

**SECTION 08 90 00**  
**LOUVERS**

**PART 1      GENERAL**

**1.01      REFERENCES**

A.    The following is a list of standards which may be referenced in this section:

1.    Air Movement and Control Association (AMCA): 500-L, Laboratory Methods of Testing Louvers for Rating.
2.    The Aluminum Association, Incorporated (AA): Designation System for Aluminum Finishes.
3.    ASTM International (ASTM):
  - a.    A480/A480M, Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip.
  - b.    D1187, Standard Specification for Asphalt-Base Emulsions for Use as Protective Coatings for Metal.
  - c.    E84, Standard Test Method for Surface Burning Characteristics of Building Materials.
4.    UL: Building Materials Directory.

**1.02      DESIGN REQUIREMENTS**

A.    Installed Louvers: Capable of resisting wind load of 30 pounds per square foot.

**1.03      SUBMITTALS**

A.    Action Submittals:

1.    Product Data.
2.    Shop Drawings: Large scale details of louvers, anchorage, and relationship to adjoining construction.
  - a.    Manufacturer's Literature: Descriptive and performance data of louvers, including standard drawings and louver-free area.
  - b.    Seismic anchorage and bracing drawings and data sheets, as required by Section 01 88 15, Anchorage and Bracing.
3.    Samples: Manufacturer's standard finishes and colors.

B.    Informational Submittals:

1.    Seismic anchorage and bracing calculations as required by Section 01 88 15, Anchorage and Bracing.
2.    Factory test data.

3. Certificates of AMCA ratings.
4. Installation instructions.
5. Parts list, if applicable.
6. Maintenance procedures.
7. Special Guarantee.

#### 1.04 SPECIAL GUARANTEE

- A. Manufacturer's extended guarantee or warranty, with beneficiary named in writing, as Special Guarantee. Special Guarantee shall provide for correction, or at option of Contracting Officer, removal and replacement of special fluorocarbon or baked-on finish found defective during a period of 20 years after date of Substantial Completion. Duties and obligations for correction or removal and replacement of defective Work as specified in General Conditions.

### PART 2 PRODUCTS

#### 2.01 MANUFACTURERS AND PRODUCTS

- A. Ruskin, Model ELF375DX.
- B. Or equal.

#### 2.02 FIXED DRAINABLE LOUVER (TYPE DB)

- A. Physical Characteristics:
  1. Frame: Extruded aluminum channel, 0.081 inch thick, 4 inches deep, interior duct collar, concealed mullions.
  2. Blades: Extruded aluminum, minimum 0.081 inch thick, 35-degree to 45-degree pitch angles, with integral front drain gutter, spaced 3 inches to 4 inches on center.
  3. Anchors and Fasteners: Stainless steel Type 304.
  4. Flashing: Match louver frame.
  5. Isolation Tape: 100 percent solid polyisobutylene cross-linked butyl, preformed sealant.
  6. Isolation Paint: ASTM D1187, bituminous coating.
  7. Sizes: As shown.
  8. Screen: Inside mounted, painted aluminum, 1/2-inch mesh.
  9. Finish and Color:
    - a. Finish:
      - 1) Two-Coat Fluoropolymer: AAMA 2605.
      - 2) Fluoropolymer finish containing not less than 70 percent polyvinylidene fluoride (PVDF) resin by weight in color coat.

- 3) Thickness: Nominal 1.0-mil minimum total dry film thickness consisting of primer and color coat.
- b. Color as scheduled on the Drawings for initial selection. Final color selection based on approved submittal.

B. Functional Characteristics:

1. Louver sizes are based on 50 percent free area and 800 fpm maximum velocity through free area.
2. Furnish louvers with interior duct collars.

C. Performance Characteristics:

1. Installed Louvers: Capable of resisting wind load of 30 pounds per square foot.
2. Water Penetration Rate: No greater than 0.02 ounce per square foot.
3. Louvers: Rated and tested in accordance with AMCA 500-L.
4. Pressure Loss: AMCA certified rating of no greater than 0.10-inch WC.
5. Factory Finish: Meet requirements of AAMA 2605.
6. Source Quality Control:
  - a. Factory Performance Tests:
    - 1) Airflow versus pressure loss.
    - 2) Rain penetration data.
7. Sustainable Material Requirements:
  - a. Recycled Content of Aluminum Products: Provide products with a minimum combined recycled content of 15 percent.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Check openings to ensure dimensions conform to the Drawings.
- B. Ensure openings are free of irregularities that would interfere with installation.
- C. Do not install louvers until defects have been corrected.

### **3.02 INSTALLATION**

- A. Install louvers as shown on reviewed Shop Drawings. Coordinate with heating or ventilation ductwork to be connected.
- B. Follow procedures in manufacturer's recommended installation instructions.
- C. Install insulated blank-off panels where indicated, completely closing space between ducts and louver frames.
- D. Separate aluminum from other metals with isolation tape or paint.

### 3.03 CLEANING

- A. After erection, protect exposed portions from damage by machines, paint, lime, acid, cement, or other harmful compounds.
- B. Remove protective materials and clean with plain water, water with soap, or household detergents.

### 3.04 SCHEDULE

- A. For tabulation of louver characteristics for each opening numbered on the Drawings, refer to Louver Schedule on the Drawings.

**END OF SECTION**