

SECTION 15818 – ROOF ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 WORK INCLUDED

- A. Furnish and install a complete system of roof curbs, air intake/exhaust houses, including accessories, at all areas indicated on the contract drawings.

1.3 RELATED SECTIONS

- A. Examine all drawings and criteria sheets and all other Sections of the Specifications for requirements which affect work under this Section whether or not such work is specifically mentioned in this Section.

1.4 REFERENCES

- A. Applicable provisions of the following Codes and Trade Standard Publications shall apply to the work of this Section, and are hereby incorporated into, and made a part of the Contract Documents.
- B. Material standards shall be as specified or detailed hereinafter and as follows:
 - 1. ASTM A 36/A 36M – Standard Specification for Carbon Structural Steel; 1994.
 - 2. ASTM A 366/A 366M – Standard Specification for Steel, Sheet, Carbon, Cold Rolled, Commercial Quality; 1991.
 - 3. ASTM A 569/A 569M – Standard Specification for Steel, Carbon (0.15 Maximum, Percent), Hot-Rolled Sheet and Strip, Commercial Quality.
 - 4. ASTM A 653/A 653M – Standard Specification for Steel Sheets, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot Dip Process.
 - 5. ASTM A 666 – Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
 - 6. ASTM B 209 – Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
 - 7. ASTM B 209M – Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate (Metric).
 - 8. NFPA 90A – Installation of Air Conditioning and Ventilating Systems.

9. NFPA 90B – Installation of Warm Air Heating and Air Conditioning Systems.
10. NFPA 96 – Installation of Equipment for the Removal of Smoke and Grease-laden Vapors from Commercial Cooking Equipment.
11. SMACNA (DCS) – HVAC Duct Construction Standards – Metal and Flexible.
12. UL 181 – Factory-Made Air Ducts and Connectors.

1.5 SUBMITTALS

- A. See Section 15050 and General Conditions for Additional Requirements.
- B. Product Data: Provide data for materials and products.
- C. Prepare and submit scaled manufacturer’s drawings.
- D. Manufacturer’s Installation Instructions.

1.6 QUALITY ASSURANCE

- A. Manufacturer shall have adequate experience of building products of the types required for this project.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Acceptable Manufacturers subject to compliance with the specification:
 1. Roof Curbs:
 - a. Loren Cook Co.
 - b. Construction Specialties
 - c. Greenheck
 2. Louvered exhaust and supply Houses:
 - a. Loren Cook Co.
 - b. Construction Specialties
 - c. Greenheck

2.2 ROOF CURBS

A. General

1. Provide roof curbs for sheet metal duct penetration roof mounted fans, gravity intake, exhaust and relief hoods of types and sizes as shown on the drawings and as hereinafter specified. Roof curbs shall be as manufactured by the approved fan or hood manufacturer.
2. Refer to other Sections of this specification and Section 15000 for General Requirements and Conditions.
3. Roof curbs shall be suitable for field flashing by the Contractor.

B. Materials

1. Roof Curbs (Other than kitchen cooking hood exhaust)
 - a. Roof curbs shall be prefabricated, acoustical type, constructed of 16-gauge aluminum, preinsulated with insulation protected from erosion.
2. Kitchen Cooking Hood Exhaust Roof Curbs
 - a. Roof curbs for kitchen cooking hood exhaust shall be 24" high, constructed of 14 gauge welded galvanized steel, insulated with metal liner, and shall be constructed in accordance with UL 762 and NFPA 96.

2.3 LOUVERED EXHAUST AND SUPPLY ROOF HOUSES.

A. General

1. Provide aluminum intake, exhaust, and/or relief hoods of types and sizes as shown and or scheduled on the drawings.
2. Hoods shall be provided with roof curb by same manufacturer.

B. Materials

1. Each ventilator must be rated for 100 mph wind load and 101.5 lbs./sq.ft. snow load.
2. Unit base to be minimum 0.080 gauge.
3. Furnish 1/2" thick sprayed-on plastic coating to eliminate condensation of underside of roof.
4. Intake ventilator to be 200% free area of connected ductwork or roof opening.
5. Relief vent to be 150% free area of connected ductwork or roof opening.
6. All seams to be continuously welded. Equip all ventilators with aluminum bird screen.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. The drawings shall be followed where they are definite and provided such procedures do not cause objectionable conditions for equipment provided installed under this Contract. The drawings are intended to indicate the sizes of curbs, intake/exhaust houses and if certain sizes are omitted or unclear, obtain additional information before proceeding.
- B. Locate and size all openings for ductwork in the building construction. Provide all sleeves as hereinbefore specified.
- C. The installation shall be done under the direct supervision of the manufacturer.
- D. Duct connections to equipment shall be in no case smaller than the equipment openings.
- E. Install all UL classified devices in accordance with their UL approved installation sheets.

3.2 ROOF CURB INSTALLATION

- A. The roof curbs shall be installed in accordance with the manufacturer recommendations, Contract Drawings, and reviewed submittals.
- B. Roof curbs for kitchen cooking hood exhaust shall also be installed in accordance with UL 762 and NFPA 96.

3.3 GRAVITY INTAKE, EXHAUST AND RELIEF ROOF HOUSE INSTALLATION

- A. The gravity intake, exhaust and relief hoods shall be installed in accordance with the manufacturer recommendations, Contract Drawings, and reviewed submittals.
- B. Provide with Class I ultra-low leakage damper in the throat of the hood.

END OF SECTION