

**Division 23 Heating, Ventilation and Air Conditioning
SECTION 23 37 23
ROOF ACCESSORIES**

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. The Contractor is referred to the Instructions to Bidders and General Conditions, NYCHA Contracts; the Special Notice to Contractors; the Form of Proposal; the Form of Bid Bond; Division 01 - General Requirements of the Contract Specifications; the Contract Drawings and all Amendments and Addenda thereto; all of which govern the Work of 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.

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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 23 05 00 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. Roof Products & Systems Corp.
 - c. Construction Specialties
 - d. Greenheck
 - e. Or equal.
 2. Louvered exhaust and supply Houses:
 - a. Loren Cook Co.
 - b. Construction Specialties
 - c. Greenheck
 - d. Or equal.

2.2 ROOF CURBS

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

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B. Materials

1. Roof Curbs

- a. Roof curbs shall be prefabricated, acoustical type, constructed of 16-gauge aluminum, pre-insulated with insulation protected from erosion.

2.3 LOUVERED EXHAUST AND SUPPLY ROOF FANS

A. General

1. Provide aluminum intake, exhaust, and/or relief fan 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. Relief vent to be 150% free area of connected ductwork or roof opening.
5. All seams shall 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 fan 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.

END OF SECTION