Introduction to Fume Hoods and Safety

The products illustrated in this section are categorized as LSI Extractor Series I, II, and III. Briefly, these fume hood families have the following characteristics:

**LSI Extractor Series I:** Metal superstructure with acid resistant poly resin liner. These hoods are highly functional for most fume extraction conditions and carry a full complement of related accessories.

**LSI Extractor Series II:** Metal superstructure with tempered safety glass on all four sides. This ductless hood eliminates the need for blowers and duct work, reducing installation costs. In addition, the ductless design dramatically reduces the hood’s impact on heating and cooling costs.

**LSI Extractor Series III:** Metal and acrylic enclosure with viewing from all four sides. These hoods are portable and are easily moved and stored. They provide fast set-up when needed.

LSI Extractor Series I and II fume hoods meet ASHRAE 110-1995 fixed hood standards and are U.L. 1805 classified. LSI Extractor Series II fume hoods comply with AFNOR NF X 15-211 filtration standards.

Mechanical and/or electrical fixtures and outlets illustrated may be changed by specifying accordingly. Fume hood mechanical / electrical fixtures included by product description are furnished loose for appropriate Trade installation, piping, wiring, and connections. Ducting systems and blowers are not included.

Safety equipment illustrated within this section is designed for the protection and accessibility of persons within the working laboratory environment. Changes and/or substitutions may occur depending on current product developments and/or safety protection designs. When discrepancies occur between written descriptions and illustrations, the written description takes precedence, unless specified otherwise by contract documents.

**Definitions**

- **Airfoil** - Shaped or streamlined member at the fume hood entrance designed to enhance the movement of air into the hood.
- **Air Volume** - Rate of airflow, normally expressed in cubic feet per minute (CFM).
- **ASHRAE** - American Society of Heating, Refrigerating, and Air Conditioning Engineers, a professional organization that sets industry standards for fume hood testing procedures.
- **Auxiliary Air** - Supply or makeup air delivered external to the chamber of a fume hood to reduce room air consumption.
- **Baffle** - Panels located across the back of the hood interior which control the pattern of air moving through the hood.
- **Blower** - Air moving device (or fan) consisting of motor, impeller, and scroll.
- **Bypass** - Compensating opening that helps maintain constant volume exhaust from fume hood, regardless of sash position.
- **Canopy Hood** - Ceiling or wall suspended ventilating device for non-critical use with heat, water vapor, odors, etc.
- **CFM** - Cubic Feet per Minute, a unit of measure of air volume.
- **Combination Sash** - Horizontal moving panels in a vertically rising frame; see sash.
- **Constant Volume** - A type of fume hood exhaust system that exhausts the same volume of air, regardless of sash position.
- **Containment** - Extent to which fumes are confined within the hood compartment.
- **Damper** - Device installed in duct to control air volume.
- **Demonstration Hood** - Fume hood with glass panels on two or three sides to improve visibility for demonstrating experiments in a classroom setting.
- **Exhaust Volume / Parameters** - Quantity of air exhausted by the fume hood; quantity of air required to maintain desired face velocity, expressed in cubic feet per minute (CFM).
- **Face Velocity** - Speed of air moving into the fume hood through the face opening (through the sash), measured in feet per minute (FPM).
- **FPM** - Feet per minute; measurement of air velocity.
- **Liner** - Fume hood interior sides, back, and top, including baffle.
- **Lintel** - Portion of fume hood front located above access opening.
- **Louvers** - Slit-like openings in the lintel that allow bypass air to enter the hood when the sash is closed.
- **Negative pressure** - Pressures lower than one atmosphere.
- **Positive pressure** - Pressures higher than one atmosphere.
- **Restricted Bypass Fume Hood** - Type of fume hood designed with limited bypass area; commonly used in conjunction with Variable Air Volume (VAV) exhaust systems and restricted sash opening designs.
- **Sash** - Sliding glass panel set in the fume hood face that provides access to the hood interior.
- **Service Fitting / Plumbing** - Water faucets and gas valves mounted on or fastened to the fume hood.
- **Static Pressure** - Air pressure, or resistance, in fume hood or duct, expressed in inches of water.
- **U.L. 1805** - Underwriters Laboratories certification that verifies conformance to electrical, mechanical, and airflow standards.
- **Variable Air Volume (VAV)** - Type of fume hood exhaust system that typically maintains constant fume hood face velocity by adjusting blower motor speed or balance damper in response to changes in sash position.
- **Velocity** - Speed of air, measured in feet per minute.
- **Velocity Pressure** - Force per square inch applied by moving air.
- **Volume** - Quantity of air, usually measured in cubic feet per minute (CFM).
- **Work Surface** - The area in a fume hood where apparatus rests and where work takes place; countertop.
# Fume Hood Types

<table>
<thead>
<tr>
<th>Type</th>
<th>Class</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perchloric</td>
<td>A</td>
<td>Conventional bypass hood - includes water wash and specifically designed interior for use with perchloric acid or other potentially flammable or explosive reagents</td>
<td>20.6.0</td>
</tr>
<tr>
<td>Radio Isotope</td>
<td>A</td>
<td>Conventional bypass hood - interior built specifically for use with radioactive materials</td>
<td>20.5.0</td>
</tr>
<tr>
<td>ADA</td>
<td>B</td>
<td>Conventional bypass hood - specially designed for the safety and comfort of disabled operators</td>
<td>20.10.0</td>
</tr>
<tr>
<td>Airfoil</td>
<td>B</td>
<td>Conventional bypass hood - sash opening is framed in angled fascia to minimize air turbulence</td>
<td>20.3.0</td>
</tr>
<tr>
<td>Double Sided</td>
<td>B</td>
<td>Conventional bypass hood - allows access from both sides. Can be installed as a through-wall hood</td>
<td>20.8.0</td>
</tr>
<tr>
<td>Ductless</td>
<td>B</td>
<td>Ductless hood system for the filtration of toxic gases through a molecular filter system with interchangeable, disposable cartridges.</td>
<td>20.15.0</td>
</tr>
<tr>
<td>Flat Front</td>
<td>B</td>
<td>Conventional bypass hood - economically priced for secondary school budgets</td>
<td>20.11.0</td>
</tr>
<tr>
<td>High Performance</td>
<td>B</td>
<td>Conventional bypass hood - designed for energy efficient operation. Reduces energy use by 40% to 60% while maintaining a safe working environment. High efficiency LED lighting.</td>
<td>20.12.0</td>
</tr>
<tr>
<td>Thin wall</td>
<td>B</td>
<td>Conventional bypass hood - offers superior economy while maximizing use of lab space.</td>
<td>20.4.0</td>
</tr>
<tr>
<td>Walk-In</td>
<td>B</td>
<td>Conventional bypass hood - floor mounted with sash and doors for closing the open face; accommodates extensive apparatus setups, allowing special equipment to be easily moved into the enclosure.</td>
<td>20.7.0</td>
</tr>
<tr>
<td>Work Station</td>
<td>B</td>
<td>Conventional bypass hood - laminated safety glass on all four sides gives 360° viewing. Can be installed side-by-side and/or back-to-back.</td>
<td>20.13.0</td>
</tr>
<tr>
<td>Canopy</td>
<td>C</td>
<td>Collects and exhausts heat, steam, and odors when mounted over work areas where steam baths, hot plates, and other heat-producing equipment is employed.</td>
<td>20.17.0</td>
</tr>
<tr>
<td>Demonstration</td>
<td>C</td>
<td>Conventional bypass hood - ideal for class room use, with sash access on both sides for team projects plus an end window for group viewing. Hood superstructure does not accommodate services</td>
<td>20.9.0</td>
</tr>
<tr>
<td>Portable</td>
<td>C</td>
<td>Bypass hood - relocatable units offer safety, quality and convenience.</td>
<td>20.16.0</td>
</tr>
<tr>
<td>Spray Booth</td>
<td>C</td>
<td>Designed for simple low hazard exhaust operations in the laboratory-related shop.</td>
<td>20.17.0</td>
</tr>
</tbody>
</table>

## Fume Hood Classification

### Class A Applications
Materials of extreme hazard, such as volatile carcinogens, radiochemicals, and perchloric acid.

### Class B Applications
Normal laboratory usage with materials of average hazard.

### Class C Applications
Materials of low hazard, such as light fumes and dust.
LSI Extractor Series I

**Airfoil**

The Airfoil conventional bypass hood frames the sash opening in angled fascia to minimize air turbulence.

**Standard Design**

**Air Management:** Constant exhaust volume, drawing air efficiently through the sash when open or through the bypass chamber when sash is closed.

**Superstructure:** Outer wall is chemical resistant powder-coated steel. Interior lining is U.L. listed poly resin unless otherwise specified. Double wall construction offers a 5" chase area, making it easy to install plumbing and electrical fixtures within walls.

**Airfoil:** Front opening is framed with a 45° angle fascia that substantially reduces the turbulence of air entering the hood. The bottom horizontal airfoil directs a current of air at countertop level to purge heavy fumes or spillage. The standard airfoil is made from chemical resistant, powder-coated, 16 gauge cold rolled steel.


**Standard Features**

- chemical resistant powder coat exterior finish
- vapor sealed fluorescent light fixture (bulbs included) accessed from inside the air chamber
- shaft drive sash allows easy lifting from anywhere along the sash
- full frame construction
- flush-mount airfoil
- louvered front panel for by-pass
- U.L. listed poly resin liner
- 10" round stainless steel duct collar
- plastic laminate base cabinet(s)

**Options**

- stainless steel airfoil
- stainless steel sash
- sash stops
- combination horizontal/vertical sash
- push button sash
- automatic sash return
- chain and sprocket sash drive
- electrical accessories
- plumbing fixtures
- alarms
- ceiling enclosures
- chemical resistant exterior and/or interior plastic laminate base cabinet(s)
- powder coat steel base cabinet(s)
- stainless steel base cabinet(s)
- knock down

See pages 20.18.0 - 20.20.0 for accessories.

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**Sizing**

- **W:** (Hood) 36", 48", 60", 72", 96"
- **W:** (Cabinet & Top) 36", 48", 60", 72", 96"
- **H:** (Hood) 57.25" + 7.5" raised sash
- **H:** (with Cabinet) 92" + 7.5" raised sash
- **D:** (Hood) 33.25"
- **D:** (Cabinet) 22.5"

**Air Data**

<table>
<thead>
<tr>
<th>Product No.</th>
<th>CFM at 100 LFM</th>
<th>Static pressure at Hood</th>
<th>Duct size</th>
</tr>
</thead>
<tbody>
<tr>
<td>60000</td>
<td>567</td>
<td>.25 inches</td>
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</tr>
<tr>
<td>60001</td>
<td>833</td>
<td>.25 inches</td>
<td>10&quot; dia</td>
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<tr>
<td>60002</td>
<td>1100</td>
<td>.34 inches</td>
<td>10&quot; dia</td>
</tr>
<tr>
<td>60003</td>
<td>1367</td>
<td>.34 inches</td>
<td>10&quot; dia</td>
</tr>
<tr>
<td>60004</td>
<td>1900</td>
<td>.40 inches</td>
<td>(2) 10&quot; dia</td>
</tr>
</tbody>
</table>

- Mechanical & Electrical Fixtures Furnished Loose.
- No Piping, Conduit, Traps or Blowers Included.

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**FUME HOODS**
The Thin-Wall conventional bypass hood offers superior economy while maximizing use of interior space.

**Standard Design**

**Air Management:** Constant volume, through open sash or through bypass chamber when sash is closed. Flush interior permits smooth airflow.

**Superstructure:** Outer wall is chemical resistant powder-coated steel. Interior lining is U.L. listed poly resin unless otherwise specified. Thin wall profile allows greatest access to work area.


**Standard Features**

- chemical resistant powder coat exterior finish
- vapor sealed fluorescent light fixture (bulbs included) accessed from inside the air chamber
- shaft drive sash allows easy lifting from anywhere along the sash
- full frame construction
- louvered front panel for bypass
- U.L. listed poly resin liner
- 10” round stainless steel duct collar
- plastic laminate base cabinet(s)

**Options**

- stainless steel sash
- sash stops
- combination horizontal/vertical sash
- automatic sash return
- chain and sprocket sash drive
- electrical accessories
- plumbing fixtures
- epoxy tops
- alarms
- LED lighting
- ceiling enclosures
- chemical resistant exterior and/or interior plastic laminate base cabinet(s)
- powder coat steel base cabinet(s)
- stainless steel base cabinet(s)
- knock down

See pages 20.18.0 - 20.20.0 for accessories.

### Sizing

- **W:** (Hood) 36”, 48”, 60”, 72”, 96”
- **W:** (Cabinet & Top) 36”, 48”, 60”, 72”, 96”
- **H:** (Hood) 56” + 7.5” raised sash
- **H:** (with Cabinet) 92” + 7.5” raised sash
- **D:** (Hood) 29.5”
- **D:** (Cabinet) 22.5”

### Air Data

<table>
<thead>
<tr>
<th>Product No.</th>
<th>CFM at 100 LFM</th>
<th>Static pressure at Hood</th>
<th>Duct size</th>
</tr>
</thead>
<tbody>
<tr>
<td>60010</td>
<td>646</td>
<td>.25 inches</td>
<td>10” dia</td>
</tr>
<tr>
<td>60011</td>
<td>896</td>
<td>.25 inches</td>
<td>10” dia</td>
</tr>
<tr>
<td>60012</td>
<td>1146</td>
<td>.39 inches</td>
<td>10” dia</td>
</tr>
<tr>
<td>60013</td>
<td>1417</td>
<td>.37 inches</td>
<td>10” dia</td>
</tr>
<tr>
<td>60014</td>
<td>1896</td>
<td>.43 inches</td>
<td>(2) 10” dia</td>
</tr>
</tbody>
</table>

- Mechanical & Electrical Fixtures Furnished Loose.
- No Piping, Conduit, Traps or Blowers Included.
FUME HOODS

LSI Extractor Series I
Radio Isotope

The Radio Isotope conventional bypass hood’s interior is specifically designed for use with radiochemicals.

Standard Design
Air Management: Constant exhaust volume, drawing air efficiently through the sash when open or through the bypass chamber when sash is closed.

Superstructure: Outer wall is chemical resistant powder-coated steel. Double wall construction offers a 5” chase area for plumbing and electrical fixture installation.

Interior: One piece integral work surface and liner is constructed of type 304 stainless steel. Radius construction prevents absorption of radioactive and corrosive chemicals. Countertop is dished to retain spills.

Airfoil: Front opening is framed with a 45° angle fascia that substantially reduces the turbulence of air entering the hood. The bottom horizontal airfoil directs a current of air at countertop level to purge heavy fumes or spillage.


Standard Features
• chemical resistant powder coat exterior finish
• vapor sealed fluorescent light fixture (bulbs included) accessed from inside the air chamber
• shaft drive sash allows easy lifting from anywhere along the sash
• Stainless steel sash
• Stainless steel, flush-mount airfoil
• 304 stainless steel one-piece work surface and liner
• full frame construction
• louvered front panel for bypass
• 10” round stainless steel duct collar
• plastic laminate base cabinet(s)

Options
• sash stops
• combination horizontal/vertical sash
• automatic sash return
• push button sash
• chain and sprocket sash drive
• electrical accessories
• plumbing fixtures
• alarms
• LED lighting
• lattice assembly
• chemical resistant exterior and/or interior plastic laminate base cabinet(s)
• powder coat steel base cabinet(s)
• stainless steel base cabinet(s)

See pages 20.18.0 - 20.20.0 for accessories.

Note: Filter Housing is recommended for use with Radio Isotope hoods

60020
• Constructed of stainless steel.
• removable face panel allows installation of a prefILTER & 99.98% absolute filter
• minimize transport distance of unfiltered air by installing close to hood (approximately 3’), in duct work & accessible for filter change
The Perchloric Acid conventional bypass hood’s interior is built specifically for working with perchloric acid.

**Standard Design**

**Air Management**: Constant exhaust volume whether sash is open or closed.

**Superstructure**: Outer wall is chemical resistant powder-coated steel. Double wall construction provides a 5” chase area for plumbing and electrical fixtures.

**Interior**: Walls and countertop are fabricated of type 316 stainless steel and are integrally welded into a one-piece unit. The airfoil, sash, and baffle are also made of 316 stainless steel. All stainless steel is buffed and polished to a #4 finish. The countertop has a ½” dished surface to retain spills and a full width trough at the back to collect runoff during washdown procedures. There is a manual washdown system built-in to clean the areas behind the baffle as well as the duct-collar area.

**Airfoil**: Front opening is framed with a 45° angle fascia that substantially reduces the turbulence of air entering the hood. The bottom horizontal airfoil directs a current of air at countertop level to purge heavy fumes or spillage.


**Standard Features**

- chemical resistant powder coat exterior finish
- vapor sealed fluorescent light fixture (bulbs included) accessed from inside the air chamber
- 316 stainless steel one-piece work surface and liner
- flush mount 316 stainless steel airfoil
- shaft drive sash allows easy lifting from anywhere along the sash
- full frame construction
- louvered front panel for bypass
- 10” round stainless steel duct collar
- plastic laminate base cabinet(s)

**Options**

- sash stops
- combination horizontal / vertical sash
- automatic sash return
- push button sash
- chain and sprocket sash drive
- electrical accessories
- plumbing fixtures
- alarms
- LED lighting
- ceiling enclosures
- lattice assembly
- chemical resistant exterior and/or interior plastic laminate base cabinet(s)
- powder coat steel base cabinet(s)
- stainless steel base cabinet(s)

See pages 20.18.0 - 20.20.0 for accessories.
LSI Extractor Series I
Walk-In

The Walk-In conventional bypass hood accommodates extensive apparatus setups, allowing special equipment to be easily moved into the enclosure.

**Standard Design**

**Air Management:** Constant exhaust volume, drawing air efficiently through the sash when open or through the bypass chamber when sash is closed. Walk-in model has two sashes which can be positioned to completely open or close the hood or create a partial opening at any height. An additional lower baffle with bottom adjustment controls exhaust air at top, bottom or center of hood.

**Superstructure:** Outer wall is chemical resistant powder-coated steel. Interior lining is U.L. listed poly resin unless otherwise specified. Walk-In model has no bottom horizontal airfoil and no floor. Double wall construction offers a 5” chase area, for plumbing and electrical fixtures within walls, at the same height as a countertop hood.

**Airfoil:** Front opening is framed with a 45° angle fascia that substantially reduces the turbulence of air entering the hood.


**Standard Features**
- Chemical resistant powder coat exterior finish
- Full frame construction
- Vapor sealed fluorescent light fixture (bulbs included) accessed from inside the air chamber
- Shaft drive sash allows easy lifting from anywhere along the sash
- Louvered front panel for bypass
- U.L. listed poly resin liner
- 10” round stainless steel duct collar

**Options**
- Stainless steel sash
- Sash stops
- Combination horizontal/vertical sash
- Chain and sprocket sash drive
- Electrical accessories
- Plumbing fixtures
- Alarms
- LED lighting
- Ceiling enclosures

See pages 20.18.0 - 20.20.0 for accessories.

**Sizing**

W: 48”, 60”, 72”, 96”
H: 93” + 17” raised sash
D: 35”

**Air Data**

<table>
<thead>
<tr>
<th>Product No.</th>
<th>CFM at 100 LFM</th>
<th>Static pressure at Hood</th>
<th>Duct size</th>
</tr>
</thead>
<tbody>
<tr>
<td>60030</td>
<td>990</td>
<td>.25 inches</td>
<td>10” dia</td>
</tr>
<tr>
<td>60031</td>
<td>1306</td>
<td>.34 inches</td>
<td>10” dia</td>
</tr>
<tr>
<td>60032</td>
<td>1623</td>
<td>.34 inches</td>
<td>10” dia</td>
</tr>
<tr>
<td>60033</td>
<td>2256</td>
<td>.34 inches</td>
<td>(2)10” dia</td>
</tr>
</tbody>
</table>

Measurements Calculated with Sash Half Opened

- Mechanical & Electrical Fixtures Furnished Loose.
- No Piping, Conduit, Traps or Blowers Included.
The Double-Faced Airfoil conventional bypass hood safely exhausts fumes while allowing access and observation from both sides. Ideal for teacher/student interaction; freestanding and vented pass-through. Also use between adjacent rooms as common hood to each.

**Standard Design**

- **Air Management:** Constant exhaust volume, drawing air efficiently through either or both open sashes or through the bypass chamber when the sashes are closed.
- **Superstructure:** Outer wall is chemical resistant powder-coated steel. Interior lining is U.L. listed poly resin unless otherwise specified. Double wall construction provides a 5” chase area for plumbing and electrical fixtures.
- **Airfoil:** Front and back openings are framed with 45° angle fascia that substantially reduces the turbulence of air entering the hood. The bottom horizontal airfoil directs a current of air at countertop level to purge heavy fumes or spillage. The standard airfoil is made from chemical-resistant, powder-coated, 16 gauge cold rolled steel.


**Standard Features**
- Chemical resistant powder coat exterior finish
- Vapor sealed fluorescent light fixture (bulb included) accessed from inside the air chamber
- Shaft drive sash allows easy lifting from anywhere along the sash
- Full frame construction
- Flush-mount airfoil
- Louvered front panel for by pass
- Sash interlock
- 10” round stainless steel duct collar
- Double sided plastic laminate base cabinet(s)

**Options**
- Stainless steel airfoil
- Stainless steel sash
- Sash stops
- Combination horizontal / vertical sash
- Push button sash
- Automatic sash return
- Electrical accessories
- Plumbing fixtures
- Alarms
- Ceiling enclosures
- Lattice assembly
- Chemical resistant exterior and/or interior plastic laminate base cabinet(s)
- Powder coat steel base cabinet(s)
- Stainless steel base cabinet(s)
- Knock down

See pages 20.18.0 - 20.20.0 for accessories.
The Demonstration conventional bypass hood is ideal for classroom use, with sash access on both sides for team projects plus an end window for group viewing.

**Standard Design**

**Air Management:** Constant exhaust volume, drawing air efficiently through the sash when open or through the bypass chamber when sash is closed.

**Superstructure:** Outer wall is chemical resistant powder coated steel. Interior lining is U.L. listed poly resin unless otherwise specified. The hood has one 5” post and one 2” post. The asymmetric construction allows for more workspace inside and for electrical fixtures to be installed on the 5” side. Plumbing fixtures must be deck mounted.


**Standard Features**
- Chemical resistant powder coat exterior finish
- Full frame construction
- Vapor sealed fluorescent light fixture (bulbs included) accessed from inside the air chamber
- Shaft drive sash allows easy lifting from anywhere along the sash
- Sash interlock
- Louvered front panel for bypass
- U.L. listed poly resin liner
- 10” round stainless steel duct collar
- Plastic laminate base cabinet(s)

**Options**
- Stainless steel sash
- Sash stops
- Combination horizontal/vertical sash
- Push button sash
- Automatic sash return
- Electrical accessories
- Plumbing fixtures
- Lattice assembly
- Alarms
- LED lighting
- Ceiling enclosures
- Chemical resistant exterior and/or interior plastic laminate base cabinet(s)
- Powder coat steel base cabinets
- Stainless steel base cabinets

See pages 20.18.0 - 20.20.0 for accessories.

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**Sizing**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>W: (Hood)</td>
<td>60”</td>
<td></td>
</tr>
<tr>
<td>W: (Cabinet &amp; Top)</td>
<td>60”</td>
<td></td>
</tr>
<tr>
<td>H: (Hood)</td>
<td>48”</td>
<td></td>
</tr>
<tr>
<td>H: (with Cabinet)</td>
<td>84” + 10” raised sash</td>
<td></td>
</tr>
<tr>
<td>D: (Hood)</td>
<td>30”</td>
<td></td>
</tr>
<tr>
<td>D: (Cabinet)</td>
<td>32”</td>
<td></td>
</tr>
</tbody>
</table>

**Air Data**

<table>
<thead>
<tr>
<th>Product No.</th>
<th>CFM at 100 LFM</th>
<th>Static pressure at Hood</th>
<th>Duct size</th>
</tr>
</thead>
<tbody>
<tr>
<td>60040</td>
<td>1030</td>
<td>.75 inches</td>
<td>10” dia</td>
</tr>
</tbody>
</table>

*The Demonstration Hood accommodates electrical fixtures on one side only; “left-side” and “right-side” refer to the side the electrical fixtures are on.

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- Mechanical & Electrical Fixtures Furnished Loose.
- No Piping, Conduit, Traps or Blowers Included.
The ADA Design Airfoil conventional bypass hood is specially designed for the safety and comfort of disabled operators.

**Standard Design**

**Special Safety Features:** The ADA Design fume hood is constructed to accommodate a seated operator as well as allowing comfortable standing operation. All service controls and instructions are within easy reach and sight while seated and the standard sash is counter weighted for effortless control. The worktop, in addition to the standard marine edge, has a forward steel trough to provide secondary operator protection from spillage.

**Air Management:** Constant exhaust volume, drawing air efficiently through the sash when open or through the bypass chamber when sash is closed.

**Superstructure:** Outer wall is chemical resistant powder-coated sheet steel interior lining is U.L. listed poly resin unless otherwise specified. Double wall construction provides a 5” chase area, for plumbing and electrical fixtures within walls.

**Airfoil:** Front openings is framed with a 45° angle fascia that substantially reduces the turbulence of air entering the hood. The bottom horizontal airfoil directs a current of air at countertop level to purge heavy fumes or spillage.


**Cabinets:** 8” toe base and cabinet bottom restrictor accommodate “low reach” minimums.

**Standard Features**
- chemical resistant powder coat exterior finish
- full frame construction
- vapor sealed fluorescent light fixture (bulbs included) accessed from inside the air chamber
- shaft drive sash allows easy lifting from anywhere along the sash
- sash stop
- combination horizontal / vertical sash
- louvered front panel for bypass
- air flow alarm
- U.L. listed poly resin liner
- flush-mount airfoil
- painted steel containment trough under airfoil
- 10” round stainless steel duct collar
- plastic laminate base cabinet(s) or chase

**Options**
- stainless steel sash
- stainless steel airfoil
- automatic sash return
- push button sash
- chain and sprocket sash drive
- electrical accessories
- plumbing fixtures
- ¼ turn ball valves
- epoxy tops
- alarms
- LED lighting
- ceiling enclosures
- lattice assembly
- chemical resistant exterior and/or interior plastic laminate base cabinet(s)
- powder coat steel base cabinet(s)
- stainless steel base cabinet(s)

See pages 20.18.0 - 20.20.0 for accessories.

**Sizing**
- W: (Hood) 48”, 60”, 72”
- W: (Cabinet & Top) 48”, 60”, 72”
- W: (Knee space) 36”
- H: (Hood) 57.25” + 7.5” raised sash
- H: (with Cabinet) 92” + 7.5” raised sash
- D: (Hood) 33.25”
- D: (Cabinet) 22.5”

**Air Data**

<table>
<thead>
<tr>
<th>Product No.</th>
<th>CFM at 100 LFM</th>
<th>Static pressure at Hood</th>
<th>Duct size</th>
</tr>
</thead>
<tbody>
<tr>
<td>60045</td>
<td>833</td>
<td>.25 inches</td>
<td>10”dia</td>
</tr>
<tr>
<td>60046</td>
<td>1100</td>
<td>.34 inches</td>
<td>10” dia</td>
</tr>
<tr>
<td>60047</td>
<td>1367</td>
<td>.34 inches</td>
<td>10” dia</td>
</tr>
</tbody>
</table>

- Mechanical & Electrical Fixtures Furnished Loose.
- No Piping, Conduit, Traps or Blowers Included.
The Flat Front conventional bypass hood is an economical fume hood for K-12 educational applications that has 5” posts to allow mounting electrical and plumbing fixtures on the face of the hood.

**Standard Design**

**Air Management:** Constant volume, through open sash or through bypass chamber when sash is closed.

**Superstructure:** Outer wall is chemical resistant powder coat steel. Interior lining is U.L. listed poly resin unless otherwise specified.


**Standard Features**
- chemical resistant powder coat exterior finish
- full frame construction
- vapor sealed fluorescent light fixture (bulbs included) accessed from inside the air chamber
- shaft drive sash allows easy lifting from anywhere along the sash
- louvered front panel for bypass
- U.L. listed poly resin liner
- 10” round stainless steel duct collar
- plastic laminate base cabinet(s)

**Options**
- stainless steel sash
- sash stops
- combination horizontal/ vertical sash
- automatic sash return
- chain and sprocket sash drive
- electrical accessories
- plumbing fixtures
- epoxy tops
- alarms
- LED lighting
- ceiling enclosures
- chemical resistant exterior and/or interior plastic laminate base cabinet(s)
- powder coat steel base cabinet(s)
- stainless steel base cabinet(s)
- knock down

See pages 20.18.0 - 20.20.0 for accessories.

### Sizing

<table>
<thead>
<tr>
<th>W: (Hood)</th>
<th>36”</th>
<th>48”</th>
<th>60”</th>
<th>72”</th>
<th>96”</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Cabinet &amp; Top)</td>
<td>36”</td>
<td>48”</td>
<td>60”</td>
<td>72”</td>
<td>96”</td>
</tr>
<tr>
<td>H: (Hood)</td>
<td>56” + 7.5” raised sash</td>
<td>56” + 7.5” raised sash</td>
<td>56” + 7.5” raised sash</td>
<td>56” + 7.5” raised sash</td>
<td>56” + 7.5” raised sash</td>
</tr>
<tr>
<td>H: (with Cabinet)</td>
<td>92” + 7.5” raised sash</td>
<td>92” + 7.5” raised sash</td>
<td>92” + 7.5” raised sash</td>
<td>92” + 7.5” raised sash</td>
<td>92” + 7.5” raised sash</td>
</tr>
<tr>
<td>D: (Hood)</td>
<td>29.5”</td>
<td>29.5”</td>
<td>29.5”</td>
<td>29.5”</td>
<td>29.5”</td>
</tr>
<tr>
<td>D: (Cabinet)</td>
<td>22.5”</td>
<td>22.5”</td>
<td>22.5”</td>
<td>22.5”</td>
<td>22.5”</td>
</tr>
</tbody>
</table>

### Air Data

<table>
<thead>
<tr>
<th>Product No.</th>
<th>CFM at 100 LFM</th>
<th>Static pressure at Hood</th>
<th>Duct size</th>
</tr>
</thead>
<tbody>
<tr>
<td>60140</td>
<td>567</td>
<td>.25 inches</td>
<td>10” dia</td>
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<tr>
<td>60141</td>
<td>833</td>
<td>.33 inches</td>
<td>10” dia</td>
</tr>
<tr>
<td>60142</td>
<td>1100</td>
<td>.34 inches</td>
<td>10” dia</td>
</tr>
<tr>
<td>60143</td>
<td>1367</td>
<td>.34 inches</td>
<td>10” dia</td>
</tr>
<tr>
<td>60144</td>
<td>1900</td>
<td>.40 inches</td>
<td>(2) 10” dia</td>
</tr>
</tbody>
</table>
LSI Extractor Series I
High Performance

The High Performance fume hood offers 40% to 60% energy savings over standard hoods without compromising safety or performance.

Standard Design
Air Management: Variable air volume, the HP series hood adjusts blower speed to provide a controlled air velocity through the sash no matter where it is positioned.

Superstructure: Outer wall is chemical resistant powder-coat steel interior lining is U.L listed poly resin unless otherwise specified. Double wall construction provides a 5” chase area, for plumbing and electrical fixtures within walls.

Airfoil: Front opening is framed with a 45° angle fascia that substantially reduces the turbulence of air entering the hood. The bottom horizontal airfoil directs a current of air at countertop level to purge heavy fumes or spillage. The standard airfoil is made from chemical-resistant powder coat 16 gauge cold rolled steel.


Standard Features
- chemical resistant powder coat exterior finish
- full frame construction
- LED lighting with interior access to light
- shaft drive sash allows easy lifting from anywhere along the sash
- sash sweep
- flush-mount airfoil
- airflow monitor / alarm
- sash alarm
- U. L. listed poly resin liner
- 10” round stainless steel duct collar
- plastic laminate base cabinets

Options
- stainless steel airfoil
- stainless steel sash
- sash stops
- combination horizontal / vertical sash
- push button sash
- automatic sash return
- chain and sprocket sash drive
- electrical accessories
- plumbing fixtures
- epoxy tops
- ceiling enclosures
- knock down
- chemical resistant exterior and/or interior plastic laminate base cabinet(s)
- powder coat steel base cabinets
- stainless steel base cabinets

See pages 20.18.0 - 20.20.0 for accessories.

Sizing

<table>
<thead>
<tr>
<th>60151 - 48” hood with laminate cabinet</th>
<th></th>
<th>60152 - 60” hood with laminate cabinet</th>
<th></th>
<th>60153 - 72” hood with laminate cabinets</th>
<th></th>
<th>60154 - 96” hood with laminate cabinets</th>
</tr>
</thead>
<tbody>
<tr>
<td>W: (Hood) 48”, 60”, 72”, 96”</td>
<td></td>
<td>W: (Cabinet &amp; Top) 48”, 60”, 72”, 96”</td>
<td></td>
<td>H: (Hood) 57.25” + 7.5” raised sash</td>
<td></td>
<td>H: (with Cabinet) 92” + 7.5” raised sash</td>
</tr>
<tr>
<td>D: (Hood) 33.25”</td>
<td></td>
<td>D: (Cabinet) 22.5”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Air Data

<table>
<thead>
<tr>
<th>Product No.</th>
<th>CFM at 100 LFM</th>
<th>Static pressure at Hood</th>
<th>Duct size</th>
</tr>
</thead>
<tbody>
<tr>
<td>60151</td>
<td>469</td>
<td>.25 inches</td>
<td>10” dia</td>
</tr>
<tr>
<td>60152</td>
<td>619</td>
<td>.34 inches</td>
<td>10” dia</td>
</tr>
<tr>
<td>60153</td>
<td>769</td>
<td>.34 inches</td>
<td>10” dia</td>
</tr>
<tr>
<td>60154</td>
<td>1069</td>
<td>.34 inches</td>
<td>(2) 10” dia</td>
</tr>
</tbody>
</table>

• Mechanical & Electrical Fixtures Furnished Loose.
• No Piping, Conduit, Traps or Blowers Included.
The Work Station fume hood offers viewing from all sides, which is a great feature for teaching labs, and maximizes ambient light into the hood.

**Standard Design**

**Air Management:** Constant exhaust volume, drawing air efficiently through the sash when open or through the bypass chamber when sash is closed.

**Superstructure:** Outer wall is chemical resistant powder coat steel. Interior lining is U.L. listed poly resin unless otherwise specified. Plumbing and electrical services are factory installed and must be specified at time of order. Electrical services are run to a junction box at the top of the hood. Plumbing can be piped up or down, please specify.

**Airfoil:** Front opening is framed with a 45° angle fascia that substantially reduces the turbulence of air entering the hood. The bottom horizontal airfoil directs a current of air at countertop level to purge heavy fumes or spillage. The standard airfoil is made from chemical-resistant powder coat 16 gauge cold rolled steel.


**Standard Features**

- chemical resistant powder coat exterior finish
- full frame construction
- vapor sealed fluorescent light fixture (bulbs included) accessed from inside the air chamber
- constant force sash counterbalance allows easy lifting from anywhere along the sash
- flush-mount airfoil
- U.L. listed poly resin liner
- painted steel containment trough under airfoil
- 10" round stainless steel duct collar
- plastic laminate base cabinet(s)

**Options**

- electrical accessories
- plumbing fixtures
- epoxy tops
- chemical resistant exterior and/or interior plastic laminate base cabinet(s)
- powder coat steel base cabinet(s)
- stainless steel base cabinet(s)

See pages 20.18.0 - 20.20.0 for accessories.

<table>
<thead>
<tr>
<th>Sizing</th>
<th>36&quot;, 48&quot;</th>
<th>60&quot;</th>
<th>72&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>W: (Hood)</td>
<td>48&quot;, 60&quot;</td>
<td>72&quot;</td>
<td></td>
</tr>
<tr>
<td>W: (Cabinet &amp; Top)</td>
<td>48&quot;, 60&quot;</td>
<td>72&quot;</td>
<td></td>
</tr>
<tr>
<td>H: (Hood)</td>
<td>62&quot; + 12&quot; raised sash</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H: (with Cabinet)</td>
<td>97&quot; + 12&quot; raised sash</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D: (Hood)</td>
<td>34.1875&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D: (Cabinet)</td>
<td>22.5&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Air Data**

<table>
<thead>
<tr>
<th>Product No.</th>
<th>CFM at 100 LFM</th>
<th>Static pressure at Hood</th>
<th>Duct size</th>
</tr>
</thead>
<tbody>
<tr>
<td>60161</td>
<td>770</td>
<td>.25 inches</td>
<td>10&quot; dia</td>
</tr>
<tr>
<td>60162</td>
<td>1000</td>
<td>.33 inches</td>
<td>10&quot; dia</td>
</tr>
<tr>
<td>60163</td>
<td>1250</td>
<td>.5 inches</td>
<td>10&quot; dia</td>
</tr>
</tbody>
</table>

• Mechanical & Electrical Fixtures Furnished Loose.
• No Piping, Conduit, Traps or Blowers Included.
Available on all louvered fume hoods, the Air Pak system reduces energy use by up to 70%.

**Standard Design**

Air Management: The supplementary Air Pak greatly reduces heating and cooling costs by obtaining up to 70% of the air exhausted through the hood from outside the laboratory. A separate blower and duct are required for air supply.

Superstructure: The supplementary Air Pak chamber replaces the front panel on any standard hood design, and matches all LSI Extractor Series I hood standards in design, construction, materials, finishes and fixtures.

**Air Data**

### For Air Foil, Radio Isotope, And Perchloric Acid Fume Hoods

<table>
<thead>
<tr>
<th>Air Pak Number</th>
<th>Fits Hood Size</th>
<th>Fits Air Foil Hood No.</th>
<th>Fits Isotope Hood No.</th>
<th>70% of Hood CFM</th>
<th>Static Pressure at Hood</th>
<th>Duct size</th>
</tr>
</thead>
<tbody>
<tr>
<td>60050</td>
<td>36”</td>
<td>60000</td>
<td>60015</td>
<td>400</td>
<td>.15 inches</td>
<td>4” × 17”</td>
</tr>
<tr>
<td>60051</td>
<td>48”</td>
<td>60001</td>
<td>60016</td>
<td>580</td>
<td>.18 inches</td>
<td>4” × 17”</td>
</tr>
<tr>
<td>60052</td>
<td>60”</td>
<td>60002</td>
<td>60017</td>
<td>765</td>
<td>.22 inches</td>
<td>4” × 17”</td>
</tr>
<tr>
<td>60053</td>
<td>72”</td>
<td>60003</td>
<td>60018</td>
<td>950</td>
<td>.28 inches</td>
<td>4” × 17”</td>
</tr>
<tr>
<td>60054</td>
<td>96”</td>
<td>60004</td>
<td>60019</td>
<td>1315</td>
<td>.42 inches</td>
<td>(2) 4” × 17”</td>
</tr>
</tbody>
</table>

### For Thin Wall Fume Hoods

<table>
<thead>
<tr>
<th>Air Pak Number</th>
<th>Fits Hood Size</th>
<th>Fits Hood No.</th>
<th>70% of Hood CFM</th>
<th>Static Pressure at Hood</th>
<th>Duct size</th>
</tr>
</thead>
<tbody>
<tr>
<td>60055</td>
<td>36”</td>
<td>60010</td>
<td>470</td>
<td>.15 inches</td>
<td>4” × 17”</td>
</tr>
<tr>
<td>60056</td>
<td>48”</td>
<td>60011</td>
<td>645</td>
<td>.18 inches</td>
<td>4” × 17”</td>
</tr>
<tr>
<td>60057</td>
<td>60”</td>
<td>60012</td>
<td>820</td>
<td>.22 inches</td>
<td>4” × 17”</td>
</tr>
<tr>
<td>60058</td>
<td>72”</td>
<td>60013</td>
<td>995</td>
<td>.28 inches</td>
<td>4” × 17”</td>
</tr>
<tr>
<td>60059</td>
<td>96”</td>
<td>60014</td>
<td>1345</td>
<td>.42 inches</td>
<td>(2) 4” × 17”</td>
</tr>
</tbody>
</table>

### For Walk-In Fume Hoods

<table>
<thead>
<tr>
<th>Air Pak Number</th>
<th>Fits Hood Size</th>
<th>Fits Hood No.</th>
<th>70% of Hood CFM</th>
<th>Static Pressure at Hood</th>
<th>Duct size</th>
</tr>
</thead>
<tbody>
<tr>
<td>60060</td>
<td>48”</td>
<td>60030</td>
<td>580</td>
<td>.18 inches</td>
<td>4” × 17”</td>
</tr>
<tr>
<td>60061</td>
<td>60”</td>
<td>60031</td>
<td>765</td>
<td>.22 inches</td>
<td>4” × 17”</td>
</tr>
<tr>
<td>60062</td>
<td>72”</td>
<td>60032</td>
<td>950</td>
<td>.28 inches</td>
<td>4” × 17”</td>
</tr>
<tr>
<td>60063</td>
<td>96”</td>
<td>60033</td>
<td>1315</td>
<td>.42 inches</td>
<td>(2) 4” × 17”</td>
</tr>
</tbody>
</table>

- Mechanical & Electrical Fixtures Furnished Loose.
- No Piping, Conduit, Traps or Blowers Included.
LSI Extractor Series II
Ductless

The Ductless Fume Hood uses 96% less energy than standard hoods and reduces operating costs by 70%. It also offers viewing from all sides, which is a great feature for teaching labs, and maximizes ambient light into the hood.

Standard Design
Air Management: The Ductless hood uses the patented Neutrodine® filtration system from Erlab® to remove fumes from acids, solvents, and liquids using molecular adsorption. Dust and/or powders can also be handled by using a HEPA filter accessory separately or together with the Neutrodine® filter.

Superstructure: Outer wall is chemical resistant powder-coat steel. Interior lining is U.L. listed poly resin. Plumbing and electrical services are factory installed.

Airfoil: Front opening is framed with a 45° angle fascia that substantially reduces the turbulence of air entering the hood. The bottom horizontal airfoil directs a current of air at countertop level to purge heavy fumes or spillage.


Standard Features
- chemical resistant powder coat exterior finish
- full frame construction
- view interior from all sides
- vapor sealed fluorescent light fixture (bulbs included) accessed from inside the air chamber
- constant force sash counterbalance allows easy lifting from anywhere along the sash
- four service fixtures include: cold water, gas, air, vacuum
- two duplex electrical outlets
- flush-mount airfoil
- U.L. listed poly resin liner
- epoxy top
- painted steel containment trough under airfoil
- 10” round stainless steel duct collar.
- plastic laminate base cabinet(s)
- interior access to plumbing

Options
- chemical resistant exterior and/or interior plastic laminate base cabinet(s)
- powder coat steel base cabinets
- stainless steel base cabinets

Sizing
W: (Hood) 48”, 60”, 72”
W: (Cabinet & Top) 48”, 60”, 72”
H: (Hood) 71.5”
H: (with Cabinet) 107”
D: (Hood) 36.875”
D: (Cabinet) 22.5”

Air Data
- 100 FPM face velocity @ 12” sash opening
- 60 FPM face velocity @ 18” sash opening

60171 - 48” hood with laminate cabinet
60172 - 60” hood with laminate cabinet
60173 - 72” hood with laminate cabinets
60174 - 96” hood with laminate cabinets

36”, 48” 60” 72”, 96”
LSI Extractor Series III
Portable

W: 36” (Hood),
W: 38” (Cabinet & Top)
H: 68”
D: 32”

Standard Features
• mobile base
• outer wall is chemical resistant painted steel
• plexiglass windows/hinged shield
• dished epoxy resin top
• AC duplex outlet
• 8’ foot power cord
• LED light fixture and switch
• exhaust fan and switch
• 2” x 48” flexible exhaust duct, connects to 2” building vacuum exhaust system

Adaptor Option

AO#1
AO#2

60070 - on laminate mobile
60071 - on steel tube cart

60075 - hood only (for worktop mount)
60076 - on laminate mobile

W: 36” (Hood)
W: 38” (Cabinet & Top)
H: 32.5” (Hood), 68.5” (Cabinet & Hood)
D: 25” (Cabinet & Top)

Standard Features
• countertop / mobile base mount
• outer wall is chemical resistant painted steel
• plexiglass windows / hinged shield
• dished epoxy resin top
• cold water gooseneck with water inlet
• cupsink with waste water outlet
• gas inlet
• AC duplex outlet
• exhaust fan and switch
• 8’ foot power cord
• LED light fixture and switch
• exhaust fan and switch
• 2” x 48” flexible exhaust duct, connects to 2” building vacuum exhaust system

60080
• use with #6007x portable fume hoods
• part AO#1 is permanently installed in building wall and connected to vacuum exhaust system; part AO#2 is attached to the exhaust hose to provide a secure quick-connect fitting to AO#1.

Mechanical & Electrical Fixtures Furnished Loose.
No Piping, Conduit, Traps or Blowers Included.
LSI Extractor Spray Booth with Light & Blower

**9244 (vapor proof)**
**9245 (explosion proof)**

- **W:** 24", 30", 36", 48", 60"
- **H:** 84"
- **D:** 23.5"

For simple non-toxic fume and vapor removal in laboratory-related areas.

**Standard Features**
- Provides air flow of 100 LFM and static pressure of approximately ¾”
- Constructed of 18-gauge steel with a corrosion resistant powder coat finish
- Vapor proof or explosion proof incandescent light
- Two filters in an easy-to-change flange bracket system

**Options**
- 18-gauge, 304 stainless steel construction
- Additional stainless steel threaded rod with couplers

<table>
<thead>
<tr>
<th>Hood Size</th>
<th>LFM</th>
<th>CFM</th>
</tr>
</thead>
<tbody>
<tr>
<td>24&quot;</td>
<td>100</td>
<td>472</td>
</tr>
<tr>
<td>30&quot;</td>
<td>100</td>
<td>613</td>
</tr>
<tr>
<td>36&quot;</td>
<td>100</td>
<td>755</td>
</tr>
<tr>
<td>48&quot;</td>
<td>100</td>
<td>1040</td>
</tr>
<tr>
<td>60&quot;</td>
<td>100</td>
<td>1322</td>
</tr>
</tbody>
</table>

**LSI Extractor Canopy**

**60095 - island:** all sides angled (shown)
**60096 - wall:** flat back & sides, angled front
**60097 - wall:** flat back, angled sides & front

- **W:** 24", 30", 36", 48", 60", 72"
- **H:** 18"
- **D:** 30"

Collects & exhausts heat, steam & odors when mounted over work areas where steam baths, hot plates & other heat-producing equipment is employed

- Control over fumes can be enhanced by optional baffles which maximize slot velocity
- Chemical resistant painted sheet steel
- Threaded hanging rods can be provided with couplers for additional ceiling height

**Standard Features**
- Constructed of 18-gauge steel with a corrosion resistant powder coat finish
- Model #60095 supplied with four stainless steel threaded rods
- Models #60096 & 60097 supplied with two stainless steel threaded rods

**Options**
- Factory installed switches for light & blower. Wiring is run to a common junction box on top of the hood. Switches for vapor proof booth are installed in front post. Switches for explosion proof booth are installed on side of booth or shipped loose.
**LSI Extractor Series I Fire Extinguisher**

**60085 - automatic (shown)**
- mounts on top of hood ceiling
- protection from fire hazard is available on all LSI Extractor Series I models
- automatic operation for 24 hour protection
- fusible link melts at 165°F
- releases all-purpose ABC dry chemical
- stainless steel cylinder comes with mounting bracket
- order 2 extinguishers for hoods 70” or wider

**60086 - manual**
- mounts externally on side of hood

**LSI Extractor Series I Ceiling Enclosure**

**60100 - plastic laminate**
- at Air Pak

**60076 - steel**
- Conceals ductwork, protects electrical connections by enclosing the space between the fume hood and ceiling
- flush
- constructed of painted steel to match hood or plastic laminate to match cabinet

**LSI Extractor Series I Fume Hood Alarm**

**60115**
- Easy to use alarm has visual and audible alerts for sash high and low airflow conditions
- green LED shows normal operation
- red LED and horn indicate alarm
- alarm range of 30 - 400 FPM
- on-board or remote airflow sensor
- single or two-point calibration
- relay output for low airflow
- RS232 comm. port (can connect to LAN using a serial interface)
- relay inputs for sash high and night setback
- UL and CE approved

**60116**
- Digital and bar graph displays of airflow with visual and audible alerts for sash high and low airflow conditions
- green LED shows normal operation
- red LED and horn indicate alarm
- English or Metric display units
- alarm range of 0 - 200 FPM
- remote airflow sensor
- two-point calibration
- relay output for low airflow
- RS232 comm. port (can connect to LAN using a serial interface)
- three configurable relay inputs
- UL and CE approved

**LSI Extractor Series I Sash Stop**

**60105 - cam stop**
- Convenient stop can be added to allow the sash to be securely fixed in any position

**60106 - spring loaded stop**
- Convenient stop can be added to allow the sash to be securely fixed in any position
Electrical Accessories for LSI Extractor Series I
Conventional Use Switches & Receptacles

**Light Switch**
- 60110
  - Single gang box, faceplate
  - 15 amp, 125 and 277 volt
  - AC single pole

**Blower Switch with Pilot**
- 60111
  - Single gang box with faceplate, indicator light, thermal overload protector
  - Double pole for up to 1 hp single phase 60 Hz 115 volt AC motors.

**250v Single Outlet**
- 60112
  - Single gang box, faceplate
  - Single 3-wire polarized ground 15 amp, 250 volt AC only

**Ground Fault Interrupter**
- 60113
  - Single gang box, faceplate, combination ground fault interrupter
  - Duplex 3-wire polarized grounded 15 amp, 125 volt AC only receptacle

Explosion-Proof Switches, Receptacles, & Lighting
These electrical fittings are designed to meet safety standards with hazardous materials. Specify for hoods to be used with Class 1 flammable gases and vapors, and Division 1 Normal and Groups A, B, C, D. Receptacles have protective covers; lights resist shattering.

**Single Electric Receptacle**
- 70618
  - Explosion-proof single
  - 125 volt
  - Class 1 group 1

**Double Electric Receptacle**
- 70619
  - Explosion-proof double
  - 125 volt
  - Class 1 group 1

**Explosion Proof switch**
- 70620
  - Class 1 group 1

Explosion-Proof Light Incandescent
- 70621
  - ½ " hub
  - Upto 300 volts
  - 120 volts
  - Class 1, group 1

Explosion-proof Light Fluorescent
- 70622
  - 1/2" hub
  - Upto 300 volts
  - 120 volt
  - Class 1, group 1

All hood-mounted electrical fixtures can be factory pre-wired to speed installation at the job site. Wires are pulled to a junction box at the top of the hood.
Plumbing Accessories for LSI Extractor Series I

90° Water Faucet

**60120**
- back-mounted
- serrated nozzle

Gooseneck Faucet with Vacuum Breaker

**60121**
- back-mounted
- rigid/swing vacuum breaker spout
- serrated nozzle

Multi-service Remote

**60122** - gas
**60123** - air
**60124** - vacuum
**60125** - cold water
- includes index button, handle, rod guide flange, rod (cut to length), coupling, valve, close nipple, nut, washer, wall flange

Cold water Gooseneck Remote

**60126**
- cold water gooseneck
- includes index button, handle, rod guide flange, rod (cut to length), coupling, valve, close nipple, nut, washer, wall flange

Hot/Cold water Gooseneck Remote

**60128**
- hot & cold water gooseneck
- includes index button, handle, rod guide flange, rod (cut to length), coupling, valve, close nipple, nut, washer, wall flange

Cold Water Deck Mount

**60130**
- Cold water deck mount gooseneck
- includes index button, handle, nut, washer

**Service Color Codes**

<table>
<thead>
<tr>
<th>Color</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Cold water</td>
</tr>
<tr>
<td>Blue</td>
<td>Gas</td>
</tr>
<tr>
<td>Orange</td>
<td>Air</td>
</tr>
<tr>
<td>Yellow</td>
<td>Vacuum</td>
</tr>
<tr>
<td>Black</td>
<td>Steam</td>
</tr>
<tr>
<td>Sepia Bronze</td>
<td>Hot/Cold Mixing Faucets</td>
</tr>
<tr>
<td>White</td>
<td>Distilled water</td>
</tr>
</tbody>
</table>

Gas Outlet - Single Deck Mount

**60140**
- 1/4 turn ball valve
- one gas outlet

Gas Outlet - Double Deck Mount

**60141**
- 1/4 turn ball valve
- two gas outlet

Remote operated fixtures come standard with four-prong handles, baked color-coded epoxy upper assemblies, and control rods cut to length. Color code per the chart at left. Chrome and other styles are available upon request.

Plumbing fixtures can be factory pre-plumbed to speed installation at the job site. Piping can be routed to the top, bottom, or back of the hood - specify. Pre-plumbed services are 1/2" black pipe for gases and 1/2" rigid copper with soldered joints for water and other lab services.

Remote operated fixtures come standard with four-prong handles, baked color-coded epoxy upper assemblies, and control rods cut to length. Color code per the chart at left. Chrome and other styles are available upon request.
### Flammable Liquid Safety Cabinet

**60500 - 30 gallon**
- W: 43"
- H: 44"
- D: 18"
- 30 gallon storage capacity
- 1 adjustable shelf
- Three point lock on right door
- Specify red or yellow

**60501**
- Same as above but with self-closing doors

**60505 - 45 gallon**
- W: 43"
- H: 65"
- D: 18"
- 45 gallon storage capacity
- 2 adjustable shelves
- Three point lock on right door
- Specify red or yellow

**60506**
- Same as above but with self-closing doors

### Acid Storage Cabinet

**60510 - 30 gallon**
- W: 43"
- H: 44"
- D: 18"
- 30 gallon storage capacity
- 1 adjustable shelf
- Three point lock on right door
- Note: not for use with nitric & sulfuric acids

**60511**
- Same as above but with self-closing doors

**60515 - 45 gallon**
- W: 43"
- H: 65"
- D: 18"
- 45 gallon storage capacity
- 2 adjustable shelf
- Three point lock on right door
- Note: not for use with nitric & sulfuric acids

**60516**
- Same as above but with self-closing doors

### Acid Storage Cabinet Harsh acids

**60518**
- W: 38"
- H: 18"
- D: 13"
- Constructed of high density polyethylene
- Suitable for nitric and sulfuric acids
- Use as stand alone countertop storage
- Designed to fit inside models #60510, 60511, 60515, and 60516
- Put two in a 30 gallon cabinet, put three in a 45 gallon cabinet

### Explosion-Proof Ventilation Package

**60520**
- For use with flammable & acid storage cabinets above
- Rated for Class I, Group D and Class II, Group G & Fuse
- Galvanized flexible metal duct, 3" dia x 15' L
- Comes with fittings to connect cabinet outlet to metal duct and blower
- Note: verify compliance with authorities having jurisdiction before venting cabinets

### Vapor Absorbent Cartridges

**60521 - flammable**
- W: 3.75"
- H: 12"
- Reduces health risks associated with vapor buildup inside flammable liquid & acid storage cabinets
- Inner door labels provided to date when produce usage began
- Attaches with magnet (for flammable cabinets) or velcro (for acid cabinets)
- Note: product life depends on vapor types and concentrations

**60522 - acids/corrosives**
- Reduces health risks associated with vapor buildup inside flammable liquid & acid storage cabinets
- Inner door labels provided to date when produce usage began
- Attaches with magnet (for flammable cabinets) or velcro (for acid cabinets)
- Note: product life depends on vapor types and concentrations
**CO₂ Fire Extinguishers**

<table>
<thead>
<tr>
<th>Model</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>60420</td>
<td>5 lbs</td>
</tr>
<tr>
<td>60421</td>
<td>10 lbs</td>
</tr>
<tr>
<td>60422</td>
<td>15 lbs</td>
</tr>
<tr>
<td>60423</td>
<td>20 lbs</td>
</tr>
</tbody>
</table>

- Use for Class B and C fires including electrical or electronic equipment, ideal for laboratories
- Includes mounting bracket

**Tri-Class Dry Chemical Fire Extinguishers**

<table>
<thead>
<tr>
<th>Model</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>60424</td>
<td>5 lbs</td>
</tr>
<tr>
<td>60425</td>
<td>10 lbs (17&quot; high)</td>
</tr>
<tr>
<td>60426</td>
<td>15 lbs (20.5&quot; high)</td>
</tr>
<tr>
<td>60467</td>
<td>20 lbs</td>
</tr>
</tbody>
</table>

- Multi-purposed Class A, B and C fires for ordinary combustibles, flammable liquids and gases, and electrical equipment fires (may damage electronic/electrical equipment)
- Includes mounting bracket

**Fire Blanket**

- Treated, 100% wool blanket is fire retardant to smother flames, minimize burn injuries
- Comes in vinyl-coated nylon, quick-release tote
- Same blanket as above but with steel cabinet instead of tote

**Fire Classification Poster**

- 11 × 17
- Describe types of fibres, how to extinguish them and proper extinguisher operation

**Cabinet Contents Signs**

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>60450</td>
<td>W: 12&quot; H: 15&quot;</td>
</tr>
</tbody>
</table>

- Magnetic back for easy attachment to metal cabinet
- Allows identification of up to six chemicals

**First Aid Kit**

<table>
<thead>
<tr>
<th>Model</th>
<th>Supplies for</th>
</tr>
</thead>
<tbody>
<tr>
<td>60410</td>
<td>25 people</td>
</tr>
<tr>
<td>60411</td>
<td>50 people</td>
</tr>
</tbody>
</table>

- Refillable case includes: adhesive bandages, antiseptic & burn creams, antiseptic wipes, disposable gloves, tweezers, scissors, CPR filtershield, eye pads, gauze pads, cold pack, non-aspirin, and first aid guide.

**Lens Cleaning Station**

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>60400</td>
<td>W: 6.5&quot; H: 8.6&quot; D: 5.6&quot;</td>
</tr>
</tbody>
</table>

- Lockable, metal case mounts on wall
- Pump style plastic water bottle
- Water activated tissues

**Goggles Germicidal Cabinet**

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>60380</td>
<td>W: 24.5&quot; H: 32&quot; D: 9.5&quot;</td>
</tr>
</tbody>
</table>

- Stores & sanitizes approximately 35 goggles (order goggles separately)
- White enameled steel cabinet
- Doors, tamper-resistant, locked, multiple units keyed alike
- Wall or shelf mountable
- Germicidal lamp with pilot light
- 7 removable steel shelves
- 7 foot, 3-wire cord
**SAFETY**

**Goggles - Non-Vented**
- 60390 - fog-free
- 60391 - fog-free, padded
  - non-vented for fumes

**Goggles - Indirect Vent**
- 60392 - standard
- 60393 - fog-free
- 60394 - fog-free, padded
  - indirect vent for splash and impact situations

**Goggles - Vented**
- 60395 - standard
- 60396 - fog-free
- 60397 - fog-free, padded
  - vent for impact only

**Eyewash - Desk Mount**
- 60525
  - deck mount, next to sink
  - spray heads swing 90° from storage to operational position
  - flag handle activates water flow
  - two spray heads protected by flip-top dust covers
  - internal flow control provides gentle spray
  - filter removes debris from water
- 60526
  - same as above, but left handed

**Eye / Face & Body Spray**
- 60530
  - dual purpose eyewash / drench hose
  - deck mount
  - squeeze handle activates spray, handle locks in on position for hands-free operation
  - two spray heads protected by flip-top dust covers
  - internal flow control provides gentle spray
  - filter removes debris from water
  - 8’ hose
- 60532
  - dual purpose eyewash / drench hose
  - deck mount
  - squeeze handle activates spray, handle locks in on position for hands-free operation
  - spray head protected by flip-top dust cover
  - internal flow control provides gentle spray
  - filter removes debris from water
  - 8’ hose

**Eyewash - Wall Mount**
- 60540
  - wall mount
  - two spray heads protected by flip-top dust covers
  - flag handle activates water flow
  - 11½” stainless steel bowl
  - internal flow control provides gentle spray
  - filter removes debris from water
- 60545
  - recess deck mount
  - two spray heads protected by flip-top dust covers
  - push-down knob activates water flow
  - 13” flanged stainless steel bowl
  - internal flow control provides gentle spray
  - filter removes debris from water
- 60550 ADA
  - wall mount
  - ADA compliant when installed at recommended height
  - four spray heads protected by flip-top dust covers
  - flag handle activates water flow
  - 11½” stainless steel bowl with wrap-around skirt
  - internal flow control provides gentle spray
  - filter removes debris from water
  - vandal resistant, ADA compliant
### Eyewash - Wall Mount with Cover

**60555**
- Wall mount
- Stainless steel cover to protect heads and bowl from dirt & dust
- Two spray heads
- Flag handle opens cover and activates water flow
- 11 1/2" stainless steel bowl
- Internal flow control provides gentle spray
- Filter removes debris from water

### Emergency Shower - Horizontal Mount

**60560 (shown)**
- Horizontal mount
- 10" diameter orange ABS shower head
- 29" stainless steel pull rod activates water flow
- 1" galvanized steel piping
- 1" IPS supply

**60561 ADA**
- Same as above in ADA version
- ADA compliant when installed at recommended height
- 59 1/2" stainless steel pull rod activates water flow

### Emergency Shower - Vertical Mount

**60565 (shown)**
- Vertical mount
- 10" diameter orange ABS shower head
- 29" stainless steel pull rod activates water flow
- 1" galvanized steel piping
- 1" IPS supply

**60566 ADA**
- Same as above in ADA version
- ADA compliant when installed at recommended height and distance from obstructions
- 59 1/2" stainless steel pull rod activates water flow

### Safety Station with Eyewash

**60570 (shown)**
- Floor mount
- 10" diameter orange ABS shower head
- 29" stainless steel pull rod activates shower water flow
- Two eyewash spray heads protected by flip-top dust covers
- Flag handle activates eyewash water flow
- 11 1/2" stainless steel bowl
- Internal flow control provides gentle spray
- Filter removes debris from water
- 1 1/4" galvanized steel supply piping

### Safety Station with Eyewash/Face wash

**60572 (shown)**
- Floor mount
- 10" diameter orange ABS shower head
- 29" stainless steel pull rod activates shower water flow
- Four face wash spray heads protected by flip-top dust covers
- Flag handle activates eyewash water flow
- 11 1/2" stainless steel bowl
- Internal flow control provides gentle spray
- Filter removes debris from water
- 1 1/4" galvanized steel supply piping

**60573 vandal resistant**
- Same as above in vandal resistant version
- ADA compliant
- 8" diameter cast brass chrome plated shower head
- Self-closing shower valve
- Four face wash spray heads protected by stainless steel flip-top dust covers
- Spray heads have retaining ring with set screw to protect internal components

**60574 ADA**
- Same as #60572 in ADA version
- Shower and eye / face wash are extended for improved access
- 47 1/2" stainless steel pull rod activates shower water flow
Safety Center, ADA Compliant

60350
W: 72"
H: 84" (34" counter top height)
D: 25" countertop, 18" upper

Upper Section Consists of:
- 2 - 36" wide storage cabinets
- 1 fixed shelf
- 1 adjustable shelf

Lower Section Consists of:
- countertop
- 1- 36" wide storage cabinet with sliding doors, ADA
- 1- 36" sink cabinet, ADA

Accessories
- 1 emergency shower, ADA compliant
- 1 emergency eyewash, ADA compliant, deck mounted, push-down knob activates water flow
- 1 fire blanket
- 1 first-aid kit
- 1 acid spill kit
- 1 spray clean kit
- 1 ABC dry chemical fire extinguisher
- 1 sand pail
- top mounted emergency sign in red

OPTIONS:
60351 - above, with goggles sanitizing cabinet

Safety Center

60360
W: 36", 42"
H: 84" (36" counter top height)
D: 24.25"

Consists of:
- 1- 36" wide, 2-door storage cabinet
- enclosure above

Accessories:
- 1 emergency shower
- 1 emergency eyewash, deck mounted
- push-down knob activates water flow

Spill Control Kit

60370
W: 16.5"
H: 10"
D: 8"

- refillable metal cabinet can be wall-mounted or placed on countertop
- contains 6 shakers (2 each) of Spill-X-A (Acid neutralizer)
- Spill-X-C (Caustic neutralizer)
- Spill-X-S (Solvent Absorbent)

60375
W: 20.5"
H: 35"
D: 14.75"

- built-in wheels for quick response to spills of up to 3.5 gallons
- contains absorbent pads, towels, blankets; gloves, goggles, aprons, overboots, bucket, sponge, detergent, disposal bags & warning sign

• Mechanical & Electrical Fixtures Furnished Loose.
• No Piping, Conduit, Traps or Blowers Included.
**Safety**

**Undercounter Refrigerator**

- 0564 - commercial general purpose
- 0566 - hazardous location
- 0590 - flammable material storage

<table>
<thead>
<tr>
<th>W</th>
<th>H</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>24”</td>
<td>34”</td>
<td>24” - 26”</td>
</tr>
</tbody>
</table>
- 6.1 cubic feet of refrigerator space

**Undercounter Refrigerator/Freezer**

- 0582 - commercial general purpose
- 0567 - hazardous location
- 0584 - flammable material storage

<table>
<thead>
<tr>
<th>W</th>
<th>H</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>24”</td>
<td>34”</td>
<td>24”</td>
</tr>
</tbody>
</table>
- 5.3 cubic feet of refrigerator space
- .73 cubic feet of freezer space

**Undercounter Freezer**

- 0565 - commercial general purpose

<table>
<thead>
<tr>
<th>W</th>
<th>H</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>24”</td>
<td>34”</td>
<td>24”</td>
</tr>
</tbody>
</table>
- 6.1 cubic feet of freezer space

**Laboratory Glassware Washers**

<table>
<thead>
<tr>
<th>Specify</th>
<th>Type</th>
<th>Description</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>21452</td>
<td>FlaskScrubber™</td>
<td>Undercounter</td>
<td>24.1” W x 34.1” - 36.1” H x 27.4” D</td>
</tr>
<tr>
<td>21453</td>
<td>SteamScrubber™</td>
<td>Undercounter</td>
<td>24.1” W x 34.1” - 36.1” H x 27.4” D</td>
</tr>
<tr>
<td>21454</td>
<td>FlaskScrubber™</td>
<td>Freestanding</td>
<td>24.2” W x 34.2” - 36.2” H x 27.5” D</td>
</tr>
<tr>
<td>21455</td>
<td>SteamScrubber™</td>
<td>Freestanding</td>
<td>24.2” W x 34.2” - 36.2” H x 27.5” D</td>
</tr>
</tbody>
</table>

**FlaskScrubber™**
- Spindle rack & rotating lower wash arm
- Forced hot air drying system
- Removable particle filter
- Steam generator
- Built-in purified water pump
- Adjustable glassware holders
- 304 stainless steel interior
- Detergent dispenser for powder or liquid detergent
- Rinse agent or neutralizing solution dispenser
- Separate pumps for washing and draining to reduce cross contamination

**SteamScrubber™**
- Top and bottom racks
- Upper and lower wash arms
- Removable particle filter
- Steam generator
- Built-in purified water pump
- 304 stainless steel interior
- Forced hot air drying system
- Detergent dispenser for powder or liquid detergent
- Rinse agent or neutralizing solution dispenser
- Separate pumps for washing and draining to reduce cross contamination