

DIVISION 11 – EQUIPMENT

SECTION 11475 – PHOTO DARKROOM FUME EXHAUST VENT-HOODS

PART 1 – GENERAL

1.01 Scope of Work

- A. Provide material, accessories, tools, equipment and labor as required for the complete fabrication and installation of the photo darkroom fume exhaust vent-hoods as indicated on the Drawings or specified herein.
- B. Contract Requirements, including General and Supplemental Conditions; and, General Requirements of the Specifications shall govern the Work of this Section.

1.02 Related Work

- A. Refer to Division 15 for “Basic Mechanical Requirements” for connection to mechanical services.
- B. Refer to Division 16 for “Basic Electrical Requirements for connection to electrical services.
- C. Section 11470: Photo Darkroom Casework.
- D. Section 11476: Photo Darkroom Sinks and Print Washers

1.03 Work by Others

- A. Wall and ceiling blocking; and, all other anchors that may be necessary, as required to support photo dark room fume exhaust vent-hoods.
- B. Connection to power source.
- C. Connection of exhaust duct(s) to exhaust system, including supplying of all necessary connectors.

1.04 Quality Assurance

- A. It is the intent of this Specification to establish a minimum performance and quality criteria for PVC (polyvinyl chloride) plastic photo darkroom fume exhaust vent-hoods. Products not meeting these minimum requirements shall be unacceptable.
- B. Design, function, specific materials, finishes and construction detail shall be held in strict accordance to the Drawings and Specifications.

C. Testing:

1. All photo darkroom fume exhaust vent-hoods shall be tested and certified by a professional registered mechanical engineer or a certified testing laboratory to verify the requirements set forth in the Specifications for even, consistent face velocity, laterally across the entire length of the vent-hood; that is, cubic feet per minute of air flow and static pressure loss as required in the Specifications.

1.05 Submittals

- A. Shop Drawings: Submit in accordance with the “General Conditions” and “Supplemental General Conditions”, showing floor plans and elevations of photo darkroom fume exhaust vent-hoods in relation to the processing equipment they serve and size of ductwork supplied.
- B. Samples of the PVC material shall be submitted to indicate the color, finish and quality.

1.06 Substitutions

- A. Photo darkroom exhaust vent-hoods of other nationally recognized manufacturers may be considered for approval provided a written request is received within ten (10) working days prior to bid opening.
- B. All photo darkroom fume exhaust vent-hoods must confirm to design, performance, quality of material, workmanship and functions as specified and shown on the Drawings.
- C. Manufacturers requesting approvals shall submit all of the following:
 1. Evidence of at least ten (10) years experience and twenty (20) installations of similar type and size.
 2. Financial stability, manufacturing facilities, catalogs and specifications.
 3. Details with written list of deviations from Specifications. Any item not listed shall be construed to be as specified. Details will be retained by Architect until completion of project for verification of compliance to the Specifications and approval.
 4. Test results by an independent testing lab including chemical corrosion resistance data as verified by an independent testing lab.
- D. Architect’s/Owner’s opinion and decision shall be final in evaluation of a substitutionary products.

1.07 Delivery, Storage Handling and Protection

- A. In addition to compliance with the general provisions for delivery, storage, handling and protection of components of the Work required in the General Requirements:
 - 1. Photo darkroom fume exhaust vent-hoods, ductwork and accessories shall be protected from damaging during shipment, storage and handling. During handling, great care shall be taken so that the PVC items are not twisted or receive any impact, and are protected from dirt and moisture.
 - 2. Units shall be stored in a safe, dry, inside area in room with temperature between 50 and 90 degrees Fahrenheit.

1.08 Warranty

- A. Photo darkroom fume exhaust vent-hoods shall be covered by a limited warranty to the original Owner for a period of one (1) year after acceptance by the Owner.

PART 2 – PRODUCTS

2.01 Manufacturer

- A. Photo darkroom fume exhaust vent-hoods indicated on the Drawings and/or specified herein shall be the products of Sebastian Darkroom Products, 32 N. Wood Rd., Camarillo, CA, 93010 (email: calstainless@aol.com)
- B. Contact Sebastian Darkroom Products (1-888-712-7035) for listing of nationwide distribution network.

2.02 Photo Darkroom Vent-Hood Concept

- A. Photo darkroom fume exhaust vent-hoods shall be built for performance and durability, and shall be provided by a single manufacturer unless specifically noted otherwise.
- B. Continuity and uniformity in design shall exist for all vent-hoods.
- C. Vent-hoods shall be functional and shall have the aesthetic essentials required to create pleasant, safe, efficient surroundings and designed to give long life and service.
- D. Vent-hoods shall be designed to fully and efficiently capture and exhaust chemical fumes created at a photo processing sink, chemical tank or processing machine with consistent, even and minimum face velocity of 1,300 feet per minute along the entire length of the vent-hood and entire area of the unit generating the chemical fumes.

- E. Vent-hoods that feature a shelf shall be designed to hold containers of chemicals weighing up to 50 pounds.
- F. Extractor ventilation devices with articulated and/or flexible suction arms do not meet the minimum design concept parameters and shall not be acceptable.
- G. Vent-hoods shall have adjustable dampers to accommodate air-balancing after installation. Provisions shall be made so that dampers can be locked in place.
- H. Vent-hoods shall be constructed of Type 1 Polyvinyl Chloride, PVC, plastic rigid plate and pipe, and shall be fabricated and joined by PVC cement and hot-air fusion welding.
- I. Vent-hood designs and workmanship shall comply with ASHRAE Standards.
- J. PVC plastic rigid plate shall possess minimum property values equivalent to those designated by ASTM-D-1784-69. PVC rigid plate and pipe shall be used to construct all fume exhaust vent-hoods and shall be made equal to the requirements of ASTM-D-1927-67.
- K. Vent-hoods shall be provided with a five-foot (5') length of PVC fume duct(s).

PART 3 – EXECUTION

3.01 Examination

- A. Examine the areas and conditions under which Work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.
- B. Examine areas where vent-hoods are scheduled to be installed for suitability and conformance to specified tolerances.
- C. Verify that all concealed blocking is in place.
- D. Verify that preparation for mechanical and electrical connections have been completed.

3.02 Installation

- A. Install photo darkroom exhaust fume vent-hoods as recommended by the manufacturer, in accordance with approved shop drawings, utilizing equipment approved by the manufacturer.
- B. Install fume exhaust vent-hoods level and plumb and at the height indicated on the shop drawings so that units function correctly.
- C. Anchors and fasteners shall be Type 316 stainless steel.

- D. When a vent-hood is to be supported from (above) the ceiling, provide all necessary trapeze, anchors, and 3/8" Type 316 stainless steel all-thread rods with 1/2" PVC gray color pipe sleeves as shown on the Shop Drawings.

3.03 Cleaning and Protecting

- A. Clean each photo darkroom fume exhaust vent-hood after installation to remove foreign material and construction dirt and dust.
- B. Cover horizontal surfaces with heavy-duty corrugated cardboard. Tape the cardboard so that it can easily be removed without damage to vent-hood and walls.

3.04 Clean Up

- A. Upon completion of the work under this Section, remove all dirt, debris, rubbish and excess material accumulated as a result of the work, and leave the area and installation in a neat, clean, proper and orderly manner.

END OF SECTION