

## **SECTION 15820 - DUCT ACCESSORIES**

### **PART 1 GENERAL**

#### **1.01 RELATED DOCUMENTS**

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

#### **1.02 SUMMARY**

- A. This Section includes the following:
  - 1. Manual-volume dampers.
  - 2. Flexible ducts.
  - 3. Flexible connectors.
  - 4. Dryer vents and covers.
  - 5. Duct accessory hardware.

#### **1.03 SUBMITTALS**

- A. Product Data: For the following:
  - 1. Manual-volume dampers.
  - 2. Flexible ducts.
  - 3. Dryer vents.
- B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loadings, required clearances, method of field assembly, components, location, and size of each field connection. Detail the following:
  - 1. Special fittings and manual- and automatic-volume-damper installations.

#### **1.04 QUALITY ASSURANCE**

- A. NFPA Compliance: Comply with the following NFPA standards:
  - 1. NFPA 90A, "Installation of Air Conditioning and Ventilating Systems."
  - 2. NFPA 90B, "Installation of Warm Air Heating and Air Conditioning Systems."

### **PART 2 PRODUCTS**

#### **2.01 SHEET METAL MATERIALS**

- A. Galvanized, Sheet Steel: Lock-forming quality; ASTM A 653/A 653M, G90 coating designation; mill-phosphatized finish for surfaces of ducts exposed to view.
- B. Reinforcement Shapes and Plates: Galvanized steel reinforcement where installed on galvanized, sheet metal ducts; compatible materials for aluminum and stainless-steel ducts.

#### **2.02 MANUAL-VOLUME DAMPERS**

- A. General: Factory fabricated with required hardware and accessories. Stiffen damper blades for stability. Include locking device to hold single-blade dampers in a fixed position without vibration. Close duct penetrations for damper components to seal duct consistent with pressure class.
- B. Standard Volume Dampers: Multiple- or single-blade, parallel- or opposed-blade design as indicated, standard leakage rating, with linkage outside airstream, and suitable for horizontal or vertical applications.

- C. Damper Hardware: Zinc-plated, die-cast core with dial and handle made of 3/32-inch- thick zinc-plated steel, and a 3/4-inch hexagon locking nut. Include center hole to suit damper operating-rod size. Include elevated platform for insulated duct mounting.

### **2.03 FLEXIBLE CONNECTORS**

- A. General: Flame-retarded or noncombustible fabrics, coatings, and adhesives complying with UL 181, Class 1.
- B. Standard Metal-Edged Connectors: Factory fabricated with a strip of fabric 3-1/2 inches wide attached to two strips of 2-3/4-inch- wide, 0.028-inch- thick, galvanized, sheet steel or 0.032-inch aluminum sheets. Select metal compatible with connected ducts.
- C. Transverse Metal-Edged Connectors: Factory fabricated with a strip of fabric 3-1/2 inches wide attached to two strips of 4-3/8-inch- wide, 0.028-inch- thick, galvanized, sheet steel or 0.032-inch aluminum sheets. Select metal compatible with connected ducts.
- D. Conventional, Indoor System Flexible Connector Fabric: Glass fabric double coated with polychloroprene.
  - 1. Minimum Weight: 26 oz./sq. yd..
  - 2. Tensile Strength: 480 lbf/inch in the warp, and 360 lbf/inch in the filling.

### **2.04 FLEXIBLE DUCTS**

- A. General: Comply with UL 181, Class 1.
- B. Flexible Ducts, Insulated: Factory-fabricated, insulated, round duct, with an outer jacket enclosing 2" thick (R5), glass-fiber insulation around a continuous inner liner.
  - 1. Reinforcement: Steel-wire helix encapsulated in inner liner.
  - 2. Outer Jacket: Glass-reinforced, silver Mylar with a continuous hanging tab, integral fibrous-glass tape, and nylon hanging cord.
  - 3. Inner Liner: Polyethylene film.
- C. Pressure Rating: 6-inch wg positive, 1/2-inch wg negative.

### **2.05 DRYER VENTS AND COVERS**

- A. Dryer Vent: Molded plastic construction with multi-blade face damper.
- B. Vent cover: Stainless steel construction with vandal resistant anchor bolts; equal to Model GDVC-200; contact Eastern Sales and Marketing at (423)479-4408, info@easternsales-marketinginc.com.

### **2.06 ACCESSORY HARDWARE**

- A. Flexible Duct Clamps: Stainless-steel band with cadmium-plated hex screw to tighten band with a worm-gear action, in sizes 3 to 18 inches to suit duct size.
- B. Adhesives: High strength, quick setting, neoprene based, waterproof, and resistant to gasoline and grease.

## **PART 3 EXECUTION**

### **3.01 INSTALLATION**

- A. Install duct accessories according to applicable details shown in SMACNA's "HVAC Duct Construction Standards--Metal and Flexible" for metal ducts.

### **3.02 ADJUSTING**

- A. Adjust duct accessories for proper settings.
- B. Final positioning of manual-volume dampers is specified in Division 15 Section "Testing, Adjusting, and Balancing."

**END OF SECTION 15820**

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