Protector® XStream® Laboratory Fume Hoods

Unsurpassed safety.

No hood is safer than the patented* Protector XStream Laboratory Hood. Testing proves it.

During independent ASHRAE 110 testing**, the Protector XStream Hood was challenged well beyond the SEFA 1† standards. With a face velocity of 40 fpm and sash fully open, the Protector XStream was subjected to 50 fpm cross drafts, NIH† protocol, and tracer gas measurements in the chest of the mannequin. In all scenarios, the Protector XStream allowed **0.00 ppm** average level of tracer gas outside the fume hood. Although your safety officer or industrial hygienist will determine the actual face velocity setting for your lab, the ability of the Protector Hood to contain under these adverse conditions sets a new standard of safety.

Save energy and money.

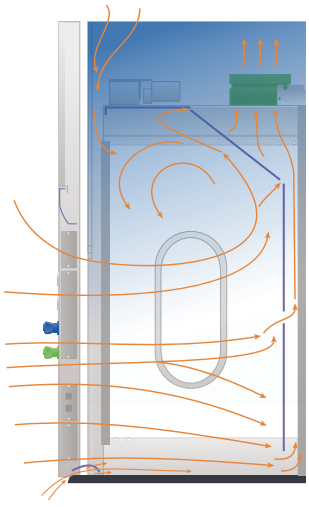
Energy savings is equally impressive. Although face velocity is a factor, it's the **volumetric rate (CFM)** that determines the energy consumption of a fume hood. Operating a 6' Protector XStream Hood at 60 fpm face velocity, with the sash in its fully open position, requires only **690 CFM.** Regardless of your desired operating face velocity, the Protector XStream yields the **lowest required CFM**.

Energy savings translates to dollar savings. The Protector XStream Hood provides an excellent economic payback when compared to traditional by-pass hoods operated at 80 or 100 fpm with sash fully open. For example, a 6' Protector XStream Hood operated at 60 fpm face velocity consumes a mere 690 CFM. Compare that to a traditional by-pass hood operated at 100 fpm that consumes 1250 CFM. You achieve annual dollar savings per year of $3920.††

For even greater savings, the Protector XStream may be factory-prepared to accommodate a VAV system without the need for by-pass modifications.

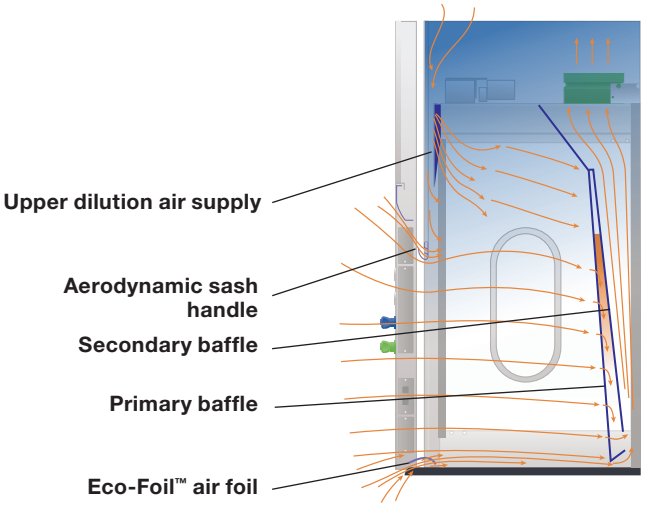
Traditional By-Pass Hood Design

Smoke tests on traditional hoods demonstrate the tendency for contaminants generated in the interior to roll forward producing high concentrations of contaminants behind the sash in close proximity to the user's breathing zone.



Protector XStream Hood Design

In contrast, smoke tests on the Protector XStream show contaminants removed in a single pass and a lack of turbulence. Horizontal air flowing toward the baffle forces contaminants to the rear interior, away from the user. The upper dilution air supply sweeps the upper interior to eliminate stagnant pockets of air and to prevent contaminants from concentrating behind the sash. This airflow pattern is accomplished without additional blower(s) or moving components.



*U.S. Patent No. 6,461,233 **Independent testing by AccuTec Services, Inc., Lee's Summit, MO, National Environmental Balancing Bureau (NEBB)-Certified, Professional Engineer

†See page 21 for a list of regulations, standards and registered trademarks. ††See page 8 for energy savings details.

Protector® XStream® Laboratory Fume Hoods

Specifications



All models feature:

- By-pass airflow design with variable air volume compatibility
- ❇ Eco-Foil™ air foil with aerodynamic Clean-Sweep™ airflow openings*
- ❇ Cord-Keeper™ slots on left and right side of air foil
- ❇ Upper dilution air supply*
- Glacier white powder-coated steel exterior
- ❇ Rear downflow dual baffle system*
- Chemical-resistant, fiberglass-reinforced, composite panel liner and baffles with flame spread index less than 25 per ASTM E84**. Baffles removable for cleaning
- ❇ Opti-Zone™ baffle with tapered slots*
- Tempered safety glass vertical-rising sash with cable and pulley
- ❇ Powder-coated aluminum sash handle with aerodynamic Clean-Sweep™ openings*
- 37.5" (95.3 cm) high sightline from the work surface to the header panel
- Removable front and side panels, and front and interior service access panels
- Pre-wired LED lighting with vapor-proof design and ADA-compliant light and blower switches. Lighting is rated for 50,000 hours
- Sash stop located at 18" (45.7 cm) sash opening position
- Powder-coated stainless steel, 12.8" (32.5 cm) ID exhaust connection(s)

Standards conformance & regulations:

- ADA
- CFR 29, Part 1910**
- SEFA 1**
- NFPA 45**
- ASTM E84-09C**
- ASHRAE 110**
- ANSI Z9.5**

❇ Labconco exclusive feature

- UL 61010-1**
- CAN/CSA C22.2 No. 61010-1**
- UL 1805
- CE Conformity Marking (230V models)**
- SEFA 8**

⚠**WARNING:** Cancer - P65Warnings.ca.gov (California only)

Fixtured models feature:

- Two pre-plumbed service fixtures with forged brass valves, lower right side with brass tubing for gas and lower left side with copper tubing for cold water. Components for converting either or both fixtures to air and vacuum are provided. **Inlet tubing is not provided**
- One pre-wired GFCI electrical duplex receptacle on lower right side and, on 8' models only, one additional pre-wired GFCI electrical duplex receptacle on lower left side

Required accessories (not included):

- Remote blower. Contact Labconco
- Ductwork. Contact Labconco
- Work surface. See pages 17-18
- Base cabinet or stand. Contact Labconco

Optional accessories for on-site installation include:

- Service Fixture Kits. See page 19
- Electrical Duplex Kits. See page 20
- Guardian Airflow Monitor Kits. See page 20
- Ceiling Enclosure, Rear Finish Panel Kits and Distillation Grid Kits. Contact Labconco

*U.S. Patent No. 6,461,233

**See page 21 for list of regulations, standards and registered trademarks.

♿ Heights of switches and electrical receptacles meet requirements of Americans with Disabilities Act (ADA) when work surface is set to ADA height.

Protector® XStream® Laboratory Fume Hoods

Ordering Information, Airflow Data & Energy Savings

Catalog Number Configurator:

Use this key to configure the nine digit catalog number to order your Protector XStream Laboratory Hood.

1 1 0 ☐ 1 0 0 ☐ ☐

Select the **WIDTH** of your fume hood. This is the fourth digit of your catalog number. Shipping weight is also noted. Add 10 lbs. (5 kg) for fixtured models.

4 = 4' (122 cm), 440 lbs. (200 kg)
5 = 5' (152 cm), 525 lbs. (238 kg)
6 = 6' (183 cm), 600 lbs. (272 kg)
8 = 8' (244 cm), 770 lbs. (349 kg)

Select the **ELECTRICAL REQUIREMENTS, SERVICE FIXTURES** and **GFCI ELECTRICAL DUPLEX RECEPTACLE** of your fume hood. These are the eighth and ninth digits of your catalog number.

Electrical Requirements	No Service Fixtures	Two Service Fixtures	Two Service Fixtures & GFCI Duplex*
100-115V, 50/60 Hz, 10A	00	—	02
208-230V, 50/60 Hz, 5 A	20	21	—

Total Exhaust CFM and Static Pressure @ 28" Sash Opening (100% Open)

Face Velocity (fpm)	Airflow Volumetric Rate (CFM) @ Static Pressure (inches of water)							
Sash @ Full Open	4' Hood		5' Hood		6' Hood		8' Hood	
	CFM	s.p.	CFM	s.p.	CFM	s.p.	CFM	s.p.
100	705	0.26	930	0.32	1150	0.41	1600	0.29
80	565	0.17	745	0.20	920	0.26	1280	0.19
60	425	0.09	560	0.12	690	0.15	960	0.10

Total Exhaust CFM and Static Pressure @ 18" Sash Opening (62.5% Open)

Face Velocity (fpm)	Airflow Volumetric Rate (CFM) @ Static Pressure (inches of water)							
Sash @ 62.5% Open	4' Hood		5' Hood		6' Hood		8' Hood	
	CFM	s.p.	CFM	s.p.	CFM	s.p.	CFM	s.p.
100	440	0.10	580	0.12	720	0.16	1000	0.11
80	350	0.06	465	0.08	575	0.10	800	0.07
60	265	0.04	350	0.05	430	0.06	600	0.04

Energy Savings Dollars Compared to a Typical Fume Hood

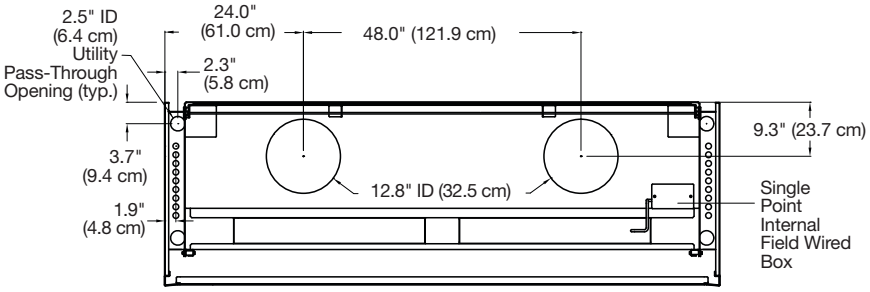
Protector XStream shows significant savings over its lifetime when compared to a typical fume hood. Maximum savings are achieved using the Protector XStream operating at 60 fpm with a VAV system. Please contact Labconco for ordering information on factory preparing Protector XStream Hoods to a specific VAV controller cutout.

	CFM	Dollars/ Year	Dollars/Lifetime	Lifetime Dollar Savings Compared to Typical Hood
6' Typical Hood @ 100 fpm, full open sash (28"), constant volume†	1250	$8,750	$131,250	0
6' XStream Hood @ 100 fpm, full open sash (28"), constant volume†	1150	$8,050	$120,750	$10,500
6' XStream Hood @ 60 fpm, full open sash (28"), constant volume†	690	$4,830	$72,450	$58,800
6' XStream Hood @ 60 fpm, 62.5% open sash (18"), constant volume†	430	$3,010	$45,150	$86,100
6' XStream Hood @ 60 fpm, variable air volume††	250	$1,750	$26,250	$105,000
6' XStream Hood @ 60 fpm, variable air volume, sash intelligence†††	190	$1,330	$19,950	$111,300

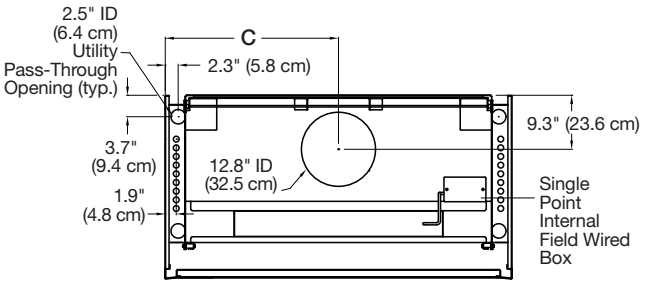
*Hoods with GFCI electrical duplex are rated at 20 amps. 8' hoods have two GFCI electrical duplex receptacles, one mounted on each side, rated at 20 amps each.
†Based on average annual dollars per CFM of $7.00, fume hood operating 24 hours a day and 5 days per week (6240 hours per year). Average annual dollar per CFM cost ranges from $5.00 to $12.00 depending on geographic location. Lifetime calculations are based on 15 years.
†† Based on 8 hours per day with 18" sash opening and 60 fpm face velocity, and remaining time with sash closed. Closed sash air volume is based on ANSI Z9.5 minimum of 200 Air Changes per hour (ACH), and $0.0000187/ft^3 air.
††† Based on 3 hours per day with 18" sash opening and 60 fpm face velocity and remaining time with sash closed. Closed sash air volume is based on ANSI Z9.5 minimum of 200 ACH and $0.0000187/ft^3 air.

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Dimensional Data

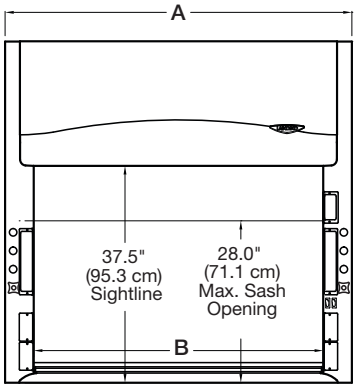


TOP
(8' Hoods)

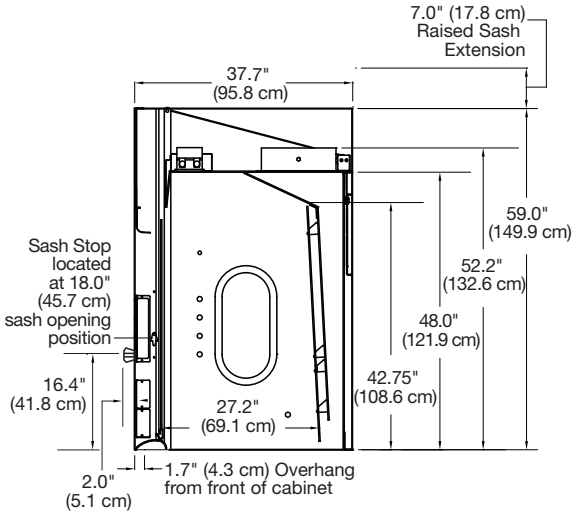


TOP
(4', 5' & 6' Hoods)

	A	B	C
4' Hood	48.0" (121.9 cm)	38.1" (96.8 cm)	24.0" (61.0 cm)
5' Hood	60.0" (152.4 cm)	50.1" (127.3 cm)	30.0" (76.2 cm)
6' Hood	72.0" (182.9 cm)	62.1" (157.7 cm)	36.0" (91.4 cm)
8' Hood	96.0" (243.8 cm)	86.1" (218.7 cm)	—



FRONT



SIDE

Contact Labconco at (800) 821-5525 or (816) 333-8811 or visit labconco.com for BIM Revit® and detailed AutoCAD® drawings. See page 21 for trademark information.