

## **DIVISION 8 – DOORS AND WINDOWS**

089119      FIXED LOUVERS

## **SECTION 089119 - FIXED LOUVERS**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. Section includes fixed, extruded-aluminum louvers.

#### **1.2 SUBMITTALS**

- A. Product Data: For each type of product.
- B. Shop Drawings: For louvers and accessories.
- C. Samples: For each type of metal finish required.
- D. Product Test Reports: Based on tests performed according to AMCA 500-L.

### **PART 2 - PRODUCTS**

#### **2.1 PERFORMANCE REQUIREMENTS**

- A. Structural Performance: Louvers shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated without permanent deformation of louver components, noise or metal fatigue caused by louver-blade rattle or flutter, or permanent damage to fasteners and anchors. Wind pressures shall be considered to act normal to the face of the building.
  - 1. Wind Loads: Determine loads based on a uniform pressure of 25 lbf/sq. ft., acting inward or outward.

#### **2.2 FIXED, EXTRUDED-ALUMINUM LOUVERS**

- A. Horizontal, Drainable-Blade Louver:
  - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Industrial Louvers Inc. ; Fixed, Extruded Model #455-XP Aluminum, Horizontal, Drainable Blade Louvers. or a comparable product by one of the following:
    - a. Airolite Company, LLC (The).
    - b. Construction Specialties, Inc.
    - c. Nystrom, Inc.
    - d. Reliable Products, Inc.
  - 2. Louver Depth: 4 inches at typical louver, narrow depth at round porthole louvers.
  - 3. Frame and Blade Nominal Thickness: Not less than 0.080 inch.

4. Mullion Type: Exposed.
5. Louver Performance Ratings:
  - a. Free Area: Not less than 8.0 sq. ft. for 48-inch-wide by 48-inch-high louver.
  - b. Point of Beginning Water Penetration: Not less than 950 fpm.
  - c. Air Performance: Not more than 0.10-inch wg static pressure drop at 800-fpm free-area intake velocity.

## 2.3 LOUVER SCREENS

- A. General: Provide screen at each exterior louver.
  1. Screen Location for Fixed Louvers: Interior face.
  2. Screening Type: Bird screening at drainable blade types
- B. Louver Screen Frames: Same type and form of metal as indicated for louver to which screens are attached.
- C. Louver Screening for Aluminum Louvers:
  1. Bird Screening: Aluminum, 1/2-inch-square mesh, 0.063-inch wire.
  2. Insect Screening: Aluminum, 18 x 14 mesh wire.

## 2.4 MATERIALS

- A. Aluminum Extrusions: ASTM B 221, Alloy 6063-T5, T-52, or T6.
- B. Aluminum Sheet: ASTM B 209, Alloy 3003 or 5005 with temper as required for forming, or as otherwise recommended by metal producer for required finish.
- C. Fasteners: Use types and sizes to suit unit installation conditions.
  1. Use tamper-resistant screws for exposed fasteners unless otherwise indicated.
  2. For fastening aluminum, use aluminum or 300 series stainless-steel fasteners.
  3. For color-finished louvers, use fasteners with heads that match color of louvers.
- D. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.

## 2.5 FABRICATION

- A. Fabricate frames, including integral sills, to fit in openings of sizes indicated, with allowances made for fabrication and installation tolerances, adjoining material tolerances, and perimeter sealant joints.
- B. Join frame members to each other and to fixed louver blades with fillet welds concealed from view, threaded fasteners, or both, as standard with louver manufacturer unless otherwise indicated or size of louver assembly makes bolted connections between frame members necessary.

2.6 ALUMINUM FINISHES

- A. High-Performance Organic Finish: Two-coat fluoropolymer finish complying with AAMA 2604 and containing not less than 50 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
  - 1. Color and Gloss: As selected by Architect from manufacturer's full range.

**PART 3 - EXECUTION**

3.1 INSTALLATION

- A. Locate and place louvers level, plumb, and at indicated alignment with adjacent work.
- B. Use concealed anchorages where possible. Provide brass or lead washers fitted to screws where required to protect metal surfaces and to make a weathertight connection.
- C. Provide perimeter reveals and openings of uniform width for sealants and joint fillers, as indicated.
- D. Protect unpainted galvanized and nonferrous-metal surfaces that are in contact with concrete, masonry, or dissimilar metals from corrosion and galvanic action by applying a heavy coating of bituminous paint or by separating surfaces with waterproof gaskets or nonmetallic flashing.

3.2 ADJUSTING

- A. Restore louvers damaged during installation and construction so no evidence remains of corrective work. If results of restoration are unsuccessful, as determined by Architect, remove damaged units and replace with new units.

END OF SECTION 089119