

SECTION 23 37 30 - LOUVERS AND VENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 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 30 lb / sq. ft., acting inward or outward.
- B. Louver Performance Ratings: Provide louvers complying with requirements specified, as demonstrated by testing manufacturer's stock units identical to those provided, except for length and width according to AMCA 500-L.

1.3 SUBMITTALS

- A. Product Data: For each type of product including manufacturer's data with appropriate AMCA Certified Ratings Seals.
- B. Provide shop drawings including plans, elevations, sections, details, and attachments to other work. Show frame profiles and blade profiles, angles, and spacing.
 - 1. Show weep paths, gaskets, flashing, sealant, and other means of preventing water intrusion.
 - 2. Show mullion profiles and locations.
- C. Provide samples for initial selection.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain louvers and vents from single source from a single manufacturer, where indicated to be of same type, design, or factory-applied color finish.
- B. Product must be licensed to bear the AMCA Certified Ratings Seal for Water, Air, and Wind Performance.
- C. Louvers shall be warranted against manufacturing defects for a period of 5 years.

1.5 PROJECT CONDITIONS

- A. Field Measurements: Verify actual dimensions of openings by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 FIXED BLADE EXTRUDED-ALUMINUM LOUVERS

- A. Manufacturers: Provide Model ECD-635 Louvers manufactured by Pottorff. Subject to compliance with requirements products manufactured by one of the following may be considered:
1. Air Balance Inc.
 2. American Warming and Ventilating, Inc.
 3. Dowco.
 4. Greenheck
 5. Louvers & Dampers, Inc.
 6. Metalaire.
 7. Nailor
 8. Ruskin Manufacturing.
- B. Construction:
1. Material: Mill Finish 6063-T5 extruded aluminum.
 2. Frame: 6" deep x 0.081" thick channel.
 3. Blades: 35° x 0.081" (2) thick horizontal drainable chevron style.
 4. Screen: 1/2" x 0.063" (12.7 x 1.6) expanded and flattened aluminum mesh insect screen.
 5. Mullion: Visible.
- C. Performance Data: free area and pressure drop as indicated on the drawing schedules.
1. Maximum Pressure Drop as indicated on the drawing schedules.
 2. Maximum Water Penetration: 0.01 ounces per square foot of free area at an air flow of 1,217 fpm free area velocity when tested for 15 minutes.
 3. Minimum wind driven rain performance @ 8 in/hr rainfall rate and 50 mph wind speed based on testing 39.375 inch x 39.375 inch core area louver:
 - a. Core Velocity: 441 fpm (2.24m/s)
 - b. Effectiveness Ratio: 96.6%
 - c. Wind Class: B
 - d. Discharge Class: 2
- D. Design Load:
1. Wind Load: Louver designs shall withstand the effects of 30 psf (1.44 kPa) of uniform pressure acting inward or outward.
 2. Seismic Performance: Louvers, including attachments to other construction, shall withstand seismic effects determined by ASCE-7.
- E. Louver(s) Finish:
1. High Performance Fluoropolymer: Complying with AAMA 2605 and containing not less than 100 percent PVDF resin by weight in color coat. Prepare, pre-treat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturer's written instructions.
 2. Color and Gloss: Provide louvers with finished color and gloss as selected by the Architect from manufacturer's full range.

2.2 BRICK VENTS

- A. Manufacturers: Provide Model EBV-145 Brick Vents as manufactured by Pottorff. Subject to compliance with requirements products manufactured by others may be considered:
- B. Construction:
 - 1. Material: Mill Finish 6063-T5 extruded aluminum.
 - 2. Frame: 1" deep x 0.125" thick channel.
 - 3. Blades: 45° x 0.125" thick J- style.
 - 4. Screen: 18 X 14 mesh aluminum insect screen.
- C. Brick Vent(s) Finish:
 - 1. High Performance Fluoropolymer: Complying with AAMA 2605 and containing not less than 100 percent PVDF resin by weight in color coat. Prepare, pre-treat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturer's written instructions.
 - 2. Color and Gloss: Provide brick vents with finished color and gloss as selected by the Architect from manufacturer's full range.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and openings, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Examine substrates and openings for compliance with requirements for installation tolerances and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 INSTALLATION

- A. Install louvers at locations as indicated on the drawings and in accordance with manufacturer's instructions. Install louvers plumb, level, in plane of wall, and in alignment with adjacent work.
- B. Use concealed anchorages where possible. Provide brass washers fitted to screws where required to protect metal surfaces and to make a weathertight connection.
- C. Form closely fitted joints with exposed connections accurately located and secured.
- D. Provide perimeter reveals and openings of uniform width for sealants and joint fillers, as indicated.
- E. Repair finishes damaged by cutting, welding, soldering, and grinding. Restore finishes so no evidence remains of corrective work. Return items that cannot be refinished in the field to the factory, make required alterations, and refinish entire unit or provide new units.

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- F. Protect unpainted galvanized and nonferrous-metal surfaces that will be 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.
- G. Install concealed gaskets, flashings and joint fillers as louver installation progresses. Provide a weathertight louver installation.

3.4 ADJUSTING AND CLEANING

- A. Clean exposed surfaces of louvers and vents that are not protected by temporary covering, to remove fingerprints and soil during construction period. Do not let soil accumulate during construction period.
- B. Before final inspection, clean exposed surfaces with water and a mild soap or detergent not harmful to finishes. Thoroughly rinse surfaces and dry.
- C. Restore louvers and vents 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. Touch up minor abrasions in finishes with air-dried coating that matches color and gloss of, and is compatible with, factory-applied finish coating.

END OF SECTION 23 37 30