



SECTION 10200

WALL LOUVERS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Wall louvers.
- B. Louvered penthouses.

1.2 RELATED SECTIONS

- A. Section 07900 - Joint Sealers.
- B. Division 15700 - Heating Ventilation and Air Conditioning Equipment.
- C. Section 16100 - Wiring Methods.

1.3 REFERENCES

- A. Air Movement and Control Association International Inc. (AMCA): Standard 500 - Test Method for Louvers, Dampers, and Shutters.
- B. Air Movement and Control Association International Inc. (AMCA): Publication 261 - Directory of Licensed Products, current edition.
- C. ASTM A526 Standard Specification for Steel Sheet, Zinc-coated (galvanized) steel.
- D. ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
- E. ASTM B221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Provide data describing design characteristics, maximum recommended air velocity, design free area, materials and finishes, and manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.

- C. Certificate of Compliance: Product certificate from the louver manufacturer certifying that the applicable products being supplied complies with specified requirements and has been tested in accordance with procedures stipulated in AMCA 500-L of the Air Movement and Control Association (AMCA).
- D. 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.
 - 1. Take necessary field dimensions or receive verification of finished sizes from installation trades or general contractor.
- E. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- F. Verification Samples: For each finish product specified, three samples, minimum size 23-1/2 inches (600 mm) square, representing actual product.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.6 WARRANTY

- A. Warranty: Work warranted against defects and deficiencies for 2 years.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Doralco Architectural Metals; 5919 W. St. Alsip, IL 60803 Tel: (708) 388-9394, Toll free Tel: (888) 44-DORALCO, Fax: (708) 388-9392, Website: [doralco](http://doralco.com).
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 WALL LOUVERS

- A. Louvers - General: Factory fabricated and assembled; AMCA tested under AMCA 500-L.
 - 1. Wind Load Resistance: Design to resist positive and negative wind load of ___ psf (___ kPa) without damage or permanent deformation.
 - 2. Blades: One piece extrusions with reinforcing bosses, supported and lined up with heavy-gage extruded aluminum blade braces, positively interlocked to each blade and mechanically secured to structure by aluminum and stainless steel fastenings.

3. Mullions: Coordinated to match louvers.
 4. Screens: Provide insect screens/bird screens at intake louvers and bird screens at exhaust louvers.
 5. Where louver exceeds manufacturer's recommended unsupported width or height, concealed, provide back-of-louver structural supports consisting of minimum 2 inch by 2 inch by 1/4 inch (50 mm by 50 mm by 6 mm) aluminum angles, designed to resist specified wind loads; location of angles coordinated to suit penetrations of mechanical air systems.
 6. Exposed edges and ends of metal dressed smooth, free from sharp edges.
 7. Exposed connections and joints constructed to exclude water.
 8. For horizontal louver blades butt jointed with expansion allowance, provide concealed method of aligning blades of adjacent panels so that blades appear to be continuous without any face frame.
 9. For louvers immediately adjacent to existing louvers, match style of louver blades and line up blades with existing blades.
- B. Stationary Drainable Louvers: Doralco Architectural Metals Drainable series; extruded aluminum construction; frame with channel profile; corners are mechanically fastened, with continuous recessed caulking channel each side; intermediate mullions matching frame; gutters to drain rain water to jamb and mullion downspouts.
1. Acceptable Product: IT-DL4D or IT-DL6D.
 - a. IT-DL4D
 - 1) Louver Depth: 4 inch (100 mm)
 - 2) Frame Thickness: 0.081 inch (2.06 mm) extruded aluminum type 6063-T5
 - 3) Blade Type: Drainable blades at 38 degree angle
 - 4) Blade Thickness: 0.081 inch (2.06 mm) extruded aluminum type 6063-T5
 - 5) Blade Spacing: 3 15/16 inches
 - b. IT-DL6D
 - 1) Louver Depth: 6 inch (150 mm)
 - 2) Frame Thickness: 0.081 inches (2.06 mm) extruded aluminum type 6063-T5
 - 3) Blade Type: Drainable blades at 38/45 degree angle
 - 4) Blade Thickness: 0.081 inches (2.06 mm) extruded aluminum type 6063-T5
 - 5) Blade Spacing: 4 inches
- C. Stationary Storm Resistant Louvers: Doralco Architectural Metals Storm Resistant series; extruded aluminum construction; frame with channel profile; corner joints are mechanically fastened, with continuous recessed caulking channel each side; intermediate mullions matching frame; gutters to drain rain water to jamb and mullion downspouts; rated for an air performance and water penetration maintained effectiveness rate of 0.95 when tested in accordance with AMCA 500-L.
1. Acceptable Product: IT-SRL5D or IT-SRL7D.
 - a. IT-SRL5D
 - 1) Louver Depth: 5 inches (150 mm)
 - 2) Frame Thickness: 0.081 inch (2.06 mm) extruded aluminum type 6063-T5
 - 3) Blade Type: Drainable blades at 38/45 degree angle

- 4) Blade Thickness: 0.081 inch (2.06 mm) extruded aluminum type 6063-T5
 - 5) Blade Spacing: 3 1/8 inches
- b. IT-SRL7D
- 1) Louver Depth: 7 inches (150 mm)
 - 2) Frame Thickness: 0.081 inch (2.06 mm) extruded aluminum type 6063-T5
 - 3) Blade Type: Drainable blades at 38/45 degree angle
 - 4) Blade Thickness: 0.081 inch (2.06 mm) extruded aluminum type 6063-T5
 - 5) Blade Spacing: 3 1/8 inches

2.3 ACCESSORIES

- A. Sills: Minimum 0.06 inch (1.27 mm) thick aluminum.
1. Formed back edge turned up at underside of louver sill sections.
 2. Louvers with Jambs Designed to Drain Water: Extend sill under entire frame section.
 3. Other Louvers: Locate turned up back edge under bottom frame member.
- B. Blank-Off Panels: 2 inch (51 mm) thick insulated sandwich panel; 0.06 inch (1.5 mm) thick aluminum sheets with core of 4.0 pound per cu ft (64.0 kg per cubic m) density mineral fiber rigid insulation; provide in all non-active areas of louvers.
1. Provide channel shaped aluminum closures to conceal core materials at cut-outs.
 2. Finish: To match louver.
- C. Blank-Off Sheets: Same material as louver, non-insulated sheets.
- D. Screens: Frame and finish of same material as louver, with reinforced corners; removable, screw attached; installed on inside face of louver frame.
1. Insect Screen: Aluminum 18 x 14 mesh
 2. Insect Screen: Stainless steel 18 x 14 mesh
 3. Bird Screen: Aluminum Interwoven 16 Ga. mesh 1/2 inch (13 mm).
 4. Bird Screen: Welded steel wire mesh galvanized after fabrication 1/2 inch (13 mm).
 5. Bird Screen: Stainless steel mesh 1/2 inch (13 mm).
- E. Fasteners and Anchors:
1. For Aluminum: Series 300 or 400 stainless steel.
 2. For Steel Exposed to Weather: Series 300 stainless steel.
 3. For Steel Not Exposed to Weather: Hot-dipped galvanized or cadmium plated.
- F. Flashings: Same material as louver frame, formed to required shape, single length in one piece per location.
- G. Sealant: As specified in Section 07900.

2.4 MATERIALS

- A. General: Provide metal framing, furring, brackets, clips, hangers, and incidental components included as required for secure fastening; weather-tight installation with non-corrosive fasteners provided.
- B. Bird Screen: Interwoven wire mesh, 1/2 inch (13 mm) open weave.
 - 1. Aluminum mesh.
 - 2. Stainless steel mesh
- C. Insect Screen: 18 x 14 mesh
 - 1. Aluminum mesh.
 - 2. Stainless steel mesh.
- D. Polyvinylidene Fluoride Coating:
 - 1. 3 Coat system, minimum 70 percent Kynar 500/Hylar 500 resin, three coat finish, complying with AAMA 2605
 - 2. 2 Coat system, minimum 70 percent Kynar 500/Hylar 500 resin, two coat finish, complying with AAMA 2605
 - 3. 2 Coat system, minimum 50 percent Kynar 500/Hylar 500 resin, two coat finish, complying with AAMA 2605
- E. Anodized Finishes:
 - 1. Class I Clear Anodized Finish (.0007")
 - 2. Class II Clear Anodized Finish (.0004")
 - 3. Color Anodized Finish – Two Stage Bronze Color – Light, Medium, Dark, Champagne
- F. Primer: Zinc chromate, alkyd type; dry film thickness of 25 micrometers; field welds spot primed after roughness and irregularities removed by grinding and cleaning with wire brush.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that prepared openings and flashings are ready to receive 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, true to dimensions, and free from distortion or defects detrimental to appearance and performance; plumb louvers within a tolerance of 1:175.
- C. Install flashings and align louver assembly to ensure moisture shed from flashings and diversion of moisture to exterior.
- D. Secure louver frames in openings with concealed fasteners.

- E. Provide adequate reinforcing and anchorage to ensure a rigid installation.
- F. Install perimeter sealant and backing rod in accordance with Section 07900; where sills are integral, set in two continuous beads of sealant.
- G. Coat all aluminum surfaces in contact with cement, concrete, masonry, or dissimilar metals with heavy coat of non-staining alkali resistant bituminous paint.

3.3 CLEANING

- A. Strip protective finish coverings.
- B. Clean surfaces and components.
- C. Remove any trademarks or labels from exposed finished surfaces.

END OF SECTION