# SECTION 07716 (07 71 29)

## RA ROOF EXPANSION JOINTS

1. GENERAL
   1. SECTION INCLUDES
      1. Stainless steel roof expansion assemblies.
   2. RELATED SECTIONS
      * 1. 06100- Carpentry.
        2. 07600- RA Flashing and Sheet Metal.
        3. 07900- Joint Sealers.
   3. REFERENCES
      1. ANSI-SPRI/ES-1.
      2. American Society for Testing and Materials (ASTM):
         1. A 167-Specification for Stainless and Heat Resisting Chromium-Nickel Steel Plate, Sheet and Strip.
         2. B 32-Specification for Solder Metal.
         3. A 240-Heat-resisting Chromium and Chromium-nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels.
         4. D 2822-Standard Specification for Asphalt Roof Cement.
      3. Florida Building Code.
      4. Florida Building Code (FBC) High Velocity Hurricane Zones (HVHZ).
      5. National Roofing Contractors Association (NRCA) “Roofing and Waterproofing Manual” Detail for installation of units.
      6. Sheet Metal and Air-Conditioning Contractor’s National Association, Inc. (SMACNA): Architectural Sheet Metal Manual”, latest Edition. Details for fabrication of units, including flanges and installation to coordinate with type of roofing indicated.
   4. SUBMITTALS
      1. Submit samples of expansion joint cover with labels attached.
      2. Submit shop drawings on fabricated work, showing details of all conditions, material types, weights, gages, joining, sealing, and fastening.
   5. QUALITY ASSURANCE
      1. Regulatory Requirements: Ensure flashing and sheet metal complies with requirements of Florida Building Code, NRCA, SMACNA, and ANSI-SPRI/ES-1.
      2. Design Function: Ensure roof expansion joint covers provide complete watertight assemblies capable of movement in all directions, while meeting or exceeding the design pressures shown on the Contract Documents.
      3. Before starting roofing and ordering of materials, a pre-roofing conference will be held to discuss specified roof expansion joint covers and proper applications.
      4. Coordinate application with the application of flashings, roofing system, wood bases, and roof accessories to provide a weather tight installation under provisions of warranty requirements.
   6. SPECIAL WARRANTIES
      1. By Membrane Producer: Provide a 20-year Special Warranty from the roof membrane producer covering correction of defects in the steel blocking and sheet metal component of Roof Assembly.
      2. By Steel Roof Blocking and Roofing Sheet Metal Producer and Installer: Provide a 10 year Special Warranty in which the SRB producer/installer agrees to correct defective SRB work.
         1. See 07500 for full requirements of this Special Warranty that shall accompany the Roof Assembly Special Warranty.
         2. At time of project closeout, submit this signed Special Warranty to the roof membrane producer for transmittal to Contractor, A/E, and board.
2. PRODUCTS
   1. ROOF EXPANSION JOINTS
      1. 22 gage stainless steel expansion assembly.
      2. Manufacturer: Subject to compliance with the specified requirements, provide products by the following manufacturer Basis of Design (BOD):
         1. Mfr: Concrecel USA; Product: ARBS (Alternative Roof Blocking System). Provide steel roof blocking (SRB) from a fabricator licensed by the ARBS patents holder.
         2. Substitutions:
            1. Will be considered by the A/E and Owner when submitted per requirements of Division-0, Division-1, and Section 01630-Product Substitution Procedures.
   2. MATERIALS
      1. Metal Flanges: Stainless steel, Type 430 dead soft, 0.015-inch thick minimum.
      2. Insulation: Maintain the R-value of the roof assembly.
      3. Nails: Neoprene grommeted 1-1/2 inch hold-tite nails matching metal.
      4. Screws: Neoprene grommeted No. 8 pan head stainless steel screws. A concrete sub-base, provide compatible lead shields for screws.
      5. Adhesives and Sealant: As supplied by manufacturer of components for use with roofing system.
      6. Single Ply Roofing Roof Expansion Joints: Compatible with and under provisions of single ply roofing membrane manufacturer’s recommendations.
3. EXECUTION
   1. INSTALLATION
      1. According to manufacturer’s published recommendations and requirements for a complete watertight installation.
      2. Install expansion joint cover flanges in full bed of roofing cement over completed roof membrane and complete base flashing systems on cants. Provide additional sealant to seal exposed top ends of expansion joint cover weather tight.
         1. Secure metal flanges in compliance with FBC.
         2. At splice points in expansion joint cover install adhesives and sealant under provisions of manufacturer’s directions. Do not use bituminous roofing cement or other materials not recommended by expansion joint manufacturer.

END OF SECTION