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**SECTION 08 91 00****LOUVERS****PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Louvers, frames, and accessories.

**1.2 RELATED REQUIREMENTS**

- A. Section 04 20 00 - Unit Masonry: Prepared exterior wall opening.
- B. Section 06 10 00 - Rough Carpentry: Supplementary framing for wall opening.
- C. Section 07 92 00 - Joint Sealants: Sealing joints between frames and adjacent construction.
- D. Section 23 31 00 - HVAC Ducts and Casings: Ductwork attachment to louvers.

**1.3 REFERENCE STANDARDS**

- A. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels; 2013.
- B. AMCA 500-L - Laboratory Methods of Testing Louvers for Rating; 2012.
- C. AMCA 511 - Certified Ratings Program for Air Control Devices; 2010.

**1.4 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data describing design characteristics, maximum recommended air velocity, design free area, materials and finishes.
- C. Shop Drawings: Indicate louver layout plan and elevations, opening and clearance dimensions, tolerances; head, jamb and sill details; blade configuration, screens, blankout areas required, and frames.
- D. Samples: Submit two samples 2 by 2 inches in size illustrating finish and color of exterior and interior surfaces.
- E. Test Reports: Independent agency reports showing compliance with specified performance criteria.
- F. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- G. Maintenance Data: Include lubrication schedules, adjustment requirements.

**1.5 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing products of the type specified in this section, with minimum five years of documented experience.

**1.6 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Provide twenty year manufacturer warranty against distortion, metal degradation, and failure of connections.
  - 1. Finish: Include coverage against degradation of exterior finish.

**PART 2 PRODUCTS****2.1 MANUFACTURERS**

- A. Louvers:
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1. Airolite Company, LLC: [www.airolite.com](http://www.airolite.com).
2. American Warming and Ventilating: [www.awv.com](http://www.awv.com).
3. Construction Specialties, Inc: [www.c-sgroup.com](http://www.c-sgroup.com).
4. Greenheck Fan Corporation: [www.greenheck.com](http://www.greenheck.com)

## **2.2 LOUVERS**

- A. Louvers: Factory fabricated and assembled, complete with frame, mullions, and accessories; AMCA Certified in accordance with AMCA 511.
  1. Wind Load Resistance: Design to resist positive and negative wind load of 25 psf without damage or permanent deformation.
- B. Intake Louvers: Design to allow maximum of 0.01 oz/sq ft water penetration at calculated intake design velocity based on design air flow and actual free area, when tested in accordance with AMCA 500-L.
  1. Drainable Blades: Continuous rain stop at front or rear of blade aligned with vertical gutter recessed into both jambs of frame.
  2. Screens: Provide insect screens at intake louvers and bird screens at exhaust louvers.
- C. Stationary Louvers: Horizontal blade, extruded aluminum construction, with intermediate mullions matching frame.
  1. Free Area: 50 percent, minimum.
  2. Blades: Straight.
  3. Frame: 4 inches deep, channel profile; corner joints mitered and, with continuous recessed caulking channel each side.
  4. Aluminum Thickness: Frame 12 gage, 0.0808 inch minimum; blades 12 gage, 0.0808 inch minimum.
- D. Aluminum Finish: High performance organic coatings; finish welded units after fabrication.

## **2.3 MATERIALS**

- A. Extruded Aluminum: ASTM B221 (ASTM B221M).

## **2.4 FINISHES**

- A. High Performance Organic Coatings: AAMA 2604; multiple coats, thermally cured fluoropolymer system.
- B. Color: As selected by Architect from manufacturer's full custom and standard color lines.

## **2.5 ACCESSORIES**

- A. Screens: Frame of same material as louver, with reinforced corners; removable, screw attached; installed on inside face of louver frame.
- B. Insect Screen: See International Mechanical Code for required size for aluminum mesh.
- C. Fasteners and Anchors: Stainless steel.
- D. Flashings: Of same material as louver frame, formed to required shape, single length in one piece per location.
- E. Sealant for Setting Sills and Sill Flashing: Non-curing butyl type.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Verify that prepared openings and flashings are ready to receive this work and opening dimensions are as indicated on shop drawings.

- B. Verify that field measurements are as indicated.

**3.2 INSTALLATION**

- A. Install louver assembly in accordance with manufacturer's instructions.
- B. Install louvers level and plumb.
- C. Set sill members and sill flashing in continuous bead of sealant.
- D. Install flashings and align louver assembly to ensure moisture shed from flashings and diversion of moisture to exterior.
- E. Secure louver frames in openings with concealed fasteners.
- F. Coordinate with installation of mechanical ductwork.

**3.3 CLEANING**

- A. Strip protective finish coverings.
- B. Clean surfaces and components.

**END OF SECTION 08 91 00**