CFM		410 CFM	520 CFM	630 CFM				
30" deep	200 CFM	260 CFM	310 CFM		500 CFM	630 CFM	770 CFM				
36" deep	240 CFM	300 CFM	370 CFM		590 CFM	750 CFM	910 CFM				



## 8'-10'-12' Rough-in





	Dimensions – Deptin											
С	24"	30"	36"									
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	<b>48</b> <sup>1</sup> /2"									
Е	9"	15"	21"									



# V15 – ADA Bench Fume Hood

## with Vertical Rising Sash



Additional Parts Required for a Complete Fume Hood Assembly											
see page 58											
see page 60											
see page 61											
see page 62											
see page 66											
	quired for a od Assembly see page 58 see page 60 see page 61 see page 62 see page 66										

## Accessories Included:

- 2 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 LED light fixture with illumination and color controller
- 1 Electromechanical sash stop with push button override

part no. code	Available Sizes:
28	Sash Opening Height: 28 inches / 711mm
24	Inside Depth: 24 inches / 610mm

#### **Overall Length:**

48	48 inches / 1219mm
60	60 inches / 1524mm
72	72 inches / 1829mm
96	96 inches / 2438mm

part no. code	<b>Available Liner Types:</b>
G	Kemglass Fiberglass reinforced polyester 1805 UL classified
K	KMER Kewaunee Modified Epoxy Resin
L	Type 316L Stainless Steel 1805 UL classified
S	Type 304L Stainless Steel 1805 UL classified
т	Phenolic Resin

code	Available Sash Frames:
Ν	Frameless
М	Powder Coated Steel
S	Type 304L Stainless Steel



## V15

## **Airflow (CFM) Requirements**

	28" High Sash Opening										18"	High Sa	sh Ope	ning		
Face	4'-0" / 48"		5'-0"	/ 60"	6'-0" / 72"		8'-0"	8'-0" / 96"		/ 48"	5'-0"	/ 60"	6'-0"	/ 72"	8'-0"	/ 96"
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP
100 FPM	790	0.40	1030	0.50	1270	0.60	1750	0.45	510	0.20	670	0.25	830	0.30	1150	0.20
80 FPM	630	0.25	820	0.35	1020	0.40	1400	0.30	410	0.15	540	0.15	670	0.20	920	0.15
60 FPM	470	0.15	620	0.20	760	0.25	1050	0.20	310	0.10	400	0.10	500	0.10	690	0.10
50 FPM	390	0.10	510	0.15	630	0.15	880	0.10	260	0.05	340	0.10	420	0.10	570	0.05

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

			ANS	I Z9.5 Minimum	FI	low Rate			
Inside		150 Air Cha	anges/Hour				375 Air Cha	anges/Hour	
Depth	4'-0" / 48"	4'-0" / 48" 5'-0" / 60" 6'-0" / 72" 8'-0" / 96"			4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"	
24" deep	80 CFM	110 CFM	130 CFM	190 CFM		200 CFM	260 CFM	320 CFM	440 CFM











# V16 – ADA Bench Fume Hood

## with Combination Vertical Rising/Horizontal Sash



uired for a Assembly	
see page 58	
see page 60	
see page 61	
see page 62	
see page 66	
	<b>Lired for a</b> <b>Assembly</b> see page 58 see page 60 see page 61 see page 62 see page 66

## Accessories Included:

- 2 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 LED light fixture with illumination and color controller
- 1 Electromechanical sash stop with push button override

part no. code	Available Sizes:
28	Sash Opening Height: 28 inches / 711mm
24	Inside Depth: 24 inches / 610mm

#### **Overall Length:**

48	48 inches / 1219mm
60	60 inches / 1524mm
72	72 inches / 1829mm
96	96 inches / 2438mm

part no. code	<b>Available Liner Types:</b>
G	Kemglass Fiberglass reinforced polyester 1805 UL classified
К	KMER Kewaunee Modified Epoxy Resin
L	Type 316L Stainless Steel 1805 UL classified
S	Type 304L Stainless Steel 1805 UL classified
т	Phenolic Resin

code	Available Sash Frames:
М	Powder Coated Steel
S	Type 304L Stainless Steel

nort no



# V16

## **Airflow (CFM) Requirements**

	18" High Sash Opening Sash Closed – Panels Full Open																	
Face	4'-0" / 48"		5'-0"	5'-0" / 60"		6'-0" / 72" 8'-0" / 96"		6'-0" / 72"		8'-0" / 96"		/ 48"	5'-0"	/ 60"	6'-0"	/ 72"	8'-0"	/ 96"
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM SP		CFM	SP	CFM	SP	CFM	SP	CFM	SP		
100 FPM	500	0.20	660	0.25	810	0.30	1120	0.20	460	0.15	600	0.20	750	0.20	1030	0.20		
80 FPM	400	0.15	520	0.15	650	0.20	890	0.15	370	0.10	480	0.15	600	0.15	830	0.15		
60 FPM	300	0.10	390	0.10	490	0.10	670	0.10	280	0.05	360	0.10	450	0.10	620	0.10		
50 FPM	250	0.05	330	0.10	410	0.10	560	0.05	230	0.05	300	0.05	380	0.10	520	0.05		

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

	ANSI Z9.5 Minimum Flow Rate								
Inside		150 Air Cha	anges/Hour				375 Air Cha	anges/Hour	
Depth	4'-0" / 48" 5'-0" / 60" 6'-0" / 72" 8'-0" / 96"			4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		
24" deep	80 CFM	110 CFM	130 CFM	190 CFM		200 CFM	260 CFM	320 CFM	440 CFM





8' Rough-in







# V25 – LX Series Bench Fume Hood

## 60" Interior Height with 28" High Vertical Rising Sash



Additional Parts Req Complete Fume Hoo	juired for a d Assembly	
Work Top	see page 58	
Cupsink	see page 60	
Ceiling Enclosure	see page 61	
Service Fittings	see page 62	
Base Cabinets	see page 66	

## **Accessories Included:**

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 LED light fixture with illumination and color controller
- 1 Electromechanical sash stop with push button override

part no. code	Available Sizes:
28	Sash Opening Height: 28 inches / 711mm
	Inside Depth:
24	24 inches / 610mm
30	30 inches / 762mm
36	36 inches / 914mm
	Overall Length:
48	48 inches / 1219mm
60	60 inches / 1524mm
72	72 inches / 1829mm
96	96 inches / 2438mm

part no. code	<b>Available Liner Types:</b>
G	Kemglass Fiberglass reinforced polyester 1805 UL classified
К	KMER Kewaunee Modified Epoxy Resin
L	Type 316L Stainless Steel 1805 UL classified
S	Type 304L Stainless Steel 1805 UL classified
т	Phenolic Resin

code	Available Sash Frames:
Ν	Frameless
М	Powder Coated Steel
S	Type 304L Stainless Steel

art na





## **Airflow (CFM) Requirements**

	28" High Sash Opening										18"	High Sa	sh Ope	ning			
Face	4'-0" / 48"		5'-0" / 60"		6'-0" / 72"		8'-0" / 96"			4'-0" / 48"		5'-0" / 60"		6'-0" / 72"		8'-0" / 96"	
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP		CFM	SP	CFM	SP	CFM	SP	CFM	SP
100 FPM	790	0.40	1030	0.50	1270	0.60	1750	0.45	!	510	0.20	670	0.25	830	0.30	1150	0.20
80 FPM	630	0.25	820	0.35	1020	0.40	1400	0.30	4	410	0.15	540	0.15	670	0.20	920	0.15
60 FPM	470	0.15	620	0.20	760	0.25	1050	0.20	÷	310	0.10	400	0.10	500	0.10	690	0.10

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

	ANSI Z9.5 Minimum Flow Rate										
Inside Depth		150 Air Cha	anges/Hour			375 Air Changes/Hour					
	4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		
24" deep	100 CFM	120 CFM	150 CFM	210 CFM		230 CFM	300 CFM	370 CFM	510 CFM		
30" deep	120 CFM	150 CFM	180 CFM	250 CFM		280 CFM	370 CFM	450 CFM	620 CFM		
36" deep	140 CFM	180 CFM	220 CFM	300 CFM		330 CFM	430 CFM	530 CFM	740 CFM		





4'-5'-6' Rough-in



Dimensions – Length									
Α	48"	60"	72"	96"					
В	39"	51"	63"	87"					
-									





	Dimensions – Depth										
С	24"	30"	36"								
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	<b>48</b> <sup>1</sup> /2"								
Е	9"	15"	21"								



# V25 – LX Series Bench Fume Hood

## 60" Interior Height with 35" High Vertical Rising Sash



Additional Parts Req Complete Fume Hoo	Additional Parts Required for a Complete Fume Hood Assembly						
Work Top	see page 58						
Cupsink	see page 60						
Ceiling Enclosure	see page 61						
Service Fittings	see page 62						
Base Cabinets	see page 66						

## Accessories Included:

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 LED light fixture with illumination and color controller
- 1 Electromechanical sash stop with push button override

part no. code	Available Sizes:
35	Sash Opening Height: 35 inches /889mm
	Inside Depth:
24	24 inches / 610mm
30	30 inches / 762mm
36	36 inches / 914mm
	Overall Length:
48	48 inches / 1219mm
60	60 inches / 1524mm
72	72 inches / 1829mm
96	96 inches / 2438mm

part no. code
G
K
L
S
т

code	Available Sash Frames:
Ν	Frameless
М	Powder Coated Steel
S	Type 304L Stainless Steel

art na





## **Airflow (CFM) Requirements**

	35" High Sash Opening										18"	High Sa	sh Ope	ning			
Face	4'-0" / 48"		5'-0"	5'-0" / 60"		6'-0" / 72"		8'-0" / 96"		4'-0" / 48"		5'-0" / 60"		6'-0" / 72"		8'-0" / 96"	
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP	C	CFM	SP	CFM	SP	CFM	SP	CFM	SP
100 FPM	980	0.60	1280	0.70	1580	0.90	2180	0.65	5	510	0.20	670	0.25	830	0.30	1150	0.20
80 FPM	780	0.40	1020	0.50	1260	0.60	1740	0.45	4	410	0.15	540	0.15	670	0.20	920	0.15
60 FPM	590	0.25	770	0.30	950	0.35	1310	0.25	З	310	0.10	400	0.10	500	0.10	690	0.10

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

	ANSI Z9.5 Minimum Flow Rate										
Inside Depth		150 Air Cha	anges/Hour			375 Air Changes/Hour					
	4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		
24" deep	100 CFM	120 CFM	150 CFM	210 CFM		230 CFM	300 CFM	370 CFM	510 CFM		
30" deep	120 CFM	150 CFM	180 CFM	250 CFM		280 CFM	370 CFM	450 CFM	620 CFM		
36" deep	140 CFM	180 CFM	220 CFM	300 CFM		330 CFM	430 CFM	530 CFM	740 CFM		





8' Rough-in



Dimensions – Depth										
С	24"	30"	36"							
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	<b>48</b> <sup>1</sup> /2"							
Е	9"	15"	21"							

# B - Sash Opening

104"

Dimensions – Length									
Α	48"	60"	72"	96"					
В	39"	51"	63"	87"					



# V26 – LX Series Bench Fume Hood

## 60" Interior Height with 28" High Combination Sash



Additional Parts Req Complete Fume Hoo	uired for a d Assembly	
Work Top	see page 58	
Cupsink	see page 60	
Ceiling Enclosure	see page 61	
Service Fittings	see page 62	
Base Cabinets	see page 66	

## **Accessories Included:**

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 LED light fixture with illumination and color controller
- 1 Electromechanical sash stop with push button override

part no. code	Available Sizes:
28	Sash Opening Height: 28 inches / 711mm
	Inside Depth:
24	24 inches / 610mm
30	30 inches / 762mm
36	36 inches / 914mm
	Overall Length:
48	48 inches / 1219mm
60	60 inches / 1524mm
72	72 inches / 1829mm
96	96 inches / 2438mm

part no. code	<b>Available Liner Types:</b>
G	Kemglass Fiberglass reinforced polyester 1805 UL classified
К	KMER Kewaunee Modified Epoxy Resin
L	Type 316L Stainless Steel 1805 UL classified
S	Type 304L Stainless Steel 1805 UL classified
т	Phenolic Resin

code	Available Sash Frames:
М	Powder Coated Steel
S	Type 304L Stainless Steel

nort no





## **Airflow (CFM) Requirements**

	18" High Sash Opening									S	Sash Clo	osed – F	Panels F	ull Ope	n	
Face	4'-0" / 48"		5'-0" / 60"		6'-0"	6'-0" / 72" 8'-0" / 96"			4'-0	" / 48"	5'-0"	/ 60"	6'-0"	/ 72"	8'-0"	/ 96"
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP
100 FPM	500	0.20	660	0.25	810	0.30	1120	0.20	460	0.15	600	0.20	750	0.25	1030	0.20
80 FPM	400	0.15	540	0.15	650	0.20	920	0.15	370	0.10	480	0.15	600	0.15	830	0.15
60 FPM	300	0.10	410	0.10	490	0.10	690	0.10	280	0.05	360	0.10	450	0.10	620	0.10

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

	ANSI Z9.5 Minimum Flow Rate								
Inside 150 Air Changes/Hour							375 Air Ch	anges/Hour	
Depth	4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"
24" deep	100 CFM	120 CFM	150 CFM	210 CFM		230 CFM	300 CFM	370 CFM	510 CFM
30" deep	120 CFM	150 CFM	180 CFM	250 CFM		280 CFM	370 CFM	450 CFM	620 CFM
36" deep	140 CFM	180 CFM	220 CFM	300 CFM	] [	330 CFM	430 CFM	530 CFM	740 CFM







	Dime	ensions –	Length	
Α	48"	60"	72"	96"
В	39"	51"	63"	87"



Vertical Section

	Dimensi	ions – Dept	h
С	24"	30"	36"
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	<b>48</b> <sup>1</sup> /2"
Е	9"	15"	21"

1181/2" Clearance - Sash Up



# V26 – LX Series Bench Fume Hood

## 60" Interior Height with 35" High Combination Sash



Additional Parts Required for a Complete Fume Hood Assembly				
Work Top	see page 58			
Cupsink	see page 60			
Ceiling Enclosure	see page 61			
Service Fittings	see page 62			
Base Cabinets	see page 66			

## Accessories Included:

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 LED light fixture with illumination and color controller
- 1 Electromechanical sash stop with push button override

part no. code	Available Sizes:
35	Sash Opening Height: 35 inches / 889mm
	Inside Depth:
24	24 inches / 610mm
30	30 inches / 762mm
36	36 inches / 914mm
	Overall Length:
48	48 inches / 1219mm
60	60 inches / 1524mm
72	72 inches / 1829mm
96	96 inches / 2438mm

part no. code
G
K
L
S
т

code	Available Sash Frames:
М	Powder Coated Steel
S	Type 304L Stainless Steel

nort no





## **Airflow (CFM) Requirements**

	18" High Sash Opening								S	ash Clo	osed – P	anels F	ull Ope	n			
Face	4'-0"	/ 48"	5'-0"	/ 60"	6'-0"	/ 72"	8'-0" / 96" 4'		4'-0" / 48"		5'-0" / 60"		6'-0" / 72"		8'-0" / 96"		
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP		CFM	SP	CFM	SP	CFM	SP	CFM	SP
100 FPM	500	0.20	660	0.25	810	0.30	1120	0.20		550	0.20	720	0.25	900	0.30	1240	0.20
80 FPM	400	0.15	520	0.15	650	0.20	890	0.15		440	0.15	580	0.15	720	0.20	990	0.15
60 FPM	300	0.10	390	0.10	490	0.10	670	0.10		330	0.10	440	0.10	540	0.15	750	0.10

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

	ANSI Z9.5 Minimum Flow Rate								
Inside		150 Air Cha	anges/Hour				375 Air Ch	anges/Hour	
Depth	4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"
24" deep	100 CFM	120 CFM	150 CFM	210 CFM		230 CFM	300 CFM	370 CFM	510 CFM
30" deep	120 CFM	150 CFM	180 CFM	250 CFM		280 CFM	370 CFM	450 CFM	620 CFM
36" deep	140 CFM	180 CFM	220 CFM	300 CFM		330 CFM	430 CFM	530 CFM	740 CFM





4'-5'-6' Rough-in



Dimensions – Length								
Α	48"	60"	72"	96"				
В	39"	51"	63"	87"				





Dimensions – Depth								
С	24"	30"	36"					
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	48 <sup>1</sup> /2"					
Ε	9"	15"	21"					



# V30 – LX Series Bench Fume Hood

## 60" Interior Height with 28" High Split Vertical Rising Sash



Additional Parts Req Complete Fume Hoo	Additional Parts Required for a Complete Fume Hood Assembly							
Work Top	see page 58							
Cupsink	see page 60							
Ceiling Enclosure	see page 61							
Service Fittings	see page 62							
Base Cabinets	see page 66							

## Accessories Included:

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 2 LED light fixture with illumination and color controller
- 2 Electromechanical sash stop with push button override

part no. code	Available Sizes:
28	Sash Opening Height: 28 inches / 711mm
	Inside Depth:
24	24 inches / 610mm
30	30 inches / 762mm
36	36 inches / 914mm
	Overall Length:
96	96 inches / 2438mm
20	120 inches / 3048mm
44	144 inches / 3658mm

part no. code	<b>Available Liner Types:</b>	
G	Kemglass Fiberglass reinforced polyester 1805 UL classified	
К	KMER Kewaunee Modified Epoxy Resin	
L	Type 316L Stainless Steel 1805 UL classified	
S	Type 304L Stainless Steel 1805 UL classified	
т	Phenolic Resin	

code	Available Sash Frames:
Μ	Powder Coated Steel
S	Type 304L Stainless Steel





## **Airflow (CFM) Requirements**

	28" High Sash Opening							18	3" High Sa	sh Openin	ıg	
Face	8'-0"	/ 96"	10'-0"	/ 120"	12'-0" / 144"		8'-0" / 96"		10'-0" / 120"		12'-0" / 144"	
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP
100 FPM	1750	0.45	2240	0.55	2720	0.65	1150	0.20	1460	0.25	1780	0.30
80 FPM	1400	0.30	1790	0.35	2180	0.45	920	0.15	1170	0.15	1430	0.25
60 FPM	1050	0.20	1340	0.25	1630	0.30	690	0.10	880	0.10	1070	0.15

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

	ANSI Z9.5 Minimum Flow Rate							
Inside		150 Air Changes/Hour				375 Air Changes/Hour		
Depth	8'-0" / 96"	10'-0" / 120"	12'-0" / 144"		8'-0" / 96"	10'-0" / 120"	12'-0" /144"	
24" deep	210 CFM	260 CFM	320 CFM		510 CFM	650 CFM	790 CFM	
30" deep	250 CFM	320 CFM	390 CFM		620 CFM	790 CFM	960 CFM	
36" deep	300 CFM	380 CFM	460 CFM		740 CFM	940 CFM	1140 СҒМ	



## 8'-10'-12' Rough-in





Dimensions – Depth									
С	24"	30"	36"						
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	<b>48</b> <sup>1</sup> /2"						
Е	9"	15"	21"						



# V30 – LX Series Bench Fume Hood

## 60" Interior Height with 35" High Split Vertical Rising Sash



Additional Parts Required for a Complete Fume Hood Assembly							
Work Top	see page 58						
Cupsink	see page 60						
Ceiling Enclosure	see page 61						
Service Fittings	see page 62						
Base Cabinets	see page 66						

## Accessories Included:

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 2 LED light fixture with illumination and color controller
- 2 Electromechanical sash stop with push button override

part no. code	Available Sizes:
35	Sash Opening Height: 35 inches /889mm
	Inside Depth:
24	24 inches / 610mm
30	30 inches / 762mm
36	36 inches / 914mm
	Overall Length:
96	96 inches / 2438mm
20	120 inches / 3048mm
44	144 inches / 3658mm

part no. code	Available Liner Types:	
G	Kemglass Fiberglass reinforced polyester 1805 UL classified	
К	KMER Kewaunee Modified Epoxy Resin	
L	Type 316L Stainless Steel 1805 UL classified	
S	Type 304L Stainless Steel 1805 UL classified	
т	Phenolic Resin	

code	Available Sash Frames:
М	Powder Coated Steel
S	Type 304L Stainless Steel

nort no





## **Airflow (CFM) Requirements**

		3	5" High Sa	sh Openir	ig			18	3" High Sa	sh Openin	ıg	
Face	8'-0"	/ 96"	10'-0"	/ 120"	12'-0"	/ 144"	8'-0"	/ 96"	10'-0"	/ 120"	12'-0"	/ 144"
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP
100 FPM	2180	0.65	2780	0.80	3380	1.00	1150	0.20	1460	0.25	1780	0.30
80 FPM	1740	0.45	2220	0.55	2700	0.65	920	0.15	1170	0.15	1430	0.25
60 FPM	1310	0.25	1670	0.35	2030	0.40	690	0.10	880	0.10	1070	0.15

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

			ANSI Z9.5 Minimum	F	low Rate		
Inside		150 Air Changes/Hour				375 Air Changes/Hour	
Depth	8'-0" / 96"	10'-0" / 120"	12'-0" / 144"		8'-0" / 96"	10'-0" / 120"	12'-0" /144"
24" deep	210 CFM	260 CFM	320 CFM		510 CFM	650 CFM	790 CFM
30" deep	250 CFM	320 CFM	390 CFM		620 CFM	790 CFM	960 CFM
36" deep	300 CFM	380 CFM	460 CFM		740 CFM	940 CFM	1140 СҒМ



## 8'-10'-12' Rough-in





	Dimensi	ions – Depl	h
С	24"	30"	36"
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	<b>48</b> <sup>1</sup> /2"
Е	9"	15"	21"



# V36 – LX Series Bench Fume Hood

## 60" Interior Height with 28" High Split Combination Sash



Additional Parts Rec Complete Fume Hoo	uired for a d Assembly	
Work Top	see page 58	
Cupsink	see page 60	
Ceiling Enclosure	see page 61	
Service Fittings	see page 62	
Base Cabinets	see page 66	

## Accessories Included:

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 2 LED light fixture with illumination and color controller
- 2 Electromechanical sash stop with push button override

part no. code	Available Sizes:
28	Sash Opening Height: 28 inches / 7119mm
	Inside Depth:
24	24 inches / 610mm
30	30 inches / 762mm
36	36 inches / 914mm
	Overall Length:
96	96 inches / 2438mm
20	120 inches / 3048mm
44	144 inches / 3658mm

part no. code	<b>Available Liner Types:</b>	
G	Kemglass Fiberglass reinforced polyester 1805 UL classified	
К	KMER Kewaunee Modified Epoxy Resin	
L	Type 316L Stainless Steel 1805 UL classified	
S	Type 304L Stainless Steel 1805 UL classified	
т	Phenolic Resin	

code	Available Sash Frames:
Μ	Powder Coated Steel
S	Type 304L Stainless Steel

oort no


### **Technical Information**



#### **Airflow (CFM) Requirements**

	18" High Sash Opening Sash Closed – Panel Full Oen												
Face	8'-0"	/ 96"	10'-0"	/ 120"	12'-0"	/ 144"	8'-0" / 96" 10'-0" / 120" 12'-0" /		/ 144"				
Velocity	CFM	SP	CFM	SP	CFM	SP		CFM	SP	CFM	SP	CFM	SP
100 FPM	1120	0.20	1430	0.25	1740	0.30		930	0.15	1220	0.20	1500	0.25
80 FPM	890	0.15	1140	0.15	1390	0.25		750	0.10	970	0.15	1200	0.15
60 FPM	670	0.10	860	0.10	1040	0.15		560	0.05	730	0.10	900	0.10

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

			ANSI Z9.5 Minimum	F	low Rate		
Inside	150 Air Changes/Hour 375 Air Changes/Hour						
Depth	8'-0" / 96"	10'-0" / 120"	12'-0" / 144"		8'-0" / 96"	10'-0" / 120"	12'-0" /144"
24" deep	210 CFM	260 CFM	320 CFM		510 CFM	650 CFM	790 CFM
30" deep	250 CFM	320 CFM	390 CFM		620 CFM	790 CFM	960 CFM
36" deep	300 CFM	380 CFM	460 CFM		740 CFM	940 CFM	1140 CFM



#### 8'-10'-12' Rough-in





<b>36</b> <sup>1</sup> /2"	42 <sup>1</sup> /2"	<b>48</b> <sup>1</sup> /2"
9"	15"	21"

D E



### V36 – LX Series Bench Fume Hood

### 60" Interior Height with 35" High Split Combination Sash



uired for a od Assembly	
see page 58	
see page 60	
see page 61	
see page 62	
see page 66	
	see page 58 see page 60 see page 61 see page 62 see page 66

#### **Accessories Included:**

4

- 120 VAC 20 amp GFCI\* protected duplex receptacles
   \* when wired to a single circuit, as standard with Option U
- 2 LED light fixture with illumination and color controller
- 2 Electromechanical sash stop with push button override

part no. code	Available Sizes:
35	Sash Opening Height: 35 inches / 889mm
	Inside Depth:
24	24 inches / 610mm
30	30 inches / 762mm
36	36 inches / 914mm
	Overall Length:
96	96 inches / 2438mm
20	120 inches / 3048mm
44	144 inches / 3658mm

Available Liner Types:
Kemglass Fiberglass reinforced polyester 1805 UL classified
KMER Kewaunee Modified Epoxy Resin
Type 316L Stainless Steel 1805 UL classified
Type 304L Stainless Steel 1805 UL classified
Phenolic Resin

code	Available Sash Frames:
М	Powder Coated Steel
S	Type 304L Stainless Steel



## **Technical Information**



#### **Airflow (CFM) Requirements**

	18" High Sash Opening Sash Closed – Panels Full Open												
Face	8'-0"	/ 96"	10'-0"	/ 120"	12'-0"	/ 144"	8'-0" / 96" 10'-0" / 120" 12'-0" /		/ 144"				
Velocity	CFM	SP	CFM	SP	CFM	SP		CFM	SP	CFM	SP	CFM	SP
100 FPM	1120	0.20	1430	0.25	1740	0.30		930	0.15	1220	0.20	1500	0.25
80 FPM	890	0.15	1140	0.15	1390	0.25		750	0.10	970	0.15	1200	0.15
60 FPM	670	0.10	860	0.10	1040	0.15		560	0.05	730	0.10	900	0.10

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

			ANSI Z9.5 Minimum	F	low Rate		
Inside	150 Air Changes/Hour 375 Air Changes/Hour						
Depth	8'-0" / 96"	10'-0" / 120"	12'-0" / 144"		8'-0" / 96"	10'-0" / 120"	12'-0" /144"
24" deep	210 CFM	260 CFM	320 CFM		510 CFM	650 CFM	790 CFM
30" deep	250 CFM	320 CFM	390 CFM		620 CFM	790 CFM	960 CFM
36" deep	300 CFM	380 CFM	460 CFM		740 CFM	940 CFM	1140 CFM



#### 8'-10'-12' Rough-in





**Vertical Section** 

	Dimensi	ions – Dept	h
С	24"	30"	36"
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	<b>48</b> <sup>1</sup> /2"
Ε	9"	15"	21"



### V40 – Isotope Bench Fume Hood

### with Vertical Rising Sash



# Additional Parts Required for a<br/>Complete Fume Hood AssemblyCeiling Enclosuresee page 61Service Fittingssee page 62Base Cabinetssee page 66

#### **Accessories Included:**

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 LED light fixture with illumination and color controller
- 1 Electromechanical sash stop with push button override.
- 1 Reinforced stainless steel work top seamlessly coved welded to side and back liners.
- 1 5" diameter stainless steel cupsink welded into left rear corner of work top.

part no. code	Available Sizes:
28	Sash Opening Height: 28 inches / 711mm
24	Inside Depth: 24 inches / 610mm

#### **Overall Length:**

48 inches / 1219mm
60 inches / 1524mm
72 inches / 1829mm
96 inches / 2438mm

Available Liner Types:	part no. code
Type 304L Stainless Steel	S
1805 UL Classified	

part no. code	Available Sash Frames:
Ν	Frameless
М	Powder Coated Steel
S	Type 304L Stainless Steel



**V40** 

## **Technical Information**

#### **Airflow (CFM) Requirements**

			28"	High Sa	sh Opei	ning					18"	High Sa	sh Ope	ning		
Face	4'-0"	.'-0" / 48" 5'-0" / 60" 6'-0" / 72" 8'-0" / 96"		4'-0"	/ 48"	5'-0" / 60"		6'-0" / 72"		8'-0" / 96"						
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP
120 FPM	950	0.50	1240	0.65	1530	0.80	2110	0.55	620	0.25	810	0.30	1000	0.35	1380	0.25
100 FPM	790	0.40	1030	0.50	1270	0.60	1750	0.45	510	0.20	670	0.25	830	0.30	1150	0.20
80 FPM	not recor	nmended	not recon	nmended	not recon	nmended	not recon	nmended	not recor	nmended	not recor	nmended	not recon	nmended	not recon	nmended

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

			ANS	I Z9.5 Minimum	FI	low Rate				
Inside		150 Air Cha	anges/Hour			375 Air Changes/Hour				
Inside Depth	4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"	
24" deep	80 CFM	100 CFM	120 CFM	170 CFM		190 CFM	240 CFM	300 CFM	410 CFM	





8' Rough-in





#### VFH-01/19-39



# V45 – Perchloric Acid Bench Fume Hood

### with Vertical Rising Sash



#### **Accessories Included:**

- 3 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 Vapor proof light fixture with 120 VAC, 20 amp light switch
- 1 Electromechanical sash stop with push button override
- 1 Stainless steel work top with integral drain trough in rear.
- 1 Washdown fitting with hood interior washdown spray.

code	Available Sizes:
28	Sash Opening Height: 28 inches / 711mm
24	Inside Depth: 24 inches / 610mm

#### **Overall Length:**

48	48 inches / 1219mm
60	60 inches / 1524mm
72	72 inches / 1829mm
96	96 inches / 2438mm

Available Liner Types:	part no. code
Type 316L Stainless Steel	L
1805 UL Classified	

part no. code	Available Sash Frames:
Ν	Frameless
М	Powder Coated Steel
S	Type 304L Stainless Steel



Additional Parts Required for a
Complete Fume Hood Assembly

- Ceiling Enclosure Service Fittings Base Cabinets
- see page 61 see page 62 see page 66

**Note:** Acid storage and vacuum pump storage cabinets can not be vented through perchloric acid fume hood work tops.

### **Technical Information**



#### **Airflow (CFM) Requirements**

	28" High Sash Opening									18"	High Sa	ish Ope	ning			
Face	4'-0"	4'-0" / 48" 5'-0" / 60" 6'-0" / 72" 8'-0" / 96"		4'-0"	/ 48"	5'-0" / 60"		6'-0" / 72"		8'-0" / 96"						
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP
120 FPM	950	0.50	1240	0.65	1530	0.80	2110	0.55	620	0.25	810	0.30	1000	0.35	1380	0.25
100 FPM	790	0.40	1030	0.50	1270	0.60	1750	0.45	510	0.20	670	0.25	830	0.30	1150	0.20
80 FPM	not recor	nmended	not recon	nmended	not recon	nmended	not recon	nmended	not recor	nmended	not recor	nmended	not recor	nmended	not recon	nmended

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

			ANS	I Z9.5 Minimum	FI	low Rate				
Inside		150 Air Cha	anges/Hour			375 Air Changes/Hour				
Inside Depth	4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"	
24" deep	80 CFM	100 CFM	120 CFM	170 CFM		190 CFM	240 CFM	300 CFM	410 CFM	



Plumbing Access (both sides) ΕQ **A**/2 EQ -9" 2"--1" 11/2" NPT Cupsink Outlet 63/8 12" Ė 11" Ď 1115/16 O.D. Electrical
 Junction Box Exhaust Collar on top of hood Α 8' Rough-in

Pipe Space Below Work Top

B - Sash Opening



51"

63"

87"

Α

В

39"





### V65 – Floor Mounted Fume Hood

### with Vertical Rising Sash



Additional Parts Required for a Complete Fume Hood Assembly									
see page 58									
see page 61									
see page 62									
	uired for a d Assembly see page 58 see page 61 see page 62								

#### **Accessories Included:**

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 LED light fixture with illumination and color controller
- 1 Mechanical sash stop

part no. code	Available Sizes:
64	Sash Opening Height: 64 <sup>1</sup> /4 inches / 1632mm
	Inside Depth:
24	24 inches / 610mm
30	30 inches / 762mm
36	36 inches / 914mm
48	48 inches / 1219mm
	Overall Length:
48	48 inches / 1219mm
60	60 inches / 1524mm
72	72 inches / 1829mm
96	96 inches / 2438mm

Available Liner Types:	part no. code
Kemglass Fiberglass reinforced polyester 1805 UL classified	G
KMER Kewaunee Modified Epoxy Resin	K
Type 316L Stainless Steel 1805 UL classified	L
Type 304L Stainless Steel 1805 UL classified	S

Phenolic Resin **T** 

part no. code	Available Sash Frames:
Ν	Frameless
М	Powder Coated Steel

Type 304L Stainless Steel S



## **Technical Information**

### V65

#### **Airflow (CFM) Requirements**

	28" High Sash Opening										18"	High Sa	ish Opei	ning			
Face	4'-0" / 48" 5'-0"			5'-0" / 60" 6'-0" / 72"			8'-0" / 96"		4'-0	4'-0" / 48"		5'-0" / 60"		6'-0" / 72"		8'-0" / 96"	
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	
120 FPM	980	0.55	1280	0.70	1580	0.90	2180	0.70	660	0.25	850	0.35	1050	0.40	1450	0.30	
100 FPM	820	0.40	1070	0.55	1330	0.65	1830	0.45	550	0.20	720	0.25	890	0.30	1230	0.20	
80 FPM	660	0.30	860	0.35	1060	0.45	1460	0.30	440	0.15	580	0.20	710	0.20	980	0.15	

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

	ANSI Z9.5 Minimum Flow Rate											
Inside		150 Air Cha	anges/Hour				375 Air Ch	anges/Hour				
Depth	4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"			
24" deep	130 CFM	170 CFM	210 CFM	290 CFM		320 CFM	420 CFM	520 CFM	720 CFM			
30" deep	160 CFM	210 CFM	260 CFM	350 CFM		390 CFM	510 CFM	630 CFM	870 CFM			
36" deep	190 CFM	250 CFM	300 CFM	420 CFM		470 CFM	610 CFM	750 CFM	1030 CFM			
48" deep	250 CFM	320 CFM	390 CFM	540 CFM		610 CFM	790 CFM	980 CFM	1350 CFM			



#### 4'-5'-6' Rough-in







Dimensions – Depth										
С	24"	30"	36"	48"						
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	<b>48</b> <sup>1</sup> /2"	60 <sup>1</sup> /2"						
Ε	<b>34</b> <sup>3</sup> /4"	<b>40</b> <sup>3</sup> /4"	<b>46</b> <sup>3</sup> /4"	<b>58</b> <sup>3</sup> /4"						



### V66 – Floor Mounted Fume Hood

### with Combination Vertical Rising/Horizontal Sash



lired for a Assembly	
see page 58	
see page 61	
see page 62	
	<b>Assembly</b> see page 58 see page 61 see page 62

#### **Accessories Included:**

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 LED light fixture with illumination and color controller
- 1 Mechanical sash stop

es: part no. code	Available
ght: mm 64	<b>Sash Opening</b> 64 <sup>1</sup> /4 inches / 16
pth:	Inside
mm <b>24</b>	24 inches / 6
mm <b>30</b>	30 inches / 7
mm <b>36</b>	36 inches / 9
mm <b>48</b>	48 inches / 12
gth:	Overall I
mm <b>48</b>	48 inches / 12
mm <b>60</b>	60 inches / 15
mm <b>72</b>	72 inches / 18
mm <b>96</b>	96 inches / 24

code	<b>Available Liner Types:</b>
G	Kemglass Fiberglass reinforced polyester 1805 UL classified
К	KMER Kewaunee Modified Epoxy Resin
L	Type 316L Stainless Steel 1805 UL classified
S	Type 304L Stainless Steel 1805 UL classified
т	Phenolic Resin

part no. code	Available Sash Frames:
Μ	Powder Coated Steel
S	Type 304L Stainless Steel



### **Technical Information**

### **V66**

#### **Airflow (CFM) Requirements**

	18" High Sash Opening									S	ash Clo	osed – P	anels F	ull Ope	n	
Face	4'-0" / 48" 5'-0" / 6		/ 60"	6'-0" / 72"		8'-0" / 96"		4'-0" / 48"		5'-0" / 60"		6'-0" / 72"		8'-0" / 96"		
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP	CFM	SP
120 FPM	630	0.25	830	0.30	1020	0.40	1410	0.30	580	0.20	760	0.25	940	0.35	1300	0.25
100 FPM	540	0.20	710	0.25	880	0.30	1210	0.20	500	0.15	660	0.20	810	0.25	1120	0.20
80 FPM	430	0.15	570	0.20	700	0.20	970	0.15	400	0.10	530	0.15	650	0.20	900	0.15

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

	ANSI Z9.5 Minimum Flow Rate												
Inside		150 Air Cha	anges/Hour				375 Air Ch	anges/Hour					
Depth	4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"				
24" deep	130 CFM	170 CFM	210 CFM	290 CFM		320 CFM	420 CFM	520 CFM	720 CFM				
30" deep	160 CFM	210 CFM	260 CFM	350 CFM		390 CFM	510 CFM	630 CFM	870 CFM				
36" deep	190 CFM	250 CFM	300 CFM	420 CFM		470 CFM	610 CFM	750 CFM	1030 CFM				
48" deep	250 CFM	320 CFM	390 CFM	540 CFM	] [	610 CFM	790 CFM	980 CFM	1350 CFM				



#### 4'-5'-6' Rough-in





8' Rough-in



С	24"	30"	36"	48"
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	<b>48</b> <sup>1</sup> /2"	60 <sup>1</sup> /2"
Е	<b>34</b> <sup>3</sup> /4"	<b>40</b> <sup>3</sup> /4"	<b>46</b> <sup>3</sup> /4"	<b>58</b> <sup>3</sup> /4"



### V67 – Floor Mounted Fume Hood

### with Horizontal Sash



Additional Parts Required for a Complete Fume Hood Assembly		
Work Floor & Shelf	see page 58	
Ceiling Enclosure	see page 61	
Service Fittings	see page 62	

#### **Accessories Included:**

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 LED light fixture with illumination and color controller

Available Sizes:	part no. code
Sash Opening Height: 68 inches / 1727mm	68
Inside Depth:	
24 inches / 610mm	24
30 inches / 762mm	30
36 inches / 914mm	36
48 inches / 1219mm	48
Overall Length:	
72 inches / 1829mm	72
96 inches / 2438mm	96
120 inches / 3040mm	20
144 inches / 3658mm	44

part no. code	<b>Available Liner Types:</b>
G	Kemglass Fiberglass reinforced polyester 1805 UL classified
K	KMER Kewaunee Modified Epoxy Resin
L	Type 316L Stainless Steel 1805 UL classified
S	Type 304L Stainless Steel 1805 UL classified
т	Phenolic Resin

Available Sash Frames:	part no. code
Powder Coated Steel	М
Type 304L Stainless Steel	S



# **Technical Information**

#### **Airflow (CFM) Requirements**

	Panels Fully Open							
Face	6'-0"	/ 72"	8'-0"	/ 96"	10'-0" / 120" 12'-0" / 14			
Velocity CFM SP		CFM	SP	CFM	SP	CFM	SP	
120 FPM	2680	1.35	3690	1.65	4710	2.05	5720	2.50
100 FPM	2230	1.65	3080	1.15	3920	1.45	4770	1.80
80 FPM	1790	1.10	2460	0.75	3170	0.95	3820	1.20

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

	ANSI Z9.5 Minimum Flow Rate									
Inside 150 Air Changes/Hour						375 Air Changes/Hour				
Depth	6'-0" / 72"	8'-0" / 96"	10'-0" / 120"	12'-0" / 144"		6'-0" / 72"	8'-0" / 96"	10'-0" / 120"	12'-0" / 144"	
24" deep	210 CFM	290 CFM	370 CFM	450 CFM		520 CFM	720 CFM	910 CFM	1110 CFM	
30" deep	260 CFM	350 CFM	450 CFM	540 CFM		630 CFM	870 CFM	1110 СFM	1350 CFM	
36" deep	300 CFM	420 CFM	530 CFM	640 CFM		750 CFM	1030 CFM	1320 CFM	1600 CFM	
48" deep	390 CFM	540 CFM	690 CFM	840 CFM		980 CFM	1350 CFM	1720 CFM	2090 CFM	



#### 6' Rough-in





8'-10'-12' Rough-in



	Diı	mensions –	- Depth	
С	24"	30"	36"	48"
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	<b>48</b> <sup>1</sup> /2"	60 <sup>1</sup> /2"
Е	<b>34</b> <sup>3</sup> /4"	40 <sup>3</sup> /4"	<b>46</b> <sup>3</sup> /4"	58 <sup>3</sup> /4"



### **V90 – Distillation Fume Hood**

### with Vertical Rising Sash



Additional Parts Required for a Complete Fume Hood Assembly		
Work Top	see page 58	
Cupsink	see page 60	
Ceiling Enclosure	see page 61	
Service Fittings	see page 62	
Base Cabinets	see page 70	

#### **Accessories Included:**

- 4 120 VAC 20 amp GFCI\* protected duplex receptacles \* when wired to a single circuit, as standard with Option U
- 1 LED light fixture with illumination and color controller
- 1 Mechanical sash stop

Available Sizes:	part no. code
Full Sash Opening Height: 63 inches / 16001mm	63
Inside Depth:	
24 inches / 610mm	24
30 inches / 762mm	30
36 inches / 914mm	36
Overall Length:	
48 inches / 1219mm	48
60 inches / 1524mm	60
72 inches / 1829mm	72
96 inches / 2438mm	96

Available Liner Types:	part no. code
Kemglass Fiberglass reinforced polyester 1805 UL classified	G
KMER Kewaunee Modified Epoxy Resin	К
Type 316L Stainless Steel 1805 UL classified	L
Type 304L Stainless Steel 1805 UL classified	S
Phenolic Resin	т

code	Available Sash Frames:
Ν	Frameless
М	Powder Coated Steel
S	Type 304L Stainless Steel

a art na



## **Technical Information**

#### **Airflow (CFM) Requirements**

28" High Upper Sash Opening											18" Hig	h Lower	<sup>.</sup> Sash C	pening			
Face	4'-0"	/ 48"	5'-0"	/ 60"	6'-0"	/ 72"	8'-0"	/ 96"		4'-0"	/ 48"	5'-0"	/ 60"	6'-0"	/ 72"	8'-0"	/ 96"
Velocity	CFM	SP	CFM	SP	CFM	SP	CFM	SP		CFM	SP	CFM	SP	CFM	SP	CFM	SP
120 FPM	980	0.60	1280	0.70	1580	0.90	2180	0.60	(	620	0.25	810	0.30	1000	0.40	1380	0.25
100 FPM	820	0.40	1070	0.50	1320	0.65	1820	0.45	ļ	520	0.20	680	0.25	840	0.30	1150	0.20
80 FPM	650	0.25	850	0.35	1050	0.40	1450	0.30	4	420	0.15	540	0.15	670	0.20	920	0.15

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

	ANSI Z9.5 Minimum Flow Rate										
Inside	Inside 150 Air Changes/Hour					375 Air Changes/Hour					
Depth	4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		4'-0" / 48"	5'-0" / 60"	6'-0" / 72"	8'-0" / 96"		
24" deep	120 CFM	160 CFM	200 CFM	270 CFM		300 CFM	390 CFM	480 CFM	660 CFM		
30" deep	150 CFM	200 CFM	240 CFM	330 CFM		370 CFM	480 CFM	590 CFM	820 CFM		
36" deep	180 CFM	230 CFM	290 CFM	390 CFM		440 CFM	570 CFM	710 CFM	970 CFM		





4'-5'-6' Rough-in



	Dime	ensions –	Length	
Α	48"	60"	72"	96"
В	39"	51"	63"	87"





**Vertical Section** 

Dimensions – Depth							
С	24"	30"	36"				
D	<b>36</b> <sup>1</sup> /2"	<b>42</b> <sup>1</sup> /2"	<b>48</b> <sup>1</sup> /2"				
Ε	9"	15"	21"				

VFH-01/19-49



# Fume Hood Style & Option Availability

		Gen	eral Pur	pose	Split	Sash		ADA	LX S	eries
		V05	<b>V</b> 06	V07	V10	V11	V1	5 V16	V25	V26
Kemglass Liner (1/4")	G		•	•	•				•	•
NVIER LINER ('/4)	n I	•	•	•	•	•		•	•	•
Type 304L Stainless Steel Liner (16 ga)	S	•	•	•	•	•	•	•	•	•
Phenolic Resin Liner $(1/4")$	T	•	•	•	•	•	•	•	•	•
Frameless Sash	N			•					•	
Powder Coated Steel Sash Frame	G									
Type 304L Starness Steer Sash Frame	3								•	
Laminated Safety Glass Sash	G1	•	•	•	•	•	•	•	•	•
Tempered Glass Sash	G2	•	•	•	•	•	•	•	•	•
Polycarbonate	G3	•	•	•	•	•	•	•	•	•
Rod Driven Needle Valve Fittings	F1	•	•	•	•	•			•	•
Rod Driven Ball Valve Fittings	F2						•	•		
Front Load Needle Valve Fittings	F3	•	•	•	•	•			•	•
Specification Grade GECI Recontrolog	e	•	•	•		•			•	•
Hospital Grade GECI Recentacles	З_ Н	•	•	•	•	•	•	•	•	•
	••_									
Variable Air Volume (VAV)	V	•	•	•	•	•	•	•	•	•
Air Alert 600 Alarm - Vertical Sash	A1	•			•		•		•	
Air Alert 600 Alarm - Combo Sash	A2		•	•		•		•		•
Air Alert 300 Alarm	<b>A3</b>	•	•	•	•	•	•	•	•	•
Sash Stop/Sash Open Safety Label	L	•	•		•	•	•	•	•	•
Distillation Rack - Preparation	D	•	•	•	•	•	•	•	•	•
Fire Suppression System	Е	•	•	•	•	•	•	•	•	•
Safety Shield	S	•			•		•		•	
Tissue Screen	Т	•	•	•	•	•	•	•	•	•
Cord Ports (one provided in each side post)	P1	•	•	•	•	•	•	•	•	•
Work Shelf Supports	W									
Vapor Proof Light	<b>B1</b>	•	•	•	•	•	•	•	•	•
Explosion Proof Light	<b>B2</b>	•	•	•	•	•	•	•	•	•
Fan/Blower Switch (1hp motor rated)	Κ	•	•	•	•	•	•	•	•	•
Pre-wired/UL 61010A-1 (to a single circuit)	U/U2	•	•	•	•	•	•	•	•	•
Type 304L Stainless Steel Airfoil	0	•	•	•	•	•	•	•	•	•
Type 316L Stainless Steel Airfoil	02	•	•	•	•	•	•	•	•	•
Type 304L Stainless Steel Sash Pulls	Q	•	•		•	•	•	•	•	•
Type 316L Stainless Steel Duct Collar	С	•1	●1	●1	•1	●1	•	•1	●1	●1
Auto Sash Return	R1	•	•				•	•	•	•
Push Button Sash Operator	<b>R2</b>	•	•		•	•	•	•	•	•
Proximity Sash Operator	RЗ	•	•		●3	●3	•	•	•	•

1Standard on stainless steel lined hoods3Closes both sashes2Controls top sash only4Available for 48", 60" & 72"

# Fume Hood Style & Option Availability

		LX S	eries	Spe	cialty	Flo	or Mour	nted	Distillation
		<b>V</b> 30	V36	<b>V4</b> 0	V45	V65	<b>V66</b>	V67	<b>V90</b>
Kemglass Liner(1/4")KMER Liner(1/4")Type 316L Stainless Steel Liner(16 ga)Type 304L Stainless Steel Liner(16 ga)Phenolic Resin Liner(1/4")	G K L S T	• • •	• • •	•	•	•	• • •	• • • •	• • • • • • • • • • • • • • • • • • • •
Frameless Sash Powder Coated Steel Sash Frame Type 304L Stainless Steel Sash Frame	N G S	•	•	•	•	•	•	•	•
Laminated Safety Glass Sash Tempered Glass Sash Polycarbonate	G1 G2 G3	• •	• • •	•	•	•	•	• • •	• • •
Rod Control Needle Valve Fittings Rod Control Ball Valve Fittings Front Load Fittings	F1 F2 F3	•	•	•	•	•	•	•	•
Specification Grade GFCI Receptacles Hospital Grade GFCI Receptacles	S_ H_	•	•	•	•	•	•	•	•
Variable Air Volume (VAV)	V	•	•	•	•	•	•	•	•
Air Alert 600 Alarm - Vertical Sash Air Alert 600 Alarm - Combo Sash Air Alert 300 Alarm Sash Stop/Sash Open Safety Label	A1 A2 A3 L	•	• •	•	•	•	•	•	•
Distillation Rack - Preparation Fire Suppression System Safety Shield Tissue Screen Cord Ports <i>(one provided in each side post)</i> Work Shelf Supports	D E S T P1 W	• • •	•	•	•	• • •	• • • •	• • • •	• • •
Vapor Proof Light Explosion Proof Light Fan/Blower Switch <i>(1hp motor rated)</i> Pre-wired/UL 61010A-1 <i>(to a single circuit)</i>	B1 B2 K J/U2	• • •	• • •	• • •	std • •	•	• • •	• • •	• • • •
Type 304L Stainless Steel Airfoil Type 316L Stainless Steel Airfoil Type 304L Stainless Steel Sash Pulls Type 316L Stainless Steel Duct Collar	0 02 Q C	• • • 1	• • •	• • std	• • std	• • • •1	• • • •	• • •1	• • •1
Auto Sash Return Push Button Sash (up/down) Proximity Sash Operator	R1 R2 R3	• •3	• • <sup>3</sup>	•	• • •	•2 •3	●2 ●3		•3

 1
 Standard on stainless steel lined hoods
 3
 Closes both sashes

 2
 Controls top sash only
 4
 Available for 48", 60" & 72"

long hoods only



#### **VAV Restricted Bypass - Option V**

Venturi fume hoods are also designed for operation on Variable Air Volume (VAV) exhaust systems when used with a VAV control package (not provided with hood).

The fume hood will be modified for VAV system field installation (by VAV Controls Contractor).

The manufacturer and model number of the VAV controller along with the minimum flow rate requirement of the system must be provided at time of order to ensure the bypass is sized correctly for the exhaust system.

ANSI Z9.5 has defined a minimum flow rate range of 150 ACH - 375 ACH of the fume hood chamber.

#### Air Alert Fume Hood Monitor - Option A1 & A2



#### Air Alert 600 Fume Hood Monitor

consists of a thermistor sensor mounted on the fume hood interior wall and connected to fume hood containment cavity by a sensor port. A tube to the fume hood fascia completes monitored air path. The monitor measures and records the fume hood face velocity and sounds an alarm when the airflow falls below safe levels. A LCD displays a velocity readout and a visual onehour "Event Timeline" that records alarm occurrences and their length

for a continually updated one-hour time interval. The display background displays green, amber, or red to signal safe, marginal, and low face velocity conditions. The alarm and display offers the hood user a variety of alarm features including, alarm set points, metric or classical units, alarm delay intervals, nighttime setback, and muting options. The Air Alert 600 operates on 9-30 volts AC or DC and comes complete with an adapter that can be plugged into any 120 VAC receptacle.

**Option A1** — Air Alert 600 – Vertical Sash Fume Hoods Option A2 — Air Alert 600 – Combination & Horizontal Sash Fume Hoods

#### Air Alert Fume Hood Monitor - Option A3



Air Alert 300 consists of a thermistor sensor mounted through the end wall of the hood, and a control monitor that reset button that allows the hood user gives both a visual and audible alarm. The alarm monitors the fume hood face velocity and sounds an alarm when the airflow falls below safe levels. A glowing green light signals when conditions are again safe. The

control monitor, which is mounted on the hood fascia, also contains a test/ to verify alarm readiness.

The Air Alert 300 operates on a 9 volt DC circuit and comes complete with an adapter that can be plugged into any 120 VAC receptacle.

#### Sash Stop Label – Option L



Label Size 25/8" x 15/8"

#### Sash Open Safety Label

May be used on any vertical or combination sash fume hood to indicate proper sash position for safe fume hood operation. Ideal for use when fans are sized for less than full sash open operation. Label is printed in black on white vinyl.

#### Stainless Steel Duct Collar – Option C



**Stainless Steel Duct Collar** may be specified on any Venturi fume hood as an addition to the standard FRP plenum and duct collar assembly. (Type 316 Stainless Steel)

#### **Distillation Rack Preparation – Option D**



Venturi Fume Hoods may be prepared to accept a lattice style distillation rack. The rack consists of vertical and horizontal 1/2" diameter rods, fastened with rod clamps to form a lattice of approximate 12" squares. Rods are

available in Stainless Steel, Duralumin, or Fiberglass Reinforced Polyester (FRP) rods.

Rod Assemblies must be Ordered Separately. (see below)

Type 304 Stainl	ess Steel Rods		FRP	Rods
Bench Hoods 48"-60" High Interior	Floor & Distillation 80"-84" High Interior	Hood Length	Bench Hoods 48"-60" High Interior	Floor & Distillation 80"-84" High Interior
VDR5400140	VDR3040140	4-0 / 40	VDRP400140	VDRP040140
VDRS480160	VDRS840160	5'-0" / 60"	VDRP480160	VDRP840160
VDRS480172	VDRS840172	6'-0" / 72"	VDRP480172	VDRP840172
VDRS480196	VDRS840196	8'-0" / 96"	VDRP480196	VDRP840196
VDRS480120	VDRS840120	10'-0" / 120"	VDRP480120	VDRP840120
VDRS480144	VDRS840144	12'-0" / 144"	VDRP480144	VDRP840144
Duralum	nin Rods			
Bench Hoods 48"-60" High Interior	Floor & Distillation 80"-84" High Interior	Hood Length		
VDRA480148	VDRA840148	4'-0" / 48"		
VDRA480160	VDRA840160	5'-0" / 60"		
VDRA480172	VDRA840172	6'-0" / 72"		
VDRA480196	VDRA840196	8'-0" / 96"		
VDRA480120	VDRA840120	10'-0" / 120"		
VDRA480144	VDRA840144	12'-0" / 144"		

#### Sliding Safety Shield - Option S



**Sliding Safety Shield** designed to provide protection to fume hood users from small explosions, splattering of chemicals, breaking glass, etc. Designed to be used on Vertical Rising Sash Bench Hoods only, this 12" wide x 1/4" thick polycarbonate shield slides the full length of the hood face opening on ball bearing rollers

suspended from a track at the top of the sash opening, with a guide at the bottom to keep the shield from swinging. When the shield is not in use, it can be easily removed from the upper track and stored until it is needed again for safety purposes.



#### Stainless Steel Airfoil – Option 0 & 02



Stainless Steel Airfoil in lieu of standard powder coated steel airfoil. Option O - Type 304L Stainless Steel Option O2 - Type 316L Stainless Steel

**Stainless Steel Sash Pulls - Option Q** 



**Stainless Steel Pulls** integrated into spoiler shaped sash foil. (Type 304 Stainless Steel)



#### **Tissue Screen – Option T**





#### **Electrical Fixture Options**

#### Specification Grade GFCI – Option S\_



- **SK** = GFCI Specification Grade Black **SV** = GFCI Specification Grade – Ivory **SW** = GFCI Specification Grade – White **SG** = GFCI Specification Grade – Grey
- **SR** = GFCI Specification Grade Red

120 volt GFCI specification grade, 20 amp, ground fault protected, double duplex receptacle.

**Note:** One ground fault circuit interrupter will protect the duplexes in each post when wired on the same circuit as standard.

#### Fan/Blower Switch - Option K



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

Mounted on left fascia post above Light/Sash Stop Release Controller panel.

K = Fan Switch

#### Pre-wired/UL 61010A-1 Listed - Option U & U2 (single circuit)

**Pre-wired** — All Venturi Fume Hoods may be pre-wired at the factory. Pre-wired hoods are wired using flexible metallic conduit to a single junction box located at the top of the hood for a single circuit, single point connection for a UL 61010A-1 listing. Pre-wired hoods configured with a fan/blower switch (Option K) include a second junction box on the top of the hood.

(see page 73 for more information)

Hospital Grade GFCI – Option H\_



**HK** = GFCI Hospital Grade – Black **HV** = GFCI Hospital Grade – Ivory **HW** = GFCI Hospital Grade – White **HG** = GFCI Hospital Grade – Grey **HR** = GFCI Hospital Grade – Red

120 volt GFCI hospital grade, 20 amp, ground fault protected, double duplex receptacle.

**Note:** One ground fault circuit interrupter will protect the duplexes in each post when wired on the same circuit as standard.

- U = Pre-wiring for hoods with standard LED lighting
- **U2** = Prewiring for hoods with Vapor Proof (Option B1) or Explosion Proof (Option B2) lighting



#### **Cord Ports – Option P1**



**Cord Ports** — provide convenient, safe passage of wires and tubes for equipment connections.

One provided in each side post. Replaces lowest service fitting holes.



#### Auto Sash Return - Option R1

The Auto Sash Return option provides an automatic, gravity operated. sash return that lowers the sash to 18" from the full-open set-up position. When the sash is raised to the full open position a sash lock holds the sash open for set-up purposes. By pressing the electronic Sash Stop Release Button, the sash automatically closes to the 18" operating height.

#### **Push Button Sash Operator – Option R2**

The Push Button Sash Operator, located within the light control panel, is a motorized sash controller that opens or closes the sash.

From the closed position, a single push of the **Up Button** will open the sash to a preprogrammed sash stop height and another push of the **Up Button** will then fully open the sash.

From the open position, a single push of the **Down Button** will fully close the sash.

At any time a user may interrupt the mechanism, and stop sash travel, by pushing the **Stop Button**. In the event of a sash obstruction the sash will stop and retract a few inches so the object can be removed.

When the mechanism is not in operation, the sash can be manually opened or closed.

The Push Button Sash Operator replaces the standard electromechanical sash stop.

The Push Button Sash Operator is supplied installed and prewired to a junction box located on the top of the hood.

Split Sash Hoods are equipped with two sash controllers, one for each sash.

#### **Proximity Sash Operator – Option R3**

The Proximity Sash Operator uses an overhead motion sensor to monitor the area in front of the hood for the presence of lab personnel. Scanning at regular intervals, when it senses there has been no movement within the programmed period of time, it automatically closes the sash slowly and safely. When personnel are present, the sash is able to be opened and closed manually.

In addition to the motion sensor, a photoelectric sensor placed on the sash creates a light beam which scans the sash area for obstructions in the path of the sash. When an obstruction exists, the sash will halt its descent, and a warning light will signal that an obstruction exists. Once the obstruction is removed, the sash operator warning light will reset, and the unit will re-engage.

The Proximity Sash Operator is factory installed on the fume hood with all required mechanical connections to the sash shaft for proper operation, and is pre-wired to a junction box located on the top of the hood.

#### Fire Suppression System – Option E



Venturi Fume Hoods may be fitted with a Fire Suppression System to control runaway experiments and the hazards of fire. The heart of the system is the patented CFF 800 Dual Agent ABC Dry Chemical Fire Suppression System Unit, vertically mounted in the top of the fume hood for complete coverage. The suppression unit is fully selfcontained and may be easily removed for maintenance or replacement. Each fire suppression unit is equipped with a pressure gauge for easy status checking, a pressure switch that can be wired back to a monitoring or control panel (IE; burglar alarm) for 24 hour a day monitoring supervision and notification, and a 155F temperature bulb for automatic heat activation. To ensure complete coverage, four foot, five foot, six foot, and eight foot long fume hoods are protected with one fire suppression unit mounted in the center of the enclosure. Ten foot and twelve foot long fume hoods require two units for complete protection. Each CFF 800 unit is capable of protecting 8.2' x 8.2' x 12.2' or 820 cubic feet.

#### Work Shelf Supports – Option W



Venturi Floor Mounted Fume Hoods may be fitted with a removable Work Shelf mounted at 36" above the floor. The Work Shelf requires reinforcements in the fume end walls to attach the Work Shelf Cleats and

to carry the weight of the Work Shelf. Option W adds the reinforcements to a Floor Mounted Fume Hood, but not the Work Shelf and cleats which must be ordered separately.

Available for 4 foot, 5 foot, and 6 foot Floor Mounted Hoods only

#### Vapor Proof Light - Option B1



Option B1 replaces the standard LED light, light controller, and double GFCI double duplex receptacles on the left hand sash post with an 150 watt vapor proof light and a combination single duplex, 120 volt AC, 20 amp, GFCI receptacle and a single pole, 120/240 volt AC, 20 amp light switch.

Fixtures are furnished installed but not wired unless Option U2 (pre-wired is specified.

(Type A-16 bulb not included)

#### **Explosion Proof Light – Option B2**



Option B2 replaces the standard LED light, light controller, and double GFCI double duplex receptacles on the left hand sash post with an 150 watt explosion proof light and combination single duplex, 120 volt AC, 20 amp, GFCI receptacle and a single pole, 120/240 volt AC, 20 amp light switch.

(Light switch is not explosion proof)

Light switch and receptacles are furnished installed but not wired unless Option U2 (pre-wired) is specified. Explosion proof light is supplied loose for field installation when not pre-wired. (Globe ships loose.)

#### **Explosion Proof Light**

Class 1, Division 1 & 2, Group C & D Class 2, Division 1 & 2, Group E, F, & G Class 3 (Type A-21 bulb not included)

#### Sash Glass Laminated Safety – Option G1 Tempered – Option G2 Polycarbonate – Option G3

#### Laminated Safety Glass

Laminated safety glass is made from two layers of float glass bound together by a layer of Polyvinyl Butyral (PVB). When broken, glass pieces will tend to adhere to the PVB layer instead of flying or falling into an adjacent user

#### **Tempered Safety Glass**

Tempered safety glass offers higher impact resistance. It performs well in areas of rapid and high temperature changes. If broken, it will shatter into small, safe pieces.

#### Polycarbonate

Polycarbonate is suggested when using Hydrofluoric Acid (HF) and provides superior resistance to chemical etching.



### Venturi Fume Hood Tops

#### Work Tops - Work Shelves - Work Floor



Venturi Bench Hoods require a Work Top that must be ordered separately. Work Tops are available in either Kemresin or Stainless Steel. are dished 1/2" to retain spillage, and incorporate a 2" wide safety rim at the front.

They may include cutouts for cupsinks or vent pipes when specified with the cutout option.

#### Cupsinks must be ordered separately.

Venturi Floor Mounted Hoods may be ordered with a removable Work Shelf and/or a Work Floor that must be ordered separately. Both are available in either Kemresin or Stainless Steel, are dished 1/2" to retain spillage, incorporate a 2" wide safety rim at the front, and are not furnished with cutouts standard.

To mount the removable Work Shelf, the Venturi Floor Mounted Hood must be ordered with the W Option (see page 57).

Work tops and floors over 96 inches long are shipped in multiple sections.



for 4 foot, 5 foot & 6 foot Floor Mount Hood

for Floor Mount Hood

### **Venturi Fume Hood Top**

#### **Cutout Options**

Kemresin and poly cupsinks are shipped loose. Stainless steel cupsinks, when ordered with the top, are welded in place. **Note:** Kemresin & poly cupsinks may only be used in Kemresin hood tops, type 304L stainless steel cupsinks may only be used in type 304L stainless steel tops, and type 316L stainless steel cupsinks may only be used in the type 316L tops. Cupsinks must be ordered separately.





### Cupsinks

#### **Oval Cupsinks**



0499-BPBlack Poly0499-GPGrey Poly0499-PPPutty Poly0499-SPSlate Poly

Complete with integral strainer, 12" horizontal tail-piece, and 90° elbow with  $1^{1}/_{2}$ " IPS male straight thread outlet. Cupsink inside dimension,  $5^{1}/_{2}$ " x  $3^{1}/_{2}$ ".

(Overall height is 7", tailpiece and elbow not illustrated) **Designed for front, vertical** 

position in hood work top.



0490-BE Black Epoxy 0490-GE Grey Epoxy 0490-PE Putty Epoxy 0490-SE Slate Epoxy Complete with removable strainer. 6"x 3" inside dimension. 11/2" IPS male straight thread outlet. (Overall height is 71/2")



0491-BP Black Poly 0491-GP Grey Poly Complete with removable strainer. 6"x 3" inside dimension. 11/2" IPS male straight thread outlet. (Overall height is 81/2")



0492-BP Black Poly 0492-GP Black Poly Complete with removable strainer. 9"x 3" inside dimension. 1½" IPS male straight thread outlet. (Overall height is 7")

#### Side Mounted Cupsink

Black Poly

Molded of black polyolefin resins. Complete

with 90° union elbow. Designed to be mount-

ed in a vertical panel not over 1/4" thick. 6" x

3" inside dimension. 11/2" IPS male straight

0476-BP

thread outlet.



0493-BE Black Epoxy 0493-GE Grey Epoxy 0493-PE Putty Epoxy 0493-SE Slate Epoxy Complete with gasket and removable type 316 stainless steel wire screen.  $13^{3}/8^{"} \times 4^{1}/8^{"} \times 5^{1}/4^{"}$  I.D.  $1^{1}/2^{"}$  IPS male straight thread outlet. (Overall height is 8")

#### **Stainless Steel Cupsinks**



**0950-00** Stainless Steel Made of type 304 stainless steel and has integral cross bars. 5" I.D. 11/2" IPS male straight thread outlet. Designed to be welded into stainless steel tops.

VFH-01/19-60



**0951-00** Stainless Steel Made of type 316 stainless steel and has integral cross bars. 5" I.D. 1<sup>1</sup>/<sub>2</sub>" IPS male straight thread outlet. Designed to be welded into stainless steel tops.



**0975-00** Stainless Steel Made of type 316 stainless steel and has integral cross bars. 6" x 3" I.D. 11/2" IPS male straight thread outlet. Designed to be welded into stainless steel tops.

### **Hood Enclosures & Finished Backs**

#### **Fume Hood Ceiling Enclosures**



#### **Fume Hood Finished Backs**



Fume Hood Finished Backs are furnished in two pieces

Fume Hood Finished Backs are designed to enclose the back of the fume hood when it is exposed to view and are removable without the use of tools for when access is required.

General Purpose Hood 57" High	ADA Hood <i>60" High</i>	Length
VFBM570148 VFBM570160 VFBM570172 VFBM570196	VFBM600148 VFBM600160 VFBM600172 VFBM600196	4'-0" / 48" 5'-0" / 60" 6'-0" / 72" 8'-0" / 96"
VFBM570120 VFBM570144		
69" High	92" High	Length
VFBM690148	VFBM920148	4'-0" / 48"
VFBM690160	VFBM920160	5'-0" / 60"
VFBM690172	VFBM920172	6'-0" / 72"
VFBM690196	VFBM920196	8'-0" / 96"
VFBM690120	VFBM920120	10'-0" / 120"
VFBM690144	VFBM920144	12'-0" / 144"



#### **Service Fittings Part Number**



#### Color Coded 6" Vacuum Breaker Gooseneck = 6GVB

**4C** = 4-arm Chrome Plated Brass **MN**= Color Coded Molded Nylon **LC** = 21/2" Chrome Plated Brass Lever



Valve Handle

#### Vacuum Breaker Assembly

for elevated mounting in top front panel of fume hood.

**W-0112-00-P** Pre-piped 3/8" I.P.S. inlet and outlet, includes brass nipples, locknuts, and washers.

#### Vacuum Breaker (not pictured)

for elevated mounting in side wall of fume hood

#### W-0539-00-P

3/8" I.P.S inlet and outlet

#### Service Fitting Colors & Index Symbols

Service	Fitting Color	Index Symbol	Index Color	Letter Color
Air	Orange	AIR	Orange	Black
Gas	Blue	GAS	Blue	White
Vacuum	Yellow	VAC	Yellow	Black
Nitrogen	Brown	NIT	Brown	White
Argon	Violet	AR	Violet	White
Steam	Black	STM	Black	White
Distilled Water	White	DW	White	Black
Cold Water	Green	CW	Green	White
Hot Water	Red	HW	Red	White
*H & C Water	Dark Grey			

\* not available in Angled Color Coded Nylon

#### **Pre-wired & Pre-piped**

**Pre-wired** — All Venturi Fume Hoods may be Pre-wired at the factory. Pre-wired hoods are wired using flexible metallic conduit to a single junction box located at the top of the hood for a single point connection at the job site. Select Option U to specify the hood to be pre-wired. **Pre-piped** — In addition, all Venturi Fume Hood fittings may be Pre-piped at the factory when pre-piped fittings are selected. Piping is routed to the rear of the hood, in the side of the hood that the fittings are mounted. (If fittings are mounted in both ends, there are two connection points.) Piping may be routed either to the top or bottom of the hood as specified.

Pre-piped

#### Standard 3/8" Piping Materials

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

Other — Hard Drawn Type L Copper (Copper connections made with lead free solder, black steel connections are threaded)

VFH-01/19-62

#### **Rod Driven Needle Valves – Front Location**



Needle Valve - Left Hand



**3185** Needle Valve - Right Hand

### Minimum Spacing 31/2" vertical distance between fittings

**Rod Driven Needle Valves – Back Location** 

Valve Handles



4-Arm Handle Chrome Plated Brass



MN Molded Nylon Color Coded Handle



Hot Water

Service Outlets



F

V3185M-

AN Angled Color Coded Nylon



AB Angled Color Coded Brass



4<sup>1</sup>/4" 90° Outlet Color Coded Brass



41/4" 90° Outlet with Vacuum Breaker Color Coded Brass

Loc. Handle Outlet Depth Piping V3185W - B, , , L, L - Cold Water V3185H - B, J, L, L - Hot Water V3185M - B, J, L, L - H & C Water

#### **Back Location Water Outlets**



**4R** 4<sup>1</sup>/4" 90° Outlet Color Coded Brass



**4RVB** 41/4" 90° Outlet with Vacuum Breaker Color Coded Brass



**6G** 6" Rigid/Swing Gooseneck Color Coded Brass



6 Rigid/Swing Gooseneck with Vacuum Breaker Color Coded Brass



#### Rod Driven Ball Valves - Front Location - for use on ADA Fume Hoods



Ball Valve - Left Hand



**4285** Ball Valve - Right Hand

Minimum Spacing 5" vertical distance between fittings

Valve Handles



LC Lever Handle Chrome Plated Brass

Service Outlets

V4285D - F.LC, Distilled Water

V4285M - F.LC, H & C Water

Loc. Handle Outlet Piping

V4285R - \_ F, LC, \_ Argon

Air

Gas

Vacuum

Nitrogen

Cold Water

Hot Water

V4285A - F.LC. | -

V4285G - F.LC, -

V4285V - F,LC, -

V4285N - \_\_\_\_\_\_\_

V4285W - F.LC, -

V4285H - F.LC, -



Angled Color Coded Nylon



**AB** Angled Color Coded Brass



4<sup>1</sup>/4" 90° Outlet Color Coded Brass



41/4" 90° Outlet with Vacuum Breaker Color Coded Brass

#### Rod Driven Ball Valves - Back Location - for use on ADA Fume Hoods

Loc. Handle Outlet Depth Pipi	ing
V4285W - B,LC, ,L	Cold Water
V4285H - B,LC, ,L	Hot Water
V4285M - B,LC, ,L	H & C Water

#### **Back Location Water Outlets**



**4R** 4<sup>1</sup>/4" 90° Outlet Color Coded Brass



**4RVB** 41/4" 90° Outlet with Vacuum Breaker Color Coded Brass



6" Rigid/Swing Gooseneck Color Coded Brass



6" Rigid/Swing Gooseneck with Vacuum Breaker Color Coded Brass

#### Front Load Needle Valves - Front Location



0739 Front Load Valve - Left Hand



0739 Front Load Valve - Right Hand

Minimum Spacing	<b>31/</b> 2
vertical distance between fittings	

Valve Handles



4-Arm Handle **Chrome Plated Brass** 



MN Molded Nylon Color Coded Handle

	utlat Dining	
Loc. Handle 0 V0739A - F,, V0739G - F,, V0739V - F,, V0739N - F,, V0739R - F,, V0739S - F, MN, A V0739D - F,,		Air Gas Vacuum Nitrogen Argon Steam Distilled Water
V0739WF,, V0739HF,, V0739MF,,		Cold Water Hot Water H & C Water

**Service Outlets** 



Angled Color Coded Nylon



AB Angled Color Coded Brass



41/4" 90° Outlet Color Coded Brass



4RVB 41/4" 90° Outlet with Vacuum Breaker Color Coded Brass

Front Load Needle Valves - Back Location

	Loc. Hai	ndle Outlet	Depth Pip	ping
V0739W -	□ <b>в</b> ,□	□,□□,	L 🗌 - 🗆	Cold Water
V0739H -	□b,́[	$\Box, \Box,$	L 🗌 - 🗆	Hot Water
V0739M -	□b,́□	□,□□,	L 🗌 - 🗌	🗌 H & C Water

#### **Back Location Water Outlets**



4R 41/4" 90° Outlet Color Coded Brass



4RVB 41/4" 90° Outlet with Vacuum Breaker **Color Coded Brass** 



6G 6" Rigid/Swing Gooseneck Color Coded Brass



6GVB 6" Rigid/Swing Gooseneck with Vacuum Breaker Color Coded Brass



### Fume Hood Base Cabinets

#### **DIMENSIONAL VIEW**



#### **Specifications**

Standing Height Steel and Wood Fume Hood Base Cabinets are 35" high and a nominal 20" deep. ADA Height Steel style when ordering by replacing bunched base Cabinets are 32" blanks in last four digits of catalog high and 20" deep; ADA Height Wood Fume Hood Base Cabinets are 321/2" high and nominal 20" deep. Lengths as shown.

#### **Cabinet Style Option:**

Specify cabinet door and hardware blanks in last four digits of catalog number with style numbers. See the Research Collection Steel and Signature Series Wood Catalogs for available styles and details.

#### **Standing Height Fume Hood Base Cabinets**



G08W362012L	12"L	G08W362012	12"L	G08W362030	30"L	G08W362060	60"L
G08W362015L	15"L	G08W362015	15"L	G08W362036	36"L		
G08W362018L	18"L	G08W362018	18"L	G08W362048	48"L		
G08W362024L	24"L	G08W362024-	24"L				

#### **ADA Height Fume Hood Base Cabinets**







Steel	Cabinets	(33"	High)

G08C322012L	12"L	G08C322012	12"L	G08C322030	30"L
G08C322015L	15"L	G08C322015	15"L	G08C322036	36"L
G08C322018L	18"L	G08C322018	18"L	G08C322042	42"L
G08C322024L	24"L	G08C322024	24"L	G08C322048	48"L

Wood Cabinets	(32	/²" High)			
G08W342012L	12"L	G08W342012	12"L	G08W342030	30"L
G08W342015L	15"L	G08W342015	15"L	G08W342036	36"L
G08W342018L	18"L	G08W342018	18"L	G08W342042	42"L
G08W342024L	24"L	G08W342024	24"L	G08W342048	48"L



# Solvent Storage Fume Hood Base Cabinets

#### **Specifications**

Solvent Storage Cabinets are specifically designed for the storage of flammable and combustible liquids. Both steel and wood cabinets meet UFC, OSHA and NFPA No. 30-1993 construction standards and are UL listed.

A 2" deep, steel, liquid-tight pan covers the entire bottom to contain liquid leaks and spills. A second pan is provided as a full-depth adjustable shelf. Two diametrically opposed vents with spark screens are provided in the back for cases when ventilation is required.

The steel cabinet is all18 gauge steel, double panel construction with selfclosing doors, synchronized so that both doors will always fully close. The right hand door is equipped with a three-point latching system that automatically engages the cabinet frame. Each door is equipped with a fusible-link hold-open feature that ensures the doors close should the temperature outside the cabinet exceed 165°F. Steel cabinets are provided with a grounding screw at the rear.

All Solvent Storage Cabinets are labeled: CAUTION FLAMMABLE – KEEP FIRE AWAY in English, Spanish, and French.









Steel Cabinets (35"	High)	Capacity	Capacity
<b>G68C352024L_100</b> Steel Solvent Storage Cabir Style 1 - Full Overlay furnish	24"L <b>G68C352024100</b> 2 nets are available in Style 0 and 1 only ned with toespace 1" deeper	24"L 12 gal G68C35203 2 G68C35203 G68C35204 G68C35204	<b>30100</b> 30"L 12 gal <b>36100</b> 36"L 15 gal <b>48100</b> 48"L 20 gal
Wood Cabinets (35"	High)	Capacity	Capacity
G68W362024L_0_0 Wood Solvent Storage Cabi	24"L <b>G68W3620240_0</b> 2 inets are available in Style 1 and 5 on	24"L 12 gal G68W3620 G68W3620 G68W3620 G68W3620	<b>300_0</b> 30"L 12 gal <b>360_0</b> 36"L 15 gal <b>480_0</b> 48"L 20 gal

ADA Height Solvent Storage Fume Hood Cabi	nets		
Steel Cabinets (32" High)	Capacity		Capacity
<b>G68C322024L_100</b> 24"L <b>G68C322024100</b> Steel Solvent Storage Cabinets are available in Style 0 and 1 o Style 1 - Full Overlay furnished with toespace 1" deeper	24"L 12 gal <sup>only.</sup>	G68C322030100 G68C322036100 G68C322048100	30"L 12 gal 36"L 15 gal 48"L 20 gal
Wood Cabinets (32 <sup>1</sup> / <sub>2</sub> " High)	Capacity		Capacity
G68W342024L_0_0       24"L       G68W3420240_0         Wood Solvent Storage Cabinets are available in Style 1 and	24"L 12 gal 5 only	G68W3420300_0 G68W3420360_0 G68W3420480_0	30"L 12 gal 36"L 15 gal 48"L 20 gal



### Acid Storage Fume Hood Base Cabinets

#### **Specifications**

Acid Storage Fume Hood Base Cabinets are specifically designed for the storage of corrosive chemicals. They are available in either steel or wood. These cabinets are lined with a molded one piece linear low density polyethylene tub with coved corners and a 1" lip at the bottom

front. The cabinet doors are lined with 1/8" sheet polyethylene and the doors are latched using a nylon roller catch. Each cabinet is furnished with a 11/2" I.D. flexible polyolefin tube for venting to the fume hood above. (Requires a 2" hole in the hood work top.)

#### Optional Removable Half-Depth Shelf

Part No.	
019624 019625 019626	Shelf for 24"cabinet Shelf for 30"cabinet Shelf for 36"cabinet
019627	Shelf for 48"cabinet



#### **Standing Height Acid Storage Fume Hood Cabinets**



On Center 11<sup>5</sup>/8" from Top of Cabinet

Steel Cabinets	(35" High)
G80C352024L	_ 24"L Left Hand
G80C352024	_ 24"L Right Hand
Wood Cabinets	(35" High)

G80W362024L\_\_\_\_24"L Left Hand G80W362024-\_\_\_\_ 24"L Right Hand



Vent Location 30" - 75/8" Right of Center 36" & 48" - 5" Right of Center 115/8" from Top of Cabinet

G80C352030	30"L
G80C352036	36"L
G80C352048	48"L

G80W362030	30"L
G80W362036	36"L
G80W362048	48"L

	I	[ð]	1	
L	45u			45ι

Vent Location On Center 11<sup>5</sup>/8" from Top of Cabinet

G	80		3520	60-		60	"
		,.		.00	<u>.</u>	0 4.00	

G80W362060	60"L
------------	------

ADA Height Acid Storage Fume Hood Cabinets						
Steel Cabinets	(32" High)					
G80C322024L	_ 24"L Left Hand	<b>G80C332030</b> 30"L				
G80C322024	_ 24"L Right Hand	G80M332048 48"L				
Wood Cabinets	(32½" High)					
G80W342024L	24"L Left Hand	<b>G80W342030</b> 30"L				
G80W342024	_ 24"L Right Hand	G80W342036 36 L G80W342048 48"L				

### **Vacuum Pump Storage Base Cabinets**

#### **Specifications**

Vacuum Pump Storage Fume Hood Cabinets are designed without a bottom to allow vacuum pumps and other equipment to be rolled in or out of the cabinets. The interior is lined with 1" thick neoprene foam for sound deadening and easy cleaning. Each cabinet is furnished with a 120 VAC, 20 amp, duplex receptacle mounted on the inside cabinet back and a pilot lighted toggle switch mounted in the top front rail. (Wiring is not included.) Each cabinet is furnished with a 11/2" I.D. flexible polyolefin tube for venting

to the fume hood above. (Requires a 2" hole in the hood work top.) The toespace rail is attached to the door to allow total access to the cabinet. Cabinet inside clearance at the floor is 141/2" front-to-back, 25" high, and 3" less than the overall cabinet length.



#### Standing Height Vacuum Pump Storage Fume Hood Cabinets

		۰
- 岐 - 岐	to 	
45u		45

Vent Location 5" Off Center 115/8" from Top of Cabinet

lop of Cabinet
(35" High)
24"L Left Hand
24"L Right Hand
(35" High)
24"L Left Hand

G35W362024-\_\_\_\_ 24"L Right Hand

G35C352036 G35C352048	36"L 48"L
G35W362030	30"L
G35W362036	36"L
G35W362048	48"L

٥

45u

30"L

 $\overline{\Phi}$ 

Vent Location

On Center

115/8" from Top of Cabinet

G35C352030-

#### **ADA Height Vacuum Storage Fume Hood Cabinets**

Steel Cabinets	(32" High)		
G35C322024L	24"L Left Hand	G35C322030	30"L
G35C322024	24"L Right Hand	G35C322036 G35C322048	36°L 48"L
Wood Cabinets	(32 <sup>1</sup> /2" High)		
G350W342024L	_24"L Left Hand	G35W342030	30"L
G350W342024	_24"LRight Hand	G35W342036 G35W342048	36"L 48"L

#### **Vacuum Pump Cart**

Vacuum Pump Carts are designed for use with Kewaunee's Vacuum Pump cabinets shown on this page. The cart consists of a 1" deep pan, fabricated from powder coated or stainless steel and mounted on 4" swivel casters.



#### Carts for 20" Deep Cabinets Powder Coated Steel

I UNACI UULCA UL	
Part Number	Length
VPCC061414-0000	14"
VPCC061420-0000	20"
VPCC061426-0000	26"
VPCC061432-0000	32"
VPCC061438-0000	38"
VPCC061444-0000	44"
<b>••••••</b>	
Stainless Steel	
Stainless Steel Part Number	Length
Stainless Steel Part Number VPCC061414-0030	Length 14"
Stainless Steel Part Number VPCC061414-0030 VPCC061420-0030	Length 14" 20"
Stainless Steel Part Number VPCC061414-0030 VPCC061420-0030 VPCC061426-0030	Length 14" 20" 26"
Stainless Steel           Part Number           VPCC061414-0030           VPCC061420-0030           VPCC061426-0030           VPCC061432-0030	Length 14" 20" 26" 32"
Stainless Steel           Part Number           VPCC061414-0030           VPCC061420-0030           VPCC061426-0030           VPCC061432-0030           VPCC061438-0030	Length 14" 20" 26" 32" 38"
Stainless Steel           Part Number           VPCC061414-0030           VPCC061420-0030           VPCC061426-0030           VPCC061432-0030           VPCC061438-0030           VPCC061444-0030	Length 14" 20" 26" 32" 38" 44"



### **Distillation Hood Base Cabinets**

#### **DIMENSIONAL VIEW**

# 20<sup>1</sup>/2"

#### **Specifications**

Distillation Fume Hood Steel and Wood Base Cabinets are designed to be used under distillation fume hoods. Both are 20<sup>1</sup>/<sub>2</sub>" high and are a nominal 20" deep. Lengths as shown.

#### **Cabinet Style Option:**

Specify cabinet door and hardware style when ordering by replacing blanks in last four digits of catalog number with style numbers. See the Research Collection Steel and Signature Series Wood Catalogs for available styles and details.

#### **Distillation Hood Base Cabinets**







#### **Steel Cabinets**

(20<sup>1</sup>/2" High)

G05C202012L	12"L	G05C202012	12"L	G05C202030	30"L
G05C202015L	15"L	G05C202015	15"L	G05C202036	36"L
G05C202018L	18"L	G05C202018	18"L	G05C202042	42"L
G05C202024L	24"L	G05C202024	24"L	G05C202048	48"L

#### Wood Cabinets (20<sup>1</sup>/2" High)

<b>G05W202012L</b> 12"L	G05W202012-	12"L	G05W202030-	30"L
<b>G05W202015L</b> 15"L	G05W202015	15"L	G05W202036	36"L
G05W202018L 18"L	G05W202018	18"L	G05W202042	42"L
G05W202024L 24"L	G05W202024	24"L	G05W202048	48"L


# Venturi Fume Hood Accessories



### **Specifications**

**Base Cabinet Rear Fillers** are designed to close opening between wall and rear of fume hood base cabinet. They are available in both steel and wood in sizes shown. **Kemstruts** are steel frame assemblies consisting of steel channels and spacers designed to provide support and stability to the rear overhang of fume hood work tops and provides mounting struts for plumbing and electrical service lines.

Steel Rear Fillers			Wood Rear Fillers			Kemstruts		
Part Number BRSC200009-0000 BRSC200015-0000 BRSC200021-0000	D 9" 15" 21"	H 20½" 20½" 20½"	Part Number X-WP0936-00_0 X-WP1536-00_0 X-WP2136-00_0	D 9" 15" 21"	H 36" 36" 36"	Part Number K12-2009-0A K12-2015-0A K12-2021-0A	D 9" 15" 21"	H 20½" 20½" 20½"
BRSC320009-0000 BRSC320010-0000	9" 10"	32" 32"				K12-3209-0A K12-3210-0A	9" 10"	32" 32"
BRSC350009-0000 BRSC350010-0000 BRSC350015-0000 BRSC350016-0000 BRSC350021-0000 BRSC350022-0000	9" 10" 15" 16" 21" 22"	35" 35" 35" 35" 35" 35"				K12-3509-0A K12-3510-0A K12-3515-0A K12-3516-0A K12-3521-0A K12-3522-0A	9" 10" 15" 16" 21" 22"	35" 35" 35" 35" 35" 35"



# Fume Hood Accessories & Canopy Hoods

### **Flexible Vent**

#### F-9100-00-FIN Vent Kit

Designed for use with Acid Storage and Vacuum Pump Storage cabinets to vent through fume hood work top. Includes: 11/2" IPS threaded stub for mounting in 2" diameter hole in cabinet back, 90 degree elbow, 36" long flexible pipe, and 18" long 11/2" IPS straight pipe. (requires 2" diameter hole in work top) Both the flexible pipe and the straight pipe may be cut to size.

### Variable Power Controller

Variable Powe	Powerstat er Controller
Ratings:	
Input:	120 VAC
50/60 hertz	z, single phase
Output:	0-120 VAC
	or 0-240 VAC
Max Load	10 amp.

Requires separate on/off control.



### **Canopy Hoods**



Canopy Hoods are useful for conducting heat out of laboratories, and can be mounted over tables where hot plates or other heat generating apparatus is located. They are fabricated of cold rolled steel, phosphate coated with a baked chemical resistant, synthetic resin finish, or of type 304 stainless steel. They are available 3 feet, 4 feet, 5 feet, 6 feet and 8 feet long. The painted steel canopys are available with or without a lining of 1/4" thick KMER. Each canopy hood is furnished a with 915/16" O.D. vent collar. (8 foot canopies are furnished with two duct collars, 48" on center.) (1/2" diameter support rods to the ceiling are not included.)

KMER Lined	Unlined	Unlined	
Painted Steel	Painted Steel	Stainless Steel	
2B-2818-3K-M	2B-2818-30-M	2B-2818-30-S	36"L
2B-2818-4K-M	2B-2818-40-M	2B-2818-40-S	48"L
2B-2818-5K-M	2B-2818-50-M	2B-2818-50-S	60"L
2B-2818-6K-M	2B-2818-60-M	2B-2818-60-S	72"L
2B-2818-8K-M	2B-2818-80-M	2B-2818-80-S	96"L

# **Pre-wired and Pre-piped**

### **Specifications:**

Pre-wired — All Supreme Air Fume Hoods may be Pre-wired at the factory. Pre-wired hoods are wired using flexible metallic conduit to a single junction box located at the top of the hood for a single point connection at the job site. UL listing is available on standard pre-wired configurations. Contact Kewaunee's Engineering Department for nonstandard electrical requirements.

#### A "U" option must be selected for fume hoods to be UL 61010A-1 listed.

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

Piping may be routed either to the top or bottom of the hood as specified.

### Standard 3/8" Piping Materials

**Typical Fume Hood with Plumbing & Wiring Connections** 

Water -	— Hard Drawn Type L Copper
Gas -	<ul> <li>Black Steel</li> </ul>
Vacuum -	— Hard Drawn Type L Copper
Air -	— Hard Drawn Type L Copper
DI Water-	— PVC
Other -	— Hard Drawn Type L Copper
(Copper co	nnections made with lead free solder,
black steel	connections are threaded)

## **Typical Walk-In Hood**

(Piped to top of hood)

# (Piped to bottom of hood) Wiring and Junction Box Piping to Service Fittings by Kewaunee by Kewaunee when Pre-wiring specified when Pre-piping specified 24VDC Power Supply and wiring to light controller by Kewaunee **Typical Bench Hood** (Piped to top of hood) **Electrical Boxes** and Devices furnished and installed by Kewaunee **Final Connection** Service Fittings and Valves supplied and connected by others furnished and installed by Kewaunee or as specified Supply Lines with shut-off valves Waste Line - Trap - Tailpiece (typical for both sides of hood) supplied and connected by others supplied and installed by others



# **Recommended Fume Hood Work Practices**

### A Safe, Healthy Work Environment

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

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

Your fume hood is designed to protect you by providing an enclosed work area that has an air barrier between you and the harmful materials you

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

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

Since 1906, we at Kewaunee Scientific Corporation have been designing and building laboratory fume hoods to help keep laboratory work environments safe and healthy. Based on our knowledge and experience, we've outlined a number of basic safety practices for you and your co-workers to follow when choosing, using and maintaining laboratory fume hoods. The following practices are based on the superior design found in Kewaunee Supreme Air Venturi hoods.

We urge you to familiarize yourself with these recommended fume hood work practices and with your facility's safety guidelines and standard operating procedures. We think you'll agree—it's the best way to help ensure a safe, healthy work area for you and your co-workers.

### The Right Fume Hood for the Job

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

For example, if you work with radioisotopes, carcinogens or other toxic materials for which decontamination is important, you should always use a hood with a nonabsorbent lining that is designed to be easily decontaminated.

If you work with large volumes of flammable substances, you may need a hood equipped with such features as a non-absorbent lining, explosionproof lights and electrical receptacles, a fire-suppression system, and a spark-resistant exhaust fan. If you use perchloric acid heated above ambient temperature then you need a fume hood and exhaust system specifically designed for this hazard.

To be sure your fume hood is the right one for the work you're doing, contact your local Kewaunee sales representative.

#### **Venturi Fixed Baffle Configuration**

Kewaunee Supreme Air Venturi fume hoods are provided with a fixed baffle

configuration. (See Figures 1 and 2.) The slots in the baffle are optimized to provide the best performance.



Figure 1. Face Section View



# Recommended Work Practices (continued)

### **Checking Fume Hood Performance**

To confirm that your fume hood exhaust system is working properly, the Occupational Safety and Health Administration (OSHA) recommends that all hoods be equipped with an airflow monitor. Inspect both the monitor and the system periodically for malfunctions.

For some applications a pressure gauge connected to the exhaust duct is sufficient. The safe pressure range should be marked on the gauge. When using more hazardous contaminants, a fume hood alarm such as the Kewaunee Air Alert 300 or Air Alert 600 Digital Face Velocity Alarms should be used. These alarms provide both a visual and audible warning when the exhaust flow becomes unsafe.

If your hood is equipped with a variable air volume controller (VAV)

with alarm capabilities, then an additional alarm is not necessary.

You should have a qualified technician thoroughly test your fume hood before you use it the first time and at least once a year after that. You should also have your hood tested after any modification to the laboratory ventilation system or other factors which may affect hood exhaust capability or room air flow patterns.

### Maintaining the Protective Air Barrier for a Safe Work Area

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



Figure 3

Formation of Protective Air Barrier

The farther behind the fume hood protective air barrier you place the source of contaminants, the greater the protection the hood provides. Therefore, place the equipment and

Figure 4



contaminants as far back inside the hood as possible, being careful not to block the slots in the rear baffle. (See Figure 4.) Never place apparatus so far back that you have to put your head

Better

into the hood while the procedure is generating contaminants.



Best

Effect of placement of contaminate source



# Recommended Work Practices (continued)

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

Large containers or equipment such as furnaces, incubators and oil baths often interfere with air flow inside the fume hood by causing lazy air and reverse flows which may affect airflow patterns. Placing large, bulky equipment on legs will help improve airflow patterns by allowing air to circulate beneath the equipment. (See Figure 5.)

The fume hood should not be used for storage of chemicals and apparatus. Remove all unnecessary containers and equipment from the hood.

The air velocities used to provide containment in fume hoods are relatively low and the air flow patterns are easily disrupted. Avoid making rapid movements while working at the hood or while walking past the hood.

When working at a fume hood, always open the sash only as far as needed to access to the work area. The lowered sash increases the distance (D in Figure 6) between your breathing zone and the area where contaminants may escape. In addition the smaller hood face area makes the hood less susceptible to room drafts and other external air disturbances.

The sash also provides protection by replacing part of the protective air barrier with a solid barrier against contaminants and splashing chemicals.

If the hood has a sash stop to limit sash travel or is marked for a safe sash height, the sash should not be raised above this point while contaminants are being generated within the hood.

If continuous access is not needed to the inside of the fume hood, the sash should be closed completely. (See Figure 7) A closed sash provides protection from flying debris or a runaway reaction. It also eliminates the effects of room drafts or other adverse air currents.





Figure 5 Effect of large equipment





Figure 6 Effect of lowering the sash



If your hood has horizontal sashes, be sure they are all in place when working with contaminants inside the hood. Operating the hood with any of the sashes removed reduces the protection they provide by decreasing the velocity of the air entering the hood face. If you remove any hood sashes while setting up equipment, be sure to replace them before beginning the actual procedure. On hoods with a combination vertical/horizontal sash. the hood should be operated either with the vertical frame closed while the horizontal panels are open or the horizontal panels closed while the vertical frame is open.

Figure 7 Airflow through By-Pass with Sash Closed

# **Recommended Work Practices** (continued)

### For More Information

We at Kewaunee Scientific hope these questions we haven't answered in guidelines will be helpful to you as you choose, use and maintain your laboratory fume hood. If you have

this section, please contact your local Kewaunee sales representative.

### Fume Hood Safety Checklist

- The hood is the correct type for the work to be performed.
- The airflow monitoring device indicates adequate airflow.
- There are no unnecessary chemicals or equipment in the fume hood.
- All chemicals and equipment are at least six inches behind the plane of the sash.
- All procedures are performed with the laboratory worker's head remaining outside the hood.
- Large equipment is placed on stands with legs.
- The sash is not above the safe operating height while the fume hood is in use.
- The sash is open only as far as needed.
- Safety equipment is close to the hood in case of fire or explosion.
- All laboratory workers are following the procedures outlined in these instructions, as well as any additional fume hood safety guidelines supplied by your laboratory safety manager.

# **Glossary of Hood Terms and Definitions**

Access opening	part of the fume hood or glove box through which work is performed - entrance.	Dynamic barrier by-pass	a louvered front-to-back by-pass system located above the top	
ACGIH	American Conference of Government Industrial Hygienists		sash that introduces by-pass air behind the operating sash plane to provide a buffer zone between the contaminated hood interior	
Air foil	curved or angular member at front of hood designed to reduce air turbulence.	Face	and the hood operator. front opening of hood through	
Air volume	quantity of air normally expressed in cubic feet per minute (cfm).	Face velocity	speed of air moving into fume hood	
Anemometer	instrument for measuring low air velocities.	_	in units of feet per minute.	
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning	Fan	air moving device consisting of a motor, impeller and housing – sometimes called a blower.	
Auxiliary air	air delivered directly to fume hood	FPM	Feet Per Minute – measurement of air velocity.	
	- sometimes called supply or supplemental air.	Fume hood	a ventilated, enclosed work space, with an open front,	
Baffle	panel or panels located at rear of the hood interior which aid in distributing the flow pattern of air into and through the bood		exhaust airborne contaminants generated within it — also called a laboratory hood.	
By-pass hood	hood which contains a by-pass and, usually, air foils — also called a constant volume hood.	LEV Hood	Low Exhaust Volume Hood – sometimes called a high performance fume hood, are energy efficient fume hoods that	
CFM	Cubic Feet per Minute — unit of air volume measurement.		less with a sash full open.	
Cross draft	a flow of air that blows into or across the hood face.	Liner	the hood which is exposed to contaminants.	
Damper	device installed in duct to control air volume — can either be	Louvered panel	a panel with louvers to allow by-pass air to enter the hood when the sash is closed.	
Differential Proseure	difference in static pressure	Make-up air	free or available air needed to permit fume hood to develop face	
	between two locations.	Manometer	device used to measure air	
Duct	round, square or rectangular tube used to enclose moving air.		pressure differential — usually calibrated in inches of water.	
Duct velocity	speed of air moving in duct (measured in FPM).	Negative Pressure	pressures lower than atmospheric pressure. (Less than one atmosphere.)	
		NFPA	National Fire Protection Association	



# **Glossary of Hood Terms and Definitions**

OSHA	Occupational Safety and Health Administration Government organization created to assure safe and healthful working conditions.	Superstructure	part of hood assembly that excludes work top, base cabinets, auxiliary air chamber, and plumbing and electrical fixtures.	
Perchloric Acid	a colorless, syrupy hygroscopic liquid, HClO <sub>4</sub> , used chiefly as a reagent in analytical chemistry. Explosively unstable when crystallize or when in contact with	Supplemental (supply) air	air delivered directly to fume hood to reduce room air consumption — also called auxiliary air.	
	temperatures. <b>UFC</b>		Unified Facilities Criteria – a government program that unifies	
Pitot tube	device for measuring velocity of air in a duct.		all technical criteria and standards pertaining to planning, design, construction, operation and maintenance of real property facilities.	
Positive pressure	pressures higher than atmospheric pressure. (More than one atmosphere.)			
Restricted by-pass fume hood	basic type of hood design with limited by-pass area. Commonly used in conjunction with "VAV" Variable Air Volume controls.	V-Belt Drive Fan	fan on which the motor is connected to the impeller wheel via, a v-belt, sheaves, and an impeller wheel shaft. Allows the impeller wheel speed to be varied by using a adjustable motor sheave.	
Safety shield	horizontal sliding transparent panel at face of hood which the user places in front of his body to protect himself from small explosions inside of hood.	Variable air volume (VAV)	type of fume hood that utilizes controller to maintain constant face velocity by adjusting blower motor speed or balance damper in response to changes in sash	
Sash	movable panel set in hood face, usually transparent and can be either vertical rising or horizontal sliding.	Velocity	position. speed of air — measured in feet per minute.	
SEFA Side walls	Scientific Equipment & Furniture Association – an association founded to promote the scientific equipment and furniture industry and to improve the quality, safety and timely completion of laboratory facilities in accordance with customer requirements.	Vertical Bypass	An air management panel located within the hood structure designed to introduce air behind the operating sash plane to provide a buffer zone between the contaminated hood interior and the operator. Vertical bypasses are specifically designed for LEV hood use within a VAV system	
(End walls)	The area between the interior hood liner, and the exterior end panel. (4" nominal dimension)	Walk-in hood	floor-mounted, full height hood designed to accommodate tall apparatus and permit roll-in of instruments and equipment.	
Smoke candle	device producing large quantities of smoke for testing hoods — also called smoke bomb.			
Static pressure	air pressure exerted perpendicular to the direction of flow, usually expressed in units of inches of water.			







# Notes:



# Numerical Index

Part Numbers		page
0476-BP 0490-BE 0491-BP	_	
0492-BP	_	0492-GP 60
0493-BF	_	0493-SF 60
0499-BP	-	0499-SP60
0767-00		72
0950-00		
0951-00		60
0975-00		
2B-2818-3K-M	-	2B-2818-80-S
BRSC200009-	_	BRSC35002271
F-9100-00		
G05C202012L	_	G05W20204870
G08C322012L	_	G08W36204866
G35C322024L	_	G35W36204869
G68C322024L	_	G68W36204867
G80C322024L	-	G80W36204868
K12-2009-0A		K12-3522-0A71
Option A1 - A2 - A3		
Option B		
Option C		
Option D		53
Option E		
Option G1 - G2 - G3		
Option H		
Option J		
Option K		
Option L		
Option O1 & O2		54
Option P1		
Option Q		
Option R1-R3		
Option S		
Option S		
Option T		
Option U		
Option W		

Part Numbers			page
V05F282448GM- V06F282448GM-	_	V05F283696TS V06F283696TS	8-9 10-11
V0739A-		V0739W	65
V07F312448GN- V10F282496GM- V11F282496GM- V15F282448GM- V16F282448GM- V25F282448GM- V25F352448GM- V26F282448GM- V26F352448GM- V30F282496GM- V30F352496GM-		V07F313696TN V10F283644TS V11F283644TS V15F282496TS V16F282496TS V25F283696TS V25F353696TS V26F283696TS V26F353696TS V30F283644TS V30F353644TS	12-13 14-15 16-17 18-19 20-21 22-23 24-25 26-27 28-29 30-31 32-33
V3185A-	_	V3185W	63
V36F282496GM- V36F352496GM- V40F282448SM-		V36F283644TS V36F353644TS V40F282496SS	34-35 36-37 38-39
V4285A- V45F282448LM- V65F642448GM- V66F642448GM- V67F682472GM- V90F632448GM-	- - - -	V4285W V45F282472LS V65F644896TS V66F644896TS V67F684844TS V90F633696TS	64 40-41 42-43 44-45 46-47 48-49
VBTL012448- VCEM092448- VFBM570148 VHBL012448- VHFL012448-	- - - -	VBTS013644 VCEM304844 VFBM920144 VHBS013696 VHFS014820	58-59 61 61 58-59 58-59
VPCC061414-	_	VPCC061444	69
VWSL011848-	_	VWSS012420	58-59
X-WP0936-	_	X-WP3336	71

#### Notice

Part numbers, illustrations, descriptions, specifications and other information contained in this catalog are based on the most current design and production information available

#### Trademarks

Advantage, CFHS, Discovery, Explorer, Kemresin, Kemrock, Research Collection, Signature, Silhouette, Trademark,

at the time of publication. Kewaunee Scientific Corporation reserves the right to make changes at anytime without notice.

TruView, Supreme Air and Visionaire are registered trademarks of Kewaunee Scientific Corporation.

# **Alphabetical Index**

### Α

Accessories	.71
Acid Storage Cabinets	. 68
ADA Combination Sash Hood	. 20
ADA Vertical Rising Sash Hood	. 18
Air Alert Fume Hood Monitor	. 52
Airfoil	. 54
Auto Sash Return.	. 56

## В

Baffle Design	. 6
Ball Valves - Rod Driven	64
Base Cabinets	66
Blower Switch	55

## С

Canopy Hoods	.72
Carts - Vacuum Pump	. 69
Ceiling Enclosures.	.61
Configuration	7
Cord Ports	. 56
Cupsink Cutouts	. 59
Cupsinks	. 60

## D

Distillation Hood	3
Distillation Hood Base Cabinets 70	)
Distillation Rack	3

## Е

Electrical Fixtures	55
Explosion Proof Light	57

## F

Face Velocity
Fan Switch
Features
Fillers
Finished Backs62
Fire Suppression System
Flexible Vent
Floor Mounted Hoods
Combination Sash 44
Horizontal Sash
Vertical Rising Sash 42

Front Load Service Fittings	. 65
Fume Hood Base Cabinets	. 66
Fume Hood Option Chart	. 50
Fume Hood Testing	. 86

## G

H Hospital Grade Electrical Fixtures55	
Isotope Bench Hood	
K Kemtruts	
L Laminated Safety Glass	
N Needle Valves - Front Load65 Needle Valves - Rod Driven63	
Option 01 & 02         54           Option A1 - A2 - A3         52           Option B1 & B2         57           Option C         53           Option D         53           Option G1 - G2 - G3         57           Option H_         55           Option L         52           Option P1         55           Option P1         54           Option R1 - R2 - R3         56           Option S_         535           Option S_         555           Option R1 - R2 - R3         56           Option S_         555           Option V_         55           Option V_         55           Option V_         52           Option W_         57	
P Part Number Explanation4 Perchloric Acid Bench Hood40	

## R

Recommended Work Practices....74

## c

3
Safety Shield
Sash Arrangements
Sash Glass
Sash Pulls
Sash Stop Label
Selection Guide
Service Fittings
Sliding Safety Shield
Solvent Storage Cabinets
Special Purpose Hoods
Specification Grade Receptacles 55
Stainless Steel Airfoil
Stainless Steel Duct Collar53
Stainless Steel Sash Pulls54

## т

-	
Tempered Safety Glass	57
Testing Facilities	86
Tissue Screen	54
Typical Fume Hood Installations	85

## U

## V

Vacuum Pump Carts	69
Vacuum Pump Storage Cabinets	69
Vapor Proof Light.	57
Variable Power Controller	72
VAV Restricted Bypass	52
Vent Hole/Cutouts	59
Vents	72

### w

Work Floor	З
Work Shelf Supports	7
Work Shelf	3
Work Tops	3



# **Typical Fume Hood Installations**



VFH-01/19-84



# **Fume Hood Testing Facilities**



# Testing Protocols and Standards

ASHRAE 110 – 2016

ANSI / AIHA Z 9.5

**EN 14175 – 3** (European Fume Hood Standard)

HAM (Human as Mannequin) variant of **ASHRAE 110** (USEPA & UCal-Davis)

Kewaunee's State-Of-The-Art Fume Hood Testing Facility. Statesville, North Carolina



Our state-of-the-art testing facility is capable of duplicating most laboratory environments. It allows us to perform the rigorous testing protocols necessary to ensure safe performance of custom designs. Kewaunee Scientific Corporation is dedicated to manufacturing high quality products for the laboratory marketplace. We offer Total Laboratory Solutions, Innovative Designs, and Technological Expertise with a worldwide distribution network to provide laboratories that are truly World Class.

## Laboratory Products from Kewaunee<sup>®</sup>:

- ALPHA® Adaptable Casework System
- ALPHA Columns Expandable Workstations
- ALPHA Overhead Carrier Systems
- BasikBench<sup>®</sup> Welded C-Leg Bench
- DetectAir Filtered/Ductless Fume Hoods
- EarthLine® Environmentally Friendly Casework
- Enterprise<sup>®</sup> Movable Workstations
- Evolution<sup>®</sup> Column Based Workstations
- Interceptor<sup>®</sup> Biological Safety Cabinet
- Interceptor<sup>®</sup> Laminar Flow Cabinet
- Kemresin® Epoxy Resin Counters & Sinks
- Kewaunee Matrix<sup>®</sup> Educational Stations
- Research Collection<sup>®</sup> Steel Casework
- Signature<sup>®</sup> Series Wood Casework
- Spektrum Laminate Architectural Millwork
- Sturdilite<sup>®</sup> Flexible Pedestal System
- Supreme Air<sup>®</sup> Venturi Fume Hoods

For our complete product offering, specifications, catalogs, brochures, case studies, and dealer list, go to www.kewaunee.com, or contact your local sales representative directly.





Kewaunee, Alpha, BasikBench, EarthLine, Enterprise, Evolution, Interceptor, Kemresin, Kewaunee Matrix, Research Collection, Signature, Sturdilite, and Supreme Air are registered trademarks of Kewaunee Scientific Corporation.



Kewaunee Labway India Pvt. Ltd. No. CA-9A, 2nd Floor, Jigani Link Road Jigani, Bangalore 562 106, India Phone: 9180-27826725 • Fax: 9180-27826724 Web Site: www.kewaunee.in

P.O. Box 1842 • Statesville, NC 28687-1842 Phone: (704) 873-7202 • Fax: (704) 873-5160 E-mail: kscmarketing@kewaunee.com

Kewaunee Labway Asia Pte. Ltd. 194 Pandan Loop, #06-22 Pantech Business Hub, Singapore 128 383 Phone: 65-6773-0288 • Fax: 65-6773-2322



