

Revision Date: 07/29/2021

1. **Design Criteria:**

- a. Where louvers are to be engineered by the contractor, the design consultant shall indicate such required engineering in the specifications and indicate which submittals and engineering work is required, such as calculations, shop fabrication drawings, field erection and installation drawings, details of connections.

2. **References**

- a. AMCA 500-L Laboratory Methods of Testing Louvers for Rating
- b. AMCA 511 – Certified Ratings Program for Air Control Devices
- c. ASTM E90 – Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

3. **Required Submittals:**

- a. Product Data: For each type of product indicated.
 - i. For louvers specified to bear AMCA seal, include catalog pages showing specified models with appropriate AMCA Verified Ratings Seals.
- b. Shop Drawings: For louvers and accessories. Include plans, elevations, sections, details and attachments to other work. Show frame profiles and blade profiles, angles, and spacing.
 - i. Show weeps paths, gaskets, flashing, sealant, and other means of preventing water intrusion.
 - ii. Show mullion profiles and locations.
 - iii. Show hardware and locking devices for swinging louvers.
- c. Samples for Initial Selection: Provide color samples for units with factory-applied color finishes.
- d. Samples for Verification: For each type of metal finish required to be $\geq 12 \times 12$ inches.
- e. Delegated-Design Submittal: For louvers indicated to comply with structural and seismic performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- f. The design consultant shall specify the need for the contractor to verify field dimensions for louvers prior to purchase.

Revision Date: 07/29/2021

4. Products, Materials & Equipment:

- a. Available manufacturers include but are not limited to:
 - i. Construction Specialties, Inc., Model A4097 is basis of design for louvers.
 - ii. Greenheck Fan Corp.
 - iii. Airolite Co.
 - iv. All-Lite Louver Co.
 - v. American Warming and Ventilating, Inc.
 - vi. Arrow United Industries.
 - vii. Industrial Louvers, Inc.
 - viii. Reliable Metal Products, Div. of Hart & Cooley, Inc.
 - ix. Ruskin Mfg., Tomkins Industries, Inc.
- b. Insect screens behind louvers are prohibited at louvers connected to ductwork as they promote collection of small leaves and debris which clogs the louver. Larger opening bird screens are to be used for louvers connected to ductwork.
- c. Coordinate drainable louvers with the necessary piping and plumbing to carry water out of the collection channel.
- d. Blank-off panels shall be the same material as louver, painted black on the exterior side, and provided where a duct connected to the louver is smaller than the louver frame.
- e. Provide sill flashing pans at base of louvers.
- f. Flashings around louvers shall be the same material as the louver.

5. Installation, Fabrication, and Construction:

- a. Provide galvanic isolation tape between dissimilar metals.
- b. Where shims are required, they shall be inorganic material shims.
- c. Clip anchors shall be concealed from exterior view
- d. Coordinate louver with air and moisture management layers of the building envelope.
- e. Pitch flashing pan a minimum of 10 degrees toward the exterior of building.
- f. Provide seamless flashing pans up to 9 feet of sill length.
 - i. For over 9 feet of sill length, multiple pans are allowed, but minimize seams.
 - ii. Overlap seams at least three inches.
 - iii. Provide two continuous beads of concealed silicone sealant in each overlapped seam.
 - iv. Cover seam with 6 inch wide strip of 40 mil thick, rubberized asphalt flashing.

Revision Date: 07/29/2021

- v. Do not expose flexible flashing strip to view or sunlight in the completed installation.
 - g. Form three sided pans with ≥ 2.0 inches high up turned edges.
 - h. Fold and hem pan edges.
 - i. Provide permanently waterproof, folded pan corners.
 - j. Extend flashing pan interior edge as shown or, if not shown, 12 inches inside louver sill.
 - k. Coordinate louvers with building duct work.
 - l. Provide sheet metal transitions to connect louvers to building duct work.
 - m. Blank off panels must be detailed to be easily removed and reinstalled by Owner for maintenance and cleaning.
 - n. Bird screens must be detailed to be easily removed and reinstalled by Owner for maintenance and cleaning.
6. **Warranties:**
- a. Manufacturer's standard warranty on products and equipment
 - b. Installer's standard one-year warranty on installation and craftsmanship