



Industrial, Institutional and
Commercial Furniture & Equipment

Laboratory Fume Hoods

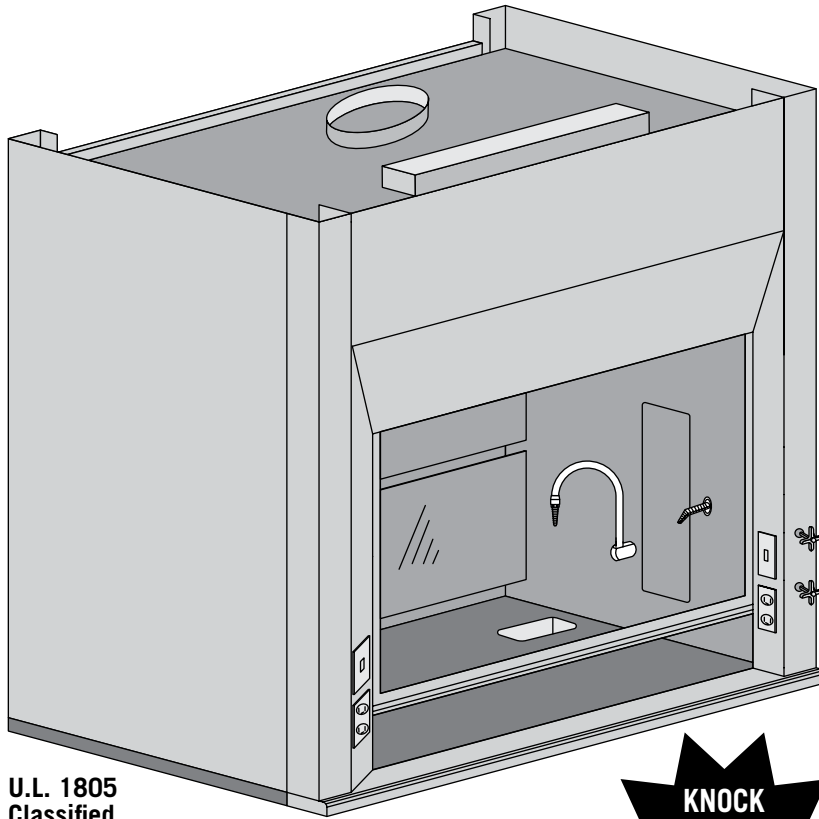


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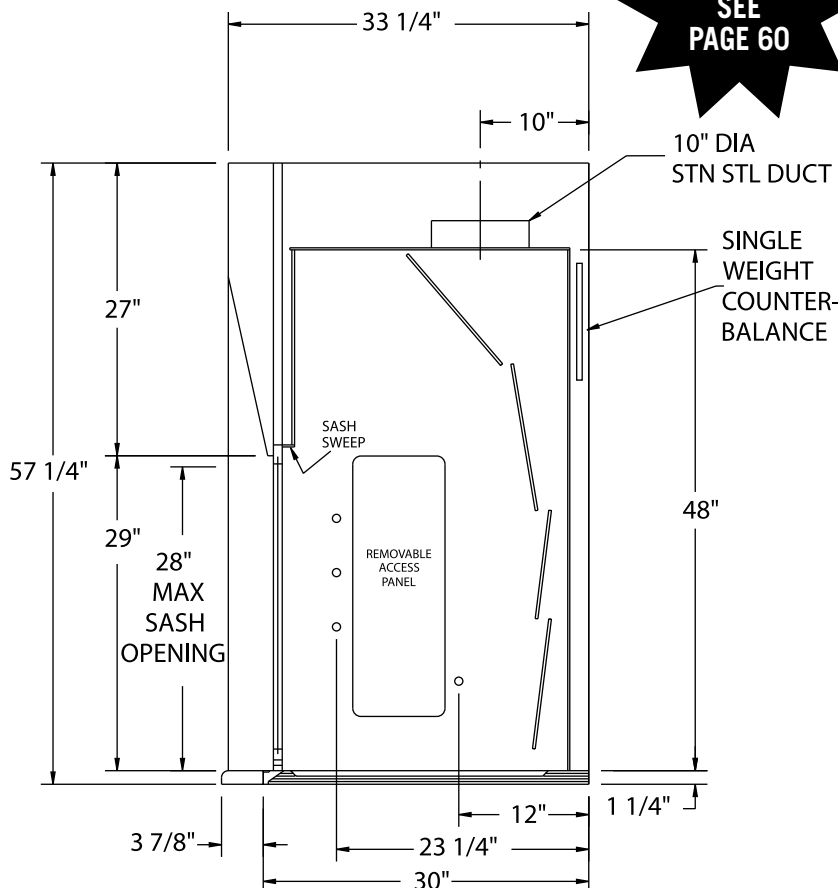
Labscope HP SERIES: High Performance/Energy Efficient

60 FPM • FITS THROUGH STANDARD DOOR • 30" COUNTERTOP

This HP is THE hood for remodeling, new construction or retrofitting.



**U.L. 1805
Classified**



A Green Alternative

The High Performance hood comes standard with all the same features as other Labscope models, along with some additional innovations to set this hood apart from its competitors. Features of the HP Series include:

- **Passed ASHRAE 110 AM testing with sash in full open position.**
- **Standard 30" deep work surface for zero work space loss in your lab. Other depths available.**

The HP model is designed to operate economically while creating a safe work environment without compromising containment. By operating at 60 FPM, air flow across the sash opening results in a 40% savings in fume hood operation costs.

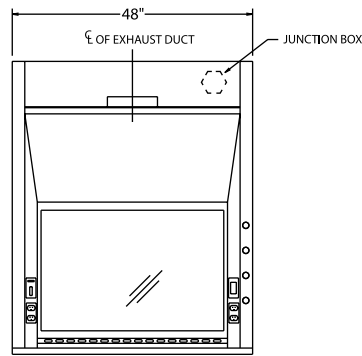
The HP hood was designed to do all this and still fit on a standard-depth countertop and cabinet. This means no disassembly and reassembly during the installation process. The HP hood fits through a standard door opening, making this hood the choice for renovation or new construction.

LS-HP Standard Features

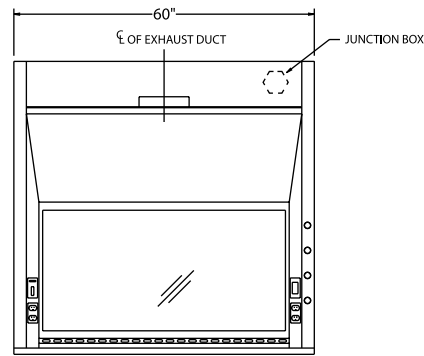
- Powder Coat Finish
- Full Frame Construction
- Shaft Drive Sash
- U.L. Listed Poly Resin Liner
- Flush-Mount Airfoil
- Knock Down Capability
- Interior Access to Light
- Full-Length Finger Lift
- Sash Sweep
- 25.5" Interior Working Depth
- U.L. 1805 LED Light Available

Labscape HP SERIES: High Performance/Energy Efficient

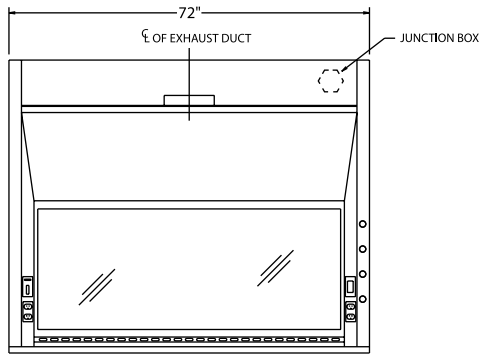
APPLICATIONS: Higher Education; Industrial; Private Research



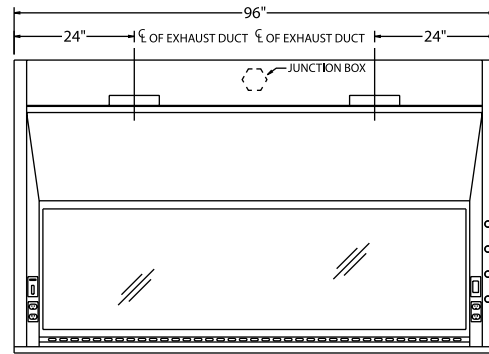
LS-HP-48



LS-HP-60



LS-HP-72



LS-HP-96

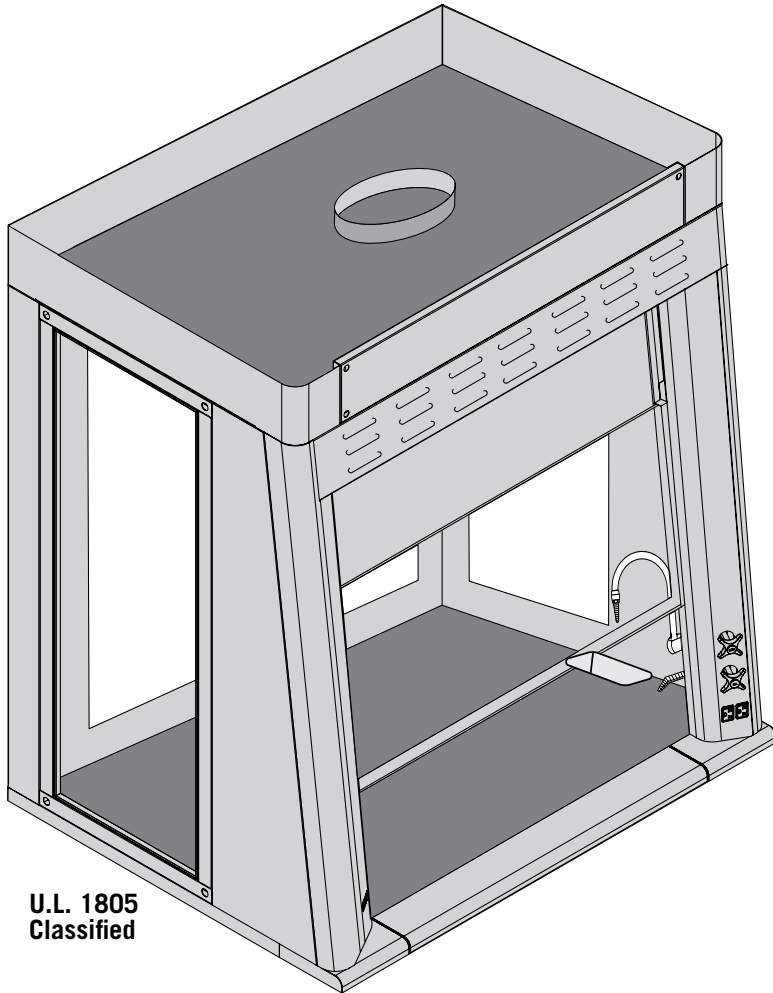
Part Number	Superstructure			Worktop			Hood Opening		CFM @ 28"*	CFM @ 18"*	SP	Blower Model #	Shipping Weight
	W	H	D	W	H	D	W	H					
LS-HP-48	48"	56"	33-1/4"	48"	1-1/4"	30"	38"	28"	469	313	.25	BL-HP-48	415
LS-HP-60	60"	56"	33-1/4"	60"	1-1/4"	30"	50"	28"	619	413	.34	BL-HP-60	490
LS-HP-72	72"	56"	33-1/4"	72"	1-1/4"	30"	62"	28"	769	513	.34	BL-HP-72	535
LS-HP-96	96"	56"	33-1/4"	96"	1-1/4"	30"	86"	28"	1069	713	.34	BL-HP-96	570

*Height of open sash; CFM calculated at 60 FPM
For High Performance VAV Hoods, add -VAV to the part number.

LS-HP Optional Accessories

ITEM	PART #	PAGE #
Ceiling Enclosures	CE	50
Plumbing Accessories		51
Electrical Accessories		52
Epoxy Tops	ET	56
Alarms	ALARM	35
Base Cabinets	BC	53
Blowers	BL	Call
Pre-Plumbing	PREP	
Pre-Wiring	PREW	

ITEM	PART #	PAGE #
Sash Stops	SASHSTOP	55
Chain and Sprocket Drive	CHNSPK	Call
Stainless Steel Sash	SS SASH	55
Stainless Steel Airfoil	SS AF	
Push Button Sash	PUSH BUTTON	55
Combination Sash	H&V	55
Lattice Assembly	LATTICE	Call
Auto Sash Return		55



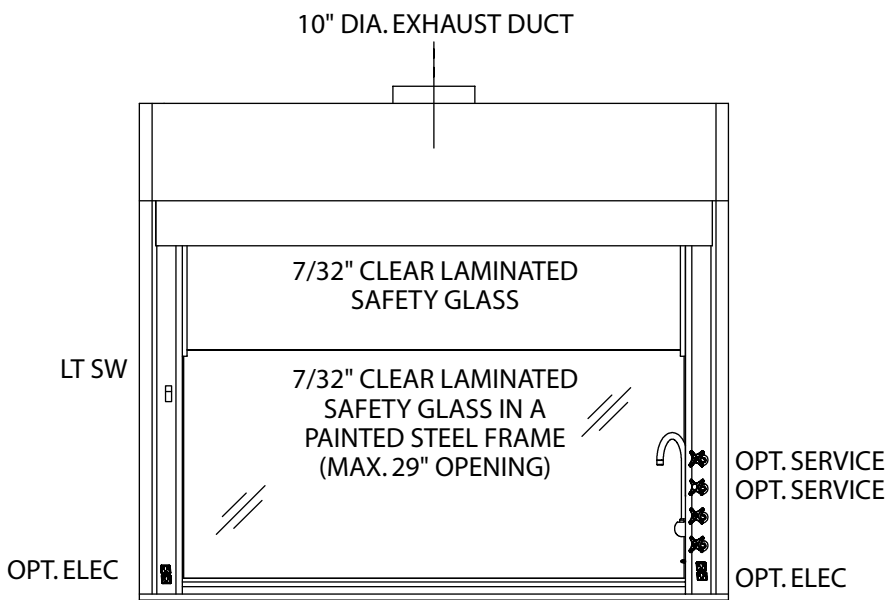
**U.L. 1805
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Viewing Everything

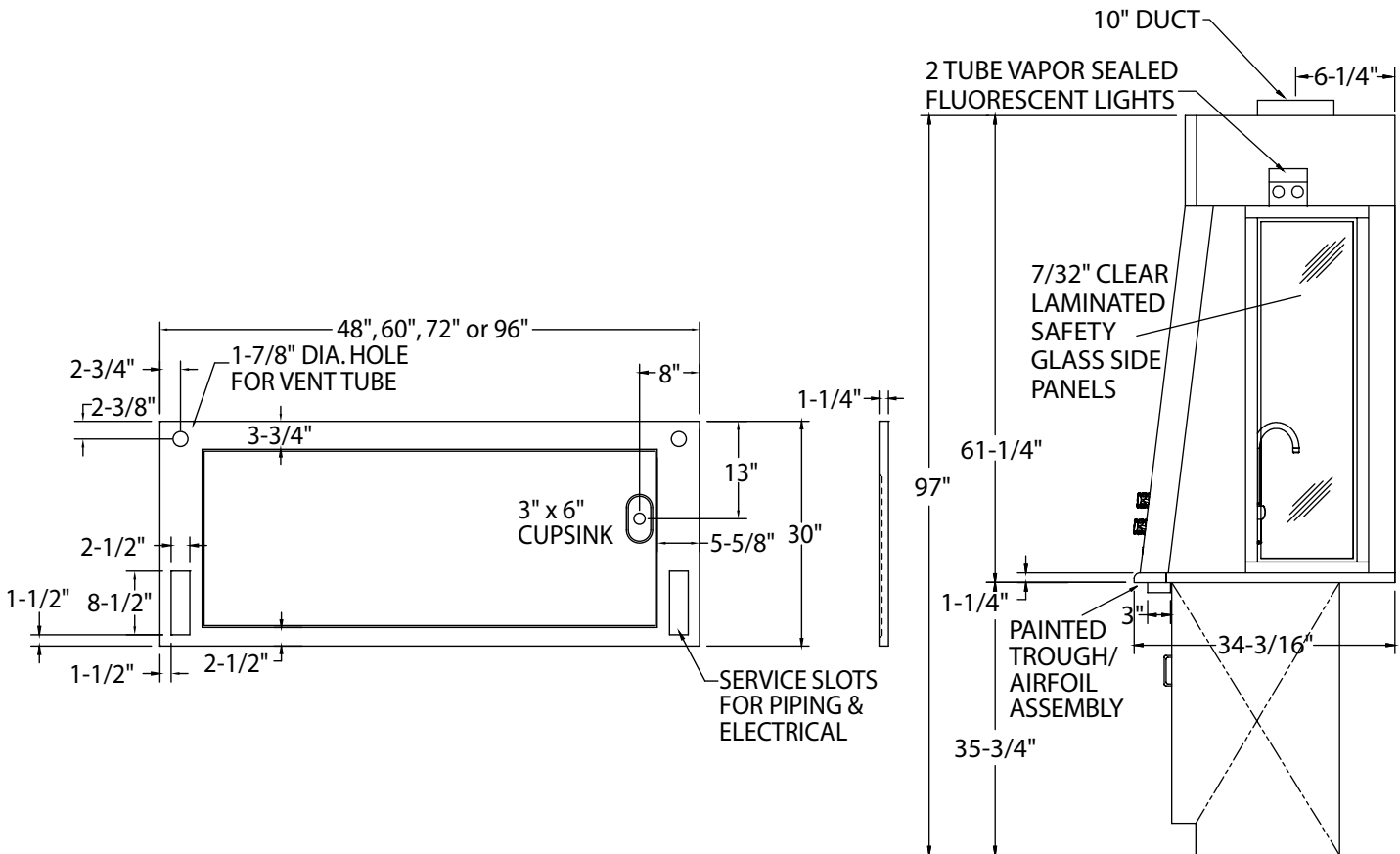
The Solution Work Station was designed to allow 360 degree viewing for undergraduate teaching labs. With the absence of counterweights and baffles, the SWS maximizes ambient light throughout the hood. In addition, this hood has the flexibility necessary to allow back-to-back or side-by-side configurations.

Solution Work Station Standard Features

- Powder Coat Finish
- Full Frame Construction
- Constant Force Sash Counterbalance
- T-8 Fluorescent Light with Bulbs
- Flush-Mount Airfoil
- Interior Access to Light
- Full-Length Finger Lift
- Louvered Front for By-Pass
- 10" Round S/S Duct Collar



Labscape SWS SERIES: Solution Work Station



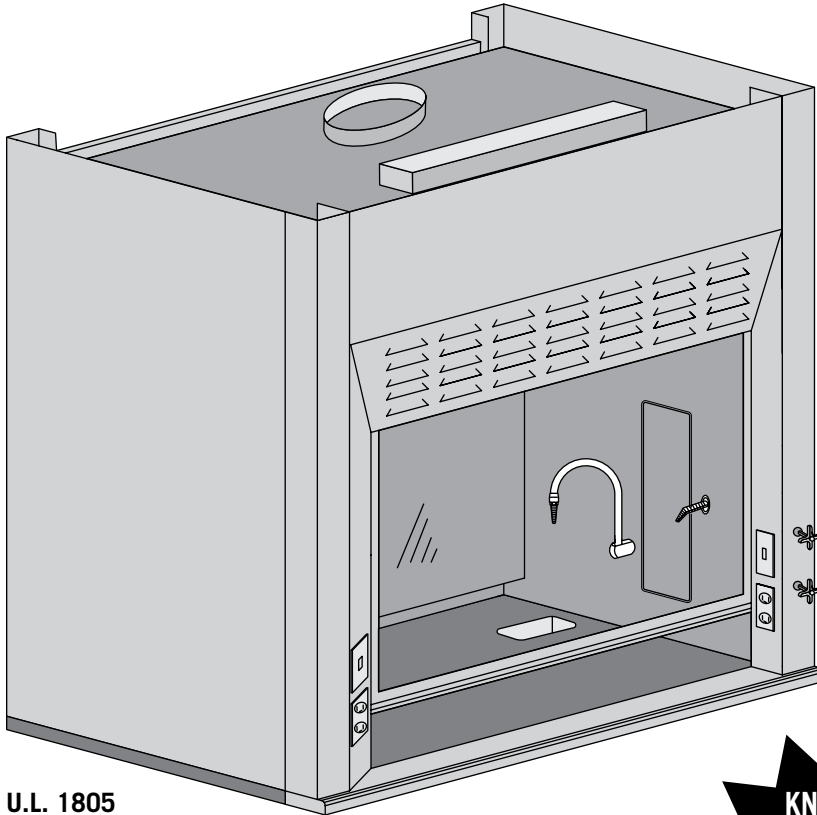
Part Number	Superstructure			Worktop			Hood Opening		CFM @ 100LFM	SP at Hood**	10" Duct Size	Shipping Weight
	W	H	D	W	H	D	W	H				
SWS-480	48"	60"	34-3/16"	48"	1-1/4"	30"	37-1/2"	29"	770	.25"	10"	424
DWS-480	48"	60"	68-3/8"	48"	1-1/4"	60"	37-1/2"	29"	770	.25"	2 - 10"	848
SWS-600	60"	60"	34-3/16"	60"	1-1/4"	30"	49-1/2"	29"	1000	.33"	10"	496
DWS-600	60"	60"	68-3/8"	60"	1-1/4"	60"	49-1/2"	29"	1000	.33"	2 - 10"	992
SWS-720	72"	60"	34-3/16"	72"	1-1/4"	30"	61-1/2"	29"	1250	.5"	10"	578
DWS-720	72"	60"	68-3/8"	72"	1-1/4"	60"	61-1/2"	29"	1250	.5"	2 - 10"	1156

SWS = Single Sided Work Station
DWS = Double Sided Work Station (order two single sided hoods and face them back to back)

*HVAC will have to "wye" double sided hood duct.
For VAV Hoods, add -VAV to the part number.

Solution Work Station Optional Accessories

ITEM	PART #	PAGE #
Plumbing Accessories		51
Base Cabinets		53
Electrical		52



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**KNOCK
DOWN—
SEE
PAGE 60**

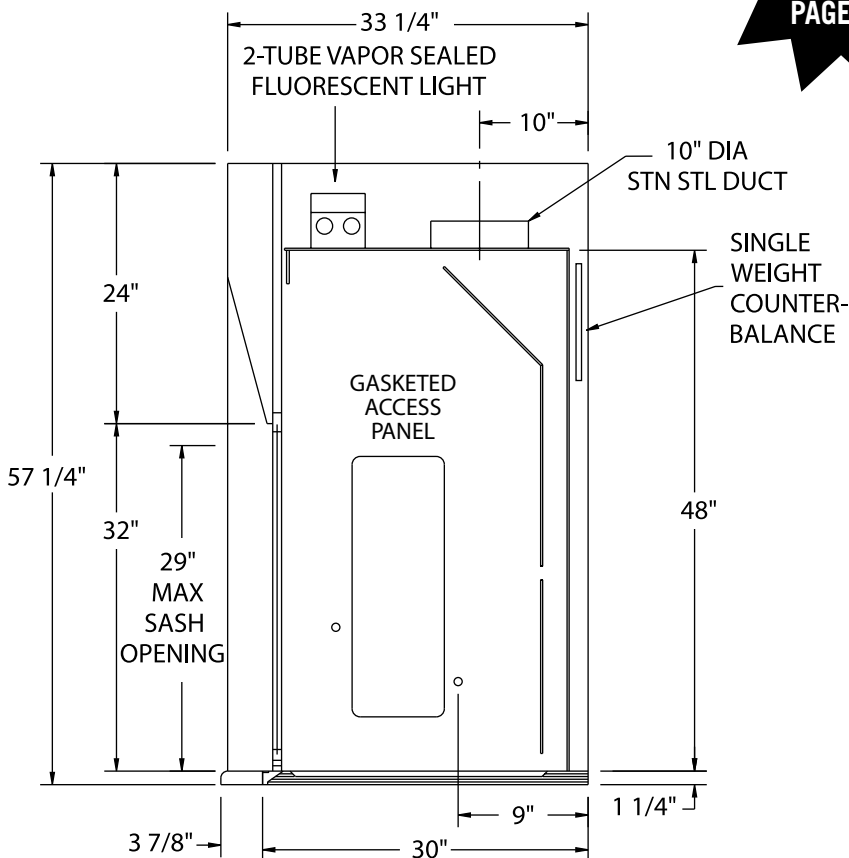
Minimized Turbulence, Increased Performance

The LS-100 series airfoil-type fume hood features a 45-degree angle around the fascia and a flush-mount radiused airfoil across the bottom, which results in minimized turbulence and increased performance.

Like the exterior of the hood, the airfoil is made from chemical-resistant, powder-coated, 16-gauge cold rolled steel. A stainless steel airfoil is available as an option.

Posts are 5" (127 mm) wide.

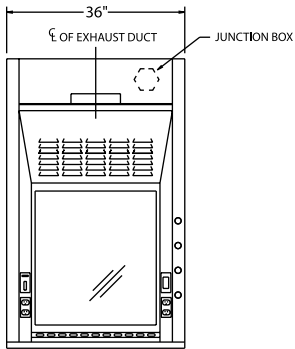
Five standard sizes offer design flexibility, or we'll customize to your specific needs.



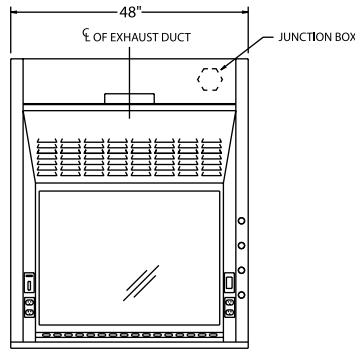
LS-100 Standard Features

- Powder Coat Finish
- Full Frame Construction
- Shaft Drive Sash
- U.L. Listed Poly Resin Liner
- T-8 Fluorescent Light with Bulbs
- Flush-Mount Airfoil
- Knock Down Capability
- Interior Access to Light
- Full-Length Finger Lift
- Louvered Front for By-Pass
- 10" Round S/S Duct Collar

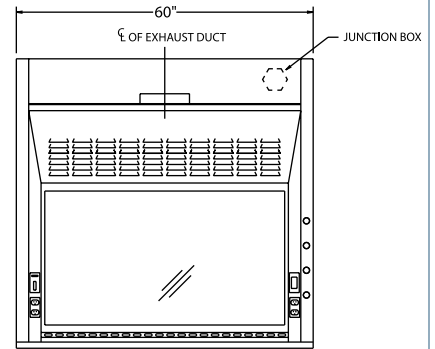
Labscape 100 SERIES: Airfoil



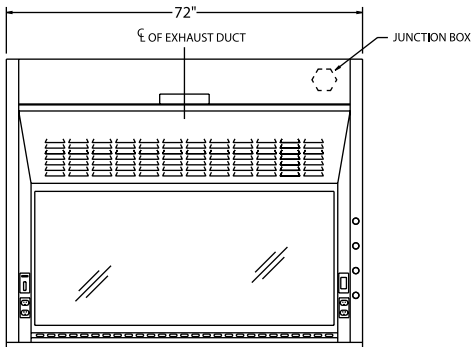
LS-111-36



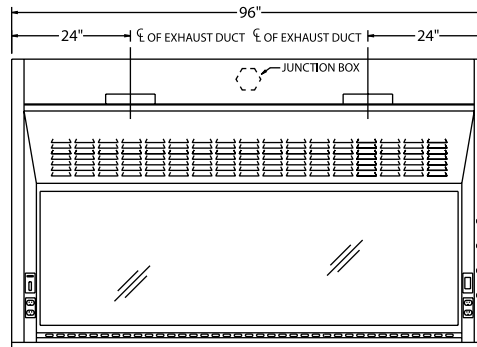
LS-111-48



LS-111-60



LS-111-72



LS-111-96

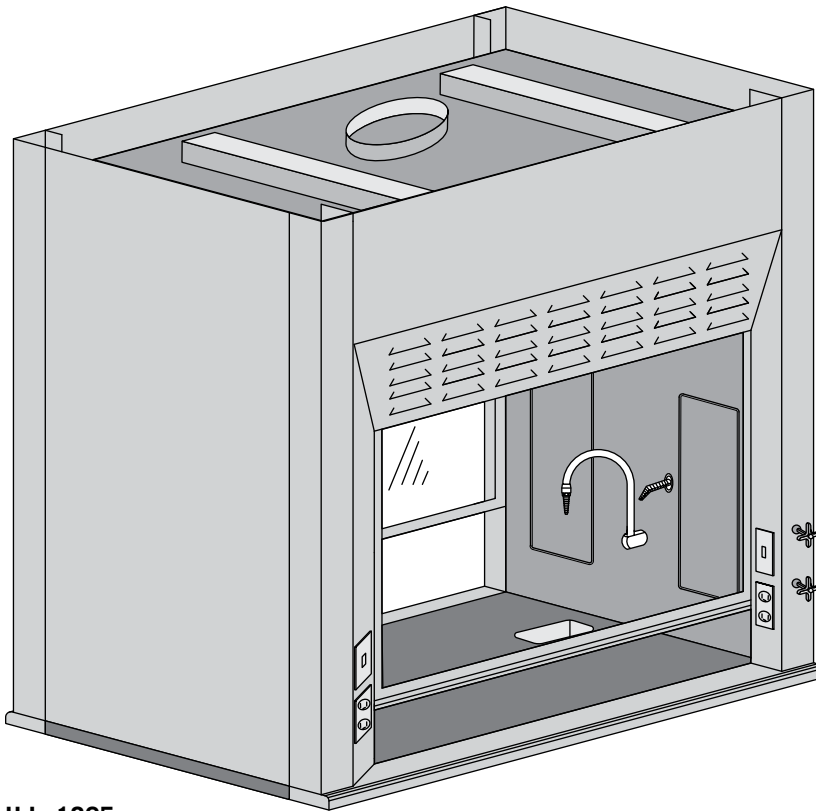
Part Number	Superstructure			Worktop			Hood Opening		CFM @ 29"*	CFM @ 18"*	SP	Blower Model #	Shipping Weight
	W	H	D	W	H	D	W	H					
LS-111-36	36"	56"	33-1/4"	36"	1-1/4"	30"	26"	29"	567	354	.25	BL-100-36	320
LS-111-48	48"	56"	33-1/4"	48"	1-1/4"	30"	38"	29"	833	521	.25	BL-100-48	385
LS-111-60	60"	56"	33-1/4"	60"	1-1/4"	30"	50"	29"	1100	688	.34	BL-100-60	450
LS-111-72	72"	56"	33-1/4"	72"	1-1/4"	30"	62"	29"	1367	854	.34	BL-100-72	510
LS-111-96	96"	56"	33-1/4"	96"	1-1/4"	30"	86"	29"	1900	1188	.40	BL-100-96	630

*Height of open sash; CFM calculated at 100 FPM
For VAV Hoods, add -VAV to the part number.

LS-100 Optional Accessories

ITEM	PART #	PAGE #
Ceiling Enclosures	CE	50
Plumbing Accessories		51
Electrical Accessories		52
Epoxy Tops	ET	56
Alarms	ALARM	35
Base Cabinets	BC	53
Blowers	BL	Call
Pre-Plumbing	PREP	
Pre-Wiring	PREW	

ITEM	PART #	PAGE #
Sash Stops	SASHSTOP	55
Chain and Sprocket Drive	CHNSPK	Call
Stainless Steel Sash	SS SASH	55
Stainless Steel Airfoil	SS AF	
Push Button Sash	PUSH BUTTON	55
Combination Sash	H&V	55
Automatic Sash Return	AUTO RETURN	55
Lattice Assembly	LATTICE	Call



Dual Access

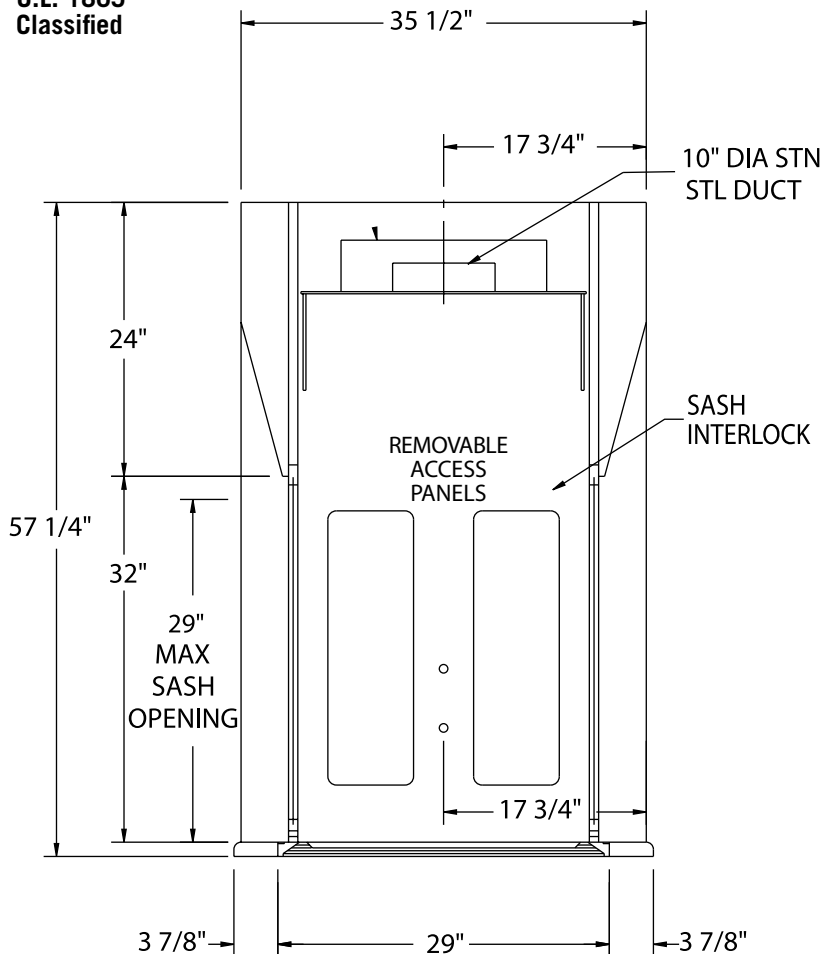
The 200 series provides the same aerodynamic design features as the LS-100 airfoil hood series, with entrance from two sides. This makes it ideal for use in classroom or prep room settings or whenever demonstration of experiments is desired.

A 45-degree angle around the fascia and a flush-mount radiused airfoil across the bottom provide minimized turbulence and increased performance.

The LS-200 features standard 5" (127 mm) posts to allow for electrical and remote control plumbing services on both sides, and these can be configured to your exact specifications.

Five standard sizes and an array of options make this one of the most flexible fume hoods available anywhere.

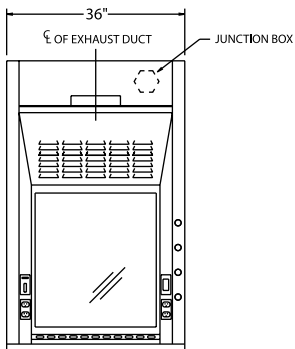
**U.L. 1805
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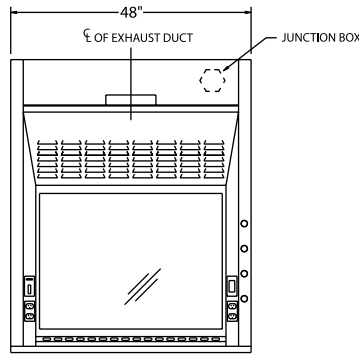
LS-200 Standard Features

- Powder Coat Finish
- Full Frame Construction
- U.L. Listed Poly Resin Liner
- Flush-Mount Airfoil
- Knock Down Capability
- Interior Access to Light
- Full-Length Finger Lift
- Louvered Front for By-Pass
- Sash Interlock

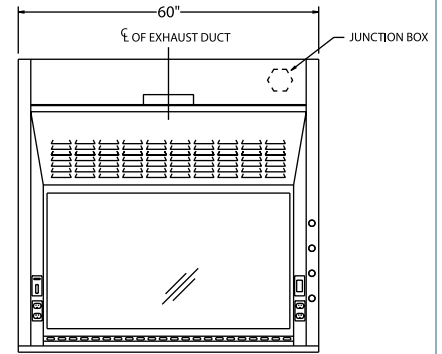
Labscene 200 SERIES: Double-Sided 100 Series



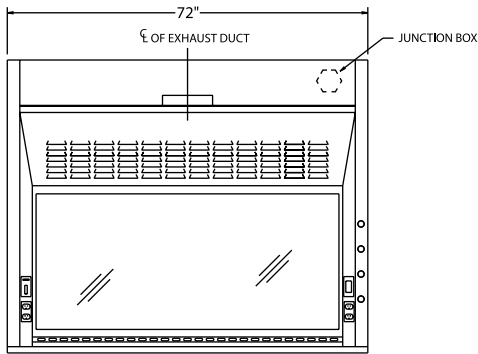
LS-211-36



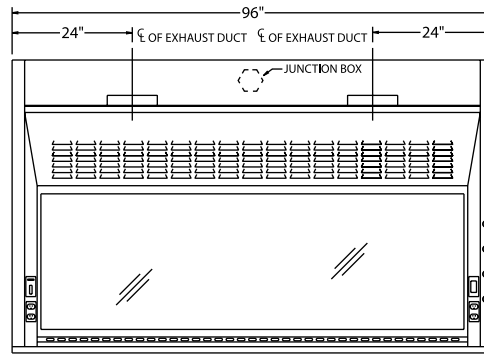
LS-211-48



LS-211-60



LS-211-72



LS-211-96

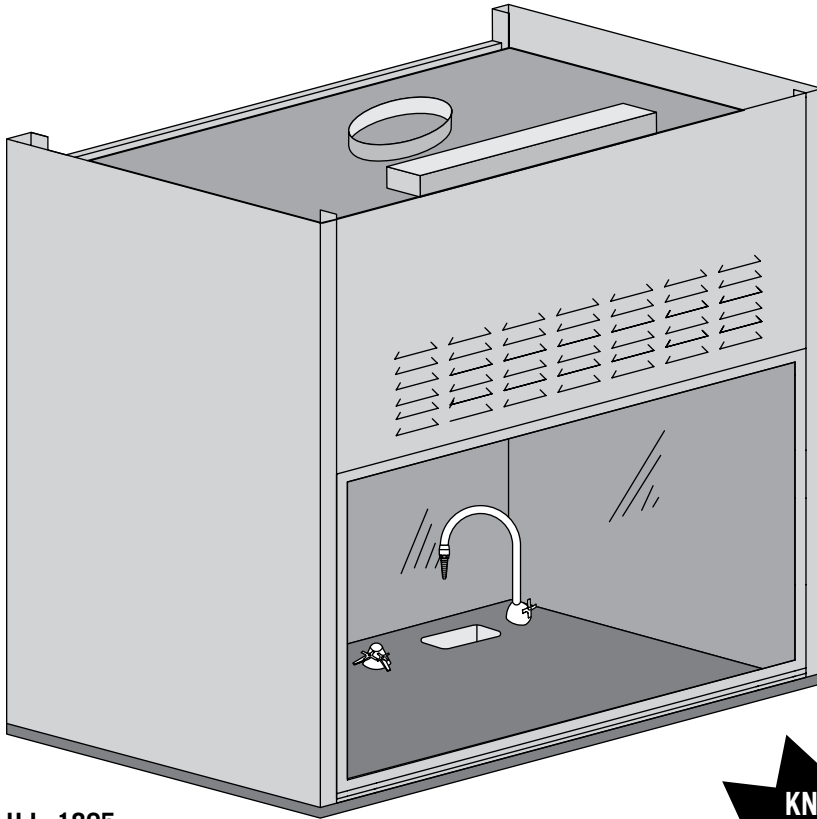
Part Number	Superstructure			Worktop			Hood Opening		CFM @ 29"*	CFM @ 18"*	SP	Blower Model #	Shipping Weight
	W	H	D	W	H	D	W	H					
LS-211-36	36"	56"	35-1/2"	36"	1-1/4"	29"	26"	29"	567	354	.25	BL-100-36	400
LS-211-48	48"	56"	35-1/2"	48"	1-1/4"	29"	38"	29"	833	521	.33	BL-100-48	450
LS-211-60	60"	56"	35-1/2"	60"	1-1/4"	29"	50"	29"	1100	688	.34	BL-100-60	500
LS-211-72	72"	56"	35-1/2"	72"	1-1/4"	29"	62"	29"	1367	854	.34	BL-100-72	550
LS-211-96	96"	56"	35-1/2"	96"	1-1/4"	29"	86"	29"	1900	1188	.40	BL-100-96	650

*Height of open sash; CFM calculated at 100 FPM with one sash open

LS-200 Optional Accessories

ITEM	PART #	PAGE #
Ceiling Enclosures	CE	50
Plumbing Accessories		51
Electrical Accessories		52
Epoxy Tops	ET	56
Alarms	ALARM	35
Base Cabinets	BC	53
Blowers	BL	Call
Pre-Plumbing	PREP	

ITEM	PART #	PAGE #
Pre-Wiring	PREW	
Sash Stops	SASHSTOP	55
Stainless Steel Sash	SS SASH	55
Stainless Steel Airfoil	SS AF	
Push Button Sash	PUSH BUTTON	55
Combination Sash	H&V	55
Automatic Sash Return	AUTO RETURN	55
Lattice Assembly	LATTICE	Call



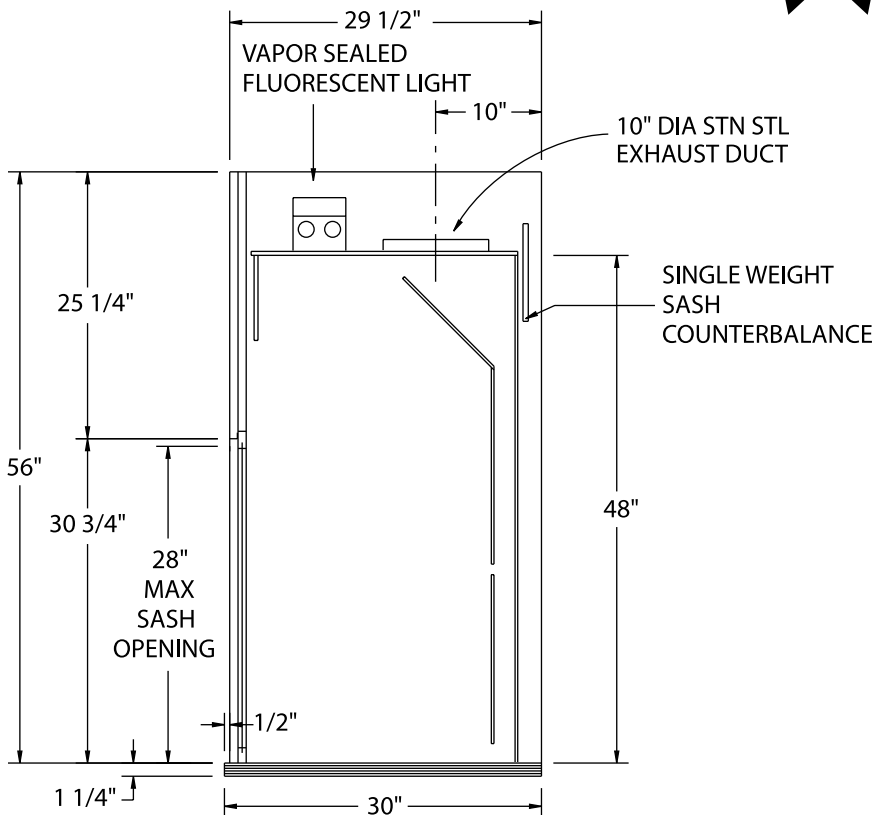
Expanded Workspace

The 300 series is a thin-wall fume hood with slimmer front posts to expand the workspace. Posts are 2-1/2" (64 mm) wide.

Because the slimmer posts remove the option for wiring and plumbing in the posts, plumbing services must be deck mounted. Optional light and blower switches can be mounted on the post.

Five standard widths with unlimited heights and depths are available, making this one of the most flexible fume hoods available anywhere.

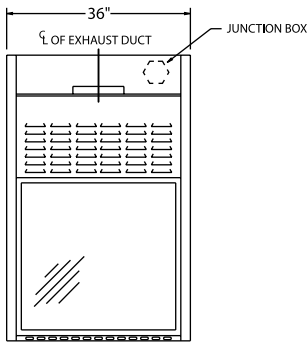
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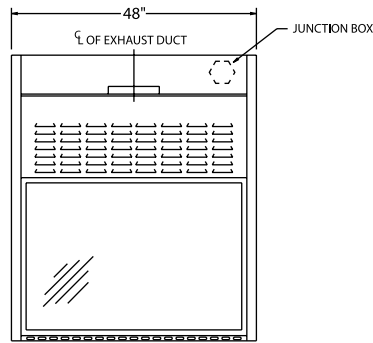
LS-300 Standard Features

- Powder Coat Finish
- Full Frame Construction
- Shaft Drive Sash
- U.L. Listed Poly Resin Liner
- T-8 Fluorescent Light with Bulbs
- Knock Down Capability
- Interior Access to Light
- Full-Length Finger Lift
- Louvered Front for By-Pass

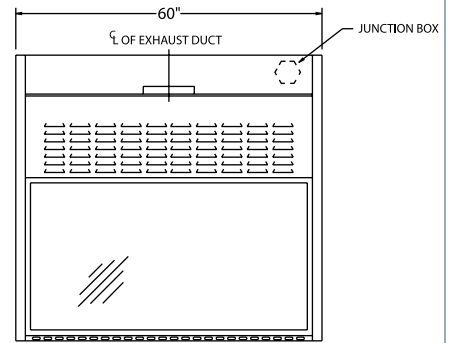
Labscope 300 SERIES: Thin Wall



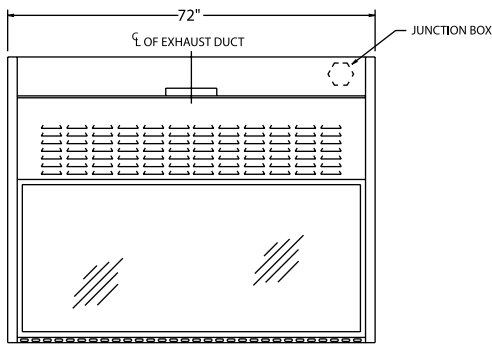
LS-311-36



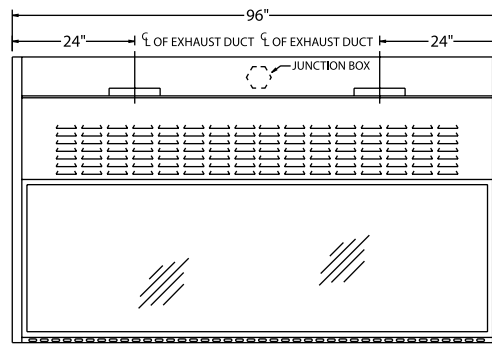
LS-311-48



LS-311-60



LS-311-72



LS-311-96

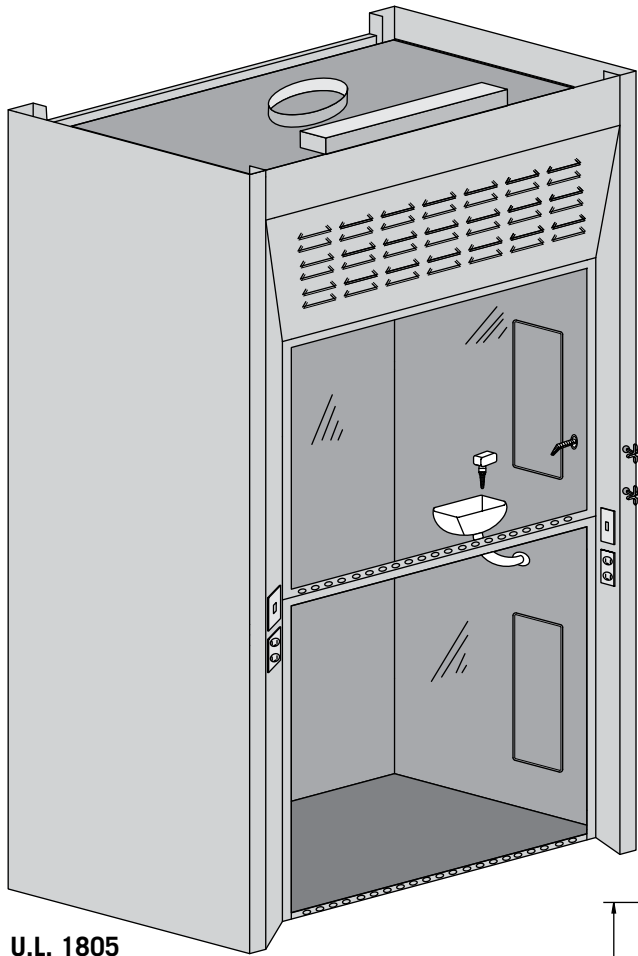
Part Number	Superstructure			Worktop			Hood Opening		CFM @ 28"*	CFM @ 18"*	SP	Blower Model #	Shipping Weight
	W	H	D	W	H	D	W	H					
LS-311-36	36"	56"	29-1/2"	36"	1-1/4"	30"	26"	28"	646	431	.25	BL-300-36	190
LS-311-48	48"	56"	29-1/2"	48"	1-1/4"	30"	43"	28"	896	597	.25	BL-300-48	175
LS-311-60	60"	56"	29-1/2"	60"	1-1/4"	30"	55"	28"	1146	764	.39	BL-300-60	200
LS-311-72	72"	56"	29-1/2"	72"	1-1/4"	30"	67"	28"	1417	944	.37	BL-300-72	250
LS-311-96	96"	56"	29-1/2"	96"	1-1/4"	30"	91"	28"	1896	1264	.43	BL-300-96	275

*Height of open sash; CFM calculated at 100 FPM

LS-300 Optional Accessories

ITEM	PART #	PAGE #
Ceiling Enclosures	CE	50
Plumbing Accessories		51
Electrical Accessories		52
Epoxy Tops	ET	56
Alarms	ALARM	35
Base Cabinets	BC	53
Blowers	BL	Call

ITEM	PART #	PAGE #
Sash Stops	SASHSTOP	55
Chain and Sprocket Drive	CHNSPK	Call
Stainless Steel Sash	SS SASH	55
Combination Sash	H&V	55
Automatic Sash Return	AUTO RETURN	55
Lattice Assembly	LATTICE	Call



**U.L. 1805
Classified**

LS-400 Standard Features

- Powder Coat Finish
- Full Frame Construction
- Shaft Drive Sash
- U.L. Listed Poly Resin Liner
- T-8 Fluorescent Light with Bulbs
- Knock Down Capability
- Interior Access to Light
- Full-Length Finger Lift
- Louvered Front for By-Pass

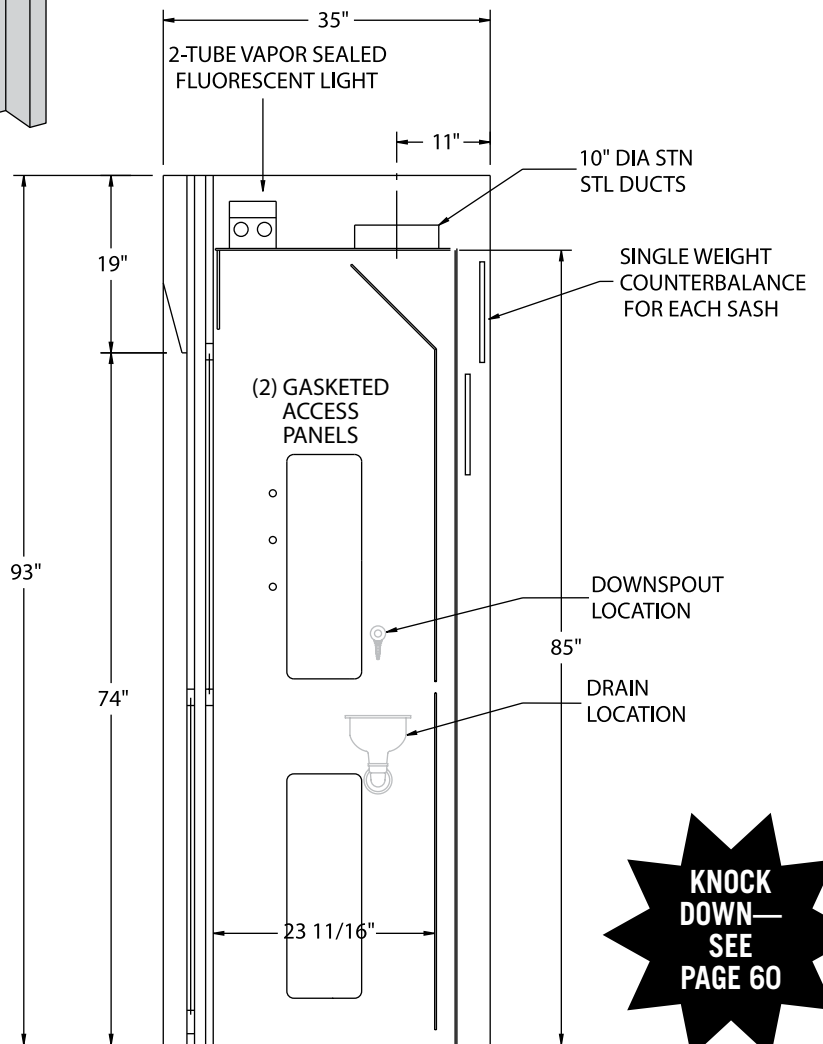
For Those Tall Experiments

The 400 series, with a double-hung sash configuration and 72" high opening, is designed to accommodate a large-apparatus application, up to 85" in height. Posts are 5" (127 mm) wide.

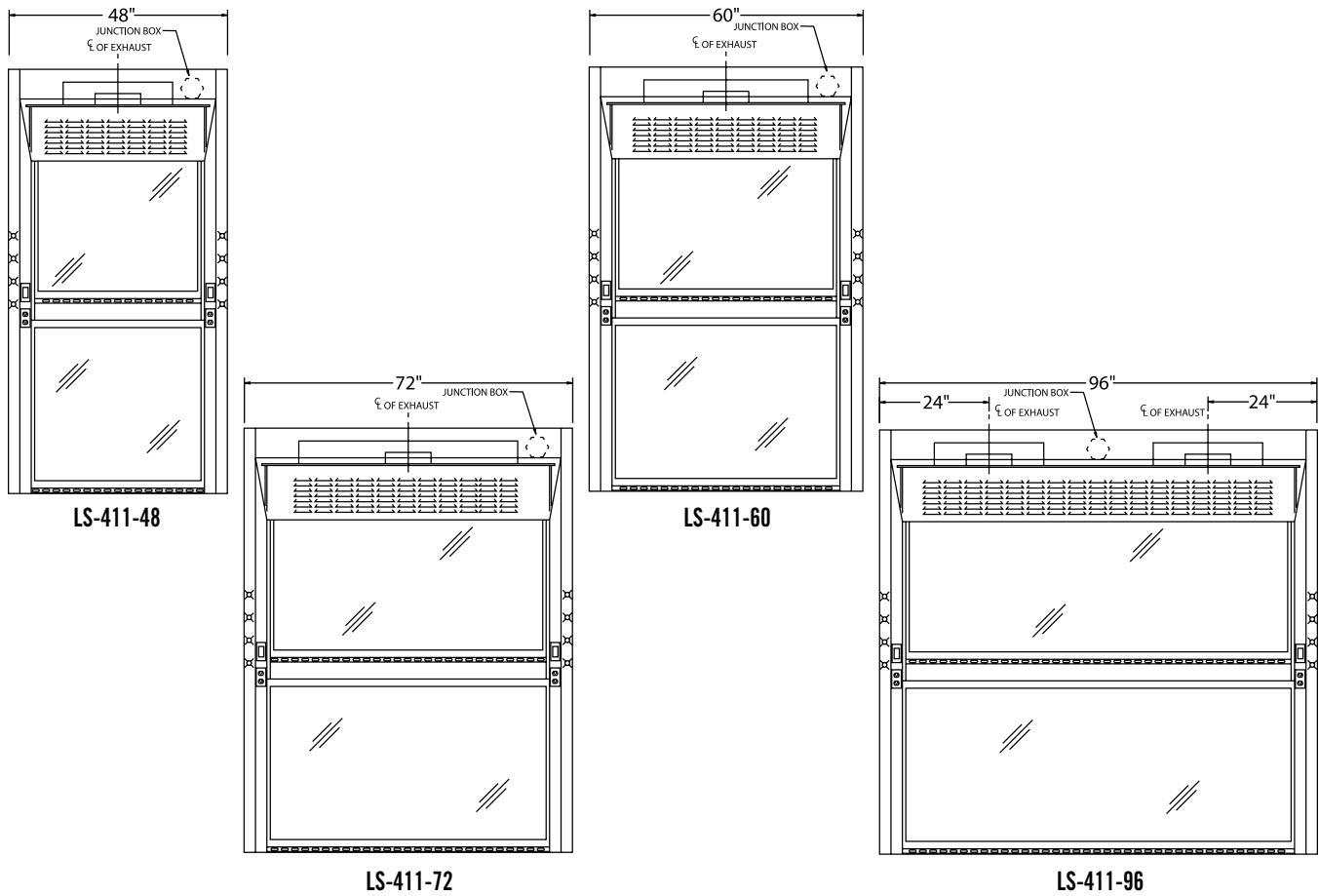
Many heights and depths are available.

Contact Labscap to find the right size hood for your application.

And with the Labscap exclusive knock-down ability, even a hood this big is a breeze to install, maintain, repair and move.



Labscope 400 SERIES: Walk-In

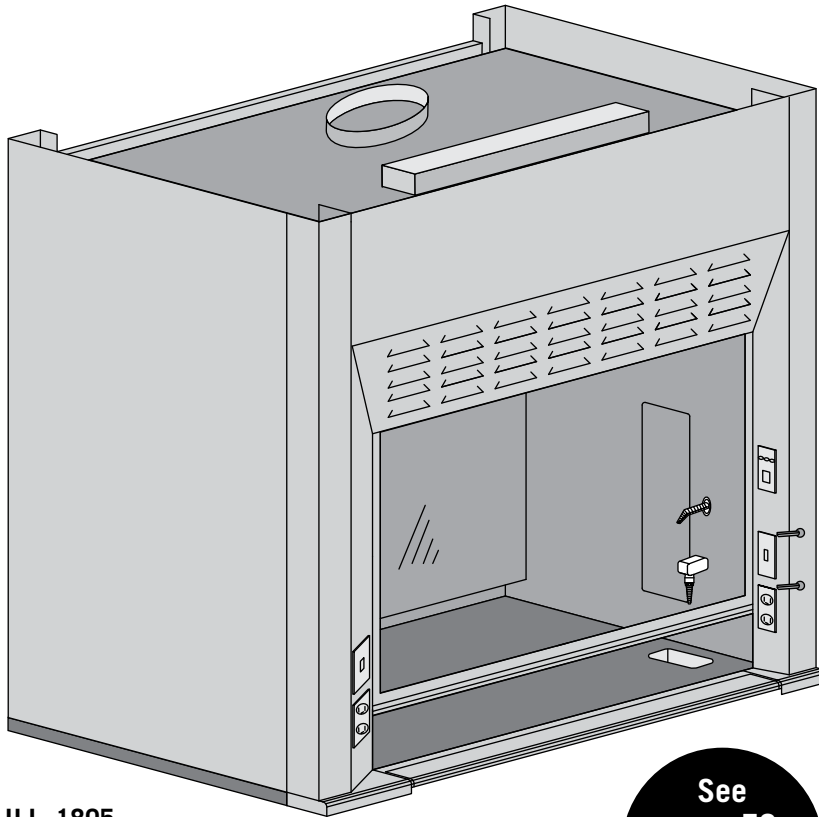


Part Number	Superstructure			Hood Opening		CFM @ 36"*	CFM @ 72"*	SP	Blower Model #	Approx. Shipping Weight
	W	H	D	W	H					
LS-411-48	48"	93"	35"	38"	72"	990	1979	.25	BL-400-48	560
LS-411-60	60"	93"	35"	50"	72"	1306	2613	.34	BL-400-60	675
LS-411-72	72"	93"	35"	62"	72"	1623	3246	.34	BL-400-72	790
LS-411-96	96"	93"	35"	86"	72"	2256	4513	.34	BL-400-96	1025

*Height of open sash; CFM calculated at 100 FPM
For VAV Hoods, add -VAV to the part number.

LS-400 Optional Accessories

ITEM	PART #	PAGE #	ITEM	PART #	PAGE #
Ceiling Enclosures	CE	50	Sash Stops	SASHSTOP	55
Plumbing Accessories		51	Chain and Sprocket Drive	CHNSPK	Call
Electrical Accessories		52	Stainless Steel Sash	SS SASH	55
Alarms	ALARM	35	Horizontal Hanging Doors	HHD	55
Blowers	BL	Call	Combination Sash	H&V	55
Pre-Plumbing	PREP		Lattice Assembly	LATTICE	Call
Pre-Wiring	PREW		SS Ramp	RAMP	Call



Meets ADA Dimensional Guidelines

The 500 series is an airfoil-type fume hood designed to meet ADA dimensional guidelines.

A 45-degree angle around the fascia and a flush-mount radiused airfoil across the bottom result in minimized turbulence and increased performance.

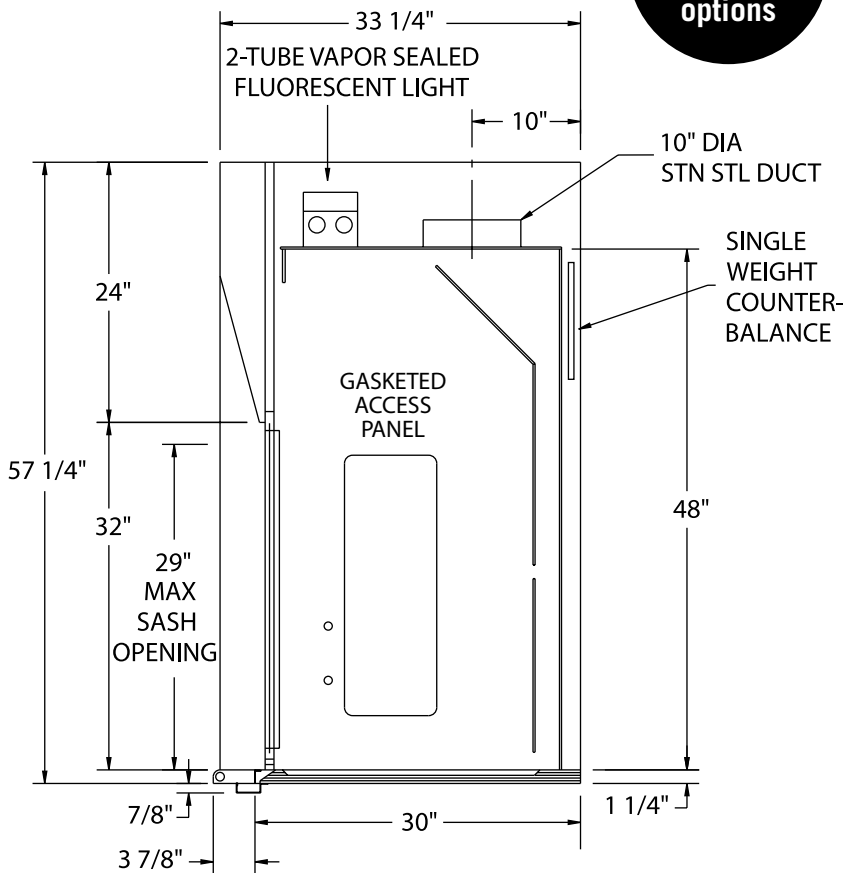
The ADA hood's airfoil flips back out of the way for cleanup. Under the airfoil is a containment trough to capture accidental spills that may flow over the dished work surface. The trough assembly is fabricated from chemical-resistant 16-gauge cold rolled steel.

ADA kneespace-configured base cabinets are available. See page 53 for cabinet options.

U.L. 1805
Classified

See
page 53
for cabinet
options

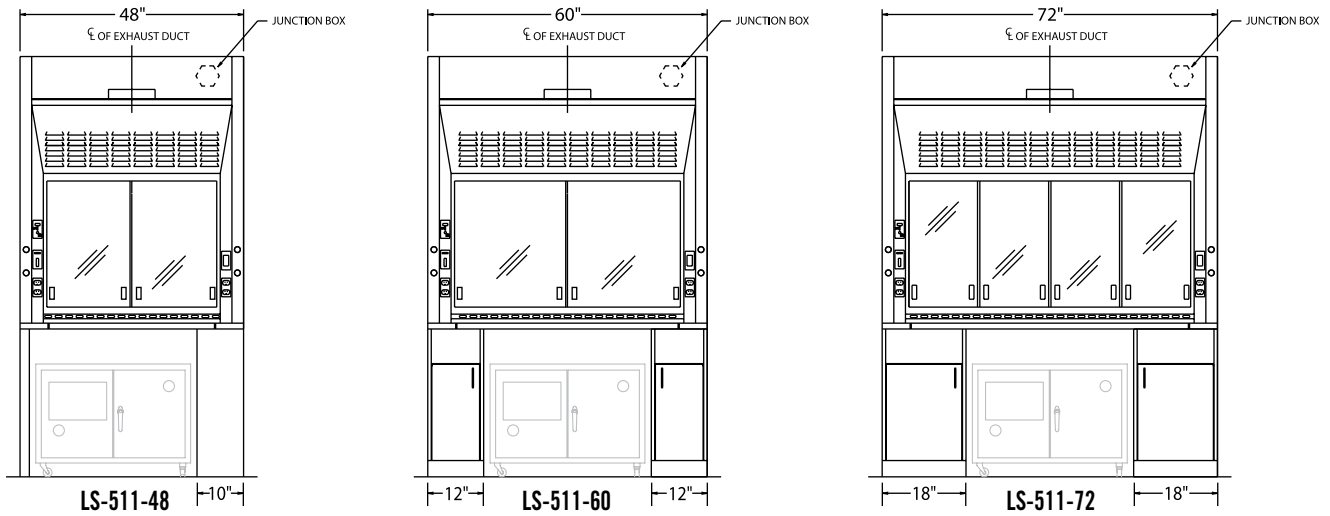
**KNOCK
DOWN—
SEE
PAGE 60**



LS-500 Standard Features

- Powder Coat Finish
- Full Frame Construction
- Shaft Drive Sash
- U.L. Listed Poly Resin Liner
- T-8 Fluorescent Light with Bulbs
- Flush-Mount Airfoil
- Knock Down Capability
- Interior Access to Light
- Full-Length Finger Lift
- Louvered Front for By-Pass
- Painted Steel Trough Assembly
- Sash Stop
- 1/4 Turn Ball Valves

Labscape 500 SERIES: ADA Design

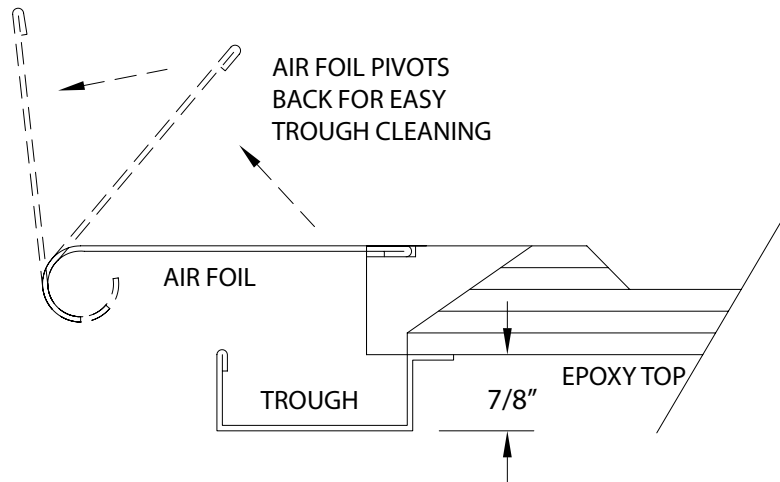


**Optional combination sashes shown in drawings.

Base frames and cabinets sold separately. See page 53.

Part Number	Superstructure			Worktop			Hood Opening		CFM @ 29"*	CFM @ 18"*	SP	Blower Model #	Shipping Weight
	W	H	D	W	H	D	W	H					
LS-511-48	48"	56"	33-1/4"	48"	1-1/4"	30"	38"	29"	833	521	.25	BL-500-48	395
LS-511-60	60"	56"	33-1/4"	60"	1-1/4"	30"	50"	29"	1100	688	.34	BL-500-60	450
LS-511-72	72"	56"	33-1/4"	72"	1-1/4"	30"	62"	29"	1367	854	.34	BL-500-72	525

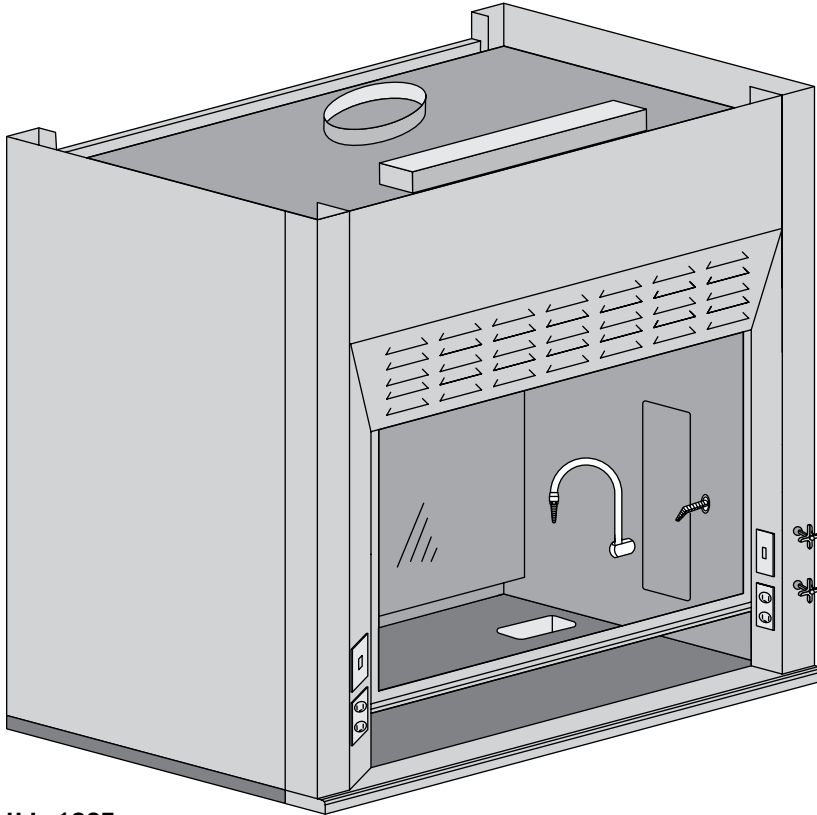
*Height of open sash; CFM calculated at 100 FPM
For VAV Hoods, add -VAV to the part number.



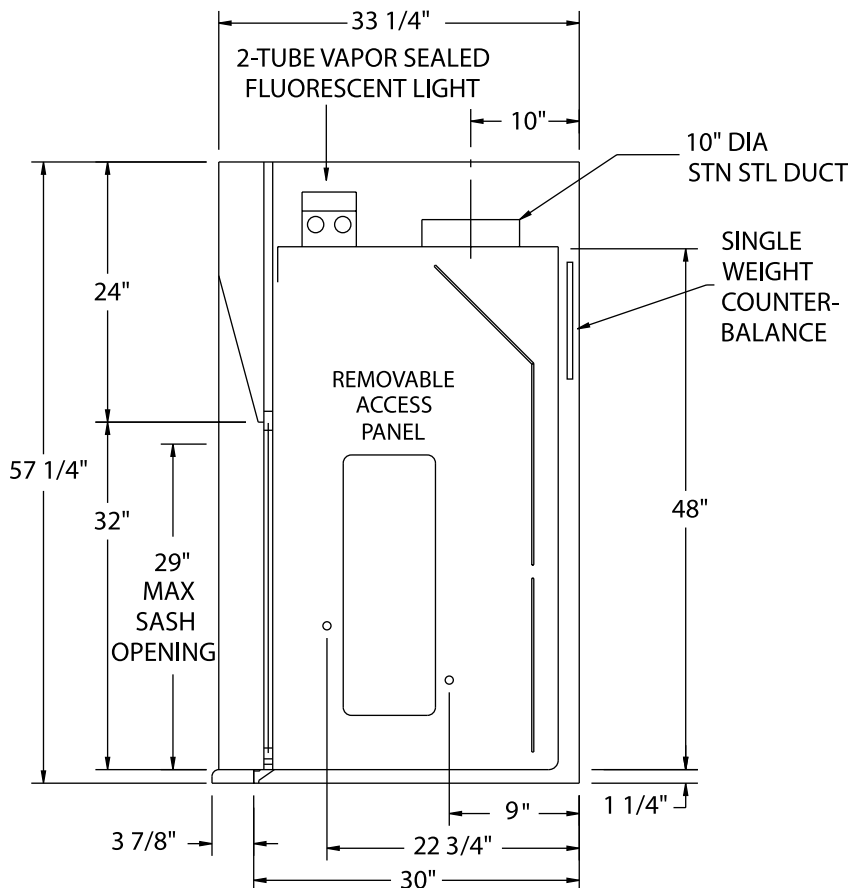
LS-500 Optional Accessories

ITEM	PART #	PAGE #
Ceiling Enclosures	CE	50
Plumbing Accessories		51
Electrical Accessories		52
Epoxy Tops	ET	56
Alarms	ALARM	35
Base Cabinets	BC	53
Roll Out Base	ROB	Call
Blowers	BL	Call
Pre-Plumbing	PREP	

ITEM	PART #	PAGE #
Pre-Wiring	PREW	
Chain and Sprocket Drive	CHNSPK	Call
Stainless Steel Sash	SS SASH	55
Stainless Steel Airfoil	SS AF	
Push Button Sash	PUSH BUTTON	55
Automatic Sash Return	AUTO RETURN	55
Lattice Assembly	LATTICE	Call
LED Lights	LED	
Base Frames and Cabinets		53



**U.L. 1805
Classified**



For Safe Handling of Radiochemicals

The 600 Radio Isotope Hood is specifically engineered and built to handle applications involving radiochemicals.

It has the same aerodynamic design as the standard airfoil hood, with the added feature of a one-piece stainless steel liner and countertop with radius construction to prevent absorption of radioactive and corrosive chemicals.

The interior of the hood and integral countertop are fabricated of 304 stainless steel, buffed and polished to a smooth #4 finish. This reduces the chance of chemical buildup and simplifies decontamination.

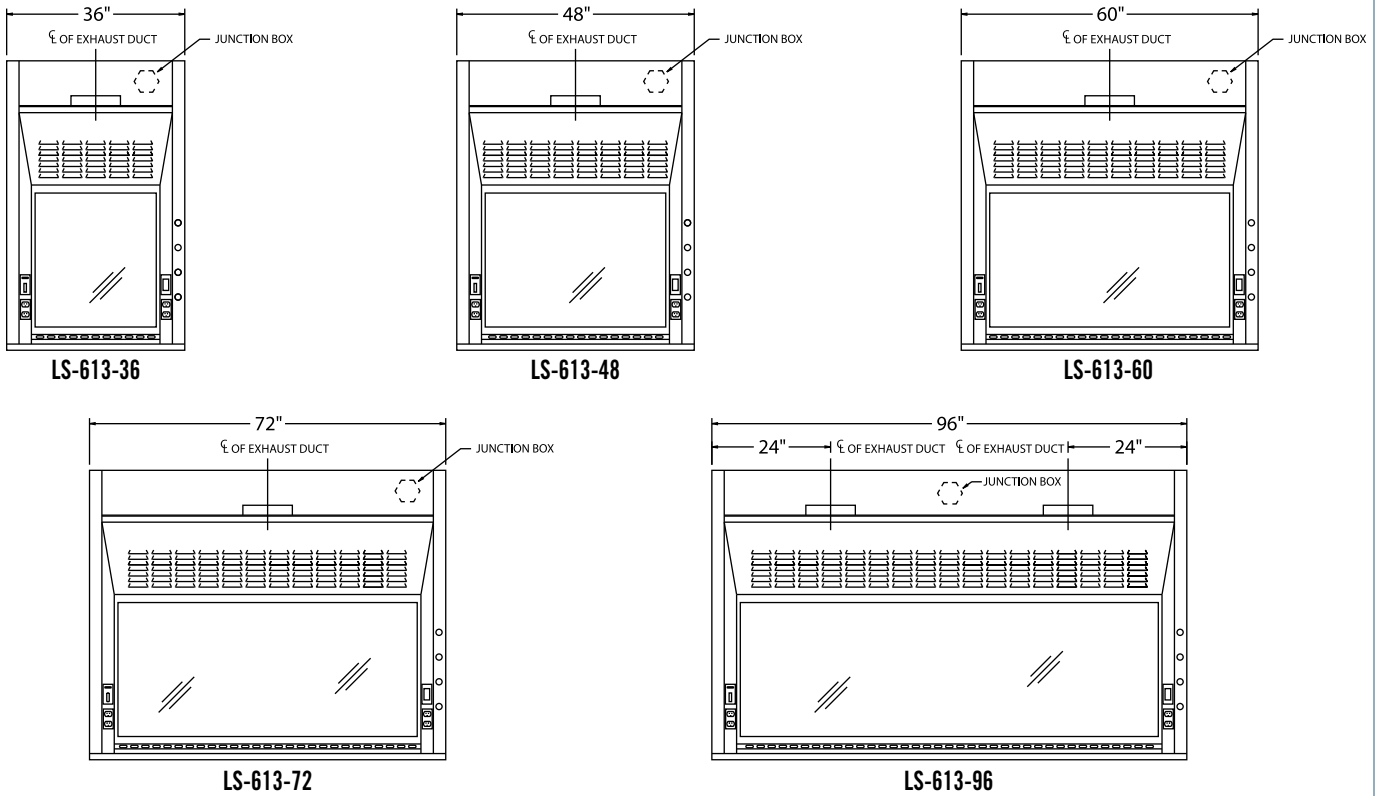
The flush-mount radiused airfoil is also type 304 stainless steel, as is the standard vertical rising sash. A combination sash is available as an option.

Five available sizes and many optional accessories meet all your design needs and the end user's application requirements.

LS-600 Standard Features

- Powder Coat Finish
- Full Frame Construction
- Shaft Drive Sash
- T-8 Fluorescent Light with Bulbs
- Flush-Mount Airfoil
- Interior Access to Light
- Full-Length Finger Lift
- Louvered Front for By-Pass
- 304 Stainless Steel One-Piece Integral Work Surface and Liner
- Stainless Steel Sash
- Stainless Steel Airfoil

Labscape 600 SERIES: Radio Isotope Hood

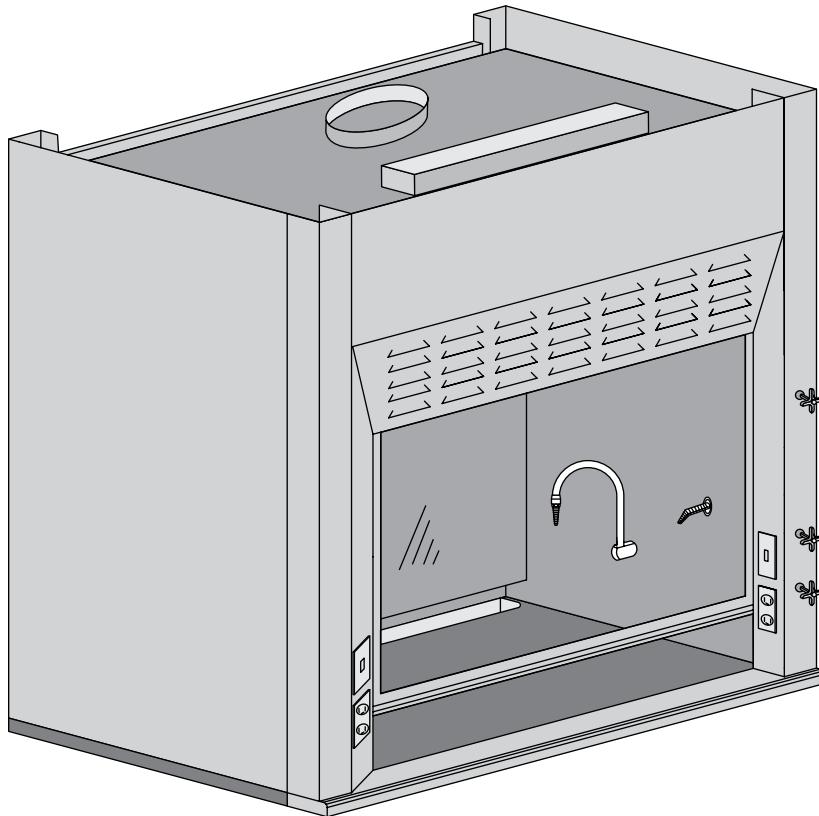


Part Number	Superstructure			Integral Worktop			Hood Opening		CFM @ 29"*	CFM @ 18"*	SP	Blower Model #	Shipping Weight
	W	H	D	W	H	D	W	H					
LS-613-36	36"	56"	33-1/4"	36"	1-1/4"	30"	26"	29"	567	354	.25	BL-600-36	190
LS-613-48	48"	56"	33-1/4"	48"	1-1/4"	30"	38"	29"	833	521	.25	BL-600-48	560
LS-613-60	60"	56"	33-1/4"	60"	1-1/4"	30"	50"	29"	1100	688	.34	BL-600-60	675
LS-613-72	72"	56"	33-1/4"	72"	1-1/4"	30"	62"	29"	1367	854	.34	BL-600-72	790
LS-613-96	96"	56"	33-1/4"	96"	1-1/4"	30"	86"	29"	1900	1188	.40	BL-600-96	1025

*Height of open sash; CFM calculated at 100 FPM
For VAV Hoods, add -VAV to the part number.

LS-600 Optional Accessories

ITEM	PART #	PAGE #	ITEM	PART #	PAGE #
Ceiling Enclosures	CE	50	Pre-Wiring	PREW	
Plumbing Accessories		51	Sash Stops	SASHSTOP	55
Electrical Accessories		52	Chain and Sprocket Drive	CHNSPK	Call
Alarms	ALARM	35	Push Button Sash	PUSH BUTTON	55
Base Cabinets	BC	53	Combination Sash	H&V	55
Blowers	BL	Call	Automatic Sash Return	AUTO RETURN	55
Pre-Plumbing	PREP		Lattice Assembly	LATTICE	Call



**U.L. 1805
Classified**

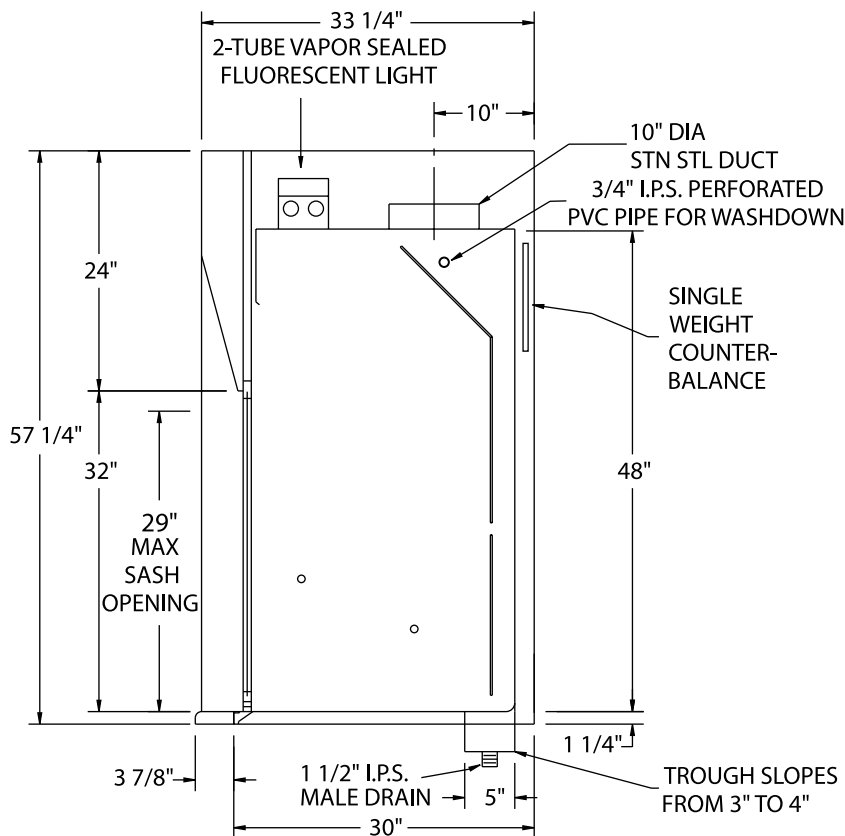
Safe Handling of Perchloric Acid

The 700 Perchloric Acid Hood has the same aerodynamic design as the 100 series, with a 45-degree angle around the fascia and a flush-mount radiused airfoil across the bottom to minimize turbulence and provide increased performance.

This hard-working hood also features a built-in trough to capture runoff in washdown procedures where perchloric acid is in use. In addition, there is a manual washdown feature for the areas behind the baffles as well as the duct-collar areas.

The interior is fabricated of type 316 stainless steel, integrally welded to a 316 stainless steel work surface, then buffed and polished to a #4 finish. The top is 1-1/4" with a 1/4" dish to retain spills. The airfoil and sash are also made of 316 stainless steel.

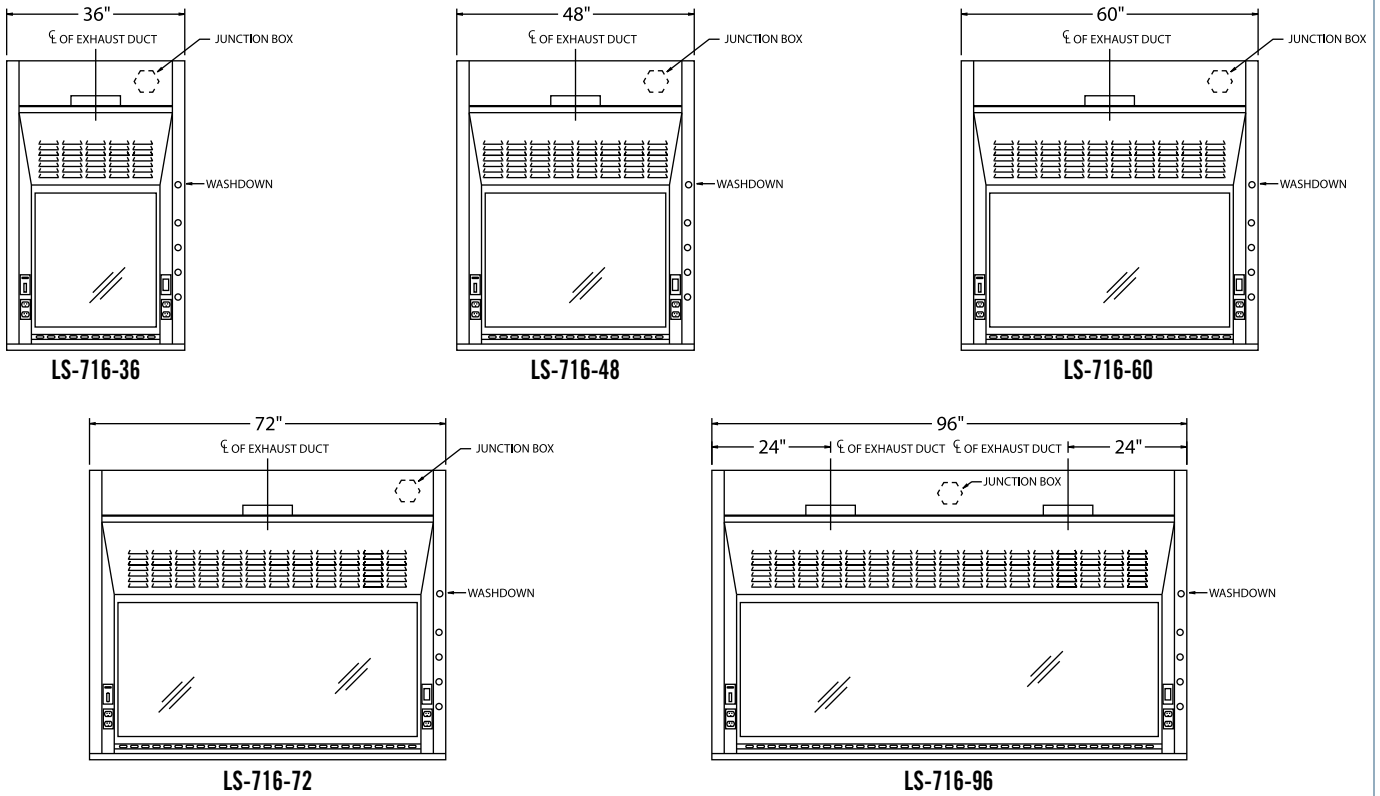
The LS-700 is built tough to withstand the daily use of perchloric acid, while keeping the workplace safe.



LS-700 Standard Features

- Powder Coat Finish
- Full Frame Construction
- Shaft Drive Sash
- T-8 Fluorescent Light with Bulbs
- Flush-Mount Airfoil
- Interior Access to Light
- Full-Length Finger Lift
- Louvered Front for By-Pass
- 316 Stainless Steel One-Piece Integral Work Surface and Liner
- Built-In Trough
- Manual Washdown
- Stainless Steel Sash
- Stainless Steel Airfoil

Labscene 700 SERIES: Perchloric Acid

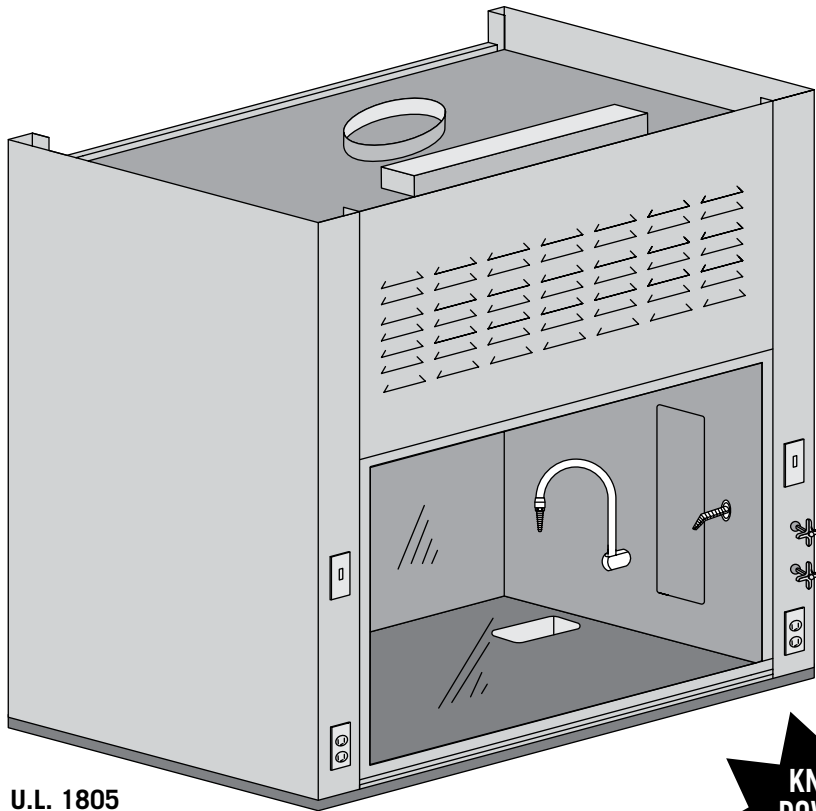


Part Number	Superstructure			Integral Worktop			Hood Opening		CFM @ 29"*	CFM @ 18"*	SP	Blower Model #	Shipping Weight
	W	H	D	W	H	D	W	H					
LS-716-36	36"	56"	33-1/4"	36"	1-1/4"	30"	26"	29"	567	354	.25	BL-700-36	190
LS-716-48	48"	56"	33-1/4"	48"	1-1/4"	30"	38"	29"	833	521	.33	BL-700-48	560
LS-716-60	60"	56"	33-1/4"	60"	1-1/4"	30"	50"	29"	1100	688	.34	BL-700-60	675
LS-716-72	72"	56"	33-1/4"	72"	1-1/4"	30"	62"	29"	1367	854	.34	BL-700-72	790
LS-716-96	96"	56"	33-1/4"	96"	1-1/4"	30"	86"	29"	1900	1188	.40	BL-700-96	1025

*Height of open sash; CFM calculated at 100 FPM

LS-700 Optional Accessories

ITEM	PART #	PAGE #	ITEM	PART #	PAGE #
Ceiling Enclosures	CE	50	Pre-Wiring	PREW	
Plumbing Accessories		51	Sash Stops	SASHSTOP	55
Electrical Accessories		52	Chain and Sprocket Drive	CHNSPK	Call
Alarms	ALARM	35	Push Button Sash	PUSH BUTTON	55
Base Cabinets	BC	53	Combination Sash	H&V	55
Blowers	BL	Call	Automatic Sash Return	AUTO RETURN	55
Pre-Plumbing	PREP		Lattice Assembly	LATTICE	Call

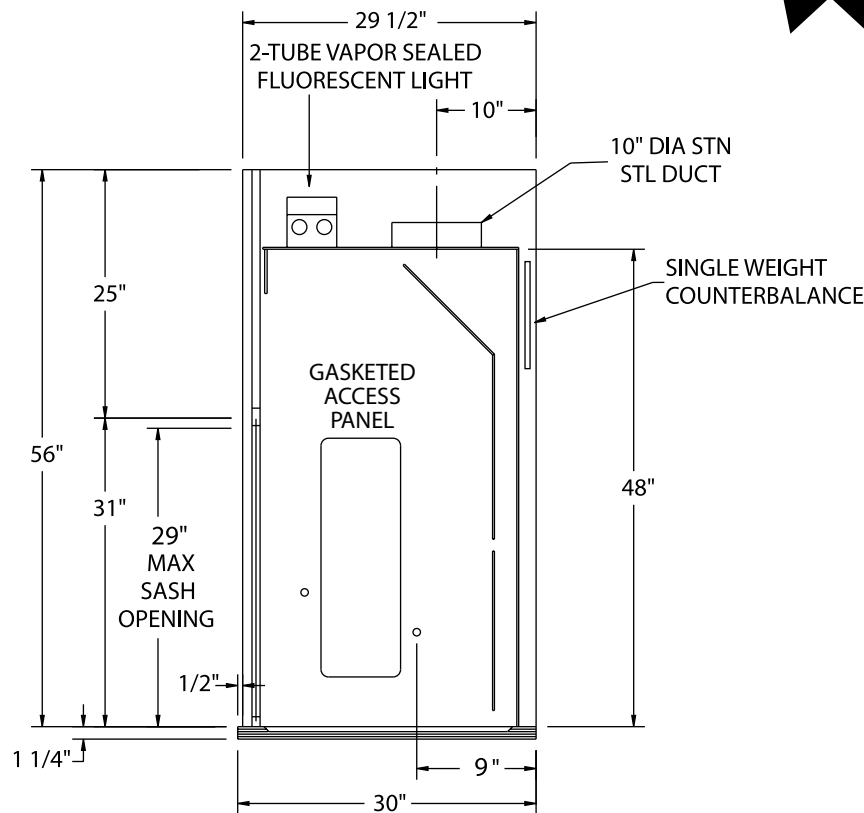


U.L. 1805
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Economical School Hood

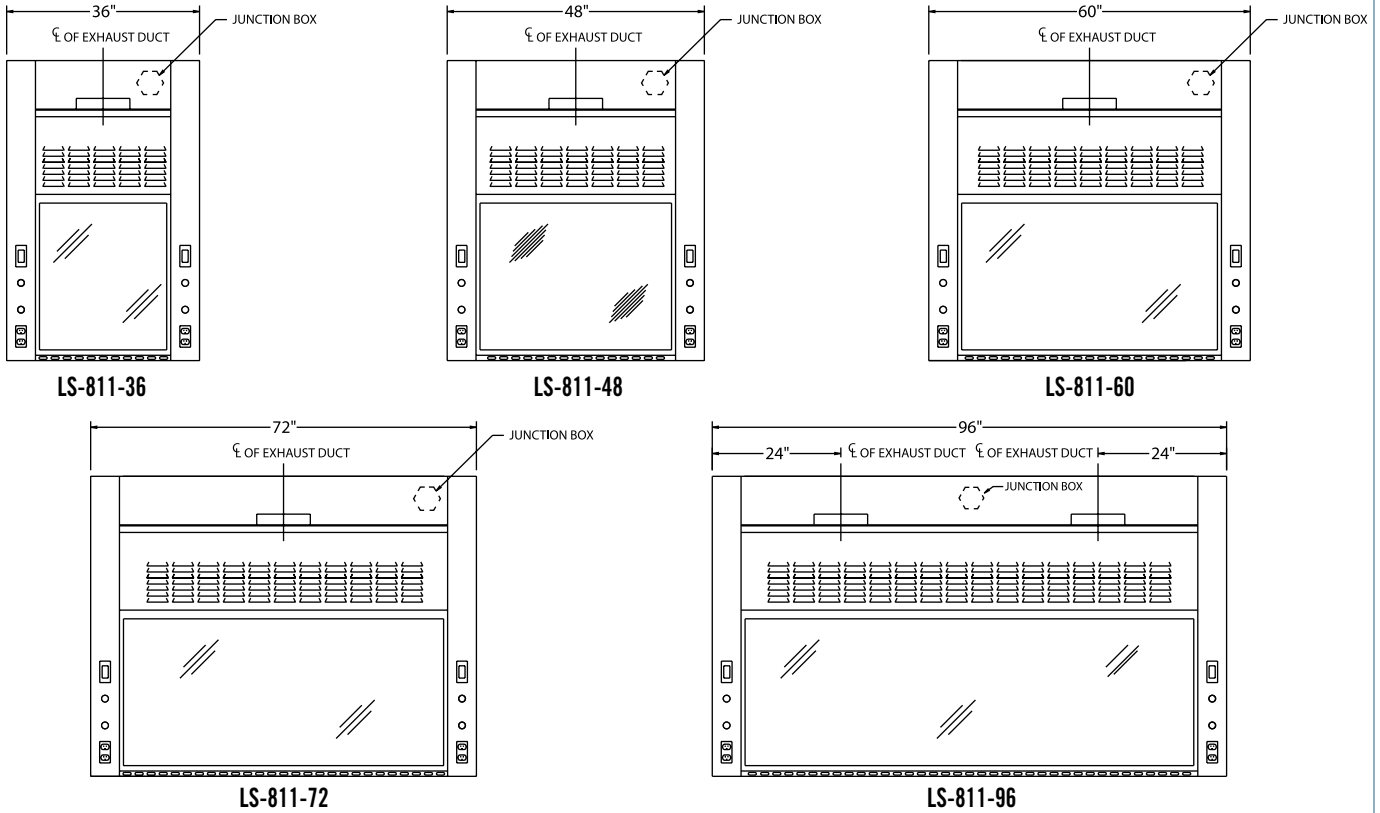
A basic fume hood for K-12 educational applications, the LS-800 series is similar in design and construction to the LS-300 (Thin Wall) hood, but with 5" (127 mm) posts to provide plumbing and electrical fixtures on the face of the hood. This hood has many of the same features found in other Labscape hoods, but it is economically priced for secondary school budgets.



LS-800 Standard Features

- Powder Coat Finish
- Full Frame Construction
- Shaft Drive Sash
- U.L. Listed Poly Resin Liner
- T-8 Fluorescent Light with Bulbs
- Knock Down Capability
- Interior Access to Light
- Full-Length Finger Lift
- Louvered Front for By-Pass
- 10" Round Duct

Labscape 800 SERIES: Flat Front



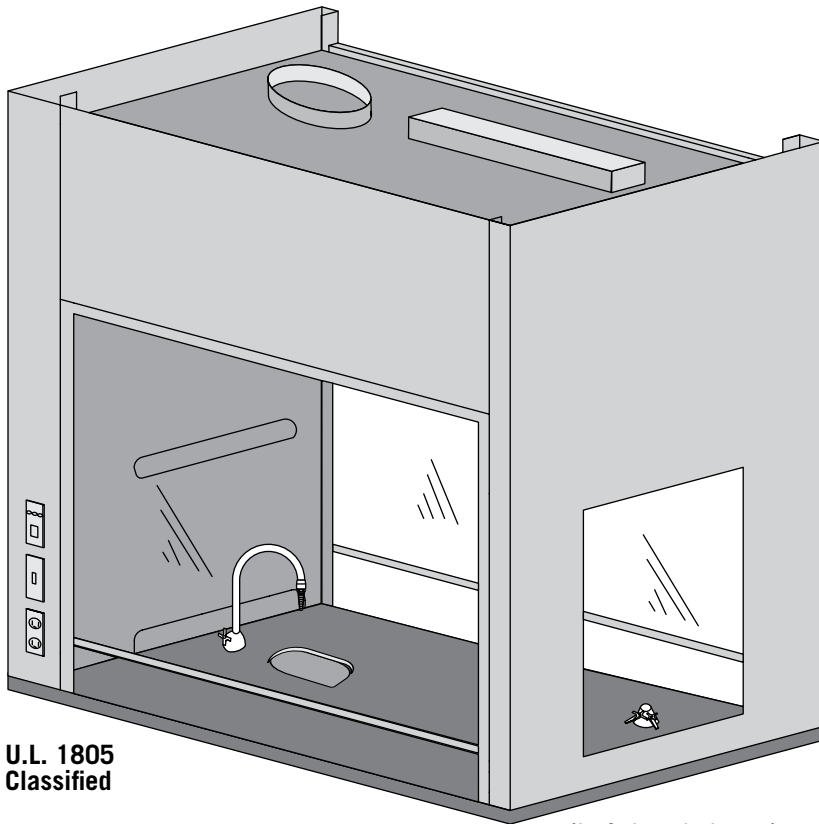
Part Number	Superstructure			Worktop			Hood Opening		CFM @ 29"*	CFM @ 18"*	SP	Blower Model #	Shipping Weight
	W	H	D	W	H	D	W	H					
LS-811-36	36"	56"	29-1/2"	36"	1-1/4"	30"	26"	29"	567	354	.25	BL-100-36	300
LS-811-48	48"	56"	29-1/2"	48"	1-1/4"	30"	38"	29"	833	521	.33	BL-100-48	360
LS-811-60	60"	56"	29-1/2"	60"	1-1/4"	30"	50"	29"	1100	688	.34	BL-100-60	440
LS-811-72	72"	56"	29-1/2"	72"	1-1/4"	30"	62"	29"	1367	854	.34	BL-100-72	520
LS-811-96	96"	56"	29-1/2"	96"	1-1/4"	30"	86"	29"	1900	1188	.40	BL-100-96	680

*Height of open sash; CFM calculated at 100 FPM

LS-800 Optional Accessories

ITEM	PART #	PAGE #
Ceiling Enclosures	CE	50
Plumbing Accessories		51
Electrical Accessories		52
Epoxy Tops	ET	56
Alarms	ALARM	35
Base Cabinets	BC	53
Blowers	BL	Call
Pre-Plumbing	PREP	

ITEM	PART #	PAGE #
Pre-Wiring	PREW	
Sash Stops	SASHSTOP	55
Chain and Sprocket Drive	CHNSPK	Call
Stainless Steel Sash	SS SASH	55
Push Button Sash	PUSH BUTTON	55
Combination Sash	H&V	55
Automatic Sash Return	AUTO RETURN	55
Lattice Assembly	LATTICE	Call



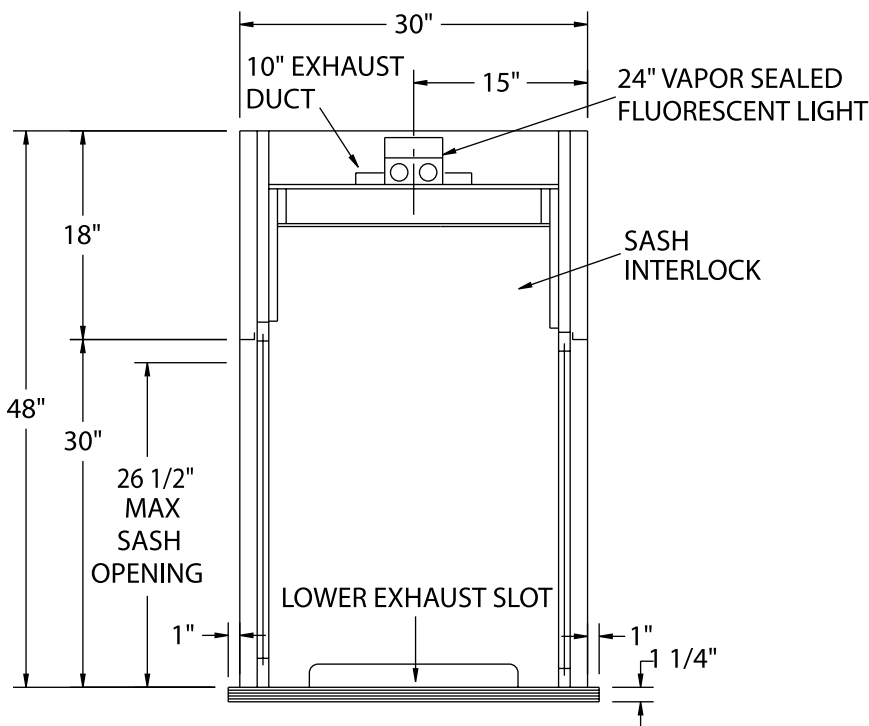
**U.L. 1805
Classified**

(Left-hand shown)

Three Windows for Optimum Viewing

The LS-900 series is an educational viewing fume hood with one slimmed down (2" or 51 mm) front post and one standard (5" or 127 mm) post to allow for more workspace and electrical services. Plumbing service must be deck mounted.

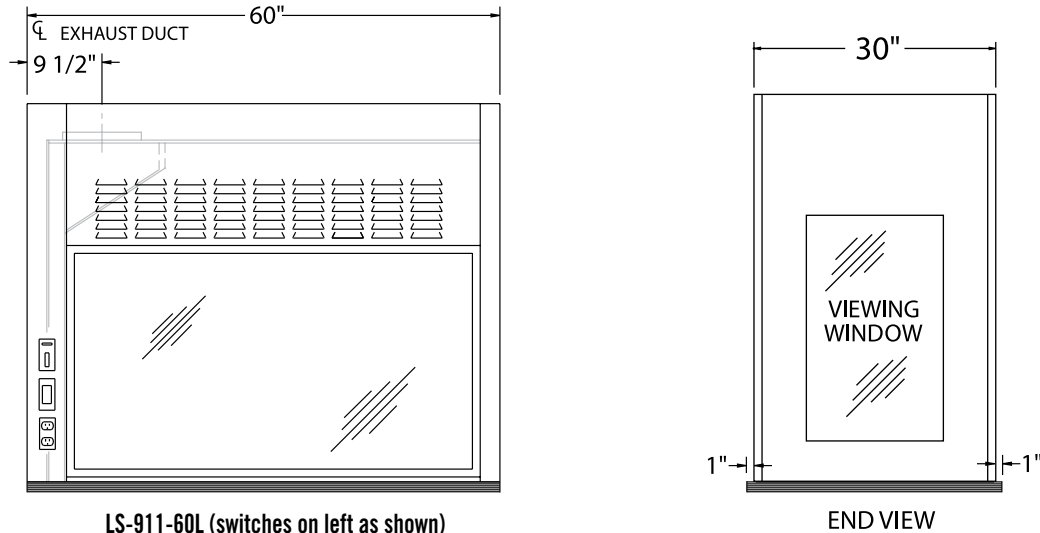
The LS-900 is available in either right-hand or left-hand orientation. This hood features a two-sash configuration and a third (end) viewing window, making it ideal for use in high schools or any environment where demonstration of experiments is desired. The end window may be eliminated for through-wall installations.



LS-900 Standard Features

- Powder Coat Finish
- Full Frame Construction
- U.L. Listed Poly Resin Liner
- T-8 Fluorescent Light with Bulbs
- Knock Down Capability
- Interior Access to Light
- Full-Length Finger Lift
- Louvered Front for By-Pass
- 10" Round Duct
- Sash Interlock

Labscene 900 SERIES: Demonstration



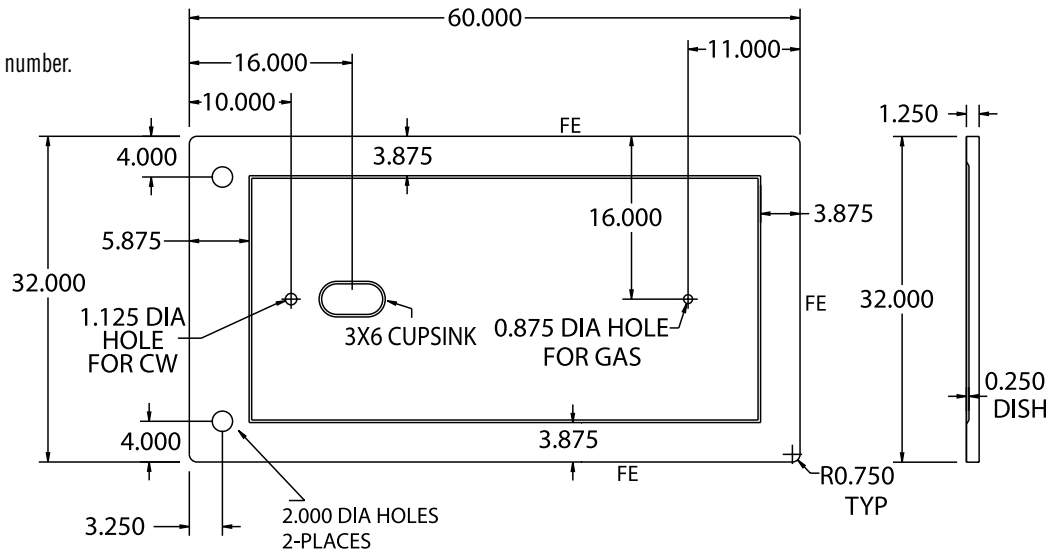
Part Number	Superstructure			Worktop			Hood Opening		CFM @ 26.5"*	CFM @ 18"*	SP	Blower Model #	Shipping Weight
	W	H	D	W	H	D	W	H					
LS-911-60	60"	48"	30"	60"	1-1/4"	32"	53"	26.5"***	1030	722	.75	BL-900-60	500

Please specify Left or Right (Left shown)

*Height of open sash; CFM calculated at 100 FPM with one sash open

**Each side

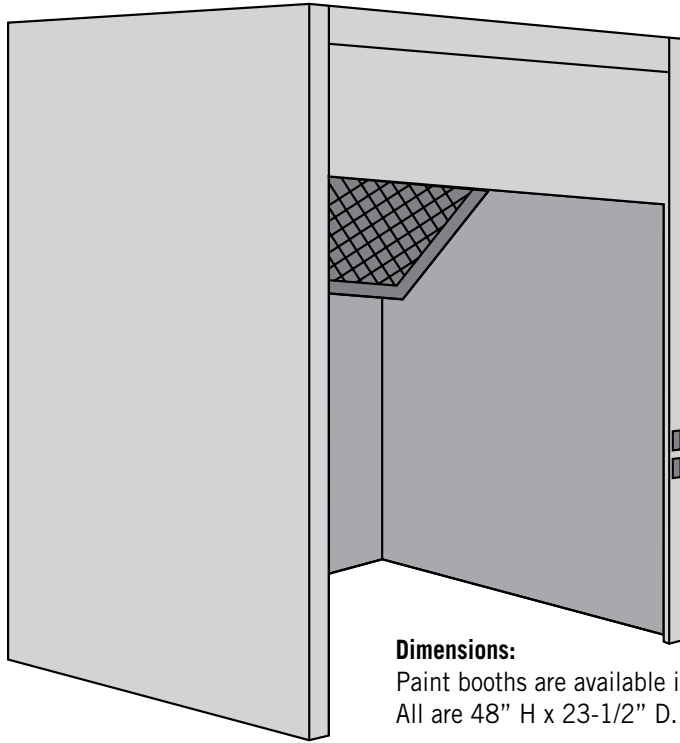
For VAV Hoods, add -VAV to the part number.



LS-900 Optional Accessories

ITEM	PART #	PAGE #	ITEM	PART #	PAGE #
Ceiling Enclosures	CE	50	Pre-Wiring	PREW	
Plumbing Accessories		51	Sash Stops	SASHSTOP	55
Electrical Accessories		52	Stainless Steel Sash	SS SASH	55
Epoxy Tops	ET	56	Push Button Sash	PUSH BUTTON	55
Alarms	ALARM	35	Combination Sash	H&V	55
Base Cabinets	BC	53	Automatic Sash Return	AUTO RETURN	55
Blowers	BL	Call	Lattice Assembly	LATTICE	Call
Pre-Plumbing	PREP				

Labscape Paint (Spray) Booth

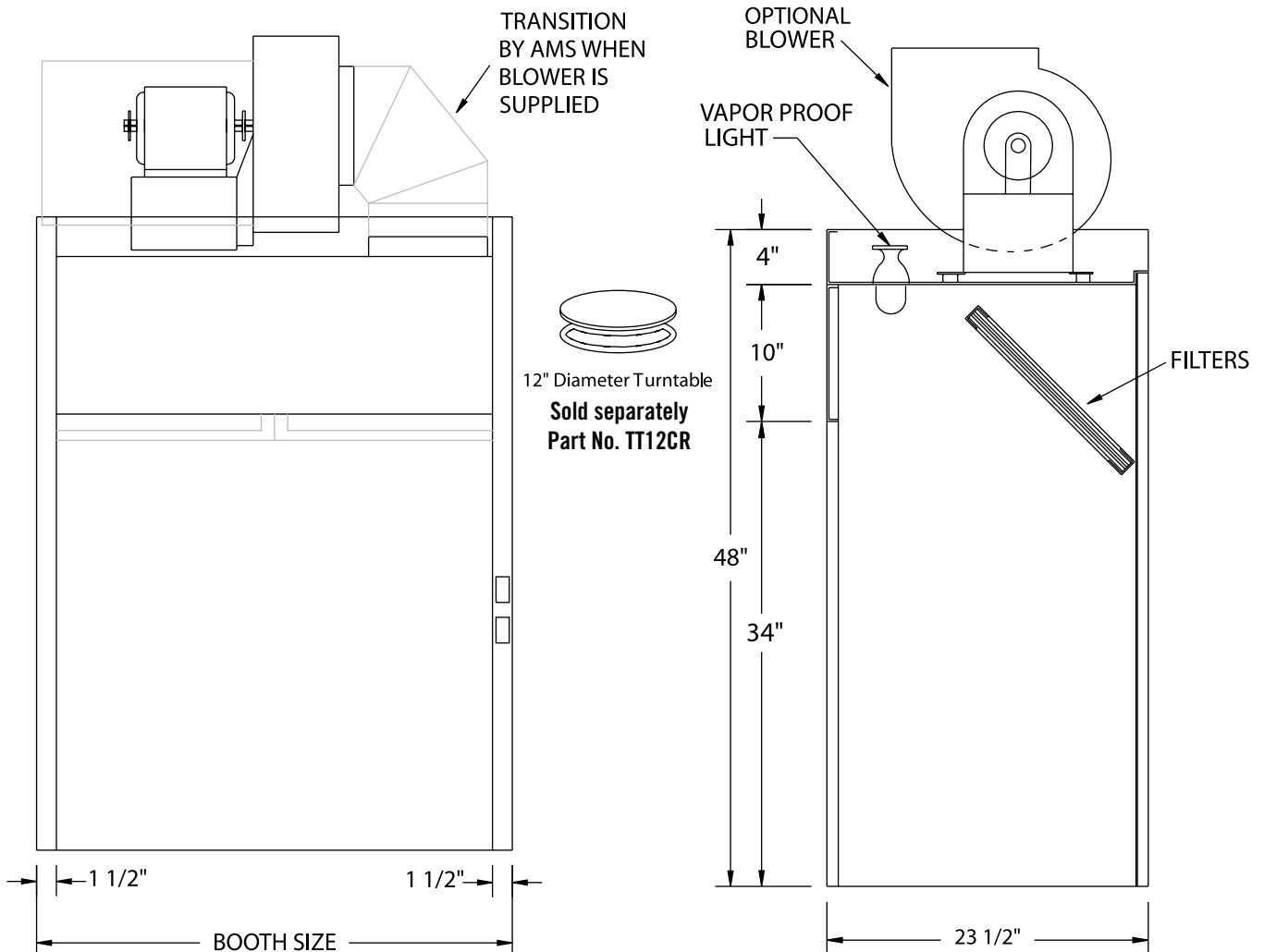


The Labscape Paint Booth is fabricated of 18-gauge steel with a corrosion resistant, powder coat baked epoxy finish. The upper booth enclosure includes a standard vapor-proof light as well as two filters set in an easy-to-change flange bracket system. The globed interior light is mounted with bulb included.

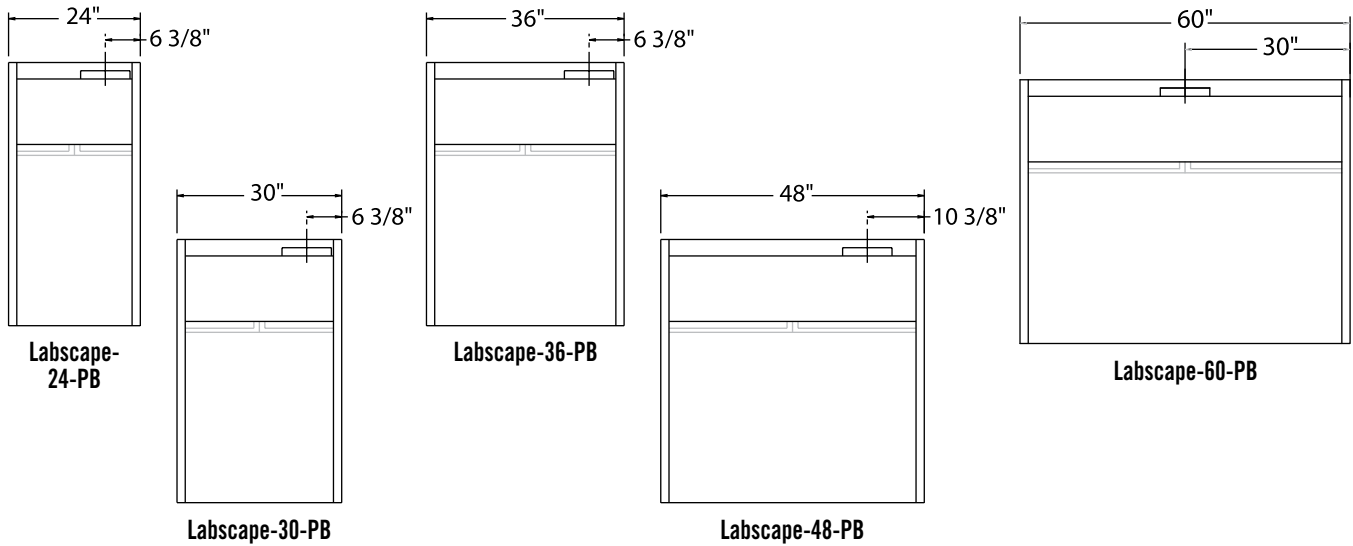
The optional blower motor operates at an RPM designed to provide 100 LFM and approximately 3/4" of static pressure. If the blower is ordered, it will be mounted on the booth and wired to the common junction box with the light. The transition piece from the booth to blower will be provided and connected. Both the light and the blower can be pre-wired to switches in the front post area of the booth when required.

Dimensions:

Paint booths are available in widths of 24", 30", 36", 48" and 60"
All are 48" H x 23-1/2" D. Special sizes available upon request.



Labscape Paint (Spray) Booth



NOTE: Explosion-proof (X-P) switches must mount on the exterior of booth or be shipped loose for remote operation.

Paint (Spray) Booth

Part Number	Description	CFM @ 100 FPM
LS-24-PB	24" Paint (Spray) Booth	472
LS-30-PB	30" Paint (Spray) Booth	613
LS-36-PB	36" Paint (Spray) Booth	755
LS-48-PB	48" Paint (Spray) Booth	1040
LS-60-PB	60" Paint (Spray) Booth	1322

Explosion-Proof options

Part Number	Description	CFM @ 100 FPM
LS-24-XPB	24" Booth w/X-P Light	472
LS-30-XPB	30" Booth w/X-P Light	613
LS-36-XPB	36" Booth w/X-P Light	755
LS-48-XPB	48" Booth w/X-P Light	1040
LS-60-XPB	60" Booth w/X-P Light	1322

Paint (Spray) Booth w/ Blower

Part Number	Description	CFM @ 100 FPM
LS-24-PBW	24" Booth and Blower	472
LS-30-PBW	30" Booth and Blower	613
LS-36-PBW	36" Booth and Blower	755
LS-48-PBW	48" Booth and Blower	1040
LS-60-PBW	60" Booth and Blower	1322

Paint (Spray) Booth w/ Explosion-Proof Light/Blower

Part Number	Description	CFM @ 100 FPM
LS-24-XPBW	24" Booth w/X-P Light and Blower	472
LS-30-XPBW	30" Booth w/X-P Light and Blower	613
LS-36-XPBW	36" Booth w/X-P Light and Blower	755
LS-48-XPBW	48" Booth w/X-P Light and Blower	1040
LS-60-XPBW	60" Booth w/X-P Light and Blower	1322

Paint Booth Optional Accessories

ITEM	PART #	PAGE #
Light Switch	LTSW	52
Blower Switch	BLSW	52
Stainless Steel Top		56

ITEM	PART #	PAGE #
Galvanized Top		Call
Pre-Wire Service	PREWIRE	

Labscap Portable Hood

APPLICATIONS: K-12; University; Private Industry

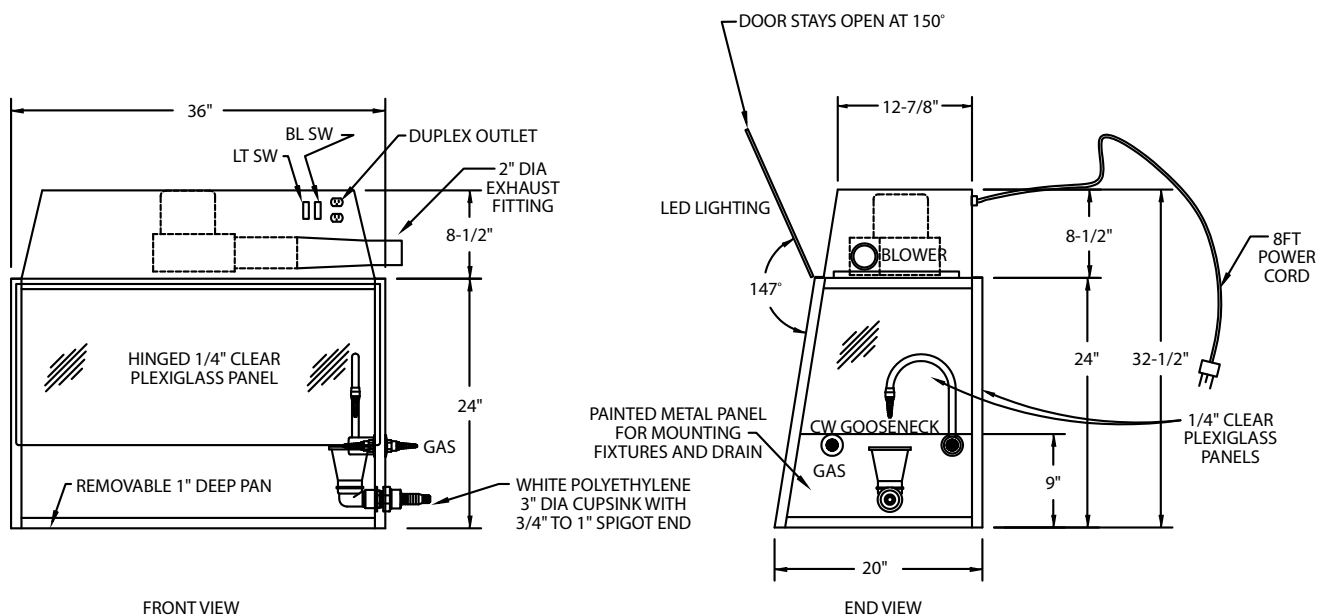
Standard Features

This Labscap hood is portable, but must be connected to an HVAC system. The backward-curved 120 volt blower has a variable speed control to maximize efficiency and minimize motor noise. The blower unit sits atop a fully welded tube chamber with plexiglas windows for viewing from all four sides. The front has a fold-up door to allow for loading and unloading of apparatus and experiments.

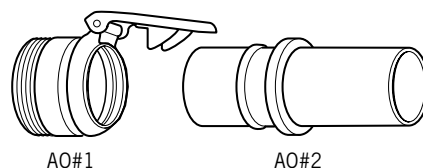
Model numbers:

Labscap-36-CRPH hood only
 Labscap-36-CRPH T hood with epoxy top
 Labscap-36-CRPH TC hood with top and cart
 For stainless steel construction use the prefix SS

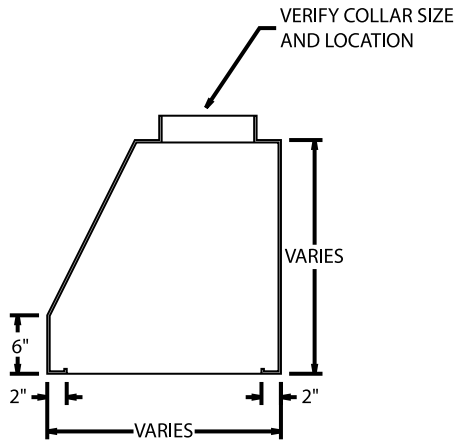
- Painted Steel Construction
- Energy-Saving LED Light Fixture
- Combination Light/Blower Switch
- GFI Duplex Outlet
- Pre-wired
- 8' Power Cord
- 2" dia. x 48" flex exhaust duct



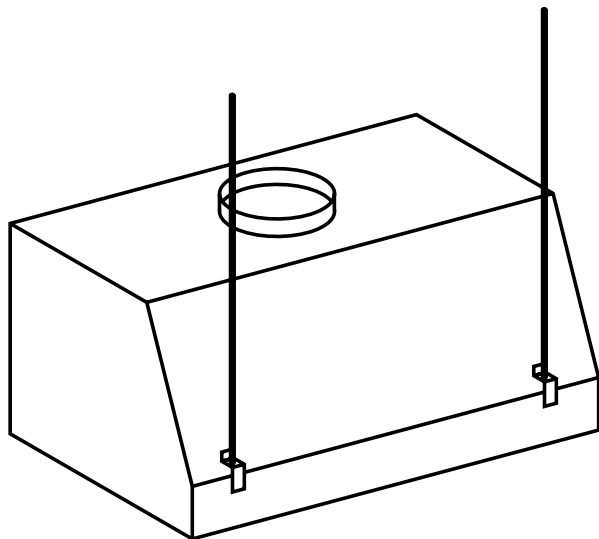
Portable Hood Adaptor Option



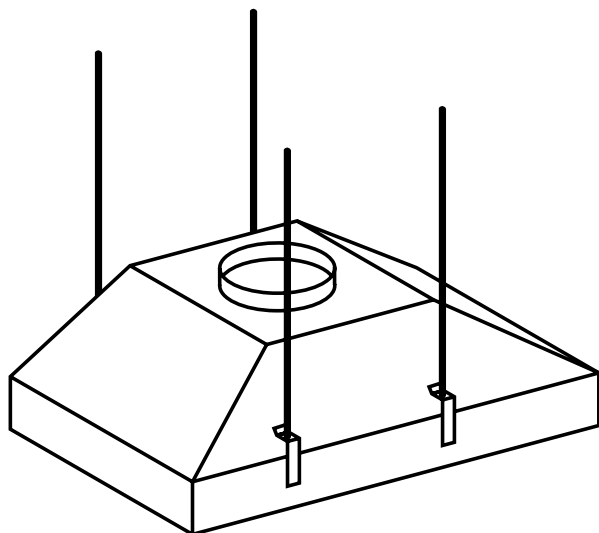
Note: AO#1 & AO#2 are mating parts.



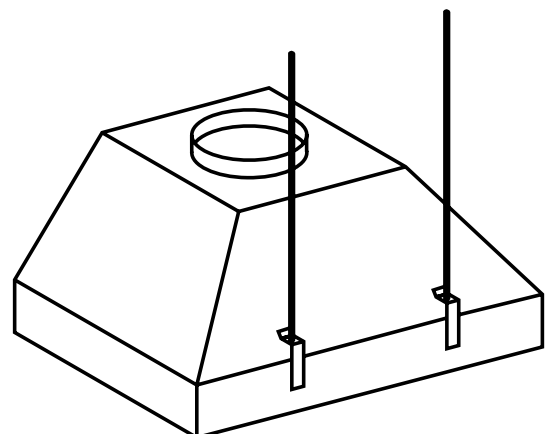
SECTION THRU



CANOPY HOOD w/FLAT BACK & FLAT SIDES — "FS" STYLE



CENTER CANOPY HOOD — ISLAND "IL" STYLE



CANOPY HOOD — "SE" STYLE

Labscape canopy hoods are designed to collect and exhaust heat, steam and odors when mounted above hot plates, water baths or portable equipment. They are available in three different models as pictured here and in six standard widths: 24", 30", 36", 48", 60", and 72". Custom sizes are also available.

Standard canopy hoods are available in 18-gauge cold rolled steel, finished with acid wash and powder coat epoxy paint. Stainless canopy hoods are fabricated of 18-gauge 304 stainless steel with a #4 smooth grain finish.

Two stainless steel threaded rods come with FS and SE models; four are supplied with IL models.

To order canopy hoods:

- CH-FS for flat back and flat sides
 - CH-IL for center style
 - CH-SE for flat back and sloped sides
- For stainless steel option, add -SS*

For example:

- CH-FS-4824 is a painted steel, 48" wide, 24" deep canopy hood with flat back and flat sides.
- CH-IL-6030-SS is a 60" wide, 30" deep island canopy with stainless steel construction.

The Green Solution Hood with proprietary Neutrodine® Filtration Technology:
Save energy without compromising usage, performance or safety.

The Green Solution Hood—with the breakthrough Neutrodine® system by ErLab®—offers a revolutionary turnkey solution providing a variety of installation, operational and environmental benefits to virtually any laboratory. Compared to traditional fume hoods in operation today, The Green Solution Hood with Neutrodine® Technology enables labs to:

- Add a fume hood without affecting building HVAC.
- Save energy while maintaining 100 fpm face velocity.
- Cut energy costs by 96% and reduce operating costs by 70%.
- Handle liquids and solids (including acids, bases, solvents and powders)—individually or together—with a single hood.
- Virtually eliminate installation costs.
- Operate safely without polluting and contaminating the environment.
- Maintain productivity without changing the way lab technicians work.
- All hoods are commissioned by factory personnel.
- All fume hoods are certified with a Life Cycle Payback. This certification by our lab assures researcher safety as well as economic feasibility.



patent pending

1 All manufacturers' products are similar.
Not anymore: **The Green Solution Hood** is a filtering fume hood that uses multitask Neutrodine® filtration technology instead of standalone carbon filtration commonly found in application-specific products known as ductless fume hoods. Furthermore, **The Green Solution Hood** combines the highly versatile proprietary Neutrodine® filtration technology with the revolutionary gGuard monitoring package to offer a much larger usage spectrum than has ever been available before. Neutrodine®—which is in compliance with the ASHRAE 110-1995 and AFNOR NF X 15-211 filtration standards—enables **The Green Solution Hood** to exhaust 100 times less toxic contaminants than are allowed by the official TLV while maintaining the industry's preferred 100 fpm face velocity at various working sash heights. In addition, gGuard gives **The Green Solution Hood** owners total control and an unprecedented level of safety.

2 There are a great variety of chemicals in the lab and carbon filters are too specific.
Not anymore: Neutrodine® can handle the majority of chemicals traditionally used in laboratories. Furthermore, thanks to the world's first Adaptable Modular Filtration Column (AMFC), **The Green Solution Hood** can handle liquids and powders—either individually or together—even in a cleanroom environment.

3 Heavier molecules can push out lighter molecules.
Not anymore: This problem only occurs with low quality carbons or carbons that are specifically designed to desorb such as the carbon used in industrial filters to recover solvents. Neutrodine® filtration technology uses a proprietary high quality carbon with a plurality of pores so large and diverse that both light and heavy molecules are retained independent of one another.

If high quality carbon were able to desorb, military gas masks would be rendered useless by an enemy simply releasing a heavier gas. Obviously, this isn't the case. High quality carbon is trusted in applications worldwide, even when—as in this example—reliability is a matter of life and death.

4 In the event of a spill, carbon filtration has limited capacity for containing large concentrations of chemicals.
Not anymore: **The Green Solution Hood** uses Neutrodine® Technology instead of the standalone carbon filters found in limited application ductless fume hoods. Test reports show that **The Green Solution Hood** with Neutrodine® Technology delivers back-up redundancy capabilities capable of containing chemical spills in excess of 1 gallon.

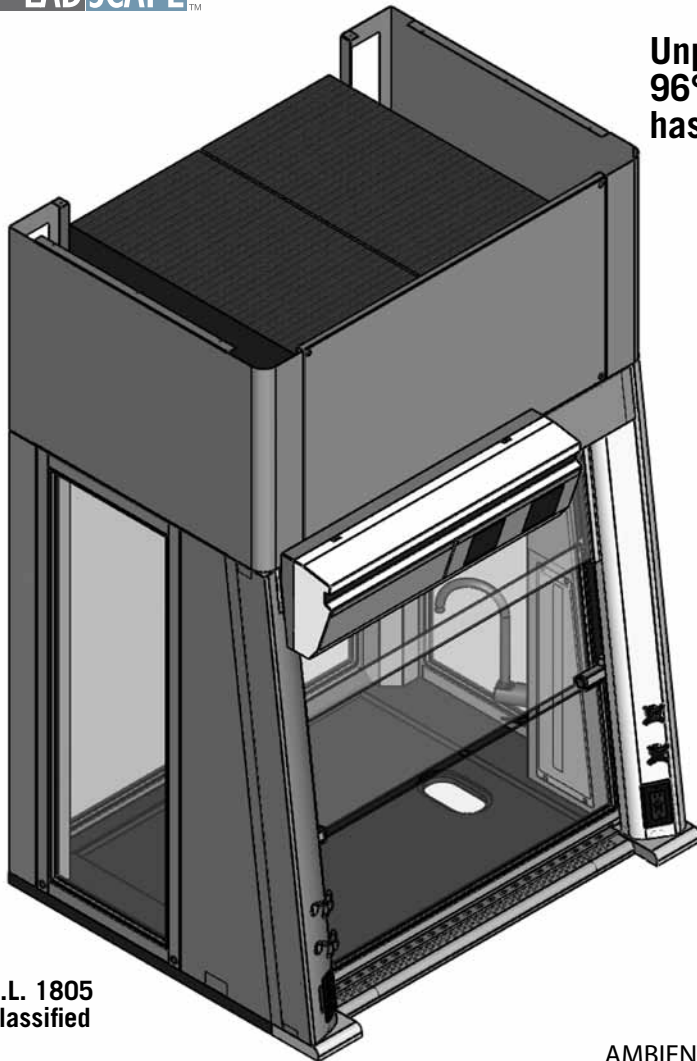
5 Carbon filtration requires controlled conditions, operator intervention and constant monitoring. Ducted fume hoods are much simpler to use.
Not anymore: Unlike application-specific products that require operator intervention, **The Green Solution Hood** with Neutrodine® Technology is very simple to use. Activating an on/off switch is the only responsibility required from the operator. All other functions are controlled and monitored with the help of the gGuard management package. This system—which uses proprietary software developed with Microsoft® technologies—makes **The Green Solution Hood** with Neutrodine® Technology easier to use since safety-related functions are taken out of the hands of the operator and handled remotely, and constantly, by the person(s) in charge of safety. **The Green Solution Hood** with Neutrodine® Technology also features a series of innovative detectors and monitors that provide a wealth of operational information and management capabilities never before seen in a laboratory fume hood.

6 Filters are expensive and difficult to change.
Not anymore: Unlike previous generations of filters, we are able to estimate the life of your filters with our Life Cycle Payback. Simply fill out our questionnaire to find out if our system is not only safe for your application, but economical as well. When it comes time to change the filters, no special tools are required and you will be back up and running within an hour.

The Green Solution Hood

Unprecedented safety in a hood that uses 96% less energy than standard hoods and has an operating cost 70% lower.

The Green Solution Hood and its patented Neutrodine® filtration system by Erlab® use molecular adsorption to handle fumes from acids, solvents, liquids, and even powders with the use of a HEPA filter accessory, together or individually all under the same hood.



**U.L. 1805
Classified**

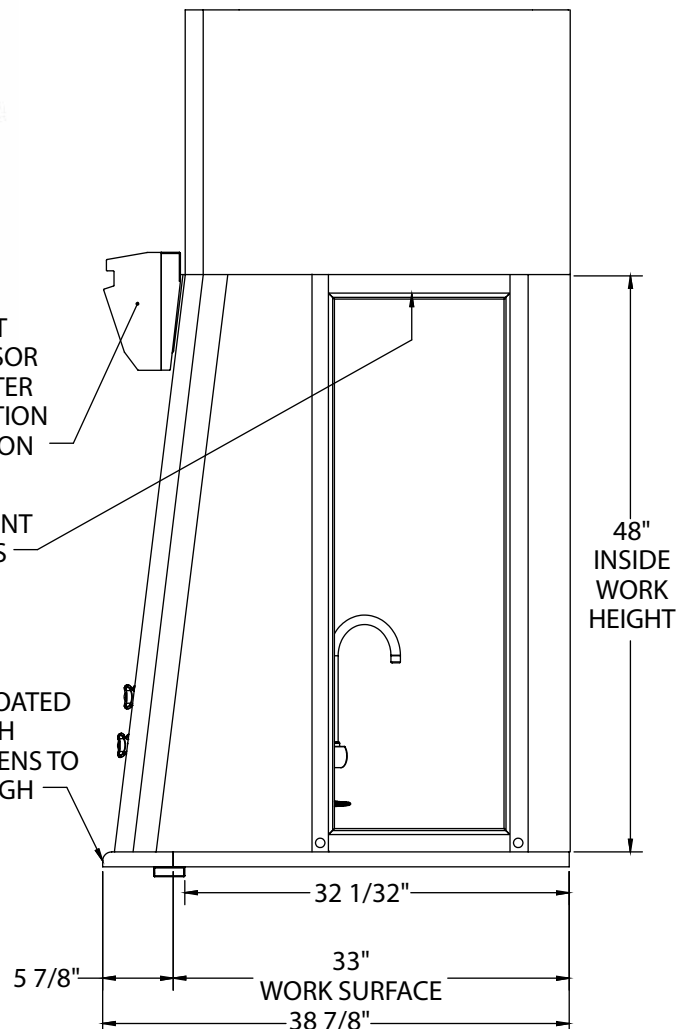
The Green Solution Hood Standard Features

- 360 Degree Viewing
- Powder Coat Finish
- Flush-Mount Airfoil/Trough
- Integral Sash Counterbalance
- Epoxy Top
- Sliding Pass-by Sashes
- Interior Access to Plumbing
- Front Mount Service Fixtures
- Plumbing Outlets Within Arm's Reach
- Full 28" Hood Opening
- GFI Receptacles

AMBIENT
AIR SENSOR
AND FILTER
SATURATION
DETECTION

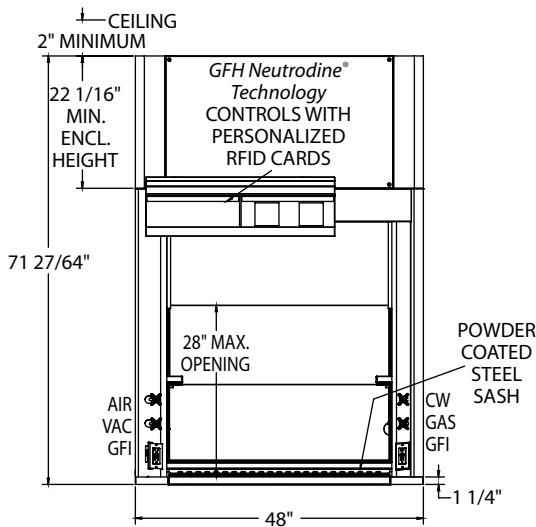
2 FLUORESCENT
WORK LIGHTS

POWDER COATED
STEEL FLUSH
AIRFOIL OPENS TO
SPILL TROUGH

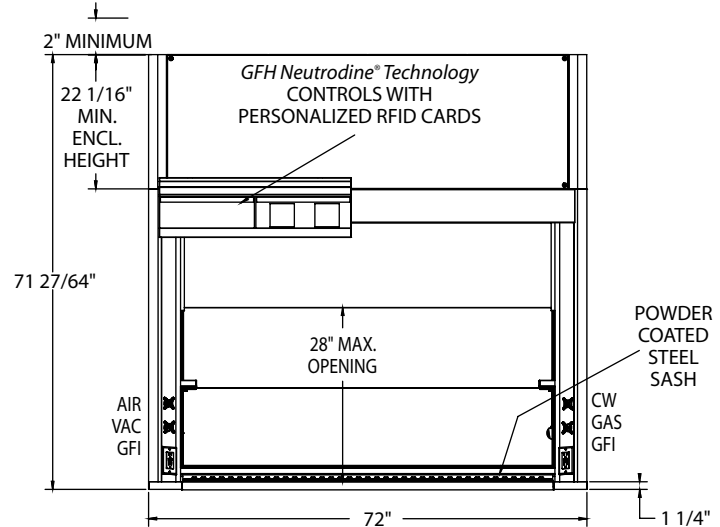


The Green Solution Hood

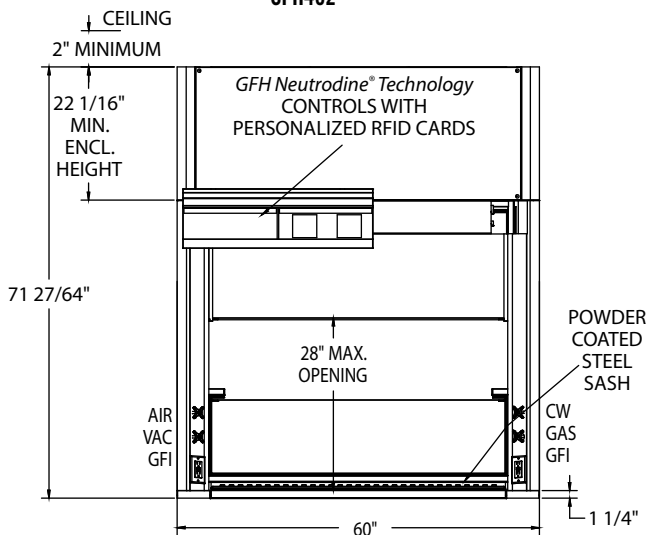
APPLICATIONS: Higher Education; Industrial; Private Research



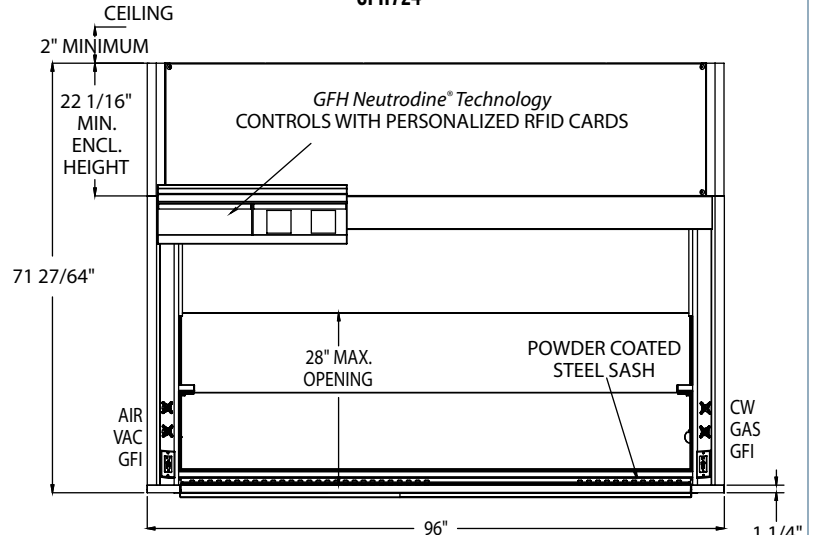
SFH482



SFH724



SFH602



SFH962

Part Number	Superstructure			Worktop			Hood Opening		Shipping Weight
	W	H	D	W	H	D	W	H	
SFH-482	48"	71-7/16"	38-7/8	48"	1-1/4"	33"	38"	28"	375
SFH-602	60"	71-7/16"	38-7/8	60"	1-1/4"	33"	50"	28"	425
SFH-724	72"	71-7/16"	38-7/8	72"	1-1/4"	33"	62"	28"	475
SFH-962	96"	71-7/16"	38-7/8	96"	1-1/4"	33"	86"	28"	575

100fpm @ 12" open; 60fpm @ 18" open

Optional plumbing fixtures shown.

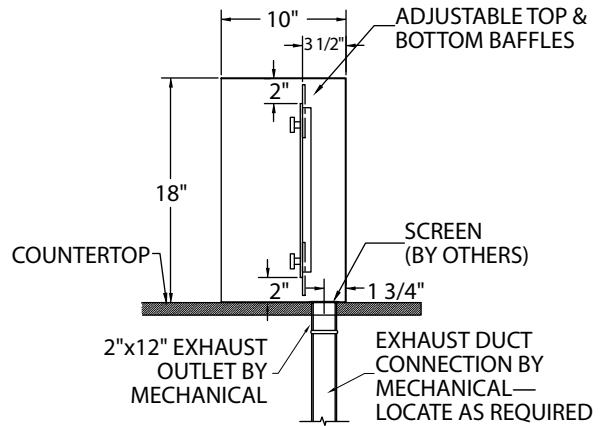
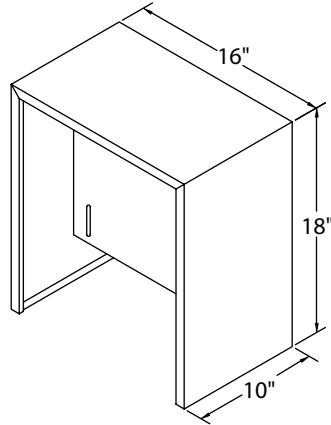
The Green Solution Hood Accessories

The Green Solution Hood can be remotely accessed with the use of a gGuard Onsite with a PC/pocket device or gGuard online which provides both monitoring and maintenance services via the Internet. gGuard will tell you real-time filter condition, sash position, blower motor speed, filter saturation level, ambient laboratory air, enclosure temperature, energy savings data and usage time. Hoods can also be incorporated into a building automation system.

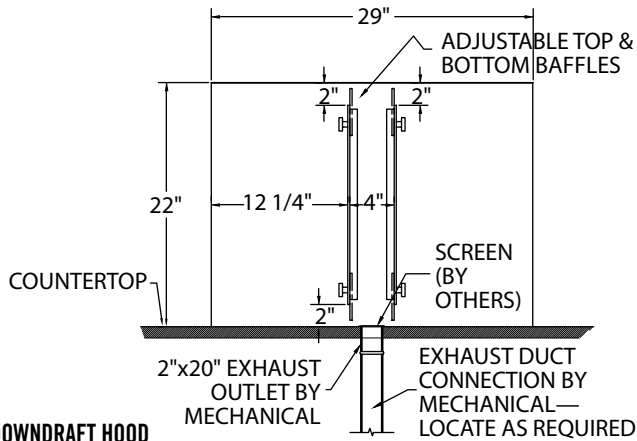
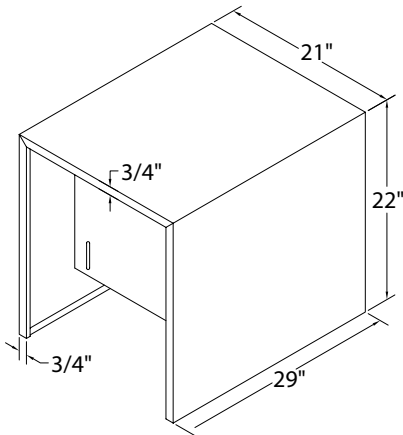
Updraft/Downdraft Hoods

APPLICATIONS: K-12; University; Industrial

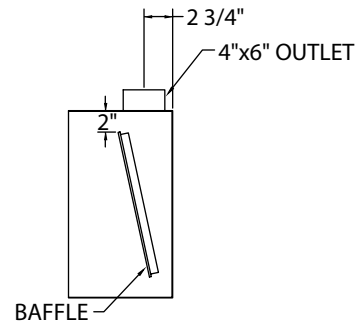
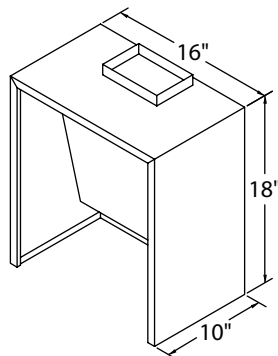
Inexpensive hoods designed to increase operator safety by ridding fumes such as formalin, smoke or any other non-hazardous media. Many sizes are available; please contact your Labscape representative for further information.



SINGLE-SIDED DOWNDRAFT HOOD



DOUBLE-SIDED DOWNDRAFT HOOD



SINGLE-SIDED UPDRAFT HOOD



AFA 500 Mk3 Fume Hood Airflow Monitor Specifications

Alarm range	30-400 fpm (.15 -2.0 m/s)
Accuracy	Face velocity accuracy +/- 10%
Airflow sensor	On-board or remote sensor
Calibration	Single or 2-point (Installer selectable)
Low Air Alarm delay	Fixed 5 secs
Relay output	1 --(Low Air alarm)
Analog output	Not available
Relay input	2 – Night setback and sash high
Comm. Port	RS232 – Can be connected via serial interface to LAN network (Full hood performance software reporting available)
Sash high indication	Yes – using a Micro switch or Proximity switch input With repeat alarm feature factory set to 5 min. (Can be adjusted via laptop up to 30 mins)
Night setback	Yes – using a relay input
External alarm indication	Not available
Power Requirement	Input—120VAC, 60Hz Output—15VDC, 500ma
Display—visual	LEDs: red, alarm; green, normal
Alarm indication	Red LED and audible alarm
Horn silence	Yes – temporary
Mounting	Semi Flush
Operating temperature	55-86 F (13-30 C)
Storage temperature	-40-150 F (-40-65 C)
Instrument dimensions	Instrument Case: 5.2” H x 3.19” W x 1.97” D (132mm H x 81mm W x 50mm D)
Agency listings	UL and CE



AFA 1000/1 Mk3 Fume Hood Airflow Monitor Specifications

Display range	0-999 fpm (0-5.0 m/s)
Alarm range	0-999 fpm (0-5.0 m/s)
Field set-up	2-point velocity calibration (with on-screen instructions)
Accuracy	Sensor / Display resolution 1 fpm Face velocity accuracy +/-10%
Alarm delays	User configurable – 0 to 60secs
Relay output	4 (1 on board – 3 on optional plug in relay interface unit)
Analog output	0-10V output, directly proportional to velocity (Optional)
Relay input	3
Comm. Port	RS232 – Can be connected via Serial interface to LAN network (Full software available)
Sash high indication	Yes, with separate plug-in connection
Night setback	Yes
External alarm indication	Yes
Power Requirement	Input—120VAC, 60Hz Output—15VDC, 500ma
Units	English and Metric (user selectable)
Display—visual	Analog bar graph or Fault Timeline LEDs: red, alarm; yellow, caution; green, normal
Alarm indication	Digital display of velocity reading (can be turned off)
Horn silence	Red LED and audible alarm (to a certain sound spec) Yes (temporary / permanent/automatic depending on type of alarm or external input)
Mounting	Semi Flush
Operating temperature	55-86 F (13-30 C)
Storage temperature	-40-150 F (-40-65 C)
Instrument dimensions	Instrument Case: 5.2” H x 3.19” W x 1.14” D (132mm H x 81mm W x 29mm D)
Agency listings	UL and CE



LABCONCO PARAMOUNT DUCTLESS ENCLOSURE

Ductless Carbon-Filtered Enclosures (often referred to as Ductless Hoods) are viable alternatives to the traditional ducted fume hood when working with volatile chemical fumes and vapors. As defined by SEFA 9-2010 (Recommended Practices for Ductless Enclosures), three categories of “ductless hood” (DH) exist.

DH I

A ductless hood equipped with a filtration device designed to control non-toxic chemicals, nuisance odors and particulates.

DH II

A ductless hood capable of meeting all DH I requirements, and equipped with a filtration device designed to filter manufacturer-approved toxic contaminants up to filter break through only.

DH III

A ductless hood capable of meeting all DH II requirements, and equipped with a filtration device designed to filter manufacturer approved toxic contaminants beyond primary filter break through by providing secondary back-up protection.

Ductless enclosures offer these advantages and more:

FLEXIBLE – They can be utilized and flexible in hard-to-duct areas such as the center or bottom level of multi-level buildings.

TURNKEY – Installation expenses are far less than traditional hoods because no ductwork and remote blower are required.

PORTABLE – Since they are portable, they may be shared among several laboratories or stored when not in use.

SUSTAINABLE – Since they have no make-up air requirements, they may be used in air-starved laboratories or offset air requirements of ducted fume hoods.

GREEN – Unlike traditional fume hoods, costly tempered room air is not exhausted from the laboratory, resulting in lower energy costs.

Labconco Ductless Carbon-Filtered Enclosures

Labconco, an industry leader in laboratory ventilation since the 1930's, is dedicated to providing world class safety enclosures for your space. Whether or not a ductless carbon-filtered enclosure is the right ventilation product for your application requires consideration of factors such as the time-weighted exposure limits of your materials. Depending on the Labconco enclosure, several filter types may be used.

Organic Carbon Filters are suitable for vapors from solvents including acetone, ethyl acetate, toluene and xylene.

Acid-Sulfur Carbon Filters are suitable for acid and sulfur gases.

Ammonia Carbon Filters are suitable for ammonia and low molecular weight amines.

Formaldehyde Carbon Filters are suitable for vapors from formaldehyde, formalin and gluteraldehyde.

Radioisotope Carbon Filters are suitable for iodine radioisotope vapors.

Mixed Bed Carbon Filters are a combination of Organic, Acid-Sulfur, Formaldehyde and Ammonia media.

HEPA Filters, 99.99% efficient, are suitable for removing particulates such as powders and pollen. They should not be used to capture biohazardous materials or volatile organic material.



LABCONCO PROTECTOR WORK STATION

Paramount® Ductless Enclosures

Paramount® Ductless Enclosures are self-contained while allowing for safe handling of organic, formaldehyde, acid gas, sulfur compounds or ammonia chemical fumes and vapors as well as particulates. Air inside the enclosure passes through carbon filters, and in some cases additional HEPA filters, before being safely exhausted back into the laboratory. Two filter types may be stacked for mixed chemical or combination gaseous/particulate applications. No outside ducting is required.

Electronic security lock, when enabled, prevents operation of the enclosure by unauthorized users. The user must enter the proper sequence of keystrokes to begin operation.

Fluorescent light illuminates the interior. Timer may be set for a specific time period for energy-savings as well as a safeguard for light-sensitive materials.

■ **Upper dilution air supply** sweeps clean air to the back of the sash to keep contaminants away from the operator.

■ **Upper containment sash foil** directs contaminants away from the user's breathing zone.

Side-entry air foils allow air to sweep interior surfaces to enhance containment.

■ **Patented* Clean-Sweep™ air foil** allows air to sweep the work surface to maximize containment.

■ **Safety-First Vapor Sensor** accurately detects filter break through. Primary and secondary backup sensors provide redundant monitoring and detection of organic solvents, smoke particulates, ammonia gases, formaldehyde gases and hydrosulfide gases. The sensor also provides an early warning when 5-10% of filter life is remaining to allow time for the user to change filters.

■ **Durable powder-coated aluminum frame, steel rear baffle and plenum** provide chemical resistance and robust construction. No unreliable plastic-to-plastic bonding is used.

■ **Quieter, cooler and more energy-efficient ECM impeller** is 95% efficient, generates less heat for more comfortable working conditions, and operates from 52 to 62 dBA at 80 fpm depending on model.

■ **Patented* rear baffle** with zones of perforations promotes non-turbulent horizontal laminar airflow. The baffle pivots down for cleaning.

Optional clear safety glass baffle provides 360° visibility for teaching demonstrations. The baffle pivots down for cleaning.

■ **Smart-Flow™ System** adjusts the motor speed automatically for filter pressure drop, barometric pressure and room temperature, and maintains constant airflow at the calibrated value.

■ **Durable tempered safety glass front sash and sides** provide visibility, ambient light and chemical resistance. Glass does not easily discolor or craze like plastic can.

Accommodates seven filter types to cover a wide variety of needs. Filters are stackable to handle mixed chemical applications.

■ **Large LCD** displays face velocity and filter status, and touchpad control of enclosure operation. Filter life and check timers trigger audible/visual alert messages after the specified number of hours has elapsed.



LABCONCO PARAMOUNT DUCTLESS ENCLOSURE

Two utility ports allow passage of tubing, electrical cords and interface cables from inside to back exterior for connection to services.

Ergonomic angled sash and patented sloped front** allow a closer view of the work area, reduce glare and provide a more comfortable operating position. Hinged sash pivots upward for loading and has a wiping seal to contain contaminants. Larger models incorporate an external gas-assist lift.

Spacious sash opening provides comfortable access to the work area. Opening spans the width of the enclosure and is 9.4" (23.9 cm) or 12.0" (48.3 cm) high depending on the model.

Convenient, front-accessible filter replacement. The gas spring-assisted clamping mechanism opens effortlessly and applies uniform pressure across the top surface of the filters for leak-proof, one-step filter replacement.

■ Exclusive Feature
* US Patent No. 6,461,233
** US Patent No. D 538,941



LABCONCO PROTECTOR STAINLESS STEEL FILTERED GLOVE BOX

A glove box is a sealed enclosure that allows handling of materials through long, relatively impermeable gloves secured to ports in the walls of the enclosure. The purpose of a glove box is protection or isolation, which is provided by the physical barrier. Depending on the type of glove box, the physical barrier may be to isolate a sensitive material inside the box from environmental contamination or to protect the operator from hazardous materials being manipulated inside the box.

Protector® Glove Boxes – Top of the Line Protection

With this latest generation of Protector Glove Boxes, Labconco has engineered and manufactured our most leak-tight boxes ever. Fewer leaks mean greater protection to the user and better control of the glove box atmosphere. Protector Glove Boxes are rigorously tested to exacting standards. Every Protector Glove Box is leak tested using a helium mass spectrometer. A test probe checks for the presence of leaks at all joints, seals and seams. Protector Glove Boxes have no detectable leaks greater than 1×10^{-6} ml/second, which calculates to less than 0.09 ml per day.

Labconco's Protector line of glove boxes consists of vented filtered glove boxes, controlled atmosphere glove boxes and combination vented/controlled atmosphere glove boxes. These types of glove boxes are described below.

Protector® Filtered Glove Boxes

These glove boxes have inlet and outlet filters (either HEPA or ULPA) that protect the operator from hazardous particulates and establish a "clean room" environment inside the box. Protector Filtered Glove Boxes are available in three configurations:

Single-width HEPA-filtered glove boxes with one-piece molded fiberglass liners

Single-width ULPA-filtered glove boxes with stainless steel liners

Double-width ULPA-filtered glove boxes with stainless steel liners

Protector® Controlled Atmosphere Glove Boxes

These glove boxes isolate sensitive material inside the box from environmental contamination. Since the materials inside the box are often sensitive to oxygen or moisture, the ambient environment inside the box is replaced with an inert gas such as nitrogen, argon or helium. These glove boxes are sometimes called “dry boxes.” Protector Controlled Atmosphere Glove Boxes are available in the following configurations:

Single-width glove boxes with one-piece molded fiberglass liners

Basic Models (with manual control)

Auto Pressure Controller Models

Single-width glove boxes with stainless steel liners

Basic Models (with manual control)

Auto Pressure Controller Models

Double-width glove boxes with stainless steel liners

Basic Models (with manual control)

Auto Pressure Controller Models

Protector® Combination Glove Boxes

A combination glove box has the capability to function as either a filtered box or a controlled atmosphere glove box. Opening two internal valves converts the box from controlled atmosphere mode to filtered mode. Laboratories that have multiple types of glove box applications or anticipate that their applications may change in the future are ideal users of this type of glove box. All of these glove boxes include an Auto-Pressure Controller. Protector Combination Glove Boxes are available in three configurations:

Single-width glove boxes with one-piece molded fiberglass liners and HEPA filters

Single-width glove boxes with stainless steel liners and ULPA filters

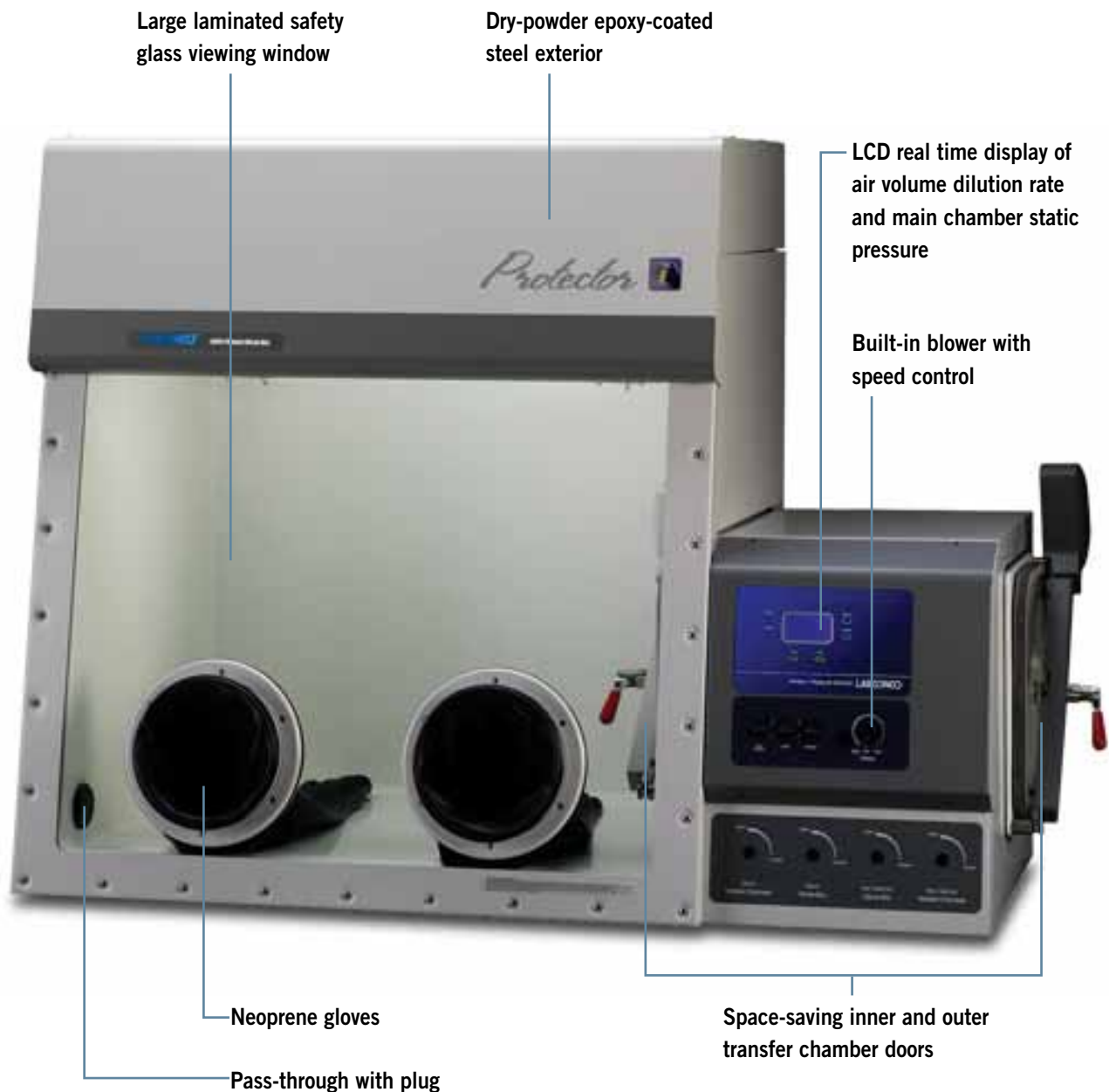
Double-width glove boxes with stainless steel liners and ULPA filters

Basic Models vs. Auto Pressure Controller Models

To reduce moisture and oxygen levels below 1% in the main chamber requires from 75 to 100 evacuation and fill cycles. An additional 100 cycles further reduce moisture and oxygen levels below 0.3% (3000 ppm). Basic Models with analog gauges and vacuum outlet and gas inlet valves allow the user to manually fill the controlled atmosphere glove box with inert gas and evacuate with a vacuum pump. For infrequent use or for laboratories with a plentiful and inexpensive supply of inert gas, the Basic Model is a viable option. However, this manual process is time consuming and requires constant supervision. Some Protector Controlled Atmosphere Glove Boxes and all Protector Combination Glove Boxes include the Auto-Pressure Controller. Auto-Pressure Controller Models may be programmed to regulate the evacuation and backfill of the glove box, up to 499 times for the main chamber and up to 199 times for the transfer chamber. In addition, the Auto-Pressure Controller monitors and controls glove box pressure. The user establishes an operating pressure range by setting upper and lower pressure limits. Glove box pressure is automatically adjusted as barometric pressure and laboratory temperature change. With the Auto-Pressure Controller, the process is automated so that the glove box may be left unattended during the evacuation and fill cycles.

Protector® Filter Glove Boxes

Protector Filtered Glove Boxes are ventilated boxes that use ambient air to provide user protection from extremely hazardous particulates for applications such as nanoparticle manipulation, toxic powder weighing, pharmaceutical research and biochemistry. Microorganisms, low-level radiochemicals, chemical carcinogens and asbestos may also be used in these boxes. In addition, by reversing the negative air pressure in the main chamber to positive pressure, these boxes may be used for cleanroom applications requiring ISO Class 3 conditions. Models with one-piece molded fiberglass liners feature inlet and outlet HEPA filters. Models with stainless steel liners feature inlet and outlet ULPA filters.





LABCONCO PRECISE HEPA FILTERED GLOVE BOX

Not all glove boxes are created equal. Glove box applications are as broad as the range of glove box types available in the market. Users may choose from basic enclosures constructed from flexible vinyl bags, to acrylic enclosures, to sophisticated custom “isolators” of welded stainless steel. Depending on the materials of construction and design, glove boxes provide varying levels of protection, durability and levels of containment.

A glove box has several components. The main chamber provides interior space where manipulation of the contents occurs via gloves. The window allows observation inside. The transfer chamber attached to the main chamber facilitates the introduction of apparatus and materials with minimum compromise of the glove box atmosphere, particularly important with controlled atmosphere glove boxes.

Other features differentiate one glove box type from another. To establish and maintain an interior atmosphere, controlled atmosphere glove boxes have inlet and outlet valves and gauges for evacuating and filling the main and transfer chambers with inert gas. HEPA filtered glove boxes use a built-in blower that circulates air through inlet and exhaust high efficiency particulate filters. They have a gauge to monitor HEPA filter loading.

Labconco manufactures a variety of glove boxes in two major categories:

HEPA filtered – Protects the operator from hazardous materials and/or establishes a “clean room” environment inside the box.

Controlled atmosphere – Isolates sensitive material inside the box from environmental contamination. Since the materials inside the box are often sensitive to oxygen or moisture, the ambient environment inside the box is replaced with an inert gas such as nitrogen, argon or helium. These glove boxes are sometimes called “dry boxes.”

Precisely engineered and tested

Durable Liner

Precise Glove Boxes are constructed of 1/4” thick, molded polyethylene. This extremely durable shell withstands exposure to most chemicals. Because the main chamber and transfer chamber shell is molded in one piece, cracks and crevices where leaks could occur or contaminants can hide are minimized. Unlike plastic used to construct some glove box windows, the laminated safety glass viewing window is not affected by organic solvents or ultraviolet rays.

Precise Glove Boxes are engineered and rigorously tested to exacting standards. Every Precise Glove Box is leak tested using a helium mass spectrometer. A test probe checks for the presence of leaks at all joints, seals and seams. Precise Controlled Atmosphere and Basic Glove Boxes achieve no detectable leaks greater than 1×10^{-4} ml/second, which calculates to a mere 8.6 ml/day. These Precise Boxes meet Class I atmosphere containment conditions and oxygen leak rates per ISO 10648-2 test method. Precise HEPA-Filtered Glove Boxes and XPert Weigh Boxes, with sealed inlet and outlet filters, have no detectable leaks greater than 1×10^{-3} ml/second, still only 86 ml/day.

Leak rates are especially important with the Precise Controlled Atmosphere Glove Box when sensitive materials demand a low level of oxygen and/or moisture. Two manual valves on the main chamber and two manual valves on the transfer chamber are used to evacuate and fill the chambers with inert gas to achieve these low levels. Two additional valves on the main chamber allow connection to an accessory Oxygen and Moisture Removal Column and diaphragm pump to achieve levels as low as 5 ppm oxygen and 50 ppm moisture.

Particulate cleanliness

Labconco tests the ability of the HEPA filters in Precise HEPA-Filtered and XPert Weigh Boxes to achieve particulate cleanliness within the main chamber, under both positive and negative pressure. As shipped, the boxes are under negative pressure. Using the accessory Positive Pressure Conversion Kit, the blower's positive pressure discharge can be rerouted to the inlet HEPA filter and the exit port of the exhaust filter opened to vent to the room. This configuration allows the main chamber to become a positively pressurized ultra clean room needed for applications such as nano-particle and electronic chip research. Airborne particulate cleanliness per ISO 14644-1 test method exceeds ISO Class 5 conditions (equivalent to Class 100) and achieved ISO Class 3 conditions (equivalent to Class 1) at both minimum and maximum operational airflow volumes.

Particulate containment

Labconco measured the ability of Precise HEPA-Filtered Glove Boxes and XPert Weigh Boxes to contain powders. Naproxen sodium, a non-potent active pharmaceutical ingredient, was selected for the study because it is safe to handle, readily detectable in air at low concentrations, has a high dustiness quotient and challenging electrostatic properties. SafeBridge Consultants, Incorporated, analyzed the samples. The test results showed that the Precise HEPA-Filtered Glove Box and XPert Weigh Box demonstrated excellent containment when repeated small-scale weighing operations were performed in the glove boxes.

Excellent stability

As its name implies, the XPert Weigh Box was designed for weighing toxic powders. Since analytical balances may be sensitive to motion disturbance, the vibration of the XPert Weigh Box and the Precise HEPA-Filtered Glove Box was tested at both minimum and maximum airflow volumes. Less than 1.5×10^{-5} inches displacement was detected at the work surface at all blower speeds. The glove box was also tested using a five-place analytical balance placed inside with and without the balance vibration isolator (marble slab with stainless steel cover) positioned in the center of the work surface. The glove box was tested at various blower speeds and under typical laboratory conditions. No efforts were made to isolate the box from foot traffic or surrounding laboratory equipment. Results were excellent. The analytical balance readings remained stable to five decimal places.



LABCONCO PRECISE HEPA FILTERED GLOVE BOX

Precisely what you want

Four models of Precise Glove Boxes are available:

The Precise HEPA-Filtered and XPert Weigh Boxes have a built-in blower and inlet and outlet HEPA filters to remove particulates that can negatively affect either the user or the materials inside. In addition, the XPert Weigh Box has a balance vibration isolator to stabilize a balance on the work surface and an anti-static ionizer fan to control static charge.

The Precise Basic Glove Box is ideal for simple applications needing a physical barrier or for users who want to add manual valves and other accessories as needed.

The Precise Controlled Atmosphere Glove Box has manual valves, a pressure relief valve and pressure gauges designed to achieve an inert atmosphere to protect sensitive materials.

Beyond selecting the right model of glove box, over 70 accessories allow you to customize your Precise Glove Box to fit your application needs.

Designed for the HUMAN Experience

Labconco has added features to its newest generation of Purifier Logic+ Biosafety Cabinets that resets the bar for not only safety but also comfort. Unlike other cabinets, the Purifier Logic+ was designed for the human body and habits that goes beyond ergonomics. We call it Inclination™ Technology— design that caters to human behavior. You experience less fatigue, fewer distractions and a more comfortable working environment. Your work demands precision, attention to details and constant vigilance to safe practices. We believe the more comfortable you are, the safer you will be. For total comfort, effortless operation and maximum safety, the Purifier Logic+ Biosafety Cabinet is your logical choice. Read more about the difference a human-designed biosafety cabinet makes.

Performance

Nothing enhances the human experience more than a biosafety cabinet that allows you to work confidently and with peace of mind. Unique to the Purifier Logic+ Biosafety Cabinet is its built-in intelligence to accurately maintain proper airflow, even as the HEPA filters load. Accuracy is achieved with an Electronically Commutated Motor (ECM) coupled with Labconco's exclusive Constant Airflow Profile™ (CAP) Technology.

The benefits of ECM:

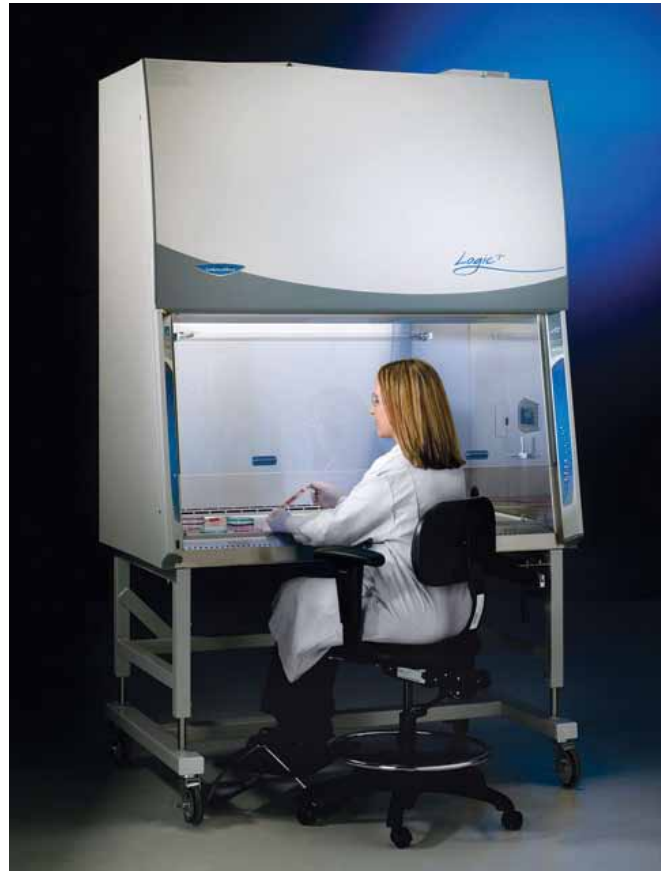
Energy efficiency – The ECM consumes 60% less energy than conventional motors.

Comfortable working temperature – The ECM generates less heat than conventional motors for cooler working conditions.

Quiet (< 63 dBA) – The ECM operates as much as 50% quieter than conventional motors.

Reliable – The time-tested ECM has a long life (50,000 hour average motor life) and reliable operation.

More power for longer lasting filters – Because it has greater torque than conventional motors, the ECM overcomes more resistance as HEPA filters load so filters last longer.



LABCONCO A2 BIOSAFETY CABINET

Constant Airflow Profile™ (CAP) Technology

Constant Airflow Profile™ (CAP) Technology is built-in intelligence that works with the ECM to precisely control airflow without the need for airflow sensors. During operation, the ECM is constantly adjusting its speed and torque to accurately maintain its programmed airflow. Tests confirm that airflow is maintained within 1%.

Using CAP Technology to monitor and provide accurate airflow has advantages over relying on differential pressure gauges or airflow sensors. Biosafety cabinets that solely rely on pressure gauges require manual adjustment by a certifier when readings indicate a decline in airflow performance. Likewise, airflow sensors have a known standard of deviation exceeding safe airflow requirements in Class II cabinets. A certifier can verify safe airflow for a single moment in time. CAP Technology maintains safe airflow all the time.

Labconco Purifier® Logic®+ Class II Biosafety Cabinets



LABCONCO B2 BIOSAFETY CABINET

Sustainable Design

As a member of the U.S. Green Building Council (USGBC), Labconco is committed to designing environmentally-responsible products. The Logic+ is one example. Since Logic+ uses less energy and lowers the heat load compared to cabinets with conventional motors, it contributes toward satisfying EA Credit 1 under LEED. New construction buildings with the Logic+ cabinets installed can earn from one to 19 LEED points for energy use reduction. The 8.5% pre-consumer and 54.5% post-consumer recycled content of the Logic+ can contribute towards satisfying MR Credit 4. Buildings that incorporate recycled materials may be awarded from one to two LEED points. When it is time to remove a Logic+ from service, its recyclable content is 94.9%, another measure of its contribution toward preserving our environment.

Performance Features & Benefits:

Reliable ECM provides energy-efficient operation.

CAP Technology assures consistent delivery of precise air volume, even as filters load. No sensors are needed.

Low lifetime cost – Energy efficiency and lower maintenance costs add up to a lower total lifetime cost.

Air-Wave™ Entry System, consisting of aerodynamic angles surrounding the access opening, provides less airflow resistance for better containment.

Contain-Air™ Negative Pressure Channel draws air in, preventing loss of containment at the top of the sash.

Smart-Start™ System automates routine start up and shut down functions, assuring consistent operation regardless of the user and saves time.

Night-Smart™ System idles the blower at 30% speed when the sash is fully closed to help maintain a clean environment inside the cabinet during periods of non-use while saving energy. When the sash is raised, the blower automatically resumes normal operation.

5 year warranty.

Safety

The most important reason to choose the Purifier Logic+ is safety. You simply won't find another biosafety cabinet with a more comprehensive safety package than the Logic+. Purifier Logic+ Biosafety Cabinets meet or exceed all minimum requirements set by NSF International including 99.99% efficient HEPA filters and nominal inflow of 105 fpm. The Logic+ goes well beyond the NSF Standard by providing the user with peace of mind that airflow is within normal limits and the HEPA filters are working properly. A full color, line-of-sight LCD information center, which is in constant communication with the ECM, continuously monitors and displays the cabinet's performance.

The benefits of the LCD information center:

Easy readability with MyLogic™ OS – The large full color display runs on MyLogic™ OS that provides user-friendly programming and feedback. Mounted on the interior right side wall of the user's line of sight while seated, the display shows cabinet function, filter loading and systems in use.

Descriptive feedback in easy-to-understand full sentences leaves nothing to interpretation. Step-by-step instruction guides you when programming features such as Smart Start and Night-Smart.

"Filter Remaining" bar graph – A bar graph depicts percent of HEPA filter life remaining to provide assurance and allow you to accurately and confidently plan for future filter replacement. Alerts warn when the filter life diminishes to 20% and 0%.

Alerts and Alarms – Visual and audible alarms warn users of cabinet errors, explain the meaning of the alarm, diagram where the cabinet has been affected, and provide intuitive troubleshooting tips.

Durable construction – The display is constructed of UV-opaque safety glass and stainless steel for easy decontamination.

Safety Features & Benefits:

Line-of-sight Information Center with MyLogic™ OS provides at-a-glance assurance that your cabinet is operating safely.

Fully-closing, tempered safety glass sash – An audible/visual alarm indicates when the sash is opened above its working height.

Reserve-Air™ Inflow Slots on the inlet grille draw air into the cabinet to maintain safe airflow should the user inadvertently block portions of the grille while resting arms.

NSF-approved Vacu-Pass™ Cord & Cable Portal, available on some models, safely allows passage of electrical cords and tubing through the side of the cabinet without air leakage or airflow disruption.

Electronic security lock, when enabled, prevents operation of the cabinet by unauthorized users.

NSF listed.

Type A2 & B2 – Which Do You Choose?

Select the right Purifier Logic Biosafety Cabinet for your application.

Purifier Logic+ Class II Biosafety Cabinets come in **Type A2** and **Type B2** configurations. The airflow diagrams on the opposite page illustrate the differences between the two Types. Which configuration you choose is determined by your application. Both Type A2 and B2 cabinets are suitable for work with agents that require Biosafety Level 1, 2 or 3 containment. Other appropriate applications include work with antineoplastic drugs, genetic material, carcinogens, allergens and additional substances that generate hazardous airborne particulates.

Purifier Logic+ Class II, Type A2 Biosafety Cabinets are designed to discharge HEPA-filtered exhaust air directly into the laboratory, or into an exhaust system through the optional Canopy Connection. When canopy-connected, the biosafety cabinets may be used for applications involving volatile toxic chemicals and radionuclides as an adjunct to microbiological research. These benchtop cabinets are available in 3', 4', 5' and 6' nominal widths.

Purifier Logic+ Class II, Type B2 Biosafety Cabinets are designed to be hard ducted to the outside. Since none of the air is recirculated, these cabinets may be used for work with agents treated with volatile toxic chemicals and radionuclides. These benchtop cabinets are available in 4' and 6' nominal widths.

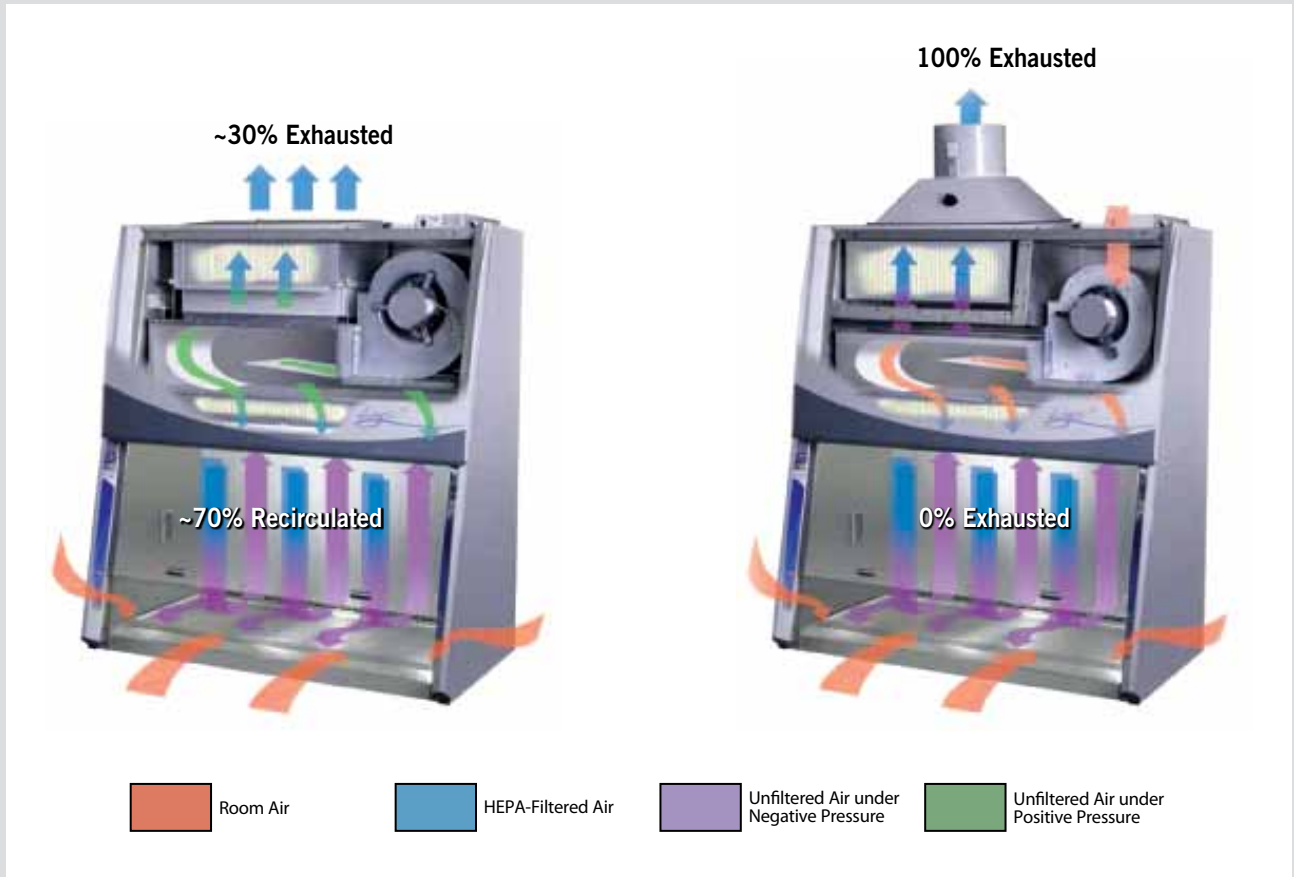
Labconco Purifier® Logic®+ Class II Biosafety Cabinets

Class II, Type A2 Airflow

During operation, room air is drawn into the inlet grille. The air in the plenum beneath the work surface is a mixture of unfiltered room air, and air that has just passed through the work area. This contaminated air is drawn by the blower through the back plenum of the cabinet, where approximately 70% of the air is recirculated through the supply HEPA filter and back over the work area. The balance of the contaminated air is discharged to the environment after passing through the exhaust HEPA filter.

Class II, Type B2 Airflow

During operation, room air is drawn through the top of the cabinet. This air is HEPA filtered, and then flows downward through the work area. Room air is also drawn into the inlet grille. All of the contaminated air is drawn under the work surface or through the rear grille, then up the rear plenum, and through the exhaust HEPA filter. A dedicated exhaust system and remote blower draw 100% of the filtered exhaust air out of the laboratory. The ductwork and remote blower are required for operation and sold separately.



Flexibility, durability, maximum cleanability and energy-efficiency have been engineered in to every Labconco laboratory glassware washer.

Flexibility

Labconco offers two distinct washer types for different glassware mixes: the SteamScrubber and the FlaskScrubber. Designed primarily to hold general glassware such as beakers, utensils, test tubes, Petri dishes and BOD bottles, the SteamScrubber comes with upper and lower standard open racks that accommodate a wide variety of baskets and inserts.

Designed primarily to hold narrowneck glassware such as volumetrics and Erlenmeyer flasks, the FlaskScrubber has a lower rack with 36 spindles and may be outfitted with specialized inserts to accommodate pipets. Although the SteamScrubber and FlaskScrubber are distinct in their primary uses, the standard open racks and spindles racks are interchangeable, making these washers more flexible and versatile than ever before. If your glassware mix currently includes both narrowneck and general glassware or changes in the future, just add the racks and inserts you need to accommodate your needs.

Flexible cycle programs give the user control in selecting the right combination of parameters including the following:

Washing time and temperature

Steam generation

Number of total and pure water rinses

Final rinse temperature

Drying time and temperature

A keypad and LCD display allow cycle programs and parameters to be easily set or changed. Memory stores preset and user set programs for reproducible protocols.

Durability

Rugged stainless steel interior, exterior, racks and inserts withstand heavy use and reduce corrosion and contaminant build-up. Internal components such as pumps and seals are laboratory-grade, engineered for long life.



LABCONCO UNDERCOUNTER FLASKSCRUBBER GLASSWARE WASHER

Maximum Cleanability & Drying

Laboratories that conduct sensitive research demand contaminant-free glassware. Many features work together to achieve consistent, thorough cleaning:

Powerful pump circulates water through the washer. Rated at 96 gallons/minute (363 liters/minute) on 115 volt, 60 Hz models and 112 gallons/minute (424 liters/minute) on 230 volt, 50/60 Hz models.

A separate pump drains the wash and rinse water to reduce risk of cross contamination between wash and drain water.

Wash and rinse water temperature reaches 82° C (180° F) on 115 volt models and 93° C (199° F) on 230 volt models to better activate detergent, sanitize glassware and speed drying.

Built-in steam generator produces hot vapor to penetrate and remove dried residue.

Forced air drying ensures spot-free results. Drying temperature is programmable up to 70° C (158° F).



LABCONCO FLASKSCRUBBER VANTAGE GLASSWARE WASHER

Performance Testing

An outside analytical laboratory conducted visual cleanability studies on the FlaskScrubber Glassware Washer outfitted with various rack configurations. For the studies, a variety of six beakers and two Erlenmeyer flasks were soiled with a viscous mixture of iron oxide, motor oil, high vacuum grease, solid vegetable shortening, and paraffin wax. The appearance of the glassware was documented before and after washing and drying in the FlaskScrubber Laboratory Glassware Washer 4420431.

EPA Residue Testing

Since visibly clean glassware could still contain minute amounts of contaminants, an outside analytical laboratory tested for microscopic residue on glassware cleaned in a FlaskScrubber Laboratory Glassware Washer Model 4420431. The laboratory tested the glassware to EPA Methods 200.7, 524.2, 525.1 and 8270. Test results showed low levels, at or near the detection limits, of metals remaining in the samples. The different parameters such as detergent type, upper or lower rack, spindle or standard rack, did not affect results.

Based on results from the testing, the laboratory concluded that the FlaskScrubber is a viable option for cleaning and reuse of glassware used for trace metal, volatile organic and semi-volatile organic compounds. Results were measured as parts-per-billion and significance of the data will vary based on individual application and analysis needs.

Energy Efficiency & Cost Savings

Compared to hand washing, the FlaskScrubber or SteamScrubber can save on water usage. A faucet delivers approximately 3 gallons/minute of tap water. Depending on the contaminants on the glassware and type of glassware, hand washing a load of glassware could take up to 20 gallons or more. The FlaskScrubber or SteamScrubber uses as little as 13.6 gallons per load and is not dependent on the habits of the technician. The difference adds up to as much as 1664 gallons per year, saving both water and the electricity to heat it.

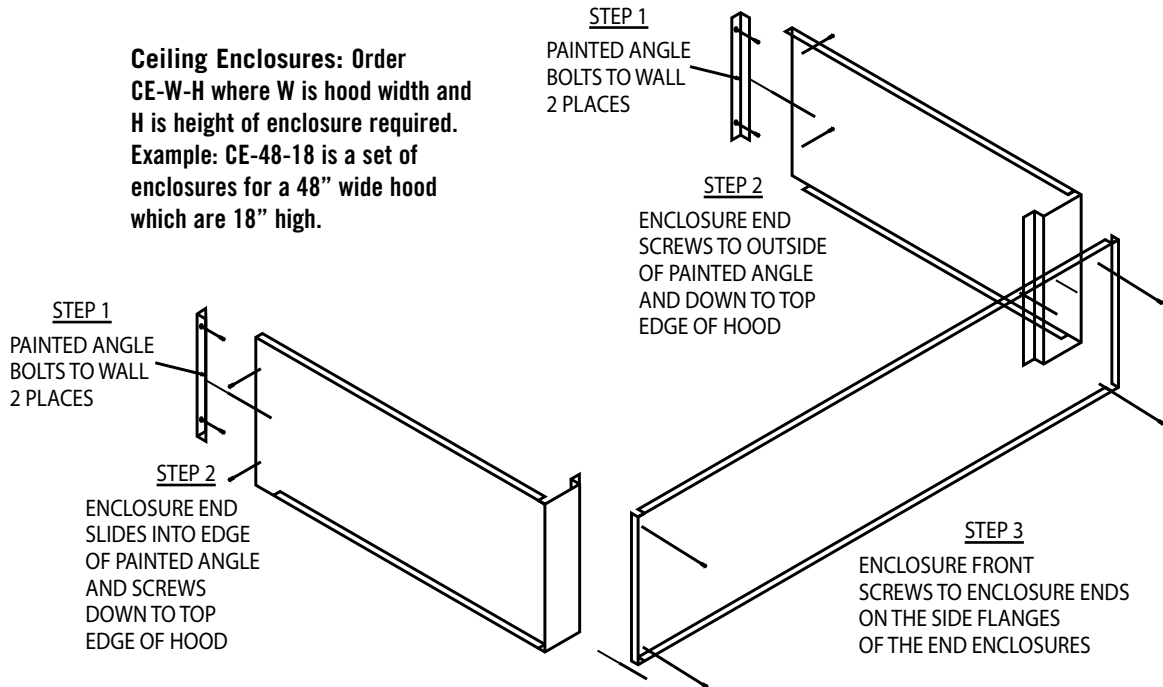
Labconco washers feature a delay start option to facilitate running during off-peak hours when electricity is often less expensive than during daylight hours. Aluminum-backed insulation and a fiberglass blanket surround every washer not only for quiet operation, but to retain heat inside the washer, thus conserving energy.

Ceiling Enclosures and Finished Backs

Labscape offers ceiling enclosures and finished backs to provide a professional, finished design in any setting. Ceiling enclosures and finished backs are fabricated of cold rolled steel and finished to match the fume hood superstructure.

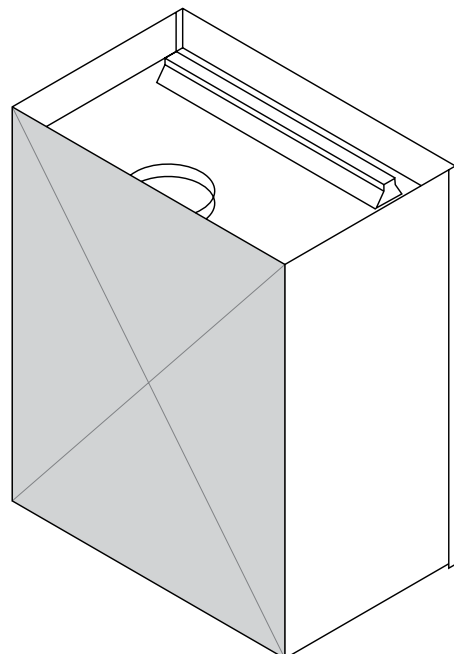
The ceiling enclosures are available in two types: for standard fume hoods and also for those fume hoods utilizing the optional Air Chamber. Both enclosures conceal and protect the hood ductwork, electrical conduit and other supply lines.

Ceiling Enclosures: Order CE-W-H where W is hood width and H is height of enclosure required. Example: CE-48-18 is a set of enclosures for a 48" wide hood which are 18" high.



Finished backs are used to close off the back of the fume hood, giving it a finished look when located in the center of a room.

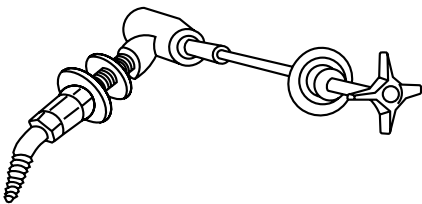
**Finished Backs:
Order FINBACK-W where
W equals hood width.**



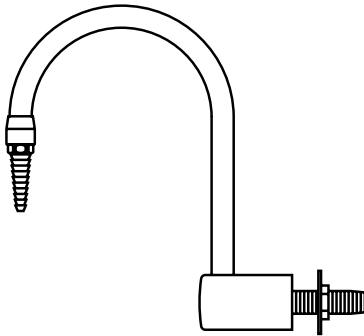
Description	Part #
Gas	FXTGAS
Air	FXTAIR
Vacuum	FXTVAC
Nitrogen	FXTNIT
Cold water	FXTCW

All Labscope remote-operated fixtures come standard with four-prong handles, baked color-coded epoxy upper assemblies and control rods cut to length. Chrome and other styles are available upon request. Preplumbed services are 3/8"OD-1/4"ID polypropylene tubing for water, air and vacuum; 1/2"OD flexible stainless steel tubing for burning gas services.

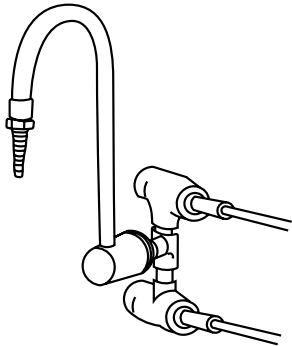
Others available upon request



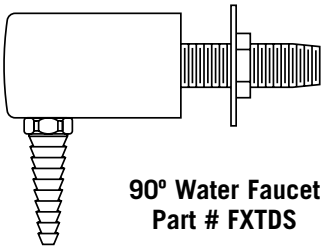
Remote Control Fixtures



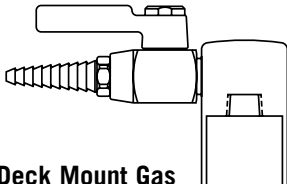
Gooseneck Faucet
Part # FXTGN
Specify Hot or Cold



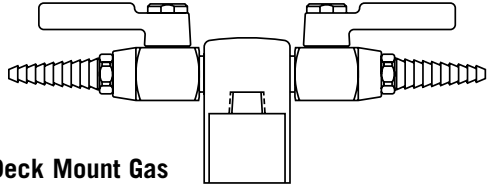
Hot and Cold Water Mixing
Part # FXTCWM



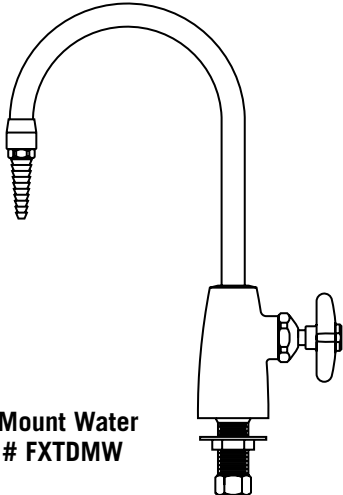
90° Water Faucet
Part # FXTDS



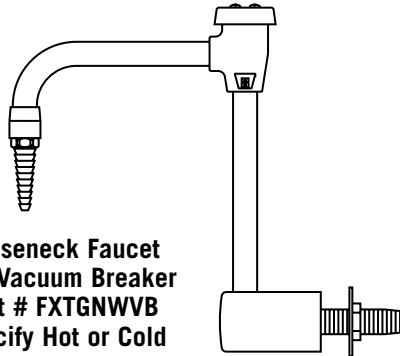
Deck Mount Gas Single Outlet
Part# FXTDMG1



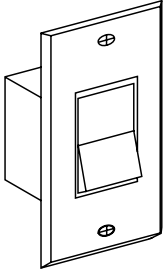
Deck Mount Gas Double Outlet
Part # FXTDMG2



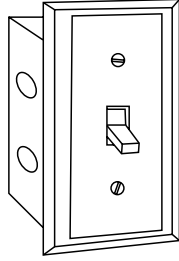
Deck Mount Water
Part # FXTCW



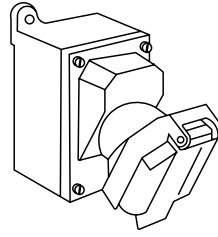
Gooseneck Faucet with Vacuum Breaker
Part # FXTGNWVB
Specify Hot or Cold



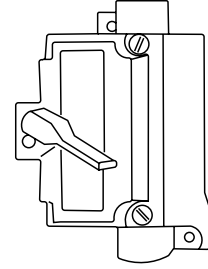
**Single Pole 15 Amp
Light Switch
Standard Black Color
and Cover Plate
Part# LSW**



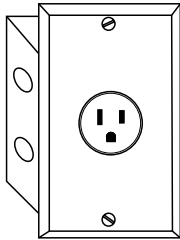
**Red Illuminated
Toggle Switch with
Black Cover Plate
Part# BLSW**



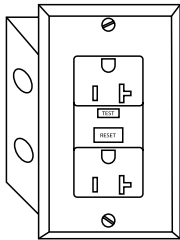
**Explosion Proof Outlet
Class 1, Group 1
Part# XPO**



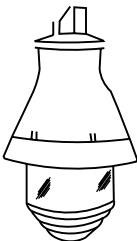
**Explosion Proof Switch
Class 1, Group 1
Part# XSW**



**208 Volt, 20 Amp Single
Pole Receptacle
230, 277 or other
available upon request
Part# 208**

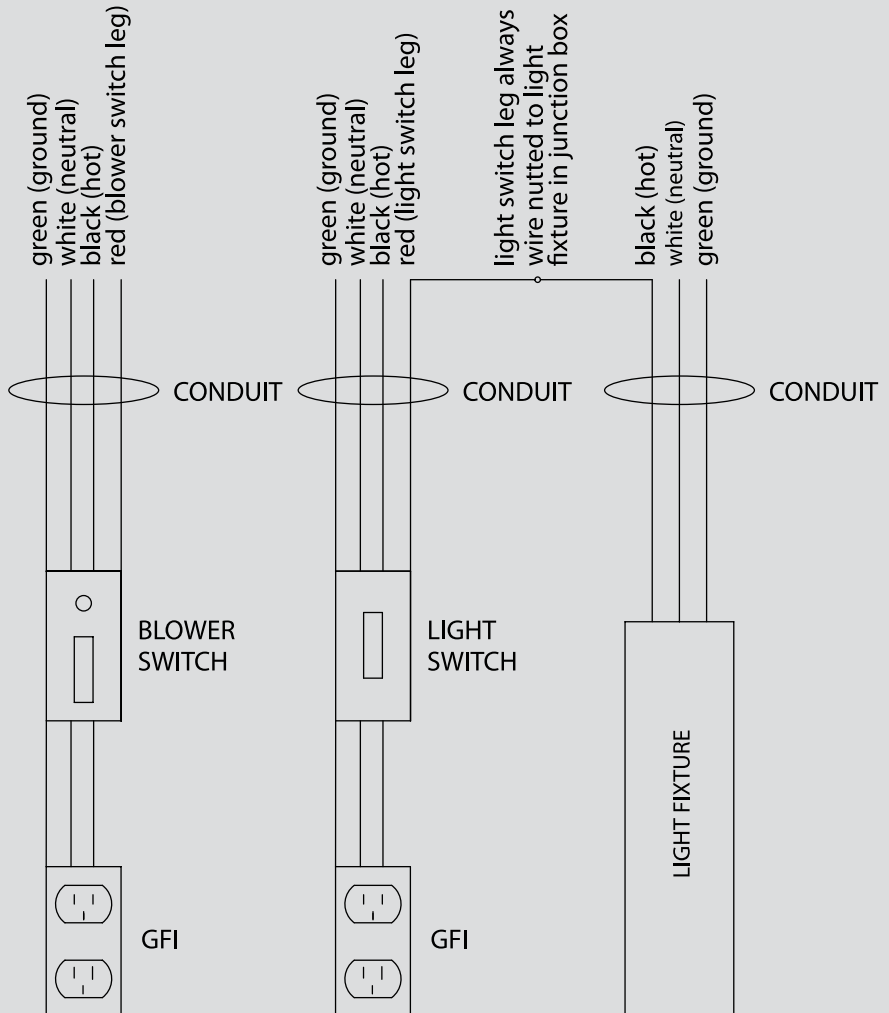


**120 volt 20 Amp Ground
Fault Interrupter (GFI)
Duplex Outlet Standard Black
color with cover
Part# GFI**



**Explosion Proof Light
Class 1, Group 1
Available in incandescent
or fluorescent
Part# XPL**

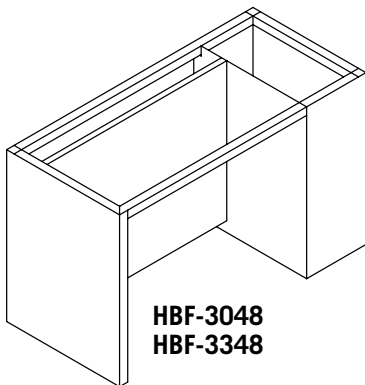
**Pre-Wire service is completed in accordance with NEC and UL-1805 standards.
Note: If the fume hood is not pre-wired, wiring in the field must be accomplished using UL listed electrical fixtures while observing NEC standards and local electrical codes.**



Although Labscape is your fume hood expert, we do offer a selection of inset metal wall and base cabinets in 29", 33" and 35" heights. When a large quantity of standard laboratory cabinets is required, please contact us for an approved distributor.

Labscape fume hood base cabinets conform to the method of testing and performance requirements set forth in the Scientific Equipment Furniture Association (SEFA). All ADA and hood base cabinets can be manufactured in stainless steel.

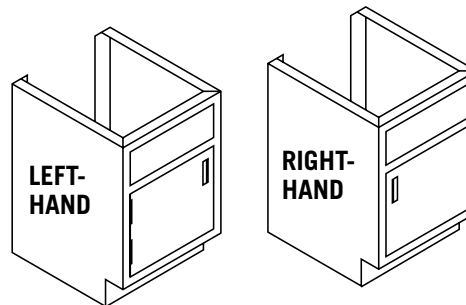
ADA Base Frames



HBF-3048
HBF-3348

Must be specified left- or right-hand; right-hand shown

ADA Hood Bases



LEFT-HAND

RIGHT-HAND

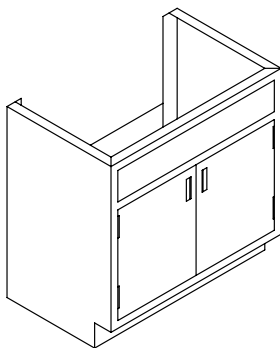
B2912-10P
B2918-10P
B2924-10P

B3312-10P
B3318-10P
B3324-10P

Must be specified left- or right-hand

NOTE: ADA cabinet configurations come in both 30" and 33" high.

Hood Bases

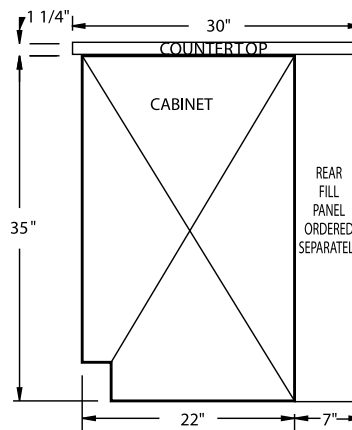


B3512-10P*
B3518-10P*
B3524-20P*
B3530-20P
B3536-20P
B3548-20P

EXAMPLE: HB-3630 = 36" h x 30" w

NOTE: These cabinets also come in 33" high and 29" high

***Single door; specify left- or right-hand**



END VIEW OF HOOD CABINET
ALL HOOD BASES HAVE ADJUSTABLE FEET

NOTE: Other metal base cabinets available upon request.

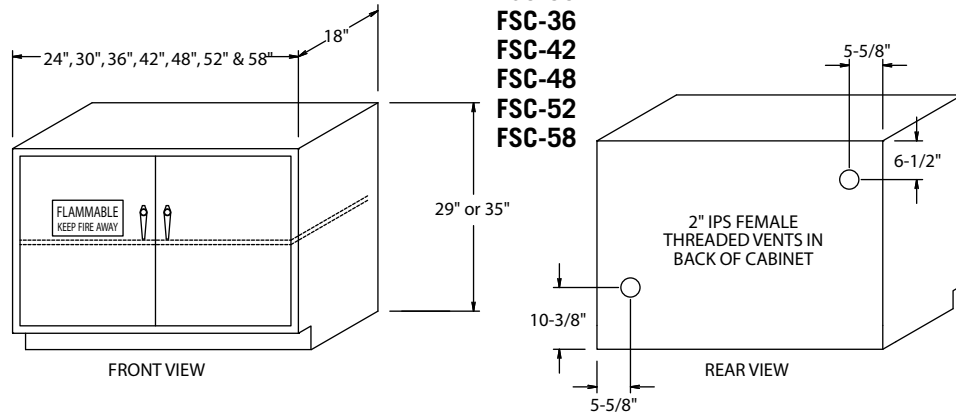
The Flammable Liquid Storage Cabinet is a “cabinet-within-a-cabinet” design with fully welded 18ga interior and exterior units. Both cabinets are completely powder coated inside and out, offering greater protection against corrosion than the standard double panel construction. This design creates a 1.5” airspace on all four sides as well as top and bottom for heat resistance up to 2400 degrees F.

The interior of the cabinet contains one fully adjustable shelf and a 2” deep removable drip pan to capture any spills or leaks inside the cabinet. Exterior depth of the cabinet is 18” and interior depth is 14”. A 2” x 2” 12ga support angle is shipped with each cabinet for countertop installation.

Doors have a continuous hinge and lever type handles with a hidden 3-point lock mechanism. If a self-closing feature is required, a hydraulic closure will be attached to the doors and a custom closing system attached to the interior cabinet. The back of the cabinet has two venting holes that are plugged with 2” barrel bungs.

Labscape Flammable Liquid Storage Cabinets are constructed in accordance with OSHA and NFPA 30, and are UL listed.

Flammable Storage Cabinet



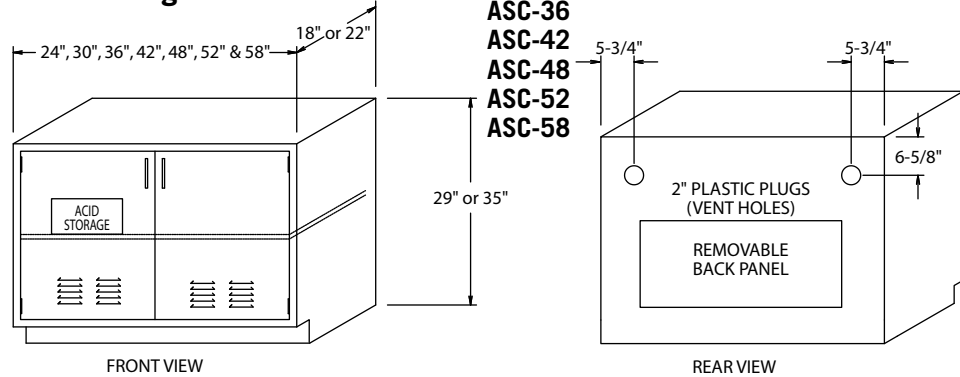
- FSC-24
- FSC-30
- FSC-36
- FSC-42
- FSC-48
- FSC-52
- FSC-58

Flammable storage cabinets can be painted any standard color or safety yellow.

For synchronized self-closing doors, add -SCC to the part number.

For 22" deep add -22 to part number. For mobile cabinet, contact your Labscape representative.

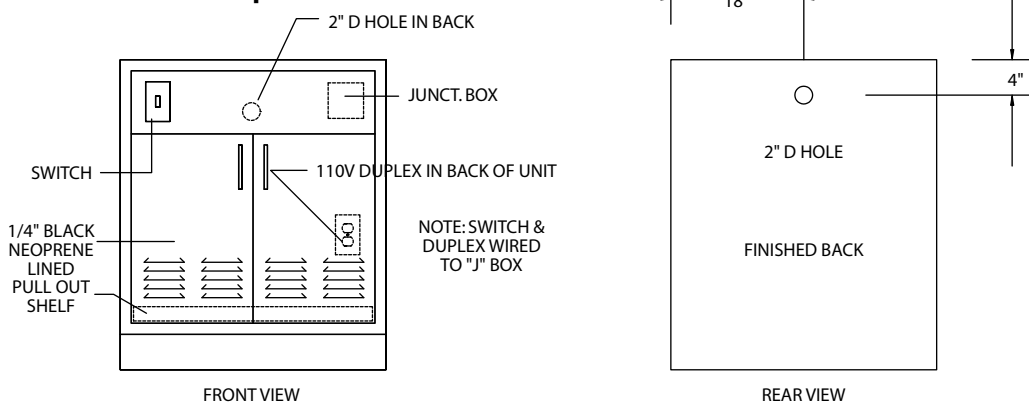
Acid Storage Cabinet



- ASC-24
- ASC-30
- ASC-36
- ASC-42
- ASC-48
- ASC-52
- ASC-58

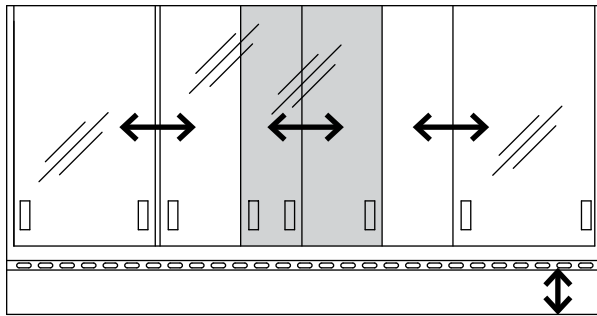
Acid cabinet can be painted any standard color or safety blue.

Vacuum Pump Cabinet



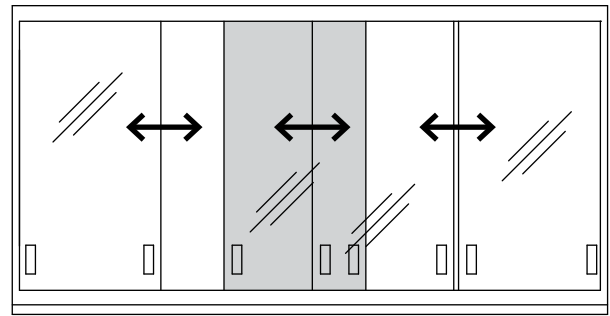
Additional insulation materials for noise reduction available upon request.

The large, underlined number in each of the part numbers below is the Sash Style number to use when ordering.



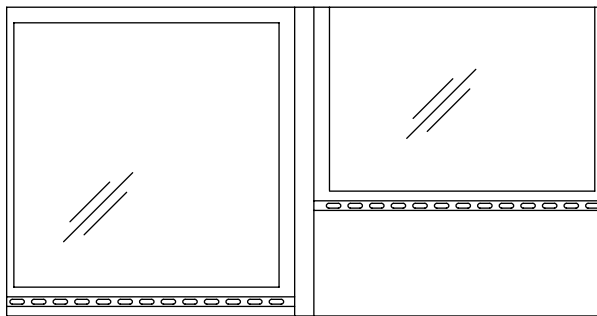
Combo Horizontal/Vertical Sash

LS-121-72



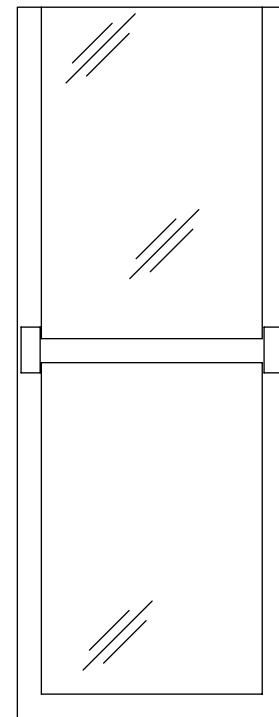
Horizontal Sash Only

LS-131-72



Interlocking Sash

LS-141-72



Hanging Horizontal Doors

LS-451-72

Additional Sash Options

- **SASH ALARM:** a red light alarm activated when sash is opened above a pre-set height
- **SASH STOP:** a device to limit sash opening, with manual override
- **AUTO SASH RETURN:** returns sash to 18" working height when opened beyond set height
- **SASH INTERLOCK:** allows only one sash to be opened at any time on a double-sided hood
- **DOUBLE HUNG SASH:** for larger openings with ceiling height limitations
- **SASH LOCK:** a keyed lock that keeps the sash closed if needed in a classroom setting
- **PUSHBUTTON SASH*:** opens and closes sash with the push of a button
- **AUTO-SENSING SASH*:** automatically closes sash when operator walks away

**These two types of sashes have a wide range of capabilities. Please call an Labscape representative or the factory to determine which application is right for your needs.*

Work Surfaces

Another key component of effective and efficient fume hood utilization is the type of work surface to use. Inappropriate work surfaces can interfere with lab processes and be a potential danger to lab personnel. Labscape provides durable, high-performance epoxy resin and stainless steel surfaces that feature top quality materials and workmanship.

Epoxy Resin

Epoxy resin fume hood surfaces provide a durable, chemical resistant worksurface for the harshest laboratory environment. The worksurface is surrounded by a 3/8" (10mm) integrally-molded containment rim designed to ease clean-ups and prevent hood and casework damage from large chemical spills.

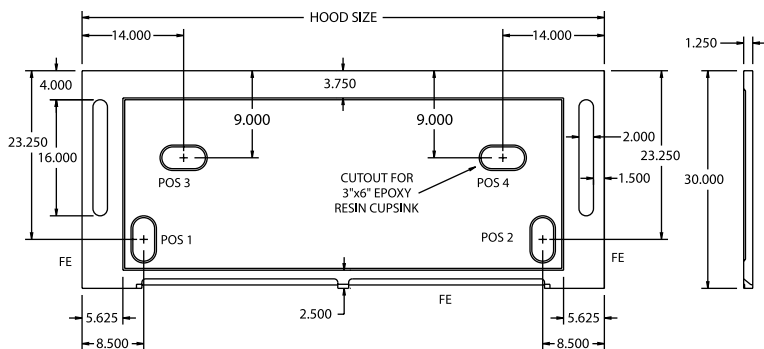
Oval 3" x 6" (7.65 x 15.3cm) cup sinks are standard; locations must be specified when ordering. Other sinks sizes are available upon request.

Stainless Steel

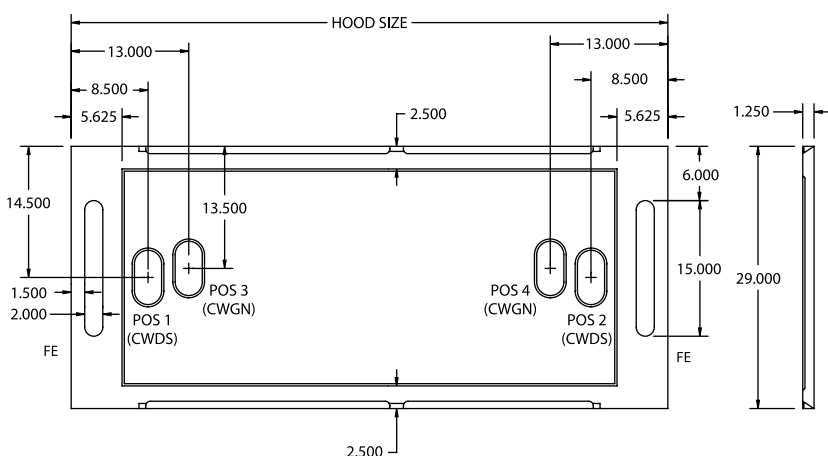
Stainless steel work surfaces are fabricated of 304 stainless steel*, are 1-1/4" (3.2 cm) thick and dished 3/8" with a #4 smooth satin finish. Square 3" x 6" (7.65 x 15.3 cm) welded cup sinks are standard; locations must be specified when ordering.

**In perchloric acid applications, 316 stainless steel is used for lab safety.*

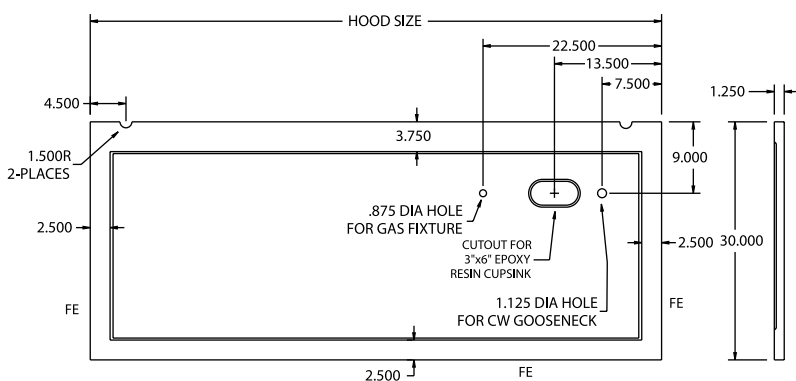
100 and 500 Series Epoxy Work Surfaces



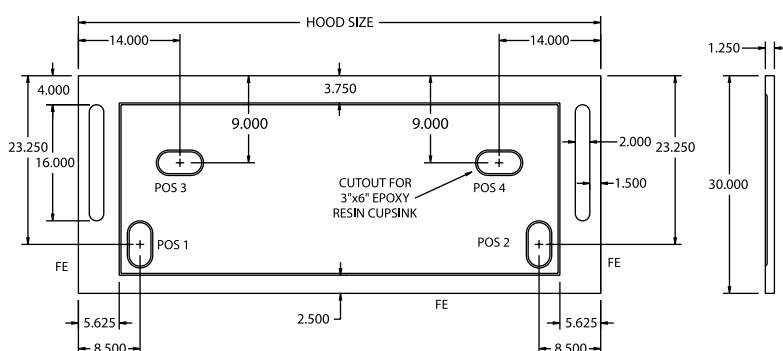
200 Series Epoxy Work Surfaces



300 Series Epoxy Work Surfaces



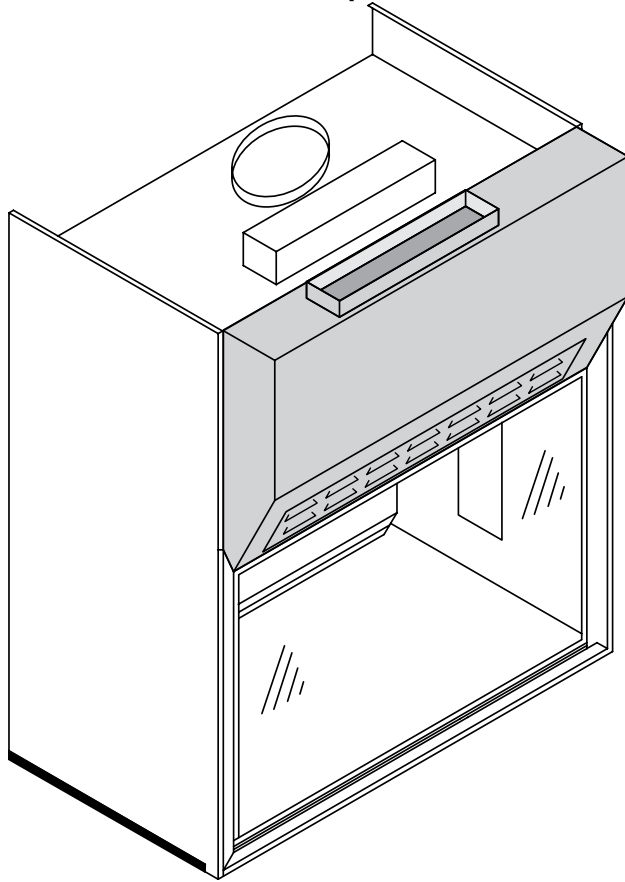
800 Series Epoxy Work Surfaces



Labscape Air Chamber—an option for all hood styles



Optional feature reduces energy costs by up to 70 percent

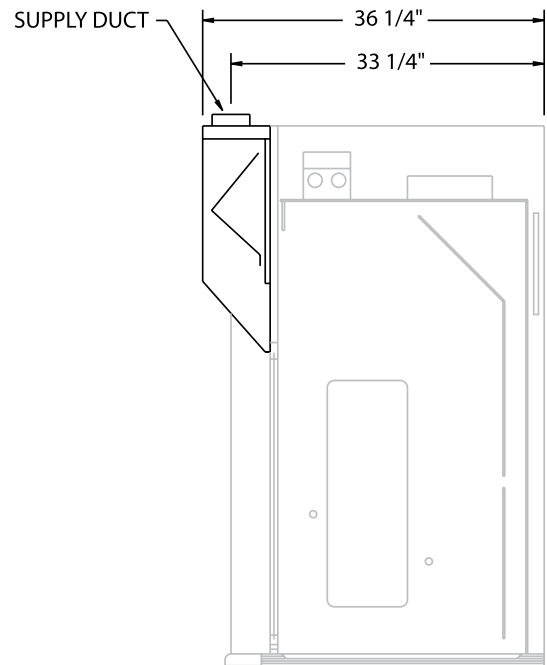


The Air Chamber system reduces energy costs for heating and cooling any fume hood by as much as 70 percent. This is achieved by capturing air from outside the laboratory and supplying it to the hood through a supply duct to the Air Chamber. An additional, separate blower and duct are required for the air supply.

Increased Flexibility

The Air Chamber can be used on any Labscape hood and coordinates with all Labscape standard features in design, manufacturing, construction, finishing, and fixtures.

To order the Air Chamber option, include the letters AC after the width dimension.



Supply Blower Information

Model	70% of Hood CFM	SP @ Hood	Duct Size
LS-111-36AC	400	.15 Inches	4" x 17"
LS-111-48AC	580	.18 Inches	4" x 17"
LS-111-60AC	765	.22 Inches	4" x 22"
LS-111-72AC	950	.28 Inches	4" x 22"
LS-111-96AC	1315	.42 Inches	(2) 4" x 17"

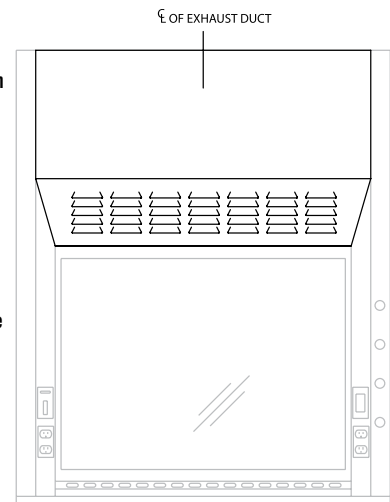
Supply Blower Information

Model	70% of Hood CFM	SP @ Hood	Duct Size
LS-411-48AC	580	.18 Inches	4" x 17"
LS-411-60AC	765	.22 Inches	4" x 22"
LS-411-72AC	950	.28 Inches	4" x 22"
LS-411-96AC	1315	.42 Inches	(2) 4" x 17"

Supply Blower Information

Model	70% of Hood CFM	SP @ Hood	Duct Size
LS-311-36AC	470	.15 Inches	4" x 17"
LS-311-48AC	645	.18 Inches	4" x 17"
LS-311-60AC	820	.22 Inches	4" x 22"
LS-311-72AC	995	.28 Inches	4" x 22"
LS-311-96AC	1345	.42 Inches	(2) 4" x 17"

Blower information is provided for general purposes only based on a full open sash and static pressure for the hood only. Corners and additional duct runs will increase the static pressure and blower requirements. Please consult with your HVAC professional for your specific requirements.

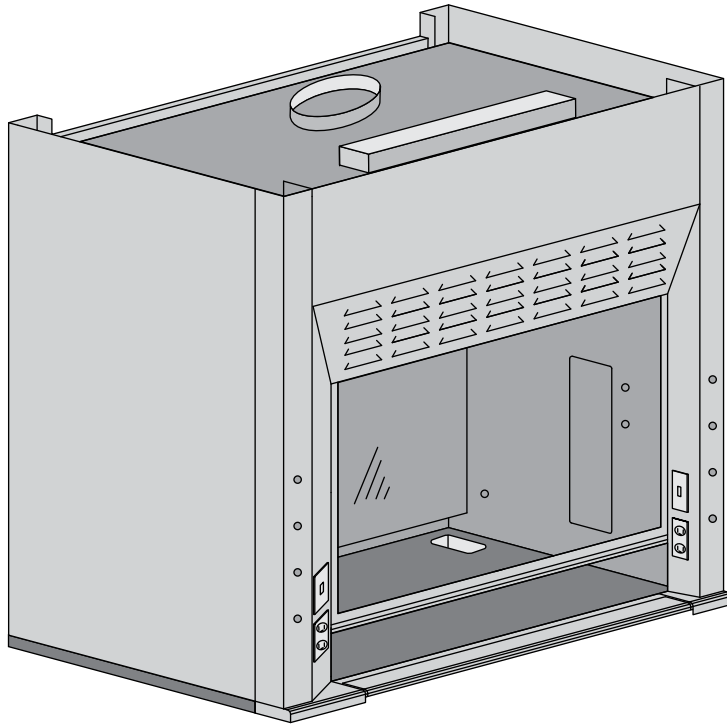


QUICK SHIP QUICK SHIP QUICK SHIP QUICK SHIP QUICK SHIP



QUICK SHIP Fume Hoods, Epoxy Tops and Base Cabinets

All Labscape QUICK SHIP products ship within 10 business days. Some hoods are available to ship within 48 hours. Quick ship hoods and cabinets are Petal White in color.



QUICK SHIP Fume Hoods and Epoxy Tops

HOOD ONLY
100 Series Hoods
QS-148
QS-160
QS-172

HOOD, TOP AND SINK
100 Series Hoods
QS-148-TS
QS-160-TS
QS-172-TS

NOTE: All hoods come with light switch, two GFIs, eight pre-punched plumbing holes, cutout for airflow monitor and one other electrical outlet, stainless steel airfoil, plug-in receptacle on top of hood for alarm, electrical pre-wiring, and right rear cup sink location.

QUICK SHIP Base Cabinets

HOOD/SINK BASES
QS-24-HB
QS-30-HB
QS-36-HB
QS-48-HB

ADA CONFIGURATIONS
QS-48-ADA BASE FRAME
QS-60-ADA BASE FRAME
QS-72-ADA BASE FRAME

FLAMMABLE STORAGE CABINETS
QS-24-FSC
QS-30-FSC
QS-36-FSC
QS-48-FSC

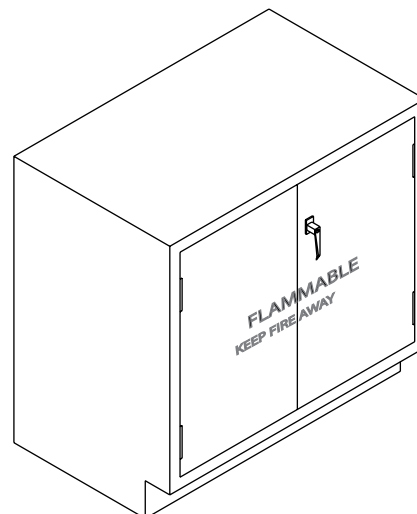
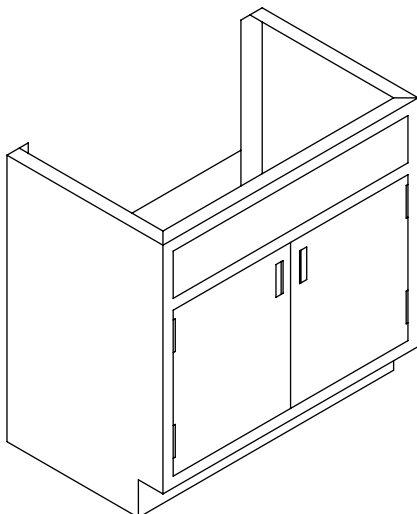
COLOR: Petal White

ACID STORAGE CABINETS
QS-24-ASC
QS-30-ASC
QS-36-ASC
QS-48-ASC

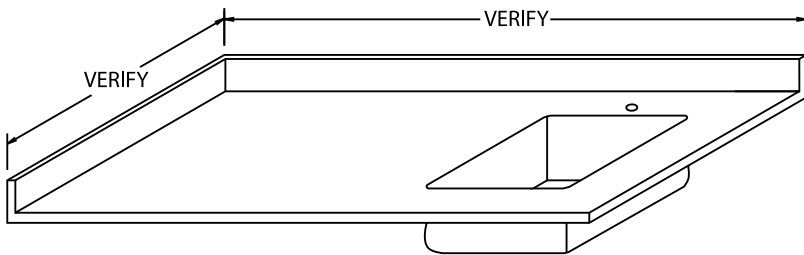
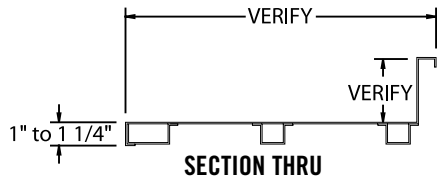
COLOR: Petal White

Hood bases and ADA frame are 22" deep.

Flammable and acid cabinets are 18" deep.



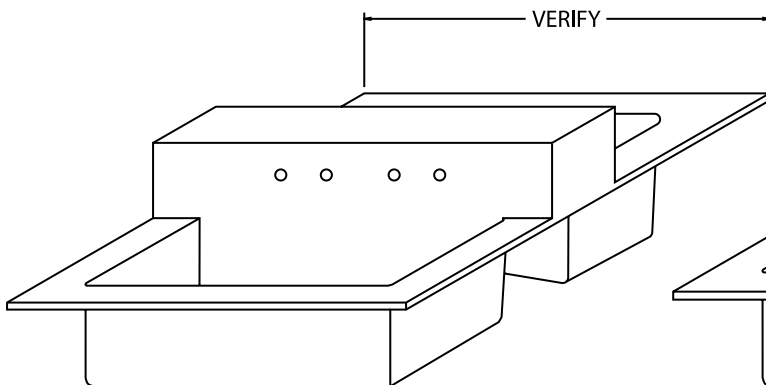
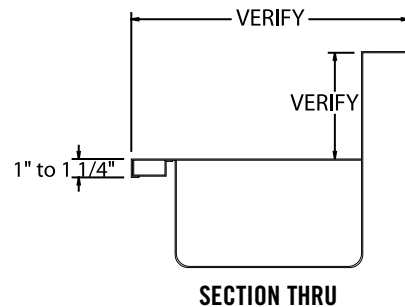
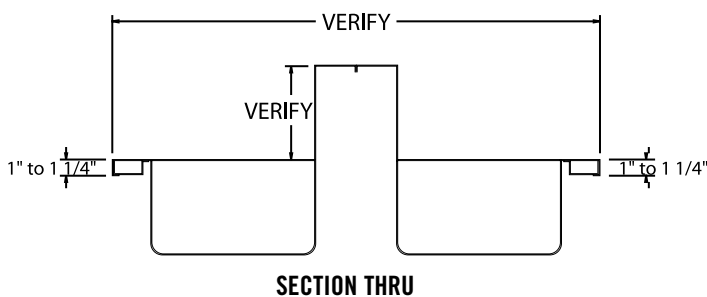
For additional detailed information, see page 53.



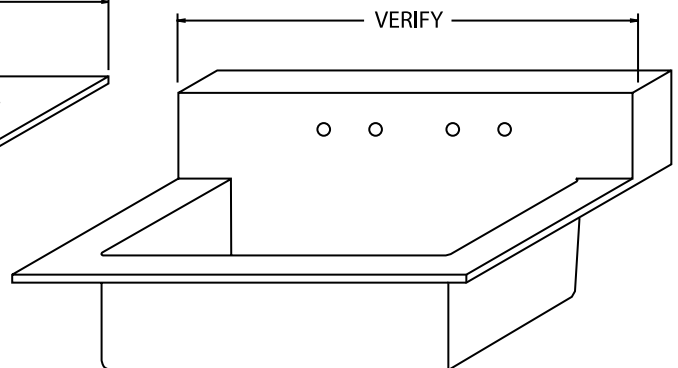
MARINE EDGE COUNTERTOPS ALSO AVAILABLE

Primarily used for all general purpose fume hoods and base cabinets, standard stainless steel countertops are fabricated of 16-gauge 304* stainless steel with a #4 smooth grain finish and are 1-1/4" (3.2 cm) thick and dished 3/8" (0.97 cm). A 4" integral backsplash comes standard and, when sinks or end splashes are required, they are continuously welded to the top and professionally buffed to a #4 finish. Countertop standard depth is 30" and can be made up to any length required to include a field joint or continual counter depending on the specific job requirements. The tops also have a rubberized sound-deadening material applied to soften the sound of the top and make it more acoustically appealing. Rectangular 3" x 6" (7.65 x 15.3 cm) welded cup sinks are standard; locations must be specified when ordering.

**Use of perchlorics requires use of 316 stainless steel for lab safety.*



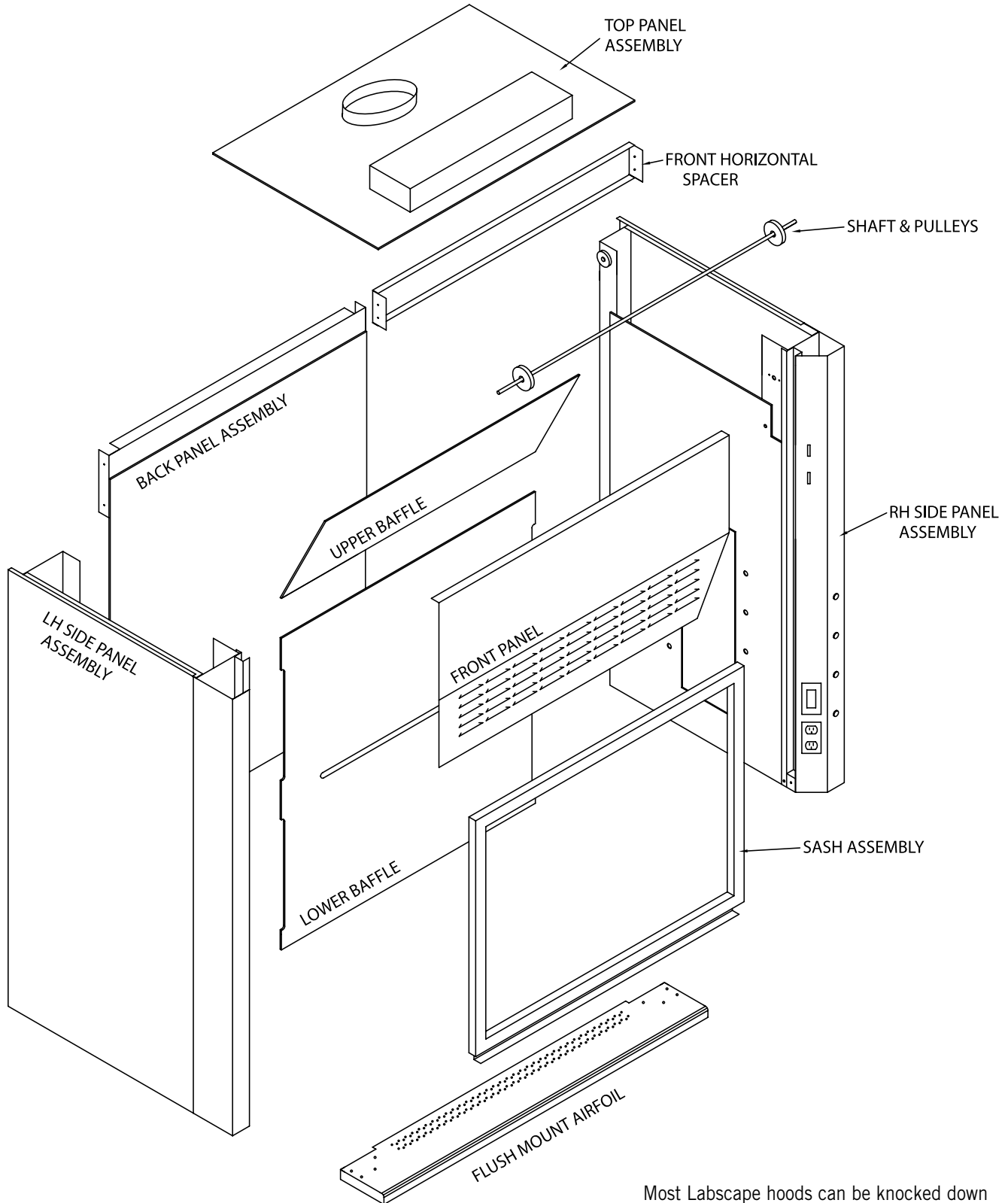
SPECIAL COUNTERTOP w/DOUBLE SINK



SPECIAL COUNTERTOP w/EXTRA DEEP SINK

Knock Down Hoods

Easy disassembly and reassembly for a multitude of applications



Most Labscope hoods can be knocked down into manageable modules. This can be very useful when retrofitting old labs, or for easier installation of large hoods. This feature also allows for container shipment packaging.

1.01 FUME HOOD GENERAL DESIGN REQUIREMENTS

- A. Fume hoods shall function as ventilated, enclosed workspaces, designed to capture, confine and exhaust fumes, vapors and particulate matter produced or generated within the enclosure.
- B. Design fume hoods for consistent and safe air flow through the hood face. Negative variations of face velocity shall not exceed 20% of the average face velocity at any designated measuring point as defined in this section.
- C. Average illumination of work area: Minimum 80 foot-candles. Work area shall be defined as the area inside the superstructure from side to side and from face of baffle to the inside face of the sash, and from the working surface to a height of 28 inches.
- D. Fume hood shall be designed to minimize static pressure loss with adequate slot area and stainless steal exhaust collar configuration. Maximum average static pressure loss readings taken three diameters above the hood outlet from four points, 90 degrees apart, shall not exceed the following maximums.

Face Velocity	Measured S. P. L. (W.G)
100 F.P.M.	.30 inches
125 F.P.M.	.45 inches
150 F.P.M.	.60 inches

1.02 SUBMITTALS

- A. Shop Drawings: Indicate equipment locations, large-scale plans, elevations, and cross sections, rough in and anchor placement dimensions and tolerances and all required clearances.
- B. Product Data: Submit manufacturer's data for each component and item of laboratory equipment specified. Include component dimensions, configurations, construction details, joint details, and attachments, utility and service requirements and locations.
- C. Samples: Submit 3" x 6" inch samples of finish for fume hood, work surfaces and for other pre finished equipment and accessories for selection by Architect.
- D. Test Reports: Submit test reports verifying conformance to test performances specified. Submit independent tests as specified.

1.03 QUALITY ASSURANCE

- A. Single source responsibility: Fume hood casework, work surfaces, and other laboratory equipment and accessories shall be manufactured or furnished by a single laboratory furniture company.
- B. Manufacturer's qualifications: Modern plant with proper tools, dies, fixtures and skilled worker to produce high quality laboratory casework and equipment, and shall meet the following minimum requirements:
 - 1. Ten years or more experience in manufacturing of laboratory casework and equipment of type specified.
 - 2. Ten installations of equal or larger size and requirements.
- C. Installer's qualifications: Factory certified by the manufacturer.
- D. Product shall be manufactured and assembled in the United States of America.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Schedule delivery of equipment so that spaces are sufficiently complete that equipment can be installed immediately following delivery.
- B. Protect finished surfaces from soiling or damage during handling and installation. Keep covered with polyethylene film or other protective coating.
- C. Protect all work surfaces throughout construction period with 1/4" corrugated cardboard completely covering the top and securely taped to edges. Mark cardboard in large lettering "No Standing."

1.05 PROJECT CONDITIONS

- A. Do not deliver or install equipment until the following conditions have been met:
 - 1. Windows and doors are installed and the building is secure and weather tight.
 - 2. Plumbing, overhead ductwork and lighting are installed.
 - 3. All painting is completed and floor tile located below casework is installed.

2.01 FUME HOOD MATERIALS

- A. Steel: High quality, cold rolled, mild steel meeting requirements of ASTM A366; gauges U.S. Standard.
- B. Stainless Steel: Type 304 or 316; gauges U.S. Standard.

- C. Ceiling closure panels: Minimum 18 gauge; finish to match hood exterior.
- D. Bypass grilles: Low resistant type, 18 gauge steel, upward directional louvers.
- E. Safety glass: 7/32" thick laminated safety glass.
- F. Sash cables: 7 x 7 steel, coated, 1/8" diameter coated to 5/32". (Military spec. quality.)
- G. Sash guides: A full length extruded corrosion resistant polyvinyl chloride or powder coated steel with PVC guides to protect against metal to metal contact.
- H. Pulley assembly for sash cable: 2" diameter, steel tired, ball bearing type, with cable retaining device.
- I. Sash pull: Full width 16 gauge steel to match hood color.
- J. Interior access panels: To be made of the same material as the fume hood liner with an easily removable PVC gasket.
- K. Fastenings:
 1. Exterior structural members attachments: Sheet metal screws, zinc plated.
 2. Interior fastening devices concealed. Exposed screws not acceptable.
 3. Exterior panel member fastening devices to be corrosion resistant non-metallic material. Exposed screws not acceptable.

2.02 FUME HOOD CONSTRUCTION

- A. Superstructure: Rigid, self-supporting assembly of double wall construction, maximum 5-1/4" thick.
 1. Wall consists of a sheet steel outer shell and a corrosion resistant inner liner, and houses remote operating service fixture mechanisms and electrical services.
 2. Access to fixture valves concealed in wall provided by exterior removable access panels, gasketed access panels on the inside liner walls, or through removable front posts.
 3. Hoods must be of full frame construction. Hoods that use metal brackets and spacers to hold interior and exterior panel in place are unacceptable.
- B. Exhaust outlet: 10" round, 20 gauge stainless steel exhaust collars.
- C. Access opening perimeter: Top and sides of face opening to be radiused or angled.
 1. Bottom horizontal: foil shall be a flush-mount type and provide a 1" bypass to insure a clean sweep and to minimize eddies along the work surface when sash is in the closed position. For ADA fume hoods, a secondary containment trough with flush mount airfoil to be provided.
 2. Bottom sash rail: 1-1/2" frame section, 16-gauge steel or PVC. Provide pull, full width of bottom rail.
 3. Set safety glass into rails in deep form, extruded polyvinyl chloride or neoprene glazing channels if a steel sash frame is being used.
 4. Counter balance system: Single weight, pulley, cable, counter balance system which prevents sash tilting by means of a shaft driven" system and permits one finger operation at any point along full width pull. Sash not using this type of counter balance systems are unacceptable. Maximum 9 pounds pull required to raise or lower sash throughout its full length of travel. Design system to hold sash at any position without creep and to prevent sash drop in the event of cable failure.
 5. Open and close sash against rubber bumper stops.
- D. Fume hood liner: 3/16" Polyresin: Reinforced polyester panel smooth finish and white color in final appearance. Flexural strength: 14,000 psi. Flame spread: 15 or less per U.L. 723 and ASTM E84-80.
- E. Baffles: Fabricate fixed baffles providing controlled air vectors into and through the fume hood of the same material as the liner. Hoods with adjustable baffles are unacceptable. All baffle support brackets to be non-metallic.
- F. Service fixtures and fittings: Color-coded hose nozzle outlets and valves mounted inside the fume hood and controlled from the exterior with color-coded index handles (when specified).
 1. Valves: Rod-driven needlepoint type with self-centering cone tip and seat of hardened stainless steel.
 2. Provide pre-piping for all service fixtures from valve to common point for final connection by respective trades. 3/8" OD/1/4" ID polypropylene tubing for water, air and vacuum. 1/2" O.D Flexible Stainless Steel tubing for burning gas services.
 3. Fixtures exposed to hood interior: Brass with chemically resistant powder coating.
 4. Remote control handles: Prong type, easy to grasp.
 5. Services: To be determined by Architect/Planner.

Fume Hood General Design Requirements (continued)

- G. Hood light fixtures: Two lamp, rapid start, T-8 UL listed fluorescent light fixture with sound rated ballast installed on top panel.
 - 1. Interior of fixture: White, high reflecting plastic enamel.
 - 2. Provide: Removable safety glass panel on interior of hood for re-lamping of lights.
 - 3. Size of fixture: Largest possible up to 48" for hoods with superstructures up to six feet. Provide two 24" fixtures for hoods with eight foot superstructures.
 - 4. Include lamps with fixtures.
 - 5. Illumination: Per performance values, part 1 of this section.
 - 6. Provide switch with black acid resistant thermoplastic (when specified).
 - 7. 3-way switch on each side of double sided hoods (when specified).
 - H. Electrical services: Provide on each front post of hoods. Three wire grounding type receptacles rated at 120v GFI, 20 amperes where specified. Flush Plates: Black acid resistant thermoplastic.
 - I. Work surfaces: 1-1/4" thick dished a nominal 1/4" to contain spills.
 - 1. Molded resin work surfaces for hoods with white Resisto Roc or Poly-resin liners. Front raised edge no more than 1/2" wide.
 - J. Safety Monitor/Alarm System: Provide safety Monitor/Alarm system that monitors face velocity and provides audible and visual alarm if face velocity drops below safe levels. The technology used in the TEL 500 will be based on thermally compensated thermistor based in the alarm module. As the internal fume hood pressure changes as the sash opening is closed and opened, the flow passing over the thermistor is calibrated to a face velocity that is displayed on the front of the monitor.
 - 1. Safety monitor: UL listed, tamper proof, with all alarm circuits, electric components, external tubing, and manifolds furnished complete and factory installed. Monitor shall have light emitting diode display that provides clear indication of airflow conditions.
 - 2. Calibration is the responsibility of the owner and is required once the hood is stationed and the hood exhausts and room supply systems are balanced. A secondary calibration has been factory set into the alarm's memory only to determine that the alarm is functional and ready for shipment. The primary calibration must be completed in the field.
 - 3. Airflow sensor: Thermally compensated glass beaded thermistor, factory connected to a sidewall port on the interior of the fume hood.
 - 4. Alarm Signal: Audible signal and visual, red light emitting diode:
 - a. Silence pushbutton, which disables the audible alarm, shall be accessible on the front of the safety monitor.
 - b. Provide alternate mode in which visible alarm is silenced indefinitely but visual alarm remains activated until the alarm condition is corrected.
 - c. When alarm condition is corrected and face velocity and volume return to specified levels, the Safety Monitor will automatically reset and begin routine monitoring.
 - d. Provide test circuit to verify proper Safety Monitor operation.
 - e. Electrical rating: Maximum 12 VDC, and maximum current rating of 20 OMA.
 - f. Provide a option for a sash alarm / sensor if required.
- 2.03 CEILING ENCLOSURE: Provide ceiling enclosure from top of hood to accommodate a ceiling height (verify). Fabricate enclosure from 18 gauge steel to match the hood material and finish.
- A. Preparation: Spray clean metal with a heated cleaner/phosphate solution.
 - B. Application: Electro statically apply powder coat of selected color and baked in controlled high temperature oven to assure a smooth, hard satin finish. Surfaces shall have a chemical resistant, high grade laboratory furniture quality finish of the following thickness:
 - 1. Exterior and interior surfaces exposed to view: 1.5 mil average and 1.2 mil minimum.
- 2.04 SOURCE QUALITY CONTROL
- A. Demonstrate fume hood performance by means of documentation of a third party testing company to the ASHRAE 110-1995 methods of testing.

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800.898.6649
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