



SECTION 108200 – LOUVERED EQUIPMENT SCREENS

The Airo-lite Company, LLC, www.airolite.com, PO Box 410, Schofield, WI 54476; PH: 715-841-8757, FX: 715-841-8773.

Review with Mechanical Engineer to determine requirements.

Contact Airo-lite for technical assistance if needed.

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Fixed, extruded-aluminum louvered equipment screens.
 2. Assembly framing, sub-framing, and accessories for direct attachment and support of equipment screens to structural supports, and anchorages noted on the drawings.

1.2 REFERENCED STANDARDS

- A. Edition Dates: Current edition at Bid Date, with applicable appendices and supplements if any, unless otherwise indicated or adopted by authorities having jurisdiction.

Include standards referenced elsewhere in this Section after editing.

- B. Air Movement and Control Association (AMCA) International:
1. AMCA 500-L - Laboratory Methods of Testing Louvers for Rating
 2. AMCA 501 - Louver Application Manual and Design Guide
 3. AMCA 511 - Certified Ratings Program Product Rating Manual for Air Control Devices
- C. American Society of Civil Engineers / Structural Engineering Institute (ASCE/SEI):
1. ASCE/SEI 7 Minimum Design Loads For Buildings and Other Structures.
- D. ASTM International (ASTM):
1. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes
- E. Fenestration and Glazing Industry Alliance (FGIA):
1. [AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum]
 2. [AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels]
 3. [AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels]

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate with the Work of other Sections for sequencing and scheduling to avoid delays, and for completeness of weatherproofing system.

1.4 ACTION SUBMITTALS

- A. Shop Drawings.
1. Louver layout plan, elevations, opening and clearance dimensions, tolerances, and anchorage.
 2. Head, jamb, and sill details.

3. Blade configuration, screens, blank-off panel areas, and frames.
4. Field Measurements: Verify actual measurements by field measuring before fabrication and include measurements in shop drawings. Coordinate field measurements and fabrication schedule to avoid delays.

B. Product Data: Design characteristics, design free area based on 16 sq. ft. (1.5 sq. m) louver, materials, and finishes. Include calculations prepared by a professional engineer registered in project location.

1.5 INFORMATIONAL SUBMITTALS

- A. Samples: Color samples illustrating specified finish.
- B. Manufacturer's Instructions: Include installation instructions, rough-in dimensions, special procedures, and perimeter conditions requiring special attention.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Member of AMCA, producing tested louvers conforming to with provisions of this Section.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver until construction work which might cause damage to exterior metal wall louvers is complete.
- B. Conform to manufacturer's instructions. Deliver and store in original, unopened, protective containers and packaging with seals intact and labels clearly identifying product name and manufacturer. Store in a safe, protected location. Handle in a manner to protect from damage.

1.8 WARRANTY

- A. Warranties shall not deprive Owner of other rights Owner may have by law or under other provisions of the Contract Documents, and will be in addition to and run concurrently with other warranties made under the Contract Documents.

Select warranty to correspond with finish type specified in Part 2 of this Section.

Airolite standard warranty for Superior Performing Organic Coating is 10 years. Can be extended to 20 years except in South Florida exposure.

- B. Manufacturer's AAMA 2605 Kynar/Fluoropolymer Coating Warranty: ~~10~~20 year warranty from date of shipment against excessive chalking or excessive color change, and against chipping, cracking, or peeling.
- C. Manufacturer's AAMA 2604 Kynar/Fluoropolymer Coating Warranty: 5 year warranty from date of shipment against excessive chalking or excessive color change, and against chipping, cracking, or peeling.
- D. Manufacturer's Class I Anodized Finish Warranty: Five year warranty from date of shipment against excessive fading or excessive non-uniformity of finish, and against cracking, crazing, flaking, or blistering.

- E. Manufacturer's Class II Anodized Finish Warranty: One year warranty from date of shipment against excessive fading or excessive non-uniformity of finish, and against cracking, crazing, flaking, or blistering.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design Products: Provide products as specified indicated on Drawings, or Architect-accepted substitution. Manufacturers of exterior metal wall louvers include but are not limited to:
 1. Aiolrite Company, LLC (Basis of Design).

2.2 PERFORMANCE / DESIGN CRITERIA

- A. Screen supports: Design and furnish all supports required to design loads of 25 pounds per square foot (1.2 kPa). The design load includes derived from wind, snow (including drift), seismic events, and the dead load of the screen wall.
- B. Structural Design of Louvers: Engineer louver to resist wind load indicated by Structural Drawing Notes and ASCE/SEI 7 for Wind Load and Exposure.

2.3 EQUIPMENT VERTICAL BLADE LOUVER SCREEN

- A. Airolite Model SV6000:
 1. Louver Depth: 6 inch (152.4 mm).
 2. Percent Free Area: 50.0%
 3. Blade Spacing: 4.5 inches on center
 4. Blade Thickness: 0.081 in (2.06 mm)
 5. Vertical Support: Extruded aluminum Z support
- B. Extruded Aluminum: ASTM B221 6061-T6 and 6005-T5 extruded aluminum alloy and temper.

2.4 FABRICATION

- A. Corners: mechanically fasten with corner trim.
- B. Louver Blades: Extruded aluminum, designed and configured as a sight and security barrier.
- C. Jamb Ends: Extruded aluminum, same thickness as blades; Jamb Closures, formed aluminum, same thickness as blades.
- D. Other: Attachments, accessories, supports, and as required for complete installations.

2.5 FINISHES

Coordinate finishes article with warranty article specified in Part 1 of this Section. For color chart go to [Airolite Finishes and Colors, Rev 6 April 2020](#).

- A. Exposed Aluminum: Kynar/Fluoropolymer Coating, 2-coat 70% Kynar paint/100% Fluoropolymer (AAMA 2605) 3-coat 70% Kynar paint/100% Fluoropolymer (AAMA 2605) 4-coat 70% Kynar paint factory-applied baked-on finish, AAMA 2605.
 1. Color: _____ As selected by Architect from manufacturer's Standard Colors As selected by Architect from manufacturer's Mica Colors Custom color, to match _____, specified in Section _____, as verified by Architect's approved color samples.

- B. Exposed Aluminum: Fluoropolymer Coating, 50% Kynar paint, AAMA 2604.
1. Color/Finish: _____ Wood grain finish As selected by Architect from manufacturer's Standard Colors Custom color, to match _____, specified in Section _____, as verified by Architect's approved color samples .

Extra Dark Bronze, and Champagne, are less commonly available but are available from Airlite. Color anodizing may vary slightly even from piece to piece on the same job. Clear or black tend not to vary. Class I is better than Class II for exterior use.

- C. Exposed Aluminum: Clear anodized, Class I (0.7 mils thickness), AA-M10C21A41 (215 R-1).
- D. Exposed Aluminum: Clear anodized, Class II (0.4 mils thickness), AA-M10C21A31 (204 R-1).
- E. Exposed Aluminum: Integral Color anodized, Class I (0.7 mils thickness), AA-M10C21A41, Light Bronze Medium Bronze Dark Bronze Extra Dark Bronze Black Champagne As selected by Architect from manufacturer's Anodize Colors .
- F. Unfinished exposed metal not accepted. Touch up uncoated metal for smooth, finished appearance matching color and gloss level of adjacent finish.
- G. Joint Sealant Color: Match wall color Match _____, specified in Section _____ .

2.6 ACCESSORIES

- A. Fasteners: Aluminum or stainless steel.
- B. Flashings: Same material and appearance as louver/screen wall.
- C. Joint Sealants: Specified in Section 079200.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify openings are ready to receive work of this Section before beginning work. Notify Architect in writing of conditions that are not acceptable.
- B. Do not begin work of this Section until unacceptable conditions have been corrected.

3.2 INSTALLATION

- A. Conform to manufacturer's instructions and provisions of Contract Documents.
- B. Isolate dissimilar materials to prevent galvanic action.
- C. Install exterior louvers/screen walls to shed water to exterior of building.
- D. Joint Sealant Installation: Specified in Section 079200.

3.3 ADJUSTING

- A. Repair or replace wall louvers with damaged components and finishes.



Guide Specification - Edit as required

3.4 CLEANING

- A. Leave wall louver installations clean, installation area free from debris and residue resulting from work of this Section.

END OF SECTION