

Machine Enclosure Hoods & Walk-In Fume Hoods



SENTRY AIR SYSTEMS, INC.
Simple Solutions for Cleaner Air™
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MADE IN USA


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SENTRY AIR SYSTEMS, INC.

Machine Enclosure Hoods

Many factories and production plants utilize large machinery for their manufacturing process. These machines may use heat, cutting, blasting, mists, coolants, and routing to create materials or finished goods. These processes emit particulate and odor into the air that not only pose respiratory hazards to workers, but can accumulate on floors and surfaces causing slip hazards. An economical way to contain these contaminants is to enclose the machines within a negative-pressure hood. Enclosing a large piece of machinery doesn't have to break your budget or require several days of installation. At Sentry Air Systems, we design economical, modular, and easy-to-assembly hooded enclosures that offer negative pressure air filtration to large machinery.



Typical Applications

- Plastic injection molding
- Vacuum plastic molding
- Lathes & Routers



Model 300
Mounted Sentry Fume Extractor
Model # SS-300-MS
Up to 350 CFM per unit



Model 400/450
Mounted Sentry Fume Extractor
(shown above)
Model # SS-400-MS
& Model # SS-450-MS
Up to 700 & 950 CFM

Walk-in Fume Hoods

In certain applications, the workpieces can be larger or cumbersome to work within small benchtop hoods and may not be practical to source capture through a standard fume extractor due to size. In these types of situations the walk-in concept allows the operator to isolate the application in a larger chamber without having to expose the entire environment. These are ideal on manufacturing floors where a specific process is generating fumes or particulate and operators do not want to cross contaminate the other work areas. The concept of a walk-in hood also creates a mini “dirty-room” or sub-assembly room that is much cheaper, mobile, and easier to erect than a conventional room. The modularity of the walk-in hoods allows flexibility between ductless or ducted fume exhaust.



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Typical Applications

- Solvent parts cleaning
- Chemical fumes
- Light grinding
- Welding fume extraction
- Acid gas fume control
- Packing
- Powder processing
- Particulate containment

How it Works

During operation, the mounted fume extractors work to pull dust and fume-laden air from within the enclosure up through the unit's filter chamber. The filter chamber is comprised of a pre-filter and main-filter housing. Both the types of filters used and the order in which they are stacked are dependent upon each unique application. The filter chamber scrubs the air of contaminants before cleansed air is exhausted into the ambient air.



Specifications

Heavy-Duty Steel Framed

Material: 3" x 3" Steel Structural Tubing Powder Coated; 1/4" Clear Acrylic Sides

Height: Up to 9 feet

Width & Depth: Up to 20 feet

Weight: Steel tubing: 3.29 lbs/ft; Acrylic: 1.44 lbs/sqft

Options: Floor Mounting, Clear Anti-Static Vinyl Strip Curtains, Floor (HDPE), Multiple Filter Units, Collars for Ductwork Available

Filter Units: SS-300-MS or SS-400/450-MS

Single or multiple units are available depending on hood size.

Wall mounted units with a connecting hose are also an option.

Available Filter Efficiencies:

- HEPA Filter - Up to 99.97% efficient on particles down to 0.3 microns in size.
- ASHRAE Filter - Up to 95% efficient on particles down to 0.5 microns in size.
- ULPA Filter - Up to 99.9995% efficient on particles down to 0.12 microns in size.
- Activated Carbon & Specialty-Blended Filters - Efficiency varies per chemical.

Warranty: Limited two-year warranty from date of shipment on defects due to materials or workmanship.

Patented Design: U.S.. PATENT #5,843,197 / U.S. PATENT #8,353,745

Lighter Aluminum Framed

Material: 1.5" x 1.5" Brushed Aluminum Tubing; 1/4" Clear Acrylic Sides

Height: Up to 6 feet

Width & Depth: Up to 6 feet

Weight: Aluminum tubing: 0.9 lbs/ft; Acrylic: 1.44 lbs/sqft

Options: Floor Mounting, Clear Anti-Static Vinyl Strip Curtains (only on one side), Floor (HDPE), Collars for Ductwork Available

Filter Units: SS-300-MS or SS-400/450-MS

Single or multiple units are available depending on hood size.

Wall mounted units with a connecting hose are also an option.

Available Filter Efficiencies:

- HEPA Filter - Up to 99.97% efficient on particles down to 0.3 microns in size.
- ASHRAE Filter - Up to 95% efficient on particles down to 0.5 microns in size.
- ULPA Filter - Up to 99.9995% efficient on particles down to 0.12 microns in size.
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Customization Process

What are the steps to creating your custom hood?

- 1. Free Consultation.** The proposed custom hood is discussed with a Sentry Air Systems Applications Specialist to determine the suitability and efficiency of its design in regard to your specific application.
- 2. Conceptual Drawing.** Once the Customer and Applications Specialist agree on the general design, one of Sentry Air's Mechanical Engineers creates a detailed conceptual drawing that includes technical specifications and configurations.
- 3. Customer Approval.** The drawing is sent to the Customer for approval.
- 4. Fabrication.** When the drawing and terms & conditions are approved by the customer, Sentry Air Engineers begin the fabrication process.
- 5. Lead Time.** The lead time for custom hoods varies, but is typically 2 - 3 weeks after approval of the drawing.

Examples of Custom Modifications

- Custom sizes & dimensions
- Specified hood material & color
- Custom cutouts
- Blower configurations & mounting options

