

SECTION 233113 - AIR DISTRIBUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

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

2.2 WORK INCLUDED:

- A. Work shall include ventilation, and duct systems, and all materials, equipment, and labor required to complete the system shown on plans and specified herein.

PART 2 - PRODUCTS

2.1 HVAC DUCTWORK:

- A. Construct all ducts, plenums, etc., of the gauges specified below, unless otherwise shown. Sheets shall be free from blisters, slivers, pits, and imperfectly galvanized spots. Construct ducts using double or Pittsburgh corner seams. All seams shall be hammered and made airtight. Joints shall be caulked to prevent air leakage, using Duradyne or Hardcast sealers.
- B. Duct construction details shall comply with the latest edition of the SMACNA "Duct Construction Standards" manual. **Ducts shall be constructed as Seal Class "C" and 2" Pressure Class, unless otherwise indicated on plans.**
- C. Flange-type systems such as Ductmate are approved. Such systems must be installed so that joints are true and airtight with gaskets or duct sealer. Flange bolts are to be installed with lock washers or jam nuts.
- D. Round ducts and fittings shall be 26 gauge, United Sheet Metal Co., Metco, or Ventline. Fittings are to be constructed of 24 gauge zinc-coated steel with welded or soldered joints. All fittings shall be made by same manufacturer as the spiral lockseam conduit to facilitate a tight fit. All field joints shall be sealed with high pressure duct sealer.
- E. **Vanes with 1" long trailing edge shall be installed in all 90 elbows.**
- F. Sheet metal ducts shall be properly braced and reinforced with galvanized steel angles or other structural members, and where they protrude above roof, they shall be properly flashed. Internal ends of all clip joints shall be installed in direction of flow.

2.2 ACCESS DOORS:

- A. As indicated on the drawings and as required by code, for proper access to dampers, filter access space, etc., provide and install sheet metal access doors of the size as noted or as required for proper access to the equipment.

2.3 AIR INLETS AND OUTLETS:

- A. Furnish and install all diffusers, registers, and grilles shown and specified on the drawings. All units to have opposed blade balancing dampers. 22 ga. steel construction with white finish unless special finish is requested. Perforated-face supply diffusers are not allowed. Approved manufacturers are Nailor, Krueger, or Carnes.

2.4 MANUAL VOLUME DAMPERS:

- A. Dampers in ducts up to 16"/16" may be single blade butterfly type. Larger dampers are to be opposed blade, airfoil type. Nailor Series 1400 or equal by Krueger, Greenheck or Titus.

2.5 LOUVERS:

- A. Louvers to be 6" deep, aluminum with bronze anodized finish, 1/4" bird screen, flanged, and with extended sill. Blades to be on 37E angle and on 6" centers. Greenheck ESJ-601 or approved equal by Ruskin or Nailor.

PART 3 - EXECUTION

3.1 INSPECTION:

- A. Verify that the work of this section may be installed in accordance with all pertinent Codes, regulations, and plans & specifications.

END OF SECTION 233113