DEDICATED TO DISCOVERY. INSPIRED BY INNOVATION.

HAWKINS
LABORATORY FUME HOODS

FUME HOOD CATALOGUE | 05/01/23
BENCH MOUNT HORIZONTAL SASH

BENCH MOUNT
FUME HOOD — HORIZONTAL SLIDING SASH

| STANDARD FEATURES — BENCH MOUNT HORIZONTAL SLIDING SASH

HOOD TYPES

Hoods are available as:

- Constant Air Volume (CAV), Reduced By-Pass
- Variable Air Volume (VAV), Restricted By-Pass
- 1220mm (48”), 1525mm (60”), 1830mm(72”), 2440mm (96”) wide
- Bench Mount

FINISH

- Finish is an electrostatic powder coating applied to all surfaces. Parts are baked in a controlled high temperature gas oven with infrared preheat.
- Resultant finish has a hard and smooth laboratory grade chemical resisting finish.

1 SUPERSTRUCTURE

- Fully framed, self supporting
- Exterior panels fabricated from sheet steel with baked electrostatic powder coating
- Exterior front and side panels have hidden fasteners and are removable without tools
- Exhaust collars are round in configuration and do not require rectangular-to-round transitions

2 INTERIOR ACCESS PANELS

Fully framed, self supporting

- Flush mount
- Fully framed and air tight
- No gaskets required

3 SASHES

- 6mm (7/32”) laminated safety glass
- Full view type 930mm (36.5”) high
- Maximum sash opening height 915mm (36”)
- Horizontal sliding

4 FRONT FACE OPENING

- Aerodynamically angled top, bottom and side openings reduce turbulence and eliminate reverse flows
- Lower air foils are fabricated from 16ga type 316 stainless steel, number 4 finish

5 INTERIOR LINER MATERIALS

- Polyresin
- Stainless Steel
- PVC
- Polypropylene
- Custom materials available to fit specific requirements

6 BAFFLES

- Three section baffle design with side, upper, center and lower exhaust slots
- Baffle plates are fixed and factory set for optimum containment per ASHRAE 110-2016 Tracer Gas Testing

7 ELECTRICAL

Standard electrical fixtures comprise:

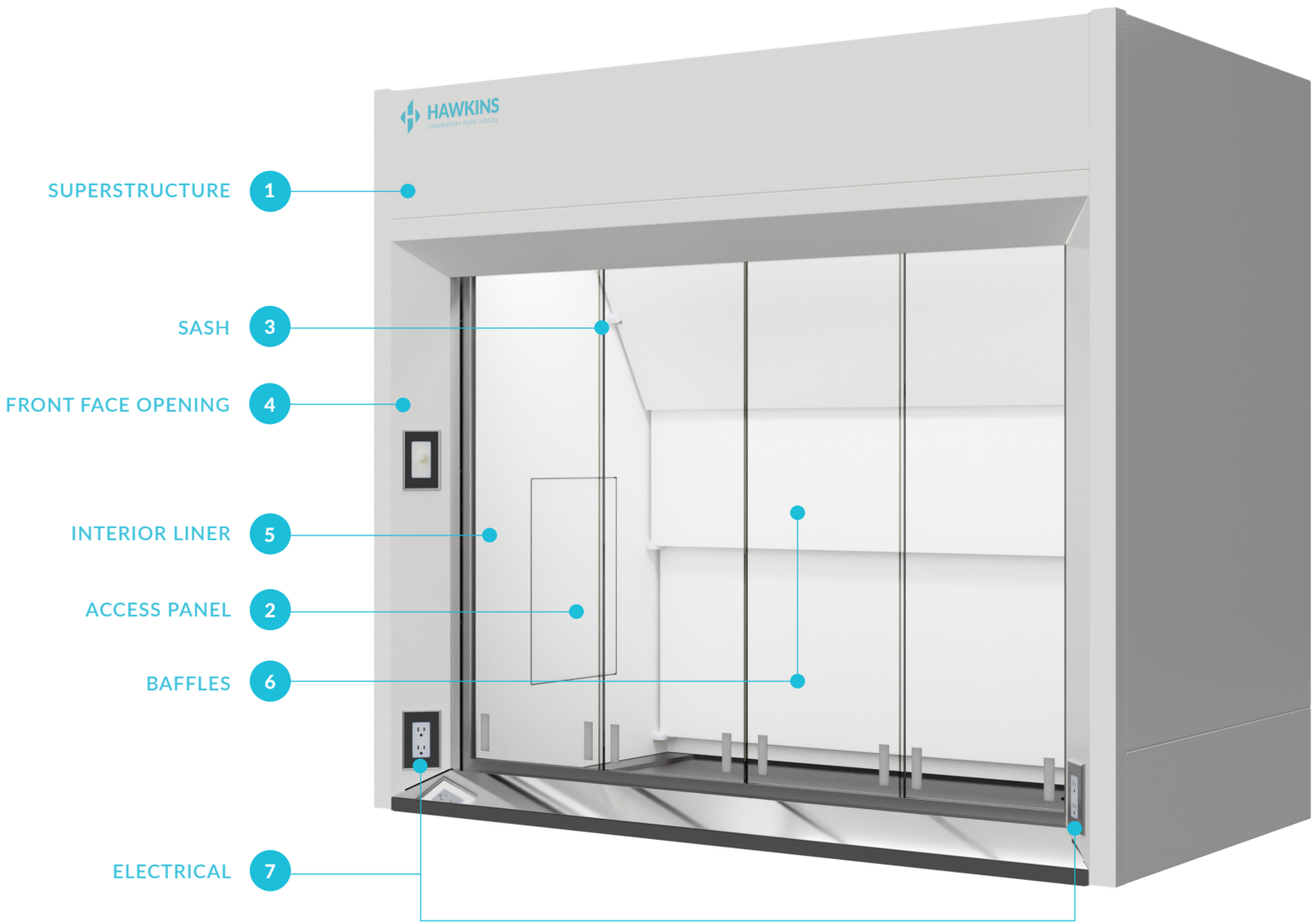
- Two 120V/20A T-slot duplex receptacles
- Vapour sealed LED lighting with light switch
- All fume hoods are factory pre-wired to a roof mounted junction box using only CSA/UL certified electrical components

APPROVALS

H.H.Hawkins Fume Hoods have been tested and certified for use in North America by Intertek Canada and designated with the cETLus mark. Certified to the following standards: CAN/CSA-C22.2 No. 61010-1-12 + UI; U2; AI UL61010-1:2012 Ed. 3+R21 Nov2018 and UL 1805:2002

TRACER GAS TESTING

Fume Hoods are tested to the ASHRAE 110-2016 Method of Testing Performance of Laboratory Fume Hoods and exceed ANSI/AIHA Z9.5, CSA Z316.5-15 and MD15128-2013 recommendations.


SUPERSTRUCTURE 1
SASH 3
FRONT FACE OPENING 4
INTERIOR LINER 5
ACCESS PANEL 2
BAFFLES 6
ELECTRICAL 7
HAWKINS

1 CEILING CLOSURE PANEL

- Designed to enclose the top of the hood to the ceiling
- Encloses both sides and front
- Front panel is removable for access to the top of the fume hood
- Fabricated from the same material as the fume hood exterior
- Colour matched to the hood exterior colour

2 MECHANICAL SERVICES FIXTURES

- Remote controlled from the front face of the fume hood
- Front loaded valves
- Factory pre-piped, conforming to applicable codes
- Colour coded handles and interior fittings
- Approved for use in North America

3 PRE-PIPING

- Factory installed terminating above or below the hood superstructure
- Burning gas: corrugated stainless steel flexible tubing with connector, conforming to applicable codes
- Water and technical gases: SPX hose with stainless steel braiding and connector termination
- Materials approved for use in North America

4 LOW AIRFLOW ALARM/MONITORS

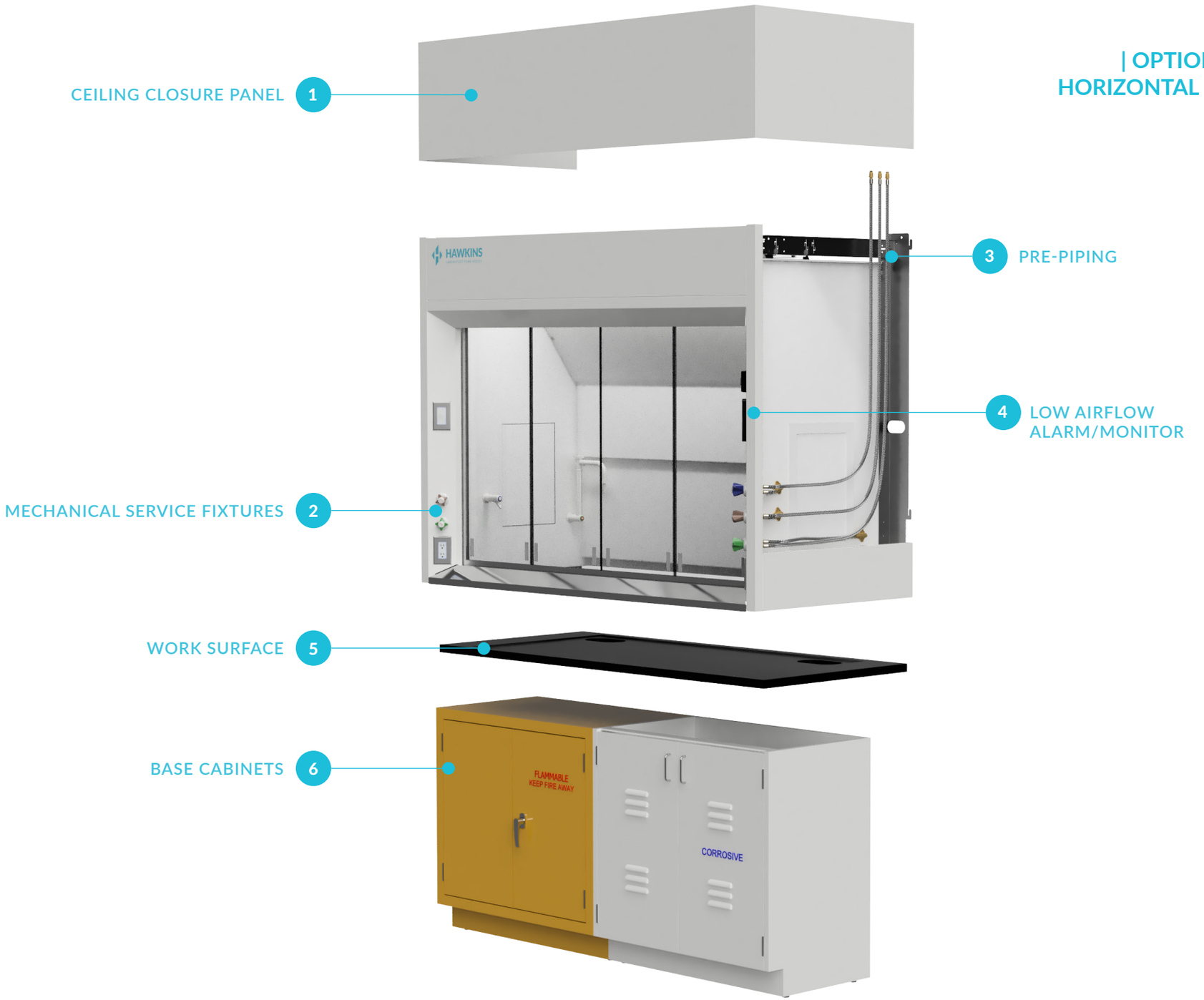
- Factory Installed
- Built in airflow sensor continuously monitors face velocity
- LED display indicates Safe and Alarm conditions
- Pushbutton calibration and configuration, password protection

5 WORK SURFACES

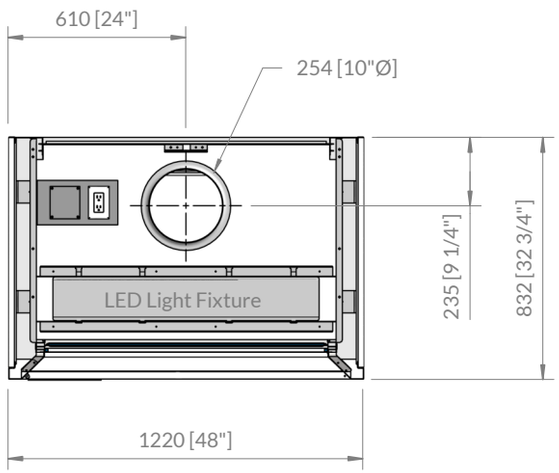
- Molded dished black solid epoxy
- Type 304 or Type 316 stainless steel with anti spill edges
- Custom materials to suit specific requirements

6 BASE CABINETS

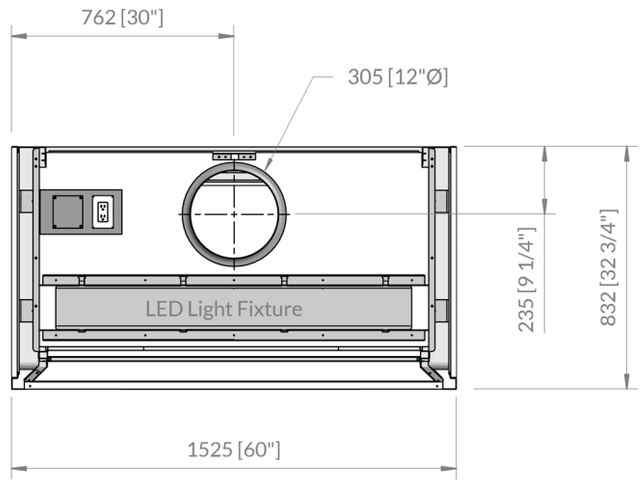
- General storage non-lined. Exterior fabricated from:
  - Baked enamel steel
  - Wood veneer
  - SEFA 8M and 8W-2010 certified
- Acid/corrosives storage, polypropylene lined. Exterior fabricated from:
  - Baked enamel steel
  - Wood veneer
  - SEFA 8M and 8W-2010 certified
- Acid/corrosives storage, all polypropylene construction.
- Flammable/solvent storage. All metal double wall construction.
  - FM, UL or ULC approved
- Tubular steel table support frames


CEILING CLOSURE PANEL
1
3
PRE-PIPING
4
LOW AIRFLOW
ALARM/MONITOR
MECHANICAL SERVICE FIXTURES
2
WORK SURFACE
5
BASE CABINETS
6
HAWKINS
FLAMMABLE
KEEP FIRE AWAY
CORROSIVE

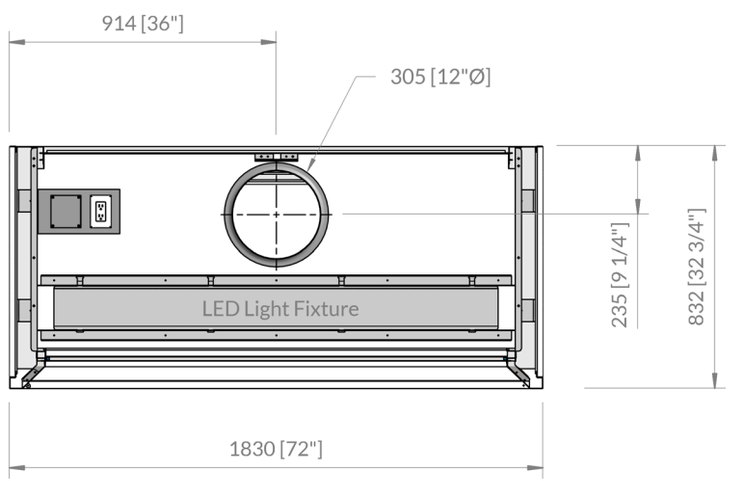
| EXHAUST COLLARS | LOCATIONS / DIAMETERS
HORIZONTAL SLIDING SASH



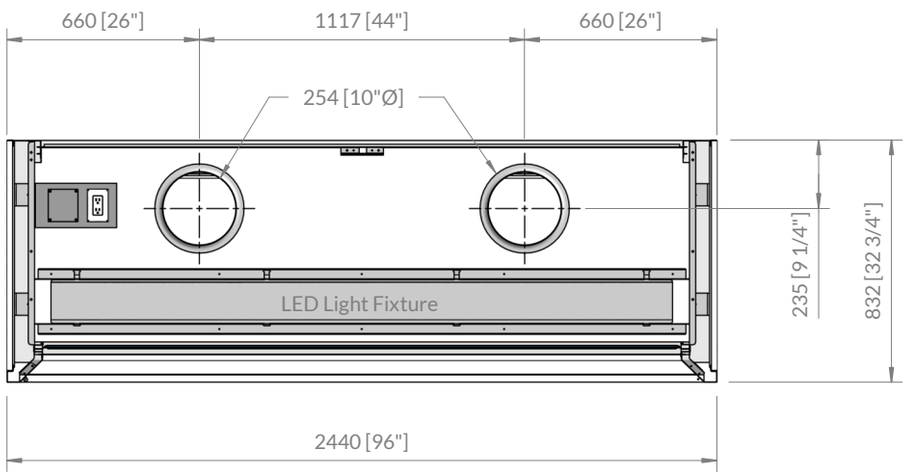
1220mm
(48”) WIDE



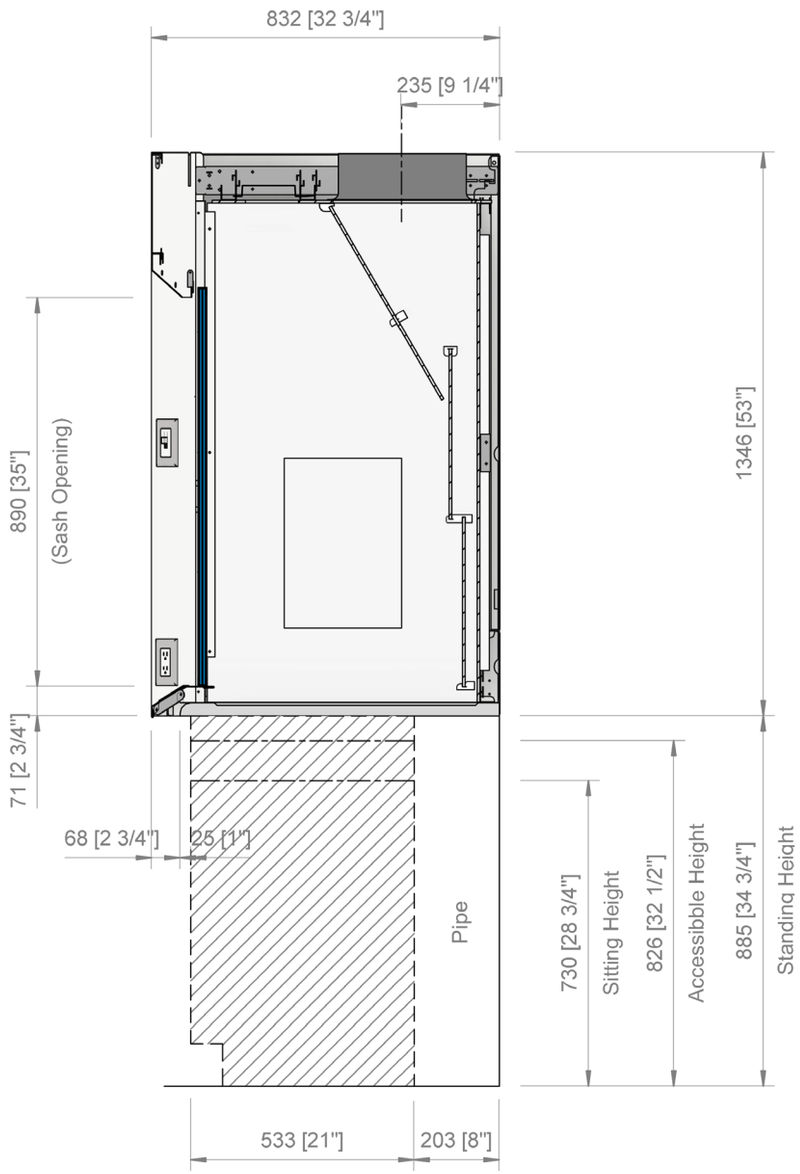
1524mm
(60”) WIDE



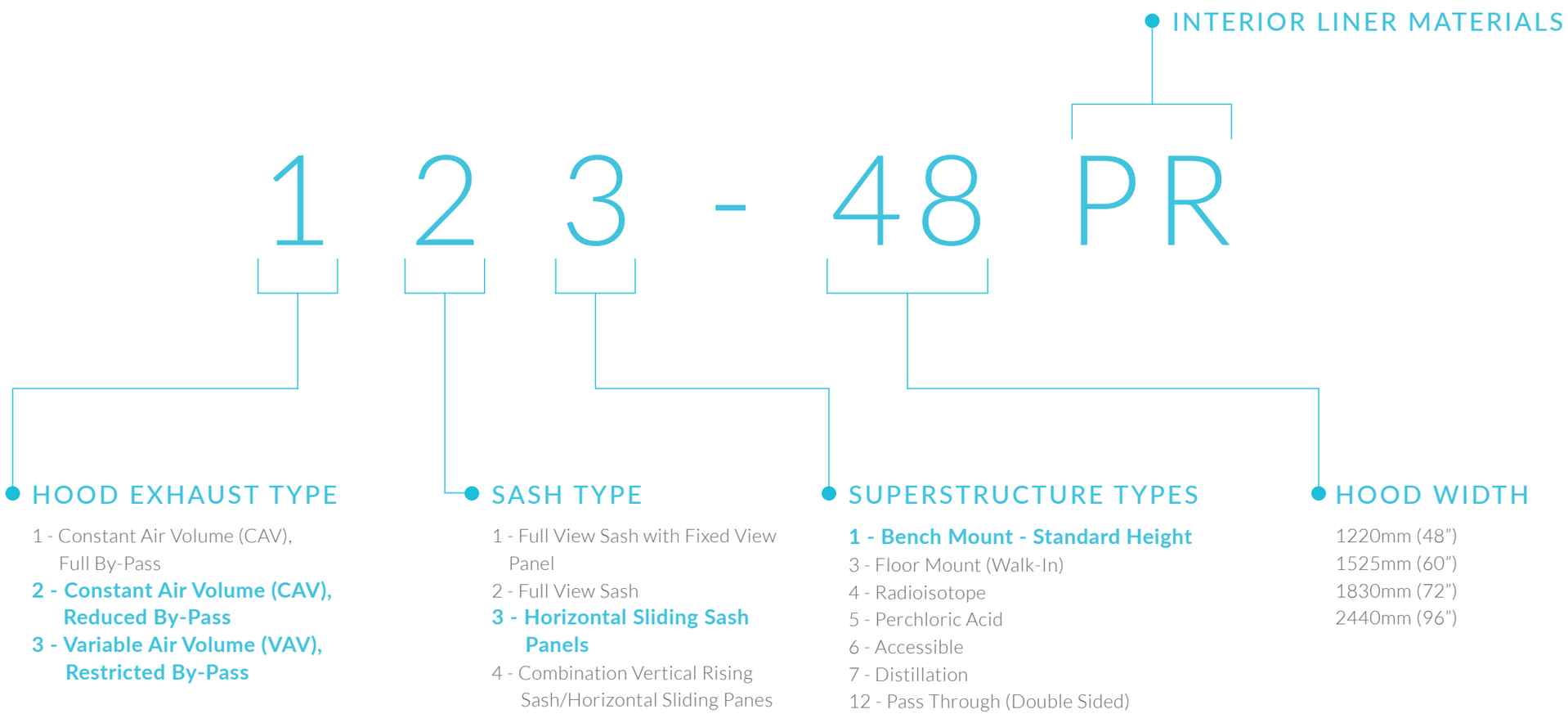
1830mm
(72”) WIDE



2440mm
(96”) WIDE



| CATALOG NUMBER EXPLANATION | INTERIOR LINER MATERIAL HORIZONTAL SLIDING SASH



INTERIOR LINER MATERIALS

PR Polyresin: 1/4" thick, solid fibreglass reinforced pressed thermoset resin board. Material offers superior chemical, solvent and corrosion resistance, negligible moisture absorption and a flame spread of less than 20 (UL 7231 ASTM E84-80). Flexural strength is a minimum of 19,000 PSI (D790). Material is white in colour throughout its thickness offering superior light levels. Maximum service temperature is 130 C (266 F). Exhaust collar is type 316 stainless steel.

SW Stainless Steel: Type 316 (SW6) or Type 304 (SW4) stainless steel, 16 gauge, number 4 finish, all welded seamless construction. Interior corners have a 3/4" radius and all welds are ground and polished. Liner has an integrally welded work surface with a 1/2" high anti-spill front lip. Offers excellent heat and solvent resistance and good chemical resistance to most acids. Stainless steel is not recommended for use with chemicals such as Hydrochloric Acid, Hydrofluoric Acid and Sulphuric Acid to 80% solution. Exhaust collar is Type 316 stainless steel.

ST Stainless Steel: Type 316 (ST6) or Type 304 (ST4) stainless steel, 16 gauge, number 4 finish. The sides and back of interior liner are formed in one piece with the top of the liner being stitch welded to the back and sides. Work surface is factory installed, mechanically fastened and silicone sealed. Offers excellent heat and solvent resistance and good chemical resistance to most acids. Stainless steel is not recommended for use with chemicals such as Hydrochloric Acid, Hydrofluoric Acid, and Sulphuric Acid to 80% solution. Exhaust collar is Type 316 stainless steel.

PP Polypropylene: 1/4" thick, solid, flame retardant, self extinguishing and stressed relieved polypropylene sheet. Liner is rigid and self supporting. Interior is metal-free. Material is white in colour throughout its thickness. Offers excellent corrosion resistance to a wide range of acids and solvents. Material has good impact resistance and structural integrity and has little or no water absorption. Maximum operating temperature is 82C (180F). Exhaust collar is PVC.

PV PVC: 1/4" thick, solid, flame retardant poly vinyl chloride sheet. Liner is rigid and self supporting. Interior is metal-free. Material is white in colour throughout its thickness. Offers excellent corrosion resistance to a wide range of acids but is not recommended for use with solvents. It has little or no water absorption and possesses natural flame resistant qualities. Flame resistance is rated at UL94V-O. Maximum service temperature is 60C (140F). Exhaust collar is PVC.

Technical specifications and chemical resistance chart are available upon request.

| CONSTANT AIR VOLUME (CAV), REDUCED BY-PASS HORIZONTAL SLIDING SASH

Reduced By-Pass Constant Air Volume Fume Hoods incorporate a partial upper by-pass between the roof of the hood and the top of the horizontal sash frame. This by-pass will draw air over the top of the sash assembly reducing the face velocity through the sash opening as the sash panes are being closed.
The horizontal sash panes should not be closed completely as this may force most of the exhaust air through the lower air foil opening reducing the efficiency of the hood.

Superstructure is fully framed and self supporting with 45° front posts. Exterior panels are 18 gauge cold rolled steel, are attached with hidden fasteners and removable without tools. Finish is an electrostatic baked powder paint for maximum scratch and chemical resistance.

All face openings are angled to reduce turbulence and maintain smooth airflow into the hood.

Standard electrical fixtures comprise two 120V/20A T-slot duplex receptacles, vapour sealed LED lighting and light switch. All fume hoods are factory pre-wired to a roof mounted junction box using only CSA/UL certified electrical components.

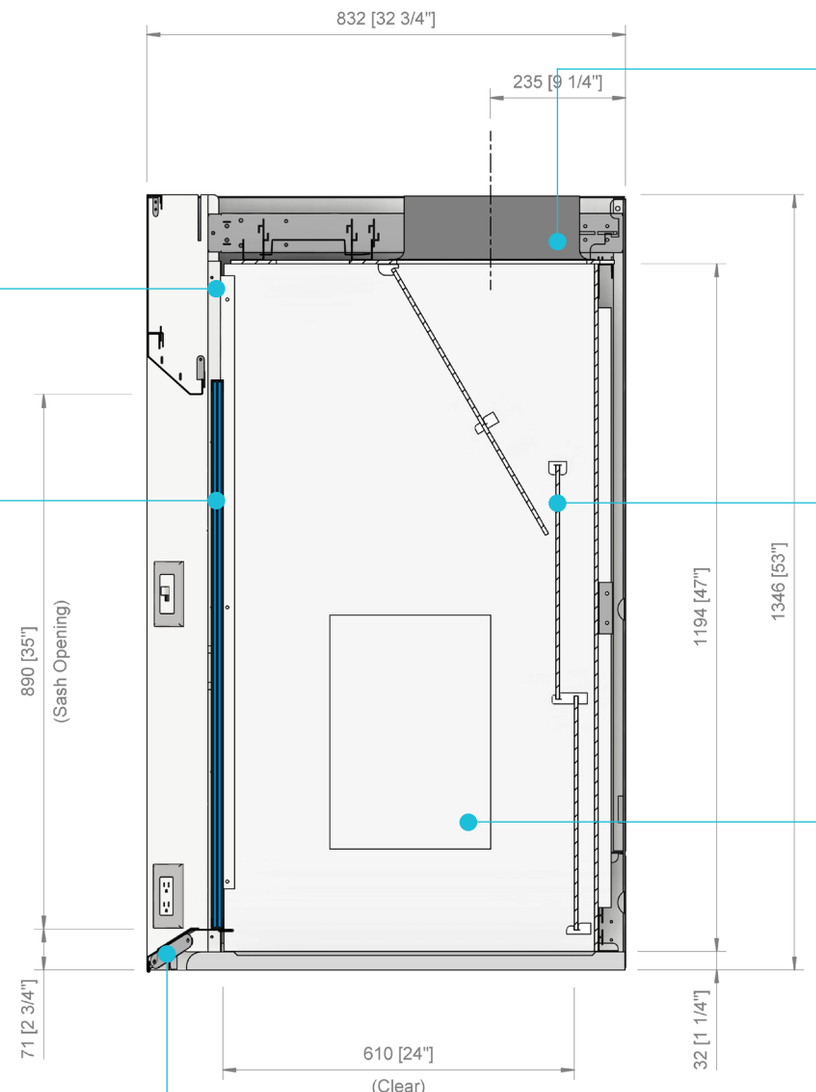
| CONSTANT AIR VOLUME (CAV), REDUCED BY-PASS HORIZONTAL SLIDING SASH

H.H.Hawkins Fume Hoods have been tested and certified for use in North America by Intertek Canada and designated with the cETLus mark. Certified to the following standards: CAN/CSA-C22.2 No. 61010-1-12 + UI; U2; AI UL61010-1:2012 Ed. 3+R21 Nov2018 and UL 1805:2002

Reduced by pass

Sash assembly is “Full View” type with full height panes set in an 18 gauge, Type 316 stainless steel, number 4 finish full frame. Top hang horizontal sliding panes are unframed 6mm (1/4”) laminated safety glass with polished edges .**They are designed so that only a maximum of 50% of the sash can be opened at any one time. Sash panels are designed and sized to be used as a full height safety shield.**

Type 316, 16 gauge stainless steel lower airfoil incorporates a slot between airfoil and work surface to provide a sweep of air over the work surface.



Exhaust collar is bell shaped, round in configuration and does not require a rectangular-to-round transition.

Three piece baffles are factory set and fixed for optimum containment. Removable from interior of hood without tools to facilitate ease of cleaning.

Interior access panels are flush mounted, fully framed and air tight. No gaskets required.

Fume Hoods are tested to the ASHRAE 110-2016 Method of Testing Performance of Laboratory Fume Hoods and exceed ANSI/AIHA Z9.5, CSA Z316.5-15 and MD15128-2013 recommendations.

| CONSTANT AIR VOLUME (CAV), REDUCED BY-PASS HORIZONTAL SLIDING SASH

1220mm (48”) WIDE

Polyresin	231-48PR
Stainless Steel Type 316 (All Welded)	231-48SW6
Stainless Steel Type 304 (All Welded)	231-48SW4
Stainless Steel Type 316 (Stitch Welded)	231-48ST6
Stainless Steel Type 304 (Stitch Welded)	231-48ST4
PVC	231-48PV
Polypropylene	231-48PP

1525mm (60”) WIDE

Polyresin	231-60PR
Stainless Steel Type 316 (All Welded)	231-60SW6
Stainless Steel Type 304 (All Welded)	231-60SW4
Stainless Steel Type 316 (Stitch Welded)	231-60ST6
Stainless Steel Type 304 (Stitch Welded)	231-60ST4
PVC	231-60PV

1830mm (72”) WIDE

Polyresin	231-72PR
Stainless Steel Type 316 (All Welded)	231-72SW6
Stainless Steel Type 304 (All Welded)	231-72SW4
Stainless Steel Type 316 (Stitch Welded)	231-72ST6
Stainless Steel Type 304 (Stitch Welded)	231-72ST4
PVC	231-72PV
Polypropylene	231-72PP

- *Other liner materials can be supplied to meet specific requirements.*
- *Base cabinets, work surfaces and plumbing fixtures are optional.*
- *2745mm (108") wide and 3050mm (120") wide fume hoods also available.*

2440mm (96") WIDE

Polyresin	231-96PR
Stainless Steel Type 316 (All Welded)	231-96SW6
Stainless Steel Type 304 (All Welded)	231-96SW4
Stainless Steel Type 316 (Stitch Welded)	231-96ST6
Stainless Steel Type 304 (Stitch Welded)	231-96ST4
PVC	231-96PV
Polypropylene	231-96PP

AIR EXHAUST VOLUME (CFM) AND STATIC PRESSURE LOSSES (SP)

HOOD WIDTH		48"	60"	72"	96"
SASH OPENING*		4.8 sq. ft.	7.2 sq. ft.	10.5 sq. ft.	12.5 sq. ft.
HORIZONTAL SASH PANES 50% OPEN	80 FPM	385 @ 0.5	575 @ .12	840 @ .18	1000 @ .10
	100 FPM	480 @ .08	720 @ .13	1050 @ .24	1250 @ .18

**MEASURED OFF THE TOP OF THE WORK SURFACE*
INCLUDES UPPER BY-PASS

| VARIABLE AIR VOLUME (VAV), RESTRICTED BY-PASS HORIZONTAL SLIDING SASH

Restricted By-Pass Variable Air Volume fume hoods are used in conjunction with an electronic control system* which will maintain a constant face velocity regardless of sash opening. As the sash panes are opened and closed, the VAV system will vary the exhaust volume of the hood in direct response to the sash opening. * supplied by others. **The horizontal sash panes should not be closed completely as this may force most of the exhaust air through the lower air foil opening reducing the efficiency of the hood.**
**SUPPLIED BY OTHERS*

Superstructure is fully framed and self supporting with 45° front posts. Exterior panels are 18 gauge cold rolled steel, are attached with hidden fasteners and removable without tools. Finish is an electrostatic baked powder paint for maximum scratch and chemical resistance.

All face openings are angled to reduce turbulence and maintain smooth airflow into the hood.

Standard electrical fixtures comprise two 120Vac/20A T-slot duplex receptacles, vapour sealed low voltage LED lighting and light switch. All fume hoods are factory pre-wired to a roof mounted junction box using only CSA/UL certified electrical components.

| VARIABLE AIR VOLUME (VAV), RESTRICTED BY-PASS HORIZONTAL SLIDING SASH

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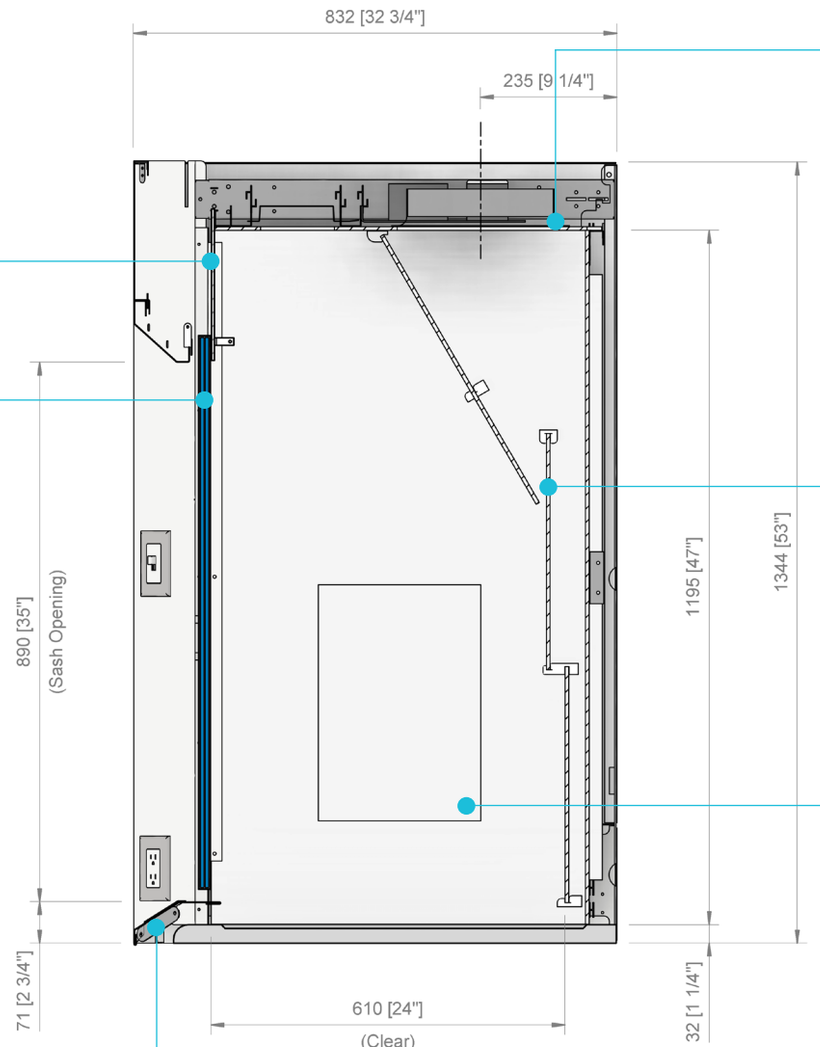
By-pass blocker

Sash assembly is “Full View” type with full height panes set in an l8 gauge, Type 316 stainless steel, number 4 finish full frame. Top hang horizontal sliding panes are unframed 6mm (1/4”) laminated safety glass with polished edges. **They are designed so that only a maximum of 50% of the sash can be opened at any one time Sash panels are designed and sized to be used as a full height safety shield.**

Type 316, 16 gauge stainless steel lower airfoil incorporates a slot between airfoil and work surface to provide a sweep of air over the work surface.



Exhaust collars are bell shaped, round in configuration and does not require a rectangular-to-round transition.

Three piece baffles are factory set and fixed for optimum containment. Removable from interior of hood without tools to facilitate ease of cleaning.

Interior access panels are flush mounted, fully framed and air tight. No gaskets required.

Fume Hoods are tested to the ASHRAE 110-2016 Method of Testing Performance of Laboratory Fume Hoods and exceed ANSI/AIHA Z9.5, CSA Z316.5-15 and MD15128-2013 recommendations.

| VARIABLE AIR VOLUME (VAV), RESTRICTED BY-PASS HORIZONTAL SLIDING SASH

1220mm (48”) WIDE

Polyresin	331-48PR
Stainless Steel Type 316 (All Welded)	331-48SW6
Stainless Steel Type 304 (All Welded)	331-48SW4
Stainless Steel Type 316 (Stitch Welded)	331-48ST6
Stainless Steel Type 304 (Stitch Welded)	331-48ST4
PVC	331-48PV
Polypropylene	331-48PP

1525mm (60”) WIDE

Polyresin	331-60PR
Stainless Steel Type 316 (All Welded)	331-60SW6
Stainless Steel Type 304 (All Welded)	331-60SW4
Stainless Steel Type 316 (Stitch Welded)	331-60ST6
Stainless Steel Type 304 (Stitch Welded)	331-60ST4
PVC	331-60PV
Polypropylene	331-60PP

1830mm (72”) WIDE

Polyresin	331-72PR
Stainless Steel Type 316 (All Welded)	331-72SW6
Stainless Steel Type 304 (All Welded)	331-72SW4
Stainless Steel Type 316 (Stitch Welded)	331-72ST6
Stainless Steel Type 304 (Stitch Welded)	331-72ST4
PVC	331-72PV
Polypropylene	331-72PP

- *Other liner materials can be supplied to meet specific requirements.*
- *Base cabinets, work surfaces and plumbing fixtures are optional.*
- *2745mm (108") wide and 3050mm (120") wide fume hoods also available*

2440mm (96") WIDE

Polyresin311-96PR	
Stainless Steel Type 316 (All Welded)	331-96SW6
Stainless Steel Type 304 (All Welded)	331-96SW4
Stainless Steel Type 316 (Stitch Welded)	331-96ST6
Stainless Steel Type 304 (Stitch Welded)	331-96ST4
PVC	331-96PV
Polypropylene	331-96PP

AIR EXHAUST VOLUME (CFM) AND STATIC PRESSURE LOSSES (SP)

HOOD WIDTH		48"	60"	72"	96"
SASH OPENING*		4.25 sq. ft.	6.5 sq. ft.	9.6 sq. ft.	11.3 sq. ft.
HORIZONTAL SASH PANES 50% OPEN	80 FPM	340 @ 0.4	520 @ .10	770 @ .17	900 @ .10
	100 FPM	425 @ .07	650 @ .11	960 @ .22	1130 @ .17

**MEASURED OFF THE TOP OF THE WORK SURFACE*

HAWKINS
LABORATORY FUME HOODS

HORIZONTAL SLIDING SASH
BUILD YOUR FUME HOOD

FILLABLE PDF

To view the PDF properly download Adobe Acrobat Reader

Adobe Acrobat

PROJECT _____

WIDTH _____

QUANTITY _____

1 FUME HOOD AIRFLOW

- ☐ Constant Air Volume (CAV)
- ☐ Variable Air Volume (VAV)

2 FUME HOOD TYPE

- ☑ General Chemistry

3 LINER MATERIAL

- ☐ Polyresin (PR)
- ☐ S/S All Welded T316 (SW6)
- ☐ S/S Stitch Welded T316 (ST6)
- ☐ S/S All Welded T304 (SW4)
- ☐ S/S Stitch Welded T304 (ST4)
- ☐ Other

Refer to page 11 of the catalog for liner material description.

- ☐ Ceiling Closure Panels
- ☐ Blower Switch (Wiring NIC)
- ☐ Sash Stop at 18”

Mechanical Services

_____
_____
_____
_____
_____

Cup Sink

- ☐ 6”x3” Polyethylene
- ☐ 6”x3” T316 Stainless Steel

Base Cabinets Left Side

- ☐ Acid Storage
- ☐ Flammable Storage
- ☐ General Storage
- ☐ Table Frame

Additional Options

_____
_____
_____

Pre-piping

- ☐ Above the hood
- ☐ Below the hood

Low Air Flow Alarm

- ☐ AFA500 (CAV Only)
- ☐ AFA1000 (CAV Only)
- ☐ AFA4000 (CAV Only)

Mechanical Services

_____
_____
_____
_____
_____

Cup Sink

- ☐ 6”x3” Polyethylene
- ☐ 6”x3” T316 Stainless Steel

Work Surface

- ☐ Epoxy
- ☐ Stainless Steel, T316

Base Cabinets Right Side

- ☐ Acid Storage
- ☐ Flammable Storage
- ☐ General Storage
- ☐ Table Frame

Additional Options

_____
_____
_____

YOUR RESEARCH DRIVES OUR INNOVATION.

HAWKINS

LABORATORY FUME HOODS

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