# Contents

Introduction to APEX-air <sup>®</sup> Fume Hoods	FHD.2 - FHD.5
GP Series Bench Fume Hood	FHD.6 – FHD.7
GP Series Double Sided Bench Fume Hood	FHD.8 – FHD.9
GP Series Radioisotope Fume Hood	FHD.10 - FHD.11
GP Series Perchloric Acid Fume Hood	FHD.12 - FHD.13
GP Series Low Bench Fume Hood	FHD.14 - FHD.15
GP Series Floor-Mounted Fume Hood	FHD.16 - FHD.17
HP Series Bench Fume Hood	FHD.18 - FHD.19
GP Series Thin Wall Ventilated Enclosure Fume Hood	FHD.20 - FHD.21
GP Series Barrier Free (ADA) Fume Hood	FHD.22 - FHD.23
HP Series Barrier Free (ADA) Fume Hood	FHD.24 - FHD.25
GP Series Single Sided Teaching Fume Hood	FHD.26 - FHD.27
GP Series Double Sided Teaching Fume Hood	FHD.28 - FHD.29
GP Series Demonstration Fume Hood	FHD.30 - FHD.31
Canopy Fume Hood And Fume Hood Work Surfaces	FHD.32
Fume Hood Accessories	FHD.33 - FHD.34
Fume Hood Ceiling Enclosures & Sash Stop	FHD.35



## CiF Lab Solutions APEX-air™ Series Fume Hood Introduction

**GENERAL** – CiF is pleased to offer a complete line of fume hoods and fume hood accessories for the laboratory environment. CiF has partnered with one of the industry's leading manufacturers to produce a high quality line of fume hoods. Combined with our manufacturing partner we bring over 50 years of experience and state-of-the-art engineering and testing facilities to provide you with a fume hood unsurpassed in quality and performance.

GP- General purpose laboratory fume hood.

HP- High performance, low volume laboratory fume hood operating at an exhaust volume of less than half of a conventional hood.

**TESTING** – Safety should be the number one concern when choosing a Fume Hood. That is why CiF tests and certifies each style Fume Hood in accordance with the current ASHRAE method of testing performance of laboratory Fume Hoods.

The ASHRAE 110 test procedure is an industry standard, recognized by SEFA and the American Conference of Governmental Industrial Hygienists, for safe Fume Hood performance.

Our test facility is available for you to witness the ASHRAE test procedure or to test special designs. To make arrangements to visit our test facility, contact your local CiF Representative or officenain

# **Flow Patterns**

Bypass Hoods (CAV)

The Bypass Hoods have a double bypass to provide constant exhaust volume and limit changes in face velocity.

The upper bypass functions automatically with the raising and lowering of the sash. The lower bypass provides a continuous air sweep of the work surface.

When hood top enclosures are used, a bypass grille must be specified.

#### **Variable Air Volume Hoods**

The Variable Air Volume (VAV) Hoods are designed to be used with exhaust control systems provided by other manufacturers.

In lieu of an upper bypass the VAV Hood has a lintel which restricts the air intake of the Hood to the sash opening and lower bypass.

The commercially available exhaust control system will detect the movement of the sash and adjust the volume of air required to maintain a constant face velocity.

Factory mounting of third party exhaust controls is available when specified.

**DESIGN** – The design of the CIF Fume Hood provides you with maximum safety at minimum cost. Incorporating standard options, such as combination sashes and sash stops, allows you to maintain face velocities while exhausting less air. Hence, the CiF Fume Hood costs less to operate than other conventional units.

**REFERENCES** – The American Industrial Hygiene Association, The American Conferences of Governmental Industrial Hygienists and the American Society of Heating, Refrigerating and Air-Conditioning Engineers have all published guidelines on Fume Hood face velocities and operating procedures.

Because the performance of a Fume Hood is greatly affected by the surrounding conditions, the recommendations in this catalog are based on normal or average conditions. For recommendations on ideal or extreme conditions, the guidelines published by the above referenced agencies should be followed.

**SPECIFICATIONS**- CiF Fume Hoods are manufactured in strict accordance with the specifications shown in this catalog. However, **ciontinunanglestimichand asseance matice**sult in design and specifica









## Planning



#### **Fume Hood Selection**

There are two main factors to consider when selecting a Fume Hood style.

First consider the type of work being performed in the Hood. The use of perchloric acid or radioactive materials require a **Specifically** designed for these materials. Large apparatus or complex set-ups may require the use of a low bench or floor-mounted Fume Hood to accommodate the space requirements.

The second consideration in selecting a Fume Hood style is the air consumption of the hood. Operation of a Fume Hood requires a relatively large volume of room air.

If you determine that the amount of air being supplied to the room is adequate to accommodate the exhaust volume of the Fume Hood the ByPass style Fume Hood would be an excellent choice.

The Variable Air Volume style Fume Hood is designed to be used with an adjustable damper system in the ductwork. The use of this Hood will, when used in conjunction with a VAV control system, drastically reduce the total amount of air consumed. This makes the Variable Air Volume style Hood a good choice when trying to reduce air consumption for energy cost savings or when there simply is not enough available supply air.

For more information see "Flow Patterns" on the previous page.

#### **Fume Hood Locations**

Location of the Fume Hood is of prime importance, since a variety of conditions will affect the performance of the Hood.

When selecting a location for the Fume Hood, operator convenience, work flow and exhaust duct locations should all be considered. In addition, an attempt should be made to keep hood away from the line of traffic. It is both inconvenient and the dangerous to install a Fume Hood so that the operator is work in the line of traffic movement. forced to



The presence of cross-drafts will adversely affect the performance or the Fume Hood. For this reason it is a good idea not to locate the Fume Hood near open doors and windows. High velocity air diffusers located directly in front of the Fume Hood could actually draw fumes out of the Hood and into the room. Although there is no single preferred method for delivery aferant subside is the abolatory where the fume Hood.

#### **Fume Hood Velocity Selection**

Selection of the Fume Hood face velocity should be directly related to the location of the Fume Hood. A Fume Hood in a good location, as shown in Fig. 1, should operate properly at a face velocity of 75 FPM. A poorly located Fume Hood, as shown in Fig. 2, may require a face velocity of 125 FPM to maintain proper performance.

Since most fume hood installations require some type of location compromise, a face velocity of 100 FPM is usually the norm. Fume Hoods with a high heat source may require slightly higher face velocities.

OSHA calls for, but does not require, a face velocity of 150 FPM for Fume Hoods used with any of the 13 carcinogens listed in OSHA 1910.1003 et seq. (OSHA 1978). Studies have shown that hoods operated at face velocities of 150 FPM and greater often perform poorer than if operated at a lower face velocity, due to disruptive air turbulence at the perimeter of the Hood opening

and in the wake of objects placed inside the work area of the Hood.

#### **Fume Hood Blowers & Ductwork**

The blower and ductwork control the amount of air moving through the Fume Hood. For this reason it is extremely important that they be installed and maintained properly.



## **Fume Hood Smart Model Number**

We designed this page to help "build" your fume hood selection by using a simple model number assembly formula. Included in the model number assembly, you will select the flow pattern, fume hood width, configuration, and fume hood type to equal a nine character model number.

#### Fume Hood Model # Template

Flow Pattern \_\_\_\_ + Width \_\_\_\_ + Configuration \_\_\_\_ + Type \_\_\_\_ = 9 Character Model Number

Step 1	Select the flow pattern
	Open Bypass - 100 Restricted Bypass - 200
Step 2	Select the fume hood width
	48-Inch Hood - 48 60-Inch Hood - 60 72-Inch Hood - 72 96-Inch Hood - 96
Step 3	Select the fume hood configuration
	Bench Hood - BH Double Sided - DS Radioisotope - RI Perchloric Acid - PA Low Bench - LB Floor Mounted- WI Thin Wall - TW Barrier Free - BF
Step 4	Select the fume hood type
	GP HP
Example:	Model #: 100-48-BH-GP = Open bypass, 48-inch bench hood

\*Note: This model number is used to order the superstructure and liner only. All accessories must be ordered seperately.



## APEX-air™ Type 100 and Type 200 Fume Hoods

What is the difference between a type 100 and a type 200 fume hood?

### TYPE 100 OPEN BYPASS

### TYPE 200 RESTRICTED BYPASS







# APEX-air™ GP Series Bench Fume Hood



	GP SERIES BENCH FUME HOOD												
HOOD	COLLAR SIZE	FULL OPEN 100 FPM		FULL OPEN 80 FPM		18" OPEN 100 FPM		18" OPEN 80 FPM					
SIZE		CFM	SP	CFM	SP	CFM	SP	CFM	SP				
4'	10" DIA.	739	.26	591	.16	475	.11	380	.07				
5'	11" DIA.	972	.29	778	.18	625	.12	500	.08				
6'	12" DIA.	1206	.30	964	.19	775	.12	620	.08				
8'	(2) 10" DIA.	1672	.30 1	338	.19	1075	.12	860	.08				

#### Standard Features and Benefits:

- A. UL listed, white fiberglass reinforced thermoset polyester interior lining
- **B.** Gasketed interior access panels for easy access to utility lines
- C. Durable, painted lower airfoil

**DE**lawless movement of PVC framed vertical sash with laminated safety glass. NOTE: Optional combination sash shown.

- E. For ease of installation, fixture holes are prepunched and capped unless specified otherwise
- Proper air balance with a fixed, non-adjustable baffle system
- Industry standard, T8 fluorescent light fixture, sealed from interior with laminated safety glass
- Round type 304 stainless steel duct collar
- Rigid and corrosion resistant PVC sash guides
- Reliable cable and pulley counter balance system
- Flat front posts and radiused for smooth airflow entry into the hood
- Down draft bypass for efficient air flow
- · 28-inch sash opening

35-inch window height for full viewing of the hood interior

Reduction in required lab space with a 33 1/2inch hood depth and designed for a 30-inch deep countertop (29-inch deep cabinet face)

#### **Optional Features:**

PVC, polypropylene, type 304 applied stainless steel or type 316 applied stainless steel interior lining Rectangular, type 304 or 316, stainless steel duct collar

• Stainless steel, type 304 or 316, lower airfoil Flush airfoil / containment trough with pivot in painted, 304 or 316 stainless steel

- Stainless steel, type 304 or 316, sash guides
- · Painted vertical or combination sash

Stainless steel, type 304 or 316, vertical or combination sash

PVC, painted or stainless steel, type 304 or

- 316, double postless vertical sash
- Chain and sprocket sash counter balance system
- Sash stop
- Keyed sash lock
- Keyed sash stop
- · Auto return system to lower sash to 18-inches
- · Louvered front panel
- · Alarms, plumbing and electrical fixtures
- Explosion proof lights and outlets
- LED light

### APEX-air™ GP Series Bench Fume Hood



## APEX-air™ GP Series Double Sided Bench Fume Hood

### **Standard Features and Benefits:**

- UL listed, white fiberglass reinforced thermoset polyester interior lining.
- Proper air balance with a sash interlock allowing only one sash to open at a time
- Industry standard, T8 fluorescent light fixture, sealed from interior with laminated safety glass
- Round type 304 stainless steel duct collar
- Gasketed interior access panels for easy access to utility lines
- Durable, painted lower airfoil
- Rigid and corrosion resistant PVC sash guides
- Flawless movement of PVC framed vertical sash with laminated safety glass
- Full width PVC sash pull
- Reliable cable and pulley counter balance system
- Flat front posts and radiused for smooth airflow entry into the hood
- · Down draft bypass for efficient air flow
- 28-inch sash opening
- 35-inch window height for full viewing of the hood interior
- For ease of installation, fixture holes are prepunched and capped unless specified otherwise
- Reduction in required lab space with a 37-inch hood depth and designed for a 30-inch deep countertop (28-inch deep cabinet)

### **Optional Features:**

- PVC, polypropylene, type 304 applied stainless steel or type 316 applied stainless steel interior lining
- Rectangular, type 304 or 316, stainless steel duct collar
- Stainless steel, type 304 or 316, lower airfoil
- Flush airfoil / containment trough with pivot in painted, 304 or 316 stainless steel
- Stainless steel, type 304 or 316, sash guides
- Painted vertical or combination sash
- Stainless steel, type 304 or 316, vertical or combination sash
- Sash stop
- Keyed sash lock
- Keyed sash stop
- Louvered front panels
- Alarms, plumbing and electrical fixtures
- Explosion proof lights and outlets
- LED light

GP S HOO	GP SERIES DOUBLE SIDED TYPE 100 OPEN BYPASS BENCH FUME HOOD (BASED ON ONE SIDE OPEN AND THE OTHER SIDE CLOSED)										
HOOD	COLLAR	FULL OPEN         FULL OPEN         18" OPEN         18" 0           100 FPM         80 FPM         100 FPM         80 F									
SIZE	SIZE	CFM	SP	CFM	SP	CFM	SP	CFM	SP		
4'	10" DIA.	1108	.58	887	.37	844	.33	676	.21		
5'	11" DIA.	1458	.64 1	167	.41 1	111	.37	889	.24		
6'	12" DIA.	1808	.68 1	447	.43 1	378	.39	1102	.25		
8'	(2) 10" DIA.	2508	.68 2	007	.43 1	911	.39 1	529	.25		

GP SERIES DOUBLE SIDED TYPE 200 RESTRICTED BYPASS BENCH FUME HOOD (BASED ON ONE SIDE OPEN AND THE OTHER SIDE CLOSED) | FULL\_OPEN | FULL\_OPEN | 18" OPEN | 18" OPEN

HOOD	COLLAR	FULL 100	open FPM	80 I	OPEN FPM	100	FPM	80	PEN PM
SIZE	SIZE	CFM	SP	CFM	SP	CFM	SP	CFM	SP
4'	10" DIA.	818	.31	654	.20	544	.14	443	.09
5'	11" DIA.	1076	.35	861	.22	729	.16	583	.10
6'	12" DIA.	1335	.37 1	068	.24	904	.17	723	.11
8'	(2) 10" DIA.	1851	.37 1	481	.24	1254	.17 1	003	.11



## APEX-air™ GP Series Double Sided Bench Fume Hood



## APEX-air™ GP Series Radioisotope Fume Hood

Stainless steel lining and work surface with coved corners that facilitate thorough cleaning and a reinforced countertop to support lead bricks, are some of the features incorporated into the Radioisotope. These features will help to insure operator safety and convenience in procedures that involve the use and handling of radioactive materials.

	GP SERIES RADIOISOTOPE FUME HOOD												
HOOD	COLLAR SIZE	FULL OPEN 100 FPM		FULL OPEN 80 FPM		18" OPEN 100 FPM		18" OPEN 80 FPM					
SIZE		CFM	SP	CFM	SP	CFM	SP	CFM	SP				
4'	10" DIA.	739	.26	591	.16	475	.11	380	.07				
5'	11" DIA.	972	.29	778	.18	625	.12	500	.08				
6'	12" DIA.	1206	.30	964	.19	775	.12	620	.08				
8'	(2) 10" DIA.	1672	.30 1	338	.19 1	075	.12	860	.08				

### **Standard Features and Benefits:**

- Type 304 stainless steel covered and welded interior liner
- Type 304 stainless steel countertop welded to the interior liner
- · Manually adjustable baffle system
- Industry standard, T8 fluorescent light fixture, sealed from interior with laminated safety glass
- · Round stainless steel duct collar
- · Interior access panels
- Type 304 stainless steel lower airfoil
- Type 304 stainless steel sash guides
- Type 304 stainless steel vertical sash with laminated safety glass
- · Reliable cable and pulley counter balance system
- Flat front posts and radiused for smooth airflow entry into the hood
- For ease of installation, fixture holes pre-punched and capped unless specified otherwise
- · Down draft bypass for efficient air flow
- 28-inch sash opening
- 35-inch window height for full viewing of the hood interior
- Reduction in required lab space with a 33 ½" hood depth, designed for a 30" deep countertop (29" deep cabinet face)

- Type 316 stainless steel covered and welded interior liner
- Type 316 stainless steel countertop welded to the interior liner
- Stainless steel, type 304 or 316, welded cupsink.
- Rectangular stainless steel duct collar, type 304 or 316
- · Stainless steel, type 316, lower airfoil
- Stainless steel, type 304 or 316, vertical or combination sash
- Chain and sprocket sash counter balance system
- Sash stop
- Keyed sash stop
- Keyed sash lock
- · Auto return system to lower sash to 18"
- · Louvered front panel
- Bypass lintel (blank off panel)
- · Alarms, plumbing and electrical fixtures
- · Explosion proof lights and outlets
- LED light



# APEX-air™ GP Series Radioisotope Fume Hood



# APEX-air™ GP Series Perchloric Acid Fume Hood

This Fume Hood is specifically designed for use with perchloric acid. A coved stainless steel liner with integral work surface, an internal water wash down system and water collection trough provide for thorough interior barles are lass interior. In removable for cleaning to prevent the dangerous build-up of perchlorates.

	GP SERIES PERCHLORIC ACID FUME HOOD												
HOOD	COLLAR SIZE	FULL OPEN 100 FPM		FULL OPEN 80 FPM		18" OPEN 100 FPM		18" OPEN 80 FPM					
SIZE		CFM	SP	CFM	SP	CFM	SP	CFM	SP				
4'	6" X 12"	739	.29	591	.18	475	.12	380	.08				
5'	6" X 16"	972	.28	778	.18	625	.12	500	.07				
6'	6" X 20"	1206	.28	964	.18	775	.12	620	.07				
8'	(2) 6" X 12"	1672	.34 1	338	.22	1075	.14	860	.09				

#### **Standard Features and Benefits:**

- Type 316 stainless steel covered and welded interior liner
- Type 316 stainless steel countertop welded to the interior liner
- Type 316 stainless steel trough welded to the back of the countertop
- 2-inch NPT drain accommodates 35 GPM of wash down water
- · Manually adjustable baffle system
- T8 fluorescent light fixture, sealed from interior with laminated safety glass
- Rectangular type 316 stainless steel duct collar
- Type 316 stainless steel lower airfoil
- Type 316 stainless steel sash guides
- Type 316 stainless steel vertical sash with laminated safety glass
- · Reliable cable and pulley counter balance system
- Flat front posts with radiused for smooth airflow entry into the hood
- For ease of installation, fixture holes pre-punched and capped unless specified otherwise
- · Down draft bypass for efficient air flow
- 28-inch sash opening
- 35-inch window height for full viewing of the hood interior
- Reduction in required lab space with a 33 ½" hood depth and designed for a 29" deep cabinet face

#### **Optional Features:**

- · Type 316 stainless steel combination sash
- · Chain and sprocket sash counter balance system
- · Sash stop
- Keyed sash stop
- Keyed sash lock
- · Auto return system to lower sash to 18"
- · Louvered front panel
- · Alarms, plumbing and electrical fixtures
- LED light

#### **Option Not Available On This Hood:**

· Round duct collars



# APEX-air™ GP Series Perchloric Acid Fume Hood



### APEX-air™ GP Series Low Bench Fume Hood

	GP SERIES LOW BENCH FUME HOOD											
HOOD	COLLAR SIZE	FULL OPEN 100 FPM		FULL OPEN 80 FPM		35" OPEN 100 FPM		35" OPEN 80 FPM				
SIZE		CFM	SP	CFM	SP	CFM	SP	CFM	SP			
4'	6" X 20"	1188	.40	950	.26	924	.24	739	.16			
5'	6" X 24"	1563	.44 1	250	.28	1215	.27	972	.17			
6'	6" X 30"	1938	.44 1	550	.28	1507	.27 1	206	.17			
8'	(2) 6" X 20"	2688	.46 2	150	.29	2090	.28 1	672	.18			

#### **Standard Features and Benefits:**

- UL listed, white fiberglass reinforced thermoset polyester interior lining
- Proper air balance with a fixed, non-adjustable baffle system
- Industry standard, T8 fluorescent light fixture, sealed from interior with laminated safety glass
- Rectangular type 304 stainless steel duct collar
- Gasketed interior access panels for easy access to utility lines
- · Durable, painted lower airfoil
- Rigid and corrosion resistant PVC sash guides
- Flawless movement of PVC framed vertical sash with laminated safety glass
- Full width PVC sash pull
- · Reliable cable and pulley counter balance system
- Flat front posts and radiused for smooth airflow entry into the hood
- · Down draft bypass for efficient air flow
- For ease of installation, fixture holes pre-punched and capped unless specified otherwise
- Reduction in required lab space with a 33 1/2inch hood depth and designed for a 30-inch deep countertop (29-inch deep cabinet face)

- PVC, Polypropylene, Type 304 applied stainless steel and Type 316 applied stainless steel interior lining
- Stainless steel, type 304 or 316, lower airfoil
- Flush airfoil / containment trough with pivot in painted, 304 or 316 stainless steel
- Stainless steel, type 304 or 316, sash guides
- · Painted vertical or combination sash
- Stainless steel, type 304 or 316, vertical or combination sash
- Horizontal sliding sash
- · Chain and sprocket sash counter balance system
- · Sash stop
- Keyed sash stop
- · Keyed sash lock
- · Auto return system to lower sash to 18"
- · Louvered front panel
- · Alarms, plumbing and electrical fixtures
- Explosion proof lights and outlets
- LED light

# APEX-air™ GP Series Low Bench Fume Hood



# APEX-air<sup>™</sup> GP Series Floor-Mounted Fume Hood

	GP SERIES FLOOR-MOUNTED FUME HOOD (BASED ON UPPER SASH OPENING, LOWER SASH CLOSED)											
HOOD	COLLAR SIZE	FULL 100	OPEN FPM	OPEN FULL OPEN		18" OPEN 100 FPM		18" OPEN 80 FPM				
SIZE		CFM	SP	CFM	SP	CFM	SP	CFM	SP			
4'	10" DIA.	897	.38	718	.24	475	.11	380	.07			
5'	11" DIA.	1188	.42	944	.27	625	.12	500	.08			
6'	12" DIA.	1464	.45 1	171	.28	775	.12	620	.08			
8'	(2) 10" DIA.	2031	.44 1	624	.28	1075	.12	860	.08			

#### **Standard Features and Benefits:**

- UL listed, white fiberglass reinforced thermoset polyester interior lining
- Proper air balance with a fixed, non-adjustable baffle system
- Industry standard, T8 fluorescent light fixture, sealed from interior with laminated safety glass
- Round type 304 stainless steel duct collar
- Gasketed interior access panels for easy access to utility lines
- Rigid and corrosion resistant PVC sash guides
- Flawless movement of Dual PVC framed vertical sashes with laminated safety glass
- Reliable cable and pulley counter balance system
- · Full width PVC sash pull
- Flat front posts and radiused for smooth airflow entry into the hood
- For ease of installation, fixture holes pre-punched and capped unless specified otherwise
- Down draft bypass for efficient air flow
- Reduction in required lab space with a 35-inch hood depth

- PVC, Polypropylene, Type 304 applied stainless steel and Type 316 applied stainless steel interior lining
- Rectangular, type 304 or 316, stainless steel duct collar
- · Stainless steel, type 304 or 316, sash guides
- Painted vertical or combination sash
- Stainless steel, type 304 or 316, vertical or combination sash
- Painted or stainless steel, type 304 or 316, framed horizontal sliding sash
- · Chain and sprocket sash counter balance system
- Sash stop
- Louvered front panel
- · Alarms, plumbing and electrical fixtures
- · Explosion proof lights and outlets
- Epoxy floor available
- LED light

# APEX-air™ GP Series Floor-Mounted Fume Hood





# **APEX-air™ HP Series Bench Fume Hood**



	HP SERIES BENCH FUME HOOD (27 1/2" OPENING IS SETUP ONLY, OPERATING HEIGHT IS 18")											
HOOD	D FACE VELOCITY											
SIZE		CFM	SP	18" VERT.	27.5" VERT.	HORIZ.						
4'	8" DIA.	380	.13	80	52*	107						
5'	8" DIA.	500	.19	80	52*	106						
6'	10" DIA.	620	.14	80	52*	106						
8'	(2) 8" DIA.	860	.15	80	52*	106						

#### **Standard Features and Benefits:**

- A. UL listed, white fiberglass reinforced thermoset polyester interior lining
- **B.** Gasketed interior access panels for easy access to utility lines

**C**urable, painted slim line lower airfoil / containment trough

**F**ull view combination laminated safety glass sash with round aluminum extruded handle

- E. Keyed sash stop
- F. Flat front posts and radiused for smooth airflow entry into the hood
- **G**. Fixture holes on posts and interior lining are punched only for the fixtures specified
- Proper air balance with a fixed, non-adjustable baffle system
- Industry standard, T8 fluorescent light fixture, sealed from interior with laminated safety glass
- · Round type 304 stainless steel duct collar
- Rigid and corrosion resistant PVC sash guides
- Chain and sprocket sash counter balance system
- 27 1/2-inch sash opening
- 35-inch window height for full viewing of the hood interior
- Reduction in required lab space with a 35 1/4inch hood depth and designed for use with a (29inch deep cabinet face)

- PVC, Polypropylene, Type 304 applied stainless steel and Type 316 applied stainless steel interior lining
- Type 316, stainless steel duct collar
- Stainless steel, type 304 or 316, lower airfoil / containment trough
- Stainless steel, type 304 or 316, sash guides
- Full view vertical sash with round extruded aluminum handle
- Reliable cable and pulley counter balance system
- · Alarms, plumbing and electrical fixtures
- Explosion proof lights and outlets
- LED light



### APEX-air™ HP Series Bench Fume Hood



# APEX-air™ GP Series Thin Wall Ventilated Enclosure Fume Hood

GP SERIES THIN WALL VENTILATED FUME HOOD											
HOOD	COLLAR SIZE	FULL 100	OPEN FPM	N FULL OPEN 80 FPM		18" OPEN 100 FPM		18" OPEN 80 FPM			
SIZE		CFM	SP	CFM	SP	CFM	SP	CFM	SP		
4'	10" DIA.	856	.31	684	.20	550	.13	440	.08		
5'	11" DIA.	1089	.33	871	.21	700	.14	560	.09		
6'	12" DIA.	1322	.34 1	058	.22	850	.14	680	.09		
8'	(2) 10" DIA.	1789	.33 1	431	.21 1	150	.14	920	.09		

#### **Standard Features and Benefits:**

- UL listed, white fiberglass reinforced thermoset polyester interior lining
- Proper air balance with a fixed, non-adjustable baffle system
- Industry standard, T8 fluorescent light fixture, sealed from interior with laminated safety glass
- Round type 304 stainless steel duct collar
- Type 304 stainless steel sash guides
- Flawless movement of PVC framed vertical sash with laminated safety glass
- Full width PVC sash pull
- Sash stop
- · Reliable cable and pulley counter balance system
- Flat front stainless steel posts
- Reduction in required lab space with a 29-inch hood depth

#### **Optional Features:**

· No available options

![](_page_20_Picture_0.jpeg)

# **APEX**-air<sup>™</sup> **GP** Series Thin Wall Ventilated

## **Enclosure Fume Hood**

![](_page_20_Figure_4.jpeg)

### APEX-air™ GP Series Barrier Free (ADA) Fume Hood

	GP SERIES BARRIER FREE (ADA) FUME HOOD												
HOOD	COLLAR SIZE	FULL OPEN 100 FPM		FULL OPEN 80 FPM		18" OPEN 100 FPM		18" OPEN 80 FPM					
SIZE		CFM	SP	CFM	SP	CFM	SP	CFM	SP				
4'	10" DIA.	739	.26	591	.16	475	.11	380	.07				
5'	11" DIA.	972	.29	778	.18	625	.12	500	.08				
6'	12" DIA.	1206	.30	964	.19	775	.12	620	.08				
8'	(2) 10" DIA.	1672	.30 1	338	.19 1	075	.12	860	.08				

#### **Standard Features and Benefits:**

- UL listed, white fiberglass reinforced thermoset polyester interior lining
- · Fixtures located within 48-inches from the floor
- Proper air balance with a fixed, non-adjustable baffle system
- Industry standard, T8 fluorescent light fixture, sealed from interior with laminated safety glass
- · Round type 304 stainless steel duct collar
- Gasketed interior access panels for easy access to utility lines
- Durable, painted lower airfoil
- Rigid and corrosion resistant PVC sash guides
- Flawless movement of PVC framed vertical sash with laminated safety glass
- · Full width PVC sash pull
- · Reliable cable and pulley counter balance system
- Flat front posts and radiused for smooth airflow entry into the hood
- For ease of installation, fixture holes pre-punched and capped unless specified otherwise
- · Down draft bypass for efficient air flow
- 28-inch sash opening
- 35-inch window height for full viewing of the hood interior
- Reduction in required lab space with a 33 1/2inch hood depth and designed for a 30-inch deep countertop (29-inch deep cabinet face)

- PVC, Polypropylene, Type 304 applied stainless steel and Type 316 applied stainless steel interior lining
- Rectangular, type 304 or 316, stainless steel duct collar
- · Stainless steel, type 304 or 316, lower airfoil
- Flush airfoil / containment trough with pivot in painted, 304 or 316 stainless steel (This is a recommended option.)
- · Stainless steel, type 304 or 316, sash guides.
- Painted vertical or combination sash
- Stainless steel, type 304 or 316, vertical or combination sash
- PVC, painted or stainless steel, type 304 or 316, double postless vertical sash
- Chain and sprocket sash counter balance system
- Sash stop
- Keyed sash stop
- Keyed sash lock
- Auto return system to lower sash to 18"
- Louvered front panel
- Alarms, plumbing and electrical fixtures
- Explosion proof lights and outlets
- LED light

![](_page_22_Picture_0.jpeg)

# APEX-air™ GP Series Barrier Free (ADA) Fume Hood

![](_page_22_Figure_3.jpeg)

### APEX-air<sup>™</sup> HP Series Barrier Free (ADA) Fume Hood

	HP SERIES BARRIER FREE (ADA) FUME HOOD (27 1/2" OPENING IS FOR SETUP ONLY, OPERATING HEIGHT IS 18")							
HOOD				FACE VELOCITY				
SIZE	GULLAN SIZE	CFM	SP	18" VERT.	27.5" VERT.	HORIZ.		
4'	8" DIA.	380	.13	80	52*	107		
5'	8" DIA.	500	.19	80	52*	106		
6'	10" DIA.	620	.14	80	52*	106		
8'	(2) 8" DIA.	860	.15	80	52*	106		

#### **Standard Features and Benefits:**

- UL listed, white fiberglass reinforced thermoset polyester interior lining
- Fixtures located within 48-inches of the floor
- Proper air balance with a fixed, non-adjustable baffle system
- Industry standard, T8 fluorescent light fixture, sealed from interior with laminated safety glass
- · Round type 304 stainless steel duct collar
- Gasketed interior access panels for easy access to utility lines
- Durable, painted slim line lower airfoil / containment trough
- Rigid and corrosion resistant PVC sash guides
- Full view combination laminated safety glass sash with round aluminum extruded handle
- Keyed sash stop
- · Chain and sprocket sash counter balance system
- · Flat front posts and radiused for smooth airflow
- entry into the hood
- 27 1/2-inch sash opening
- 35-inch window height for full viewing of the hood interior
- Fixture holes on posts and interior lining are punched only for the fixtures specified
- Reduction in required lab space with a 35 1/4-inch hood depth and designed for use with a 29-inch deep cabinet face

- PVC, Polypropylene, Type 304 applied stainless steel and Type 316 applied stainless steel interior lining
- Type 316, stainless steel duct collar
- Stainless steel, type 304 or 316, lower airfoil / containment trough
- · Stainless steel, type 304 or 316, sash guides
- Full view vertical sash with round extruded aluminum handle
- · Reliable cable and pulley counter balance system
- Alarms, plumbing and electrical fixtures
- Explosion proof lights and outlets
- LED light

![](_page_24_Picture_1.jpeg)

### APEX-air™ HP Series Barrier Free (ADA) Fume Hood

![](_page_24_Figure_3.jpeg)

## APEX-air™ GP Series Single Sided Teaching Fume Hood

![](_page_25_Picture_3.jpeg)

GP SERIES SINGLE SIDED TEACHING HOOD						
HOOD	COLLAR SIZE	18" OPEN 100 FPM				
SIZE		CFM	SP			
4'	4" X 30"	550	.15			
5'	4" X 30"	750	.18			
6'	4" X 30"	850	.21			

#### **Standard Features and Benefits:**

- Single face units can be positioned side by side with a single pane of 1/4" laminated glass separating the two units.
- Back panel on single sided units is white Resin-Chem with an option for 1/4" laminated glass.
- Down draft bypass provides for a constant face velocity.
- Restricted bypass for variable volume exhaust systems is also available.
- · Louvered front panel is standard.
- Up to four optional remote control service fixtures can be furnished on each side of the hood. Service control valves must be located on the face of the base cabinet.
- Full view PVC sash frame incorporated an automatic sash return system. A latch holds the sash at the full open position for set-ups and lowers automatically to 18" when released. Operating height is 18"
- Sash full height opening is 31" with a 35" viewing height.
- · Chain and sprocket counterbalance system.
- Combination airfoil / containment trough provides
   secondary spill containment and flush entry into the hood.
- Narrow post design features unobstructed interior viewing, angled entry for performance and housing for electrical devices.

#### **Optional Features:**

Choose from an array of plumbing and alarms to tailor the BMC Vista Teaching Fume Hood to the desired application.

![](_page_26_Picture_1.jpeg)

# APEX-air™ GP Series Single Sided Teaching Fume Hood

![](_page_26_Figure_3.jpeg)

22"

26 5/8" -

**Section View** 

SSIF12

LISTED

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Cabinet and fixture configurations

shown on this page are optional and not included in the fume hood

Hoods are UL1805 Classified in the

US and UL Listed in Canada.

model number.

# APEX-air™ GP Series Double Sided Teaching Fume Hood

![](_page_27_Picture_3.jpeg)

GP SERIES DOUBLE SIDED TEACHING HOOD (*EXHAUST VOLUME PER SIDE, DOUBLE FOR TOTAL VOLUME)									
			DUAL E	XHAUS <sup>.</sup>	Т	SINGLE EXHAUST			
HOOD	COLLAR SIZE	18" ( 100	) Pen FPM	18" ( 80 F	)PEN PM	18" ( 100	OPEN FPM	18" ( 80 I	) PEN PM
SIZE		CFM	SP	CFM	SP	CFM	SP	CFM	SP
4'	4" X 30"	550*	.15	440*	.09 1	100	.25	880	.15
5'	4" X 30"	750*	.18	560*	.12 1	5v00	.30 1	120	.20
6'	4" X 30"	850*	.21	680*	.13 1	700	.35 1	700	.22

#### **Standard Features and Benefits:**

- Double face units can be positioned side by side with a single pane of 1/4" laminated glass separating the two units.
- Back divider panel on double sided units is 1/4" laminated glass with an option for white Resin- Chem.
- Down draft bypass provides for a constant face velocity. Restricted bypass for variable volume exhaust systems is also available.
- Units are available with a single exhaust connection or a dual connection which allows each side to be controlled as an individual hood.
- Louvered front panel is standard.
- Up to four optional remote control service fixtures can be furnished on each side of each face. Service control valves must be located on the face of the base cabinet.
- Full view PVC sash frame incorporated an automatic sash return system. A latch holds the sash at the full open position for set-ups and lowers automatically to 18" when released.
- Sash full height opening is 31" with a 35" viewing height. Operating height is 18".
- Chain and sprocket counterbalance system.
- Combination airfoil / containment trough provides secondary spill containment and flush entry into the hood.
- Narrow post design features improved interior viewing, angled entry for performance and housing for electrical devices.

#### **Optional Features:**

Choose from an array of plumbing and alarms to tailor the Fume Hood to the desired application

![](_page_28_Picture_1.jpeg)

### APEX-air™ GP Series Double Sided Teaching Fume Hood

![](_page_28_Figure_3.jpeg)

# APEX-air<sup>™</sup> GP Series Demonstration Fume Hood

GP SERIES TYPE 100 OPEN BYPASS DEMONSTRATION HOOD ( BASED ON ONE SIDE OPEN AND THE OTHER SIDE CLOSED)									
HOOD	COLLAR SIZE	FULL OPEN FULL OPEN 100 FPM 80 FPM		18" OPEN		18" OPEN 80 FPM			
SIZE		CFM	SP	CFM	SP	CFM	FPM	CFM	SP
4'	6" X 16"	925	.53	740	.54	668	.28	534	.18
5'	6" X 16"	1225	.93	980	.60	885	.49	708	.31

GP SERIES TYPE 200 RESTRICTED BYPASS DEMONSTRATION HOOD ( BASED ON ONE SIDE OPEN AND THE OTHER SIDE CLOSED)									
		FULL OPEN 100 FPM		FULL OPEN 80 FPM		18" OPEN 100 FPM		18" OPEN 80 FPM	
SIZE		CFM	SP	CFM	SP	CFM	SP	CFM	SP
4'	6" X 16"	719	.32	575	.31	463	.13	370	.09
5'	6" X 16"	953	.56	762	.36	613	.23	490	.15

### **Standard Features and Benefits:**

- UL listed, white fiberglass reinforced thermoset polyester interior lining
- Proper air balance with a fixed, non-adjustable baffle system
- Industry standard, T8 fluorescent light fixture, sealed from interior with laminated safety glass
- Rectangular type 304 stainless steel duct collar
- Rigid and corrosion resistant PVC sash guides
- Flawless movement of PVC framed vertical sash with laminated safety glass
- Full width PVC sash pull
- Reliable cable and pulley counter balance system
- Flat front posts
- Sash interlock allowing only one sash to open at a time

- Rectangular, type 304 or 316, stainless steel duct collar
- Sash stop
- Keyed sash stop
- Keyed sash lock
- Louvered front panel
- · Alarms, plumbing and electrical fixtures
- Explosion proof lights and outlets
- LED light

![](_page_30_Picture_1.jpeg)

### APEX-air<sup>™</sup> GP Series Demonstration Fume Hood

![](_page_30_Figure_3.jpeg)

**Front View** 

## **Canopy Fume Hood**

![](_page_31_Figure_3.jpeg)

CANOPY HOODS							
MODEL NUMBER	SIZE	COLLAR SIZE	50 FPM CFM SP				
3' FB773	36"	12"	963	.16			
4' FB774	48"	12"	1138	.17			
5' FB775	60"	12"	1313	.29			
6' FB776	72"	12"	1502	.36			

### Threaded rods not included.

Canopy Hoods are specifically designed for exhausting non-hazardous materials such as heat, steam and odors.

Canopy Hoods are constructed of epoxy coated steel in any of our standard colors. Three sizes are available for wall or corner mounting. Due to the many variations in wall and ceiling construction, mounting hardware is not included. Special size and configuration Canopy Hoods are available upon request.

The CFM listed above is based on 50 FPM with the Canopy Hood mounted 42-inches above the work surface and the front and open. The static pressures shown are for the Hood only. An appropriate amount will have to be added to this figure to compensate for one side the pressure drop through the duct system. The total pressure drop through the Hood and the duct system must be

FUME HOOD SINKS							
WIDTH	NO CUP	1 CUP SINK	2 CUP SINK				
48"	FB840	FB841	FB842				
60"	FB850	FB851	FB852				
72"	FB860	FB861	FB862				
84"	FB870	FB871	FB872				
96"	FB880	FB881	FB882				

known to select the proper exhaust blower.

![](_page_31_Figure_11.jpeg)

# **Fume Hood Work Surfaces**

Fume hood work surfaces are molded from a modified epoxy resin that has been especially compounded and cured to provide optimum physical and chemical resistance required for a heavy duty laboratory work surface. Work Surfaces are 1 1/4" thick on hoods with flush containment troughs and 1" thick on all others with a 3/8" deep dishing to contain spills and have a non-glaring black finish. Also available in 16 gauge type 304 dished stainless steel.

![](_page_32_Picture_0.jpeg)

### **Fume Hood Accessories**

![](_page_32_Figure_3.jpeg)

# **Remote Control Fume Hood Accessories**

![](_page_33_Picture_3.jpeg)

CIFLABSOLUTIONS

![](_page_33_Picture_4.jpeg)

FF100-01 (Remote Service Valve With Angled Hose Cock Outlet) FF100-02 (With Front Loaded Valve) FF100-03 (With ADA Lever Handle & Ball Valve)

Remote Service Valve with Angled Hose Cock Outlet

DESCRIPTION

CAT. NO

CAT. NO

 For use with gas, air, vacuum, steam or other special gases. Specify type of service. FF110-01 (Remote Service Valve With Gooseneck)

FF110-02 (With Front Loaded Valve) FF110-03 (With ADA Lever Handle And Ball Valve)

Remote Service Valve with Gooseneck • For use with water; specify hot or cold water

![](_page_33_Picture_12.jpeg)

FF120-01 (Remote Service Valve With

Goose-neck And Vacuum Breaker) FF120-02 (With Front Loaded Valve) FF120-03 (ADA Lever Handle And Ball Valve) FF120-04 (With Remote Valve And Vacuum Breaker Located On Top Front Of Hood) FF120-05 (With Front Loaded Valve And Vacuum Breaker Located On Top Front Of Hood) FF120-06 (ADA Lever Handle And Ball Valve And Vacuum Breaker

Remote Service Valve with Gooseneck and Vacuum Breaker • For use with water; specify hot or cold

water **new graphic** 

![](_page_33_Picture_17.jpeg)

![](_page_33_Picture_18.jpeg)

FF125-01 (Dual Remote Service Valves With Gooseneck) FF125-02 (With Front Loaded Valves) FF125 (With ADA Lever Handle And Ball Valves)

DESCRIPTION Dual Remote Service Valve with Gooseneck • For use with hot and cold water Gooseneck and Vacuum Breaker) FF130-02 (With Front Loaded Valves) FF130-03 (With ADA Lever Handle And Ball Valves) FF130-04 (With Remote Valves And Vacuum Breaker Located On Top Front Of Hood)

FF130-01 (Dual Remote Service Valves With

**Dual Remote Service Valve with Gooseneck and Vacuum Breaker** • For use with hot and cold water AFA500 (Air Velocity Monitor And Alarm)

Air Velocity Monitor and Arm

 Measures the face velocity of the FibmenHoider includes a visual safe indicator light, visual alarm indicator light, audible alarm and a test reset button which also manually silences the alarm. Field calibration requires the use of an optional air flow measuring device.

#### Please Note:

Remote control valves have forged brass valve bodies for strength and durability. Valves for gas, air, vacuum and special gases are of needle type design with a stainless steel floating cone and stainless steel replaceable seat. Valves for steam service have a flat Teflon valve disc and stainless steel replaceable seat; valves for water service have a renewable unit including a stainless steel seat and volume control. All outlet assemblies are furnished with a polished chrome plated finish. For acid and solvent resistant coatings add the following suffix to part numbers.

Brass With Clear Epoxy 01

Brass With Color Coded Epoxy 02

02 Color Coded Nylon 03

For factory setting of a service fixture, contact CiF Solutions for a custom part number in addition to the service fixture number. For factory setting and piping of service fixtures, contact CiF Solutions for a custom part number in addition to the service fixture number.

![](_page_34_Picture_0.jpeg)

## **Fume Hood Ceiling Enclosures**

Ceiling Enclosures are designed to be mounted on top of a Fume Hood and extend up through a drop-in ceiling. A front access panel is provided for relamping of the hood.

For use with ceiling heights from 102" to 108" only.

CEILING ENCLOSURES					
WIDTH	CAT. NO.				
48"	FB794				
60"	FB795				
72"	FB796				
84"	FB797				
96"	FB798				

### **Sash Stop**

Limiting the sash opening of a Fume Hood can greatly reduce the amount of air required to achieve a required face velocity.

FB-780 Sash Stop limits the vertical rising of the sash by 50 percent. A manual override allows you to fully open the sash for setups or cleaning. The Sash Stop re-engages as the sash is lowered below it.

Also available is the Keyed Sash Lock.

![](_page_34_Picture_10.jpeg)