

SECTION 07600 - METAL FLASHING

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Furnish and install flashing.

1.2 SHOP DRAWINGS AND PRODUCT DATA

- A. Submit Shop Drawings and product data in accordance with Section 01300.
- B. Indicate material profile and gauges, jointing details, fastening methods and spacing, and installation details.
- C. If Requested by Architect Submit Shop Fabricated Samples of:
 - 1. Exposed metal trim units.
 - 2. Drip edge.
 - 3. Step flashing.
 - 4. Ledge flashing.
 - 5. Counter flashing.
 - 6. Termination joints and connections.
- D. Submit manufacturer's data sheets and color charts for all required metal finishes.

1.3 PROTECTION

- A. Exercise care when working on or about roof surfaces to avoid damaging or puncturing membrane or flexible flashings.
- B. Place plywood panels on roof surfaces adjacent to work of this Section and on access routes. Keep in place until completion of work.

1.4 COORDINATION

- A. Coordinate work with that of all other trades affecting or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.5 STANDARDS

- A. Except as Modified by the Requirements of Other Governing Codes and by this Specification, Conform to the Provisions and Recommendations of the Following Codes and Standards:
 - 1. Metal installation shall be in accordance with the Architectural Sheet Metal Manual published by the Sheet Metal and Air Conditioning Contractor National Association, Inc. (SMACNA) fifth edition.
 - 2. Factory Mutual loss prevention data sheet I-49.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Flashing and Sheet Metal Materials:
 - 1. Lead-coated Copper: ASTM B101, Type I, Class A coating on a base sheet of cold-rolled temper copper meeting ASTM B370, weighing not less than 16 oz./sq. ft., unless indicated otherwise.
 - 2. Prefinished Metal: .040" thickness, unless indicated otherwise; aluminum; Reynolds Metals Co.; Colorweld 300 coating with Kynar 500 resin; smooth finish, color, as indicated on Drawings.
 - 3. Fasteners: Continuous concealed clip type; of same material as flashings; sized to suit application. Nails, screws

and washers; copper, bronze or stainless steel; nails, ring shank, 3/8" diameter head; stainless steel or copper.

4. Masonry flashing specified in Section 04200.

- B. For attaching sheetmetal to masonry, use Rawl "Zamac" plugs, Tapcon screws by Filco Industries, Inc., or Con Fixx by Fabco; stainless steel.
- C. Bituminous Coating: FS TT-C-494 or SSPC - Paint 12, solvent type bituminous mastic, nominally free of sulfur, compounded for 15-mil dry film thickness per coat.
- D. Mastic Sealant: Polyisobutylene; non-hardening, non-skinning, non-drying, non-migrating sealant.
- E. Metal Accessories: Provide sheet metal clips, straps, anchoring devices and similar accessory units as required for installation of work, matching or compatible with material being installed, non-corrosive, size and gauge required for performance.
- F. Roofing Cement: ASTM D2822, asphaltic.
- G. Solder: For use with steel or copper, provide 50-50 tin/lead solder (ASTM B32), with resin flux.

2.2 FABRICATION

- A. Flashing Schedule
 1. Roof Edge Strip for EPDM: SMACNA, Figure 2.5C; continuous edge clip; 4-inch flange on roof; pre-finished metal.
 2. Ledge Flashing: SMACNA, Figure 4-20D, pre-finished metal; shop formed to detail; joint detail SMACNA Table 3-1, J-12 Double S.
 3. Step Flashing: SMACNA, Figure 4-21A; lace base flashing in shingle courses; Pre-finished metal, color to blend with shingles.
 4. Trim Flashing - Pre-finished Metal: shop formed to detail.
 5. Overflow Scupper through Wall: SMACNA Figure 1-26A. lead-coated copper.
 6. Overflow Scupper through Roof Edge: SMACNA Figure 1-28, Section A-A; Pre-finished metal, Figure 1-32E.
 7. Exposed Flashing Along Back Edge of Built-In Gutter: Pre-finished metal, color to blend with shingles; shop formed to detail.
- B. General Metal Fabrication: Shop fabricate work to greatest extent possible. Comply with details shown and with applicable requirements of SMACNA "Architectural Sheet Metal Manual" and other recognized industry practices. Fabricate for waterproof and weather-resistant performance with expansion provisions for running work sufficient to permanently prevent leakage, damage or deterioration of the work. Form work to fit substrates. Comply with material manufacturer's instructions and recommendations. Form exposed sheet metalwork without excessive oil-canning, buckling and tool marks, true to line and levels as indicated, with exposed edges folded back to form hems.
- C. Seams: Fabricate non-moving seams in sheet metal with flat lock seams. For metal other than aluminum, tin edges to be seamed, form seams and solder. Form aluminum seams with epoxy seam sealer; rivet joints for additional strength where required.
- D. Expansion Provisions: Where lapped or bayonet-type expansion provisions in work cannot be used, or would not be sufficiently water/weatherproof, form expansion joints of intermeshing hooked flanges, not less than 1" deep, filled with mastic sealant (concealed within joints).
- E. Sealant Joints: Where movable, non-expansion type joints are indicated or required for proper performance of work, form metal to provide for proper installation of elastomeric sealant in compliance with industry standards.
- F. Separations: Provide for separation of metal from non-compatible metal or corrosive substrates by coating concealed surfaces at locations of contact with bituminous coating or other permanent separation as recommended by manufacturer/fabricator.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Construct all metalwork neatly and securely reinforce, and stiffen as required to present and maintain true and regular surfaces. All edge strips shall be neatly folded external and internal corners shall be mitered and soldered for lead coated copper, and sealed in full bed of water cut off mastic for pre-finished metal. Install work with permanently watertight and weatherproof joints, laps and seams. Conceal all fasteners. Provide for thermal expansion of metal.
- B. Where back-up plates are specified, set flashing ends in full bed of water cut-off mastic, allowing 1/4 inch between sections.
- C. Provide metal counter flashing where elastomeric base flashing is used. Flashing shall be built-in and turned up to provide positive weather protection.
- D. Lap counterflashing over vertical leg of base flashing 4 inches minimum.
- E. Electrolytic Action: Where two (2) dissimilar metals adjoin or lap each other (example: galvanized metal ducts and copper cap flashing), an approved separating strip or other insulating material shall be installed.
- F. All exposed sheet metalwork shall be cleaned at completion of installation. All exposed metal surfaces shall be free of dents, creases, waves, scratch marks and solder or weld marks.

END OF SECTION 07600