Welding Fume Extractors

Welding with the **proper engineering controls** in place can help protect **worker safety**, **workforce health**, and **prevent OSHA violation fines**. When metals are heated for welding, vapors are produced and condensed into harmful fumes containing small particulates. These fumes contain oxides of the metal such as iron, manganese, chromium, nickel, and zinc all of which can have lasting health effects to the welder and workers in the proximity. Possible side effects vary but may include increased risk of cancer, respiratory irritation, and damage to the lungs. Every employer should prioritize **controlling welding fumes** through the use of a fume extractor with high quality filtration system.

**Why Install a Welding Fume Extractor?**

- Worker Safety & Health
- Reduce Worker Lawsuits and Liability
- Government Regulations*
  - OSHA Permissible Exposure Limits (PEL)
  - NIOSH Recommended Exposure Limits (REL)
  - Short Term Exposure (ST)
  - ACGIH Threshold Limit Values (TLV)
- **HEPA** (up to 99.97% efficiency on as small as 0.3 microns)
- **ASHRAE** (up to 95% efficiency on as small as 0.5 microns)
- **ULPA** (up to 99.995% efficiency on as small as 0.12 microns)
- **Micro-Pleat Cleanable Filter**

**Types of Welding Fume Extractors**

- **Portable** - Compact and lightweight with heavy duty casters for mobility. Available with Black Flex Sentry™ or Python style hoses.
- **Wall Mounted** - No required bench or floor space. Features a free-hanging, self-supportive flex arm that can easily be maneuvered.
- **Mounted Extractor Arms** - Fan-powered or non-powered exhaust arm.
- **Multiple Operators** - Available in dual or quad. Perfect for classrooms, training facilities, and other workspaces with multiple nearby operators.

**Extractor Arm Types**

**Flexible**

- Black Flex Sentry™ Flame retardant and self supportive. 4", 5", 6" diameters.

- Python Hose Highly flexible. 12' or 25' long. 4", 5" or 6" magnetic capture hood.

**Heavy Duty**

- 7' Heavy Duty Arm 6" Diameter: Two Black Flex Sentry™ segments to allow flexibility, and rigid segments of aircraft-grade aluminum. 10" round capture hood. 360° polypropylene swivel joint.

- 10' & 12' Heavy Duty Arm

When choosing an adequate ventilation system, it is important to make sure that you are aware of all of the elements that could vary the efficiency of the filtration of welding fumes. The **particular welding application** is usually the number one variable that helps decipher what is recommended, but additional configurations such as **HEPA**, **ULPA**, or **ASHRAE filters**, **cleanable media**, **multi-operators**, or **portability** are dependent of different elements that are best discussed with a trained specialist.
Portable Welding Fume Extractors

Sentry Air Systems’ line of Portable Welding Fume Extractors are designed with heavy-duty casters and self-supportive source-capture flex arms to give the operator full control of the unit’s position in relation to the welding process. These energy-efficient systems are equipped with high-quality filtration media which allows a recirculating air pattern that does not require exterior ducting or make-up air.

Model 300 Welding Fume Extractor — SS-300-WFE

- **Air Volume**: 115v: Variable Speed Control 220v: On/Off Toggle Switch  Up to 350 CFM  
- **Filtration**: HEPA, ASHRAE, ULPA  
- **Dimensions**: Base: 15.5" L x 13" W x 16.5" H; Arm: 5" D x 68" L  
- **Weight**: 40 - 50 lbs  
- **Electrical**: 115/1/60, 2 amps; 220/1/50, 0.75 amps 8' grounded power cord with NEMA 5-15P plug

Model 300 RuggedAir Welding Fume Extractor — SS-300-RGD-7HDA

- **Air Volume**: Variable Speed Control  Up to 530 CFM with Micro-Pleat Series 2 Filter  
- **Filtration**: Round MERV 16 Micro-Pleat Series 2 Cleanable Filter  
- **Base Dim.**: Diameter: 30", Height: 27" with plenum  
- **Arm Dim.**: 7" D, 7" L, 10.5" round inlet  
- **Weight**: 100 lbs  
- **Electrical**: 115/1/60, 2 amps; 220/1/50, 0.75 amps 8’ grounded power cord with NEMA 5-15P plug

Model 400/450 Welding Fume Extractor — SS-400/450-WFE

- **Air Volume**: 115v: Variable Speed Control 220v: On/Off Toggle Switch  400: Up to 700 CFM; 450: Up to 950 CFM  
- **Filtration**: HEPA, ASHRAE, ULPA  
- **Dimensions**: Base: 22.5" L x 20" W x 19.5" H; Arm: 6" D x 72" L  
- **Weight**: 400: 50 - 100 lbs; 450: 62-112 lbs  
- **Electrical**: 400: 115/1/60, 2.5 amps; 220/1/50, 1.5 amps 450: 115/1/60, 10.7 amps; 220/1/50, 5.35 amps 8’ grounded power cord with NEMA 5-15P plug

Model 500/550 Welding Fume Extractor — SS-500/550-WFE-MP1

- **Air Volume**: 115v: Variable Speed Control 220v: On/Off Toggle Switch  500: Up to 705 CFM; 550: Up to 830 CFM  
- **Filtration**: MERV 16 Micro-Pleat Series 1 Cleanable Filter  
- **Dimensions**: Base: 30" D x 30" W x 42.5" H; Arm: 6" D x 10’ L  
- **Weight**: 500: 225 lbs without filters; 317 lbs with filters 550: 240 lbs without filters; 332 lbs with filters  
- **Electrical**: 500: 115/1/60, 2.5 amps; 220/1/50, 1.5 amps 550: 115/1/60, 10.7 amps; 220/1/50, 5 amps 8’ grounded power cord with NEMA 5-15P plug

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Sentry Air Systems’ line of **Portable Python Welding Fume Extractors** are designed for welding applications that are performed in hard-to-reach areas. All of Sentry Air’s **Python Welding Fume Extractors** are equipped with long, flame-retardant python hoses that are available in options up to 25 feet in length. The included magnetic source-capture hood allows the operator to attach it to a surface without having to manually hold the hose in place while capturing welding smoke and fumes. **Typical applications include:** maintenance welding, stainless steel tank welding, welding in confined spaces, fume extraction in elevated spaces (i.e. ceiling and rafters), rapid location welding applications, stainless steel pipe welding, welding on metal beams, and more.

### Model 200 Mini Welding Fume Extractor — SS-200-MFE

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Volume</strong></td>
<td>Up to 100 CFM, Varies with filter media</td>
</tr>
<tr>
<td><strong>Filtration</strong></td>
<td>HEPA, ASHRAE, ULPA</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>Base: 10.5&quot; L x 8&quot; W x 12&quot; H; Hose: 3&quot; D x 43&quot; L</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>15 lbs</td>
</tr>
<tr>
<td><strong>Electrical</strong></td>
<td>115/1/60, 0.3 amps; 220/1/50, 0.2 amps</td>
</tr>
<tr>
<td></td>
<td>8' grounded power cord with NEMA 5-15P plug</td>
</tr>
</tbody>
</table>

### Model 300 Welding Fume Extractor — SS-300-PYT

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Volume</strong></td>
<td><strong>115v:</strong> Variable Speed Control</td>
</tr>
<tr>
<td></td>
<td><strong>220v:</strong> On/Off Toggle Switch</td>
</tr>
<tr>
<td></td>
<td>Up to 350 CFM</td>
</tr>
<tr>
<td><strong>Filtration</strong></td>
<td>HEPA, ASHRAE, ULPA</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>Base: 15.5&quot; L x 13&quot; W x 16.5&quot; H; Hose: 4&quot; D x 12' L</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>40 lbs</td>
</tr>
<tr>
<td><strong>Electrical</strong></td>
<td>115/1/60, 2 amps; 220/1/50, 0.75 amps</td>
</tr>
<tr>
<td></td>
<td>8' grounded power cord with NEMA 5-15P plug</td>
</tr>
</tbody>
</table>

### Model 400/450 Welding Fume Extractor — SS-400/450-PYT

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Volume</strong></td>
<td><strong>115v:</strong> Variable Speed Control</td>
</tr>
<tr>
<td></td>
<td><strong>220v:</strong> On/Off Toggle Switch</td>
</tr>
<tr>
<td></td>
<td><strong>400:</strong> Up to 700 CFM; <strong>450:</strong> Up to 950 CFM</td>
</tr>
<tr>
<td><strong>Filtration</strong></td>
<td>HEPA, ASHRAE, ULPA</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>Base: 22.5&quot; L x 20&quot; W x 19.5&quot; H; Hose: 6&quot; D, 12' L, Opt 4&quot; D</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td><strong>400:</strong> 50 - 100 lbs; <strong>450:</strong> 62 - 112 lbs</td>
</tr>
<tr>
<td><strong>Electrical</strong></td>
<td><strong>400:</strong> 115/1/60, 2.5 amps; 220/1/50, 1.5 amps</td>
</tr>
<tr>
<td></td>
<td><strong>450:</strong> 115/1/60, 10.7 amps; 220/1/50, 5.35 amps</td>
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<tr>
<td></td>
<td>8' grounded power cord with NEMA 5-15P plug</td>
</tr>
</tbody>
</table>

### Model 500/550 Welding Fume Extractor — SS-500/550-PYT

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Volume</strong></td>
<td><strong>115v:</strong> Variable Speed Control</td>
</tr>
<tr>
<td></td>
<td><strong>220v:</strong> On/Off Toggle Switch</td>
</tr>
<tr>
<td></td>
<td><strong>500:</strong> Up to 375 CFM; <strong>550:</strong> Up to 480 CFM</td>
</tr>
<tr>
<td><strong>Filtration</strong></td>
<td>MERV 16 Micro-Pleat Series 1 Cleanable Filter</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>Base: 30&quot; D x 30&quot; W x 42.5&quot; H</td>
</tr>
<tr>
<td></td>
<td><strong>Hose:</strong> 12’ L x 6” D flame retardant Python flex hose with magnetic hood &amp; handle. <strong>Optional:</strong> 25' hose, dual hose</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>500: 265 lbs with filters; 550: 280 lbs with filters</td>
</tr>
<tr>
<td><strong>Electrical</strong></td>
<td><strong>500:</strong> 115/1/60, 2.5 amps; 220/1/50, 1.5 amps</td>
</tr>
<tr>
<td></td>
<td><strong>550:</strong> 115/1/60, 10.7 amps; 220/1/50, 5 amps</td>
</tr>
<tr>
<td></td>
<td>8' grounded power cord with NEMA 5-15P plug</td>
</tr>
</tbody>
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Wall Mounted Welding Fume Extractors

Sentry Air Systems' line of Wall-Mounted Welding Fume Extractors are source-capture fume extractors that are designed to free up valuable benchtop and floor space. All wall-mounted units feature a free-hanging, self-supportive and flame-retardant flex arm that can easily be maneuvered by the operator to their desired location. All systems include wall-mounting brackets and a remote variable speed controller.

Model 300 Sky Sentry Welding Fume Extractor — SS-300-SKY

- **Air Volume:**
  - 115v: Variable Speed Control
  - 220v: On/Off Toggle Switch
  - Up to 350 CFM

- **Filtration:** HEPA, ASHRAE, ULPA

- **Dimensions:** Base: 13" L x 13" W x 16.5" H; Arm: 4" D x 32" L

- **Work Space:** 62.5" flex arm swivel radius when mounted
  - 52" above work surface

- **Weight:** 50 - 80 lbs

- **Electrical:**
  - 115v: 115/1/60, 2 amps; 220/1/50, 0.75 amps
  - 8' grounded power cord with NEMA 5-15P plug

Model 400/450 Sky Sentry Welding Fume Extractor — SS-400/450-SKY

- **Air Volume:**
  - 115v: Variable Speed Control
  - 220v: On/Off Toggle Switch
  - 400: Up to 400 CFM; 450: Up to 500 CFM

- **Filtration:** HEPA, ASHRAE, ULPA

- **Dimensions:** Base: 22.5" L x 20" W x 19.5" H; Arm: 4" D x 32" L

- **Work Space:** 62.5" flex arm swivel radius when mounted
  - 52" above work surface

- **Weight:**
  - 400: 50 - 100 lbs; 450: 62 - 112 lbs

- **Electrical:**
  - 400: 115/1/60, 2.5 amps; 220/1/50, 1.5 amps
  - 450: 115/1/60, 10.7 amps; 220/1/50, 5.35 amps
  - 8' grounded power cord with NEMA 5-15P plug

Fan Powered & Non-Powered Extraction Arms — SS-160-PEA4/SS-000-EA4

- **FAN POWERED**
  - **Air Volume:** Up to 160 CFM
  - **Filtration:** None
  - **Dimensions:**
    - Fan: 10" L x 9" W x 4" H
    - Arm: 15" L stainless steel ducting,
      - 32" L flame retardant flex arm with 7" D hood
  - **Electrical:**
    - 115/1/60, 0.6 amps
    - 8' grounded power cord with NEMA 5-15P plug

- **NON-POWERED**
  - **Filtration:** None
  - **Dimensions:**
    - Arm: 15" L stainless steel ducting,
      - 32" L flame retardant flex arm with 7" D hood

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Sentry Air Systems’ line of **Multiple Operator and Multi-Station Welding Fume Extractors** are designed specifically for two or more operators. These systems are frequently used in classroom and training environments to allow multiple operators to work at once. Sentry Air’s **multiple operator units** are typically available in dual or quad configurations; however, other options may be available depending on the application. The self-supportive flex arms on these systems can be taken on and off dependent on the user’s needs. End cap accessories are available to block inlet ports at the base of the unit if all flex arms are not required for operation.

### Model 300 Dual & Quad Arm Welding Fume Extractor

**Dual — SS-300-FSD; Quad — SS-300-FSQ**

- **Air Volume:**
  - **115v:** Variable Speed Control; **220v:** On/Off Toggle Switch
  - Up to 175 CFM per arm

- **Filtration:** HEPA, ASHRAE, ULPA

- **Dimensions:**
  - **Base:** 15.5" L x 13" W x 16.5" H; **Arm:** (2) 4" D x 48" L

- **Weight:** 40 - 50 lbs

- **Electrical:** 115/1/60, 2 amps; 220/1/50, 0.75 amps; 8’ grounded power cord with NEMA 5-15P plug

### Model 400/450 Dual Arm Welding Fume Extractor

**Dual — SS-400/450-FSD; Quad — SS-400/450-FSQ**

- **Air Volume:**
  - **115v:** Variable Speed Control; **220v:** On/Off Toggle Switch
  - **400:** Up to 350 CFM per arm; **450:** Up to 475 CFM per arm

- **Filtration:** HEPA, ASHRAE, ULPA

- **Dimensions:**
  - **Base:** 22.5" L x 20" W x 19.5" H; **Arm:** (2) 5" D x 48" L

- **Weight:** 400: 50 - 100 lbs; **450:** 62 - 112 lbs

- **Electrical:** 400: 115/1/60, 2.5 amps; 220/1/50, 1.5 amps; 450: 115/1/60, 10.7 amps; 220/1/50, 5.35 amps; 8’ grounded power cord with NEMA 5-15P plug

### Model 500/550 Dual Heavy Duty Arm Welding Fume Extractor

**SS-500/550-HFAD-MP1**

- **Air Volume:**
  - **115v:** Variable Speed Control; **220v:** On/Off Toggle Switch
  - **500:** Up to 350 CFM per arm; **550:** Up to 455 CFM per arm

- **Filtration:** MERV 16 Micro-Pleat Series 1 Cleanable Filter

- **Dimensions:**
  - **Base:** 30" D x 30" W x 42.5" H
  - **Arm:** (2) 7" D x 7" L (10' L Heavy Duty arm upgrade); **Rigid segment:** aircraft-grade aluminum, 6" D; **Flexible segment:** Black Flex Sentry™ hose, 10' hood

- **Weight:** 500: 245 lbs with filters; **550:** 360 lbs with filters

- **Electrical:** 500: 115/1/60, 2.5 amps; 220/1/50, 1.5 amps; **550:** 115/1/60, 10.7 amps; 220/1/50, 5.35 amps; 8’ grounded power cord with NEMA 5-15P plug

### Model 500/550 Dual Python Hose Welding Fume Extractor

**SS-500/550-PYT**

- **Air Volume:**
  - **115v:** Variable Speed Control; **220v:** On/Off Toggle Switch
  - **500:** Up to 187.5 CFM per arm; **550:** Up to 240 CFM per arm

- **Filtration:** MERV 16 Micro-Pleat Series 1 Cleanable Filter

- **Dimensions:**
  - **Base:** 30" D x 30" W x 42.5" H
  - **Hose:** (2) 12' L x 6" D flame retardant Python flex hose with magnetic hood & handle.
  - **Optional:** 25’ hose

- **Weight:** 500: 265 lbs with filters, **550:** 280 lbs with filters

- **Electrical:** 500: 115/1/60, 2.5 amps; 220/1/50, 1.5 amps; **550:** 115/1/60, 10.7 amps; 220/1/50, 5 amps; 8’ grounded power cord with NEMA 5-15P plug

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Founded in 1983, Sentry Air Systems designs and manufactures high quality air purification systems in order to provide engineering control devices for clean air for a variety of applications. Our patented line of quiet, compact and durable air cleaners offers simple and effective solutions to control and extract harmful fumes and particulates in the workplace environment.

Our diverse line of fume extractors includes floor, bench top, mounted, and portable units as well as solutions for mist collection, portable clean rooms, and ductless/ducted fume hoods. Our products can be utilized in various applications including but not limited to: welding, soldering, manufacturing, laboratory and pharmaceutical operations. Most products have the option of high quality filters including ULPA, HEPA, ASHRAE, Carbon, Acid Gas and other specialty blended filters. At Sentry Air, we stringently test our filter media against a variety of chemicals and use only flame retardant materials to improve safety.

Partial Client List

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Mexico
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Siemens Canada
Ottawa Fertility Centre Inc.
United Nations
University of Hong Kong
Transport Canada
Aircraft Services
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University of Alberta
University of Guelph
University of Oxford
University of Toronto
Winston Mexico

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American Airlines
Avery Labs
Bayer
Bioderm
Boeing North America
Bosch
Boston Scientific Corp
BP Solar
Cadbury Schweppes
Cardinal Health
Catepillar
Chevron Phillips
CoorsTek
Dell Computers
Dominion Nuclear
DOW Chemical
Dreyer's
Dupont

Eastman Kodak Co
Emerson Process Mgmt
Exxon Mobile
Fastenal Company
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General Electric
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Emory University - Med
Florida State University
Georgia Tech
Harvard
Indiana University
Massachusetts Institute of Technology (MIT)
Michigan State University
North Carolina State University
Notre Dame University
NYU Medical Center
State University of NY
Texas A&M
Pennsylvania State University
Purdue University
UCLA
University of Oklahoma
University of Texas
University of Alabama
University of Colorado
Hospital
University of Florida
Vanderbilt University

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Hydropower Program
California Department of Transportation
CDC National Institute for Occupational Safety and Health
City of Los Angeles
City of Phoenix
Environmental Protection Agency
Los Alamos National Lab
Miami Dade Police
Department Crime Lab

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Secret Services
State of NY Water Assessment and Mgmt
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US Air Force
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