

SECTION 07 95 13
EXPANSION JOINT COVER ASSEMBLIES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Section specifies replacement of exterior wall expansion joint cover.
- B. Types of assemblies:
 - Elastomeric Joint Covers

1.2 QUALITY ASSURANCE

- A. Project Conditions:
 - 1. Check existing joint covers at actual locations of walls and other construction, to which work must fit, by accurate field measurements before fabrication.
 - 2. Show recorded measurements on final shop drawings.

1.3 DELIVERY STORAGE AND HANDLING

- A. Take care in handling of materials so as not to injure finished surface and components.
- B. Store materials under cover in a dry and clean location off the ground.
- C. Remove materials which are damaged or otherwise not suitable for installation from job site and replace with acceptable materials.

1.4 SUBMITTALS

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Manufacturer's Literature and Data:
 - 1. Submit copies of manufacturer's current literature and data for each item specified.
 - 2. Clearly indicate movement capability of cover assemblies and suitability of material used in exterior seals for ultraviolet exposure.
- C. Certificates: Material test reports from approved independent testing laboratory indicating and interpreting test results relative to compliance of fire-rated expansion joint assemblies with requirements specified.
- D. Shop Drawings:
 - 1. Showing full extent of replacement expansion joint cover assemblies; include large-scale details indicating profiles of each type of expansion joint cover assembly, splice joints between sections,

joiners with other type assemblies, special end conditions, anchorages, fasteners, and relationship to adjoining work and finishes.

2. Include description of materials and finishes and installation instructions.

E. Samples:

1. Samples of each type and color of metal finish on metal of same thickness and alloy used in work.
2. Samples of each type and color of flexible seal used in work.

1.5 APPLICABLE PUBLICATIONS

A. Publications listed form part of this specification to extent referenced. Publications are referred to in text by basic designation only.

B. American Society for Testing and Materials (ASTM):

- A36/A36M-08.....Structural Steel
- A240/A240M-14.....Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet and Strip for Pressure Vessels and for General Applications.
- A283/A283M-07.....Low and Intermediate Tensile Strength Carbon Steel Plates
- A786/A786M-05(R2009)....Rolled Steel Floor Plates
- B36/B36M-08.....Brass, Plate, Sheet, Strip, and Rolled Bar
- B121-01(R2006).....Leaded Brass Plate, Sheet, Strip and Rolled Bar
- B209M-07.....Aluminum and Aluminum-Alloy Sheet and Plate (Metric)
- B221M-08.....Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes (Metric)
- B455-10.....Copper-Zinc Lead Alloy (Leaded Brass) Extruded Shapes
- C864-05.....Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers
- C920-11.....Elastomeric Joint Sealants
- D1187-97 (R2002).....Asphalt Base Emulsions for Use as Protective Coatings for Metal
- D2287-96 (R2010).....Non-rigid Vinyl Chloride Polymer and Copolymer Molding and Extrusion Compounds

- E119-10.....Fire Tests of Building Construction and
Materials
- E814-11.....Fire Tests of Through-Penetration Fire Stops
- C. Federal Specifications (Fed. Spec):
 - TT-P-645B.....Primer, Paint, Zinc-Molybdate, Alkyd Type
- D. The National Association of Architectural Metal Manufacturers (NAAMM):
 - AMP 500 Series.....Metal Finishes Manual.
- E. National Fire Protection Association (NFPA):
 - 251-06.....Tests of Fire Endurance of Building
Construction and Materials
- F. Underwriters Laboratories Inc. (UL):
 - 263-11.....Fire Tests of Building Construction and
Materials

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Stainless Steel: ASTM A240, Type 302 or 304.
- B. Aluminum:
 - 1. Extruded: ASTM B221, alloy 6063-T5.
 - 2. Plate and Sheet: ASTM B209, alloy 6061-T6.
- C. Elastomeric Sealant:
 - 1. ASTM C920, polyurethane.
 - 2. Type.
 - 3. Class 25.
 - 4. Grade NS.
 - 5. Shore A hardness 25, unless specified otherwise.
- D. Thermoplastic Rubber:
 - 1. ASTM C864.
 - 2. Dense Neoprene or other material standard with expansion joint
manufacturers having the same physical properties.
- E. Accessories:
 - 1. Manufacturer's standard anchors, fasteners, set screws, spaces,
flexible secondary water stops or seals and filler materials, drain
tubes, adhesive and other accessories as indicated or required for
complete installations.
 - 2. Compatible with materials in contact.

2.2 FABRICATION

A. General:

1. Use wall expansion joint cover assemblies of same design as existing expansion joint cover assemblies. Unless shown otherwise.
2. Provide expansion joint cover assemblies of design, basic profile, materials and operation indicated required to accommodate joint size variations in adjacent surfaces, and as required for anticipated structural movement.
3. Deliver to job site ready for use and fabricated in as large sections and assemblies as practical. Assemblies identical to submitted and reviewed shop drawings, samples and certificates.
4. Furnish units in longest practicable lengths to minimize number of end joints. Provide mitered corners where joint changes directions or abuts other materials.
5. Include closure materials and transition pieces, tee-joints, corners, curbs, cross-connections and other assemblies.
6. Seal Strip factory - formed and bonded to metal frames and anchor members.
7. Compression Seals: Prefabricate from thermoplastic rubber or dense neoprene to sizes and approximate profiles shown.

B. Exterior Wall Joint Assemblies:

1. Variable movement with seal designed to prevent water and air infiltration.
2. Use vinyl seal strip as secondary seal behind primary seal.
3. Extruded thermoplastic rubber joint assemblies.
 - a. Aluminum frames both sides of joint.
 - 1) Designed to receive flexible rubber primary seal on exposed face after installation of frame.
 - 2) Designed to receive continuous secondary vinyl sheet seal.
 - 3) Anchor spaced at ends and not over 600 mm (24-inches).
 - b. Variable movement extruded rubber primary seal designed to remain in aluminum frame, throughout movement of joint.
 - 1) Flush mounted seal minimum 3 mm (0.125-inch) thick with dual movement grooves designed for plus or minus 50 percent, movement of joint width.
 - c. Provide factory heat welded transitions where directional changes occur to ensure a watertight system.

- d. Provide pantographic wind load supports, maximum 2400 mm (8 feet) on center to support seal systems of 300 mm (12-inches) and wider.

2.3 METAL FINISHES

A. General:

1. Apply finishes in factory after products are fabricated.
2. Protect finishes on exposed surfaces with protective covering before shipment.

B. Aluminum Finishes:

1. Finish letters and numbers for anodized aluminum are in accordance with the NAAMM AMP 501, Aluminum Association's Designation System).
 - a. Clear anodized finish: AA-C22A41 Chemically etched medium matte, clear anodic coating, Class I Architectural, 0.7 - mil thick.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Manufacturer's representative shall make a thorough examination of surfaces receiving work of this section.
- B. Before starting installation, notify prime contractor of defects which would affect satisfactory completion of work.

3.2 PREPARATION

- A. Verify measurements and dimensions at job site and cooperate in coordination and scheduling of work with work of related trades.
- B. Give particular attention to installation of items embedded in concrete and masonry so as not to delay job progress.
- C. Provide templates to related trade for location of support and anchorage items.

3.3 INSTALLATION

- A. Install in accordance with manufacturers installation instructions unless specified otherwise.
- B. Provide anchorage devices and fasteners for securing expansion joint assemblies to in-place construction including threaded fasteners with drilled-in fasteners for masonry and concrete where anchoring members are not embedded in concrete. Provide metal fasteners of type and size to suit type of construction indicated and provide for secure attachment of expansion joint cover assemblies.
- C. Perform cutting, drilling and fitting required for installation of expansion joint cover assemblies.

- D. Install joint cover assemblies in true alignment and proper relationship to expansion joint opening and adjoining finished surfaces measured from established lines and levels.
- E. Allow for thermal expansion and contraction of metal to avoid buckling.
- F. Locate wall covers in continuous contact with adjacent surfaces. Securely attach in place with required accessories.
- G. Locate anchors at interval recommended by manufacturer, but not less than 75 mm (3-inches) from each ends, and, not more than 600 mm (24-inches) on centers.
- H. Maintain continuity of expansion joint cover assemblies with end joints held to a minimum and metal members aligned mechanically using splice joints.
- I. Cut and fit ends to produce joints that will accommodate thermal expansion and contraction of metal to avoid buckling of frames or plates.
- J. Installation of Extruded Thermoplastic Rubber or Seals:
 - 1. For straight sections, provide preformed seals in continuous lengths.
 - 2. Vulcanize or heat-seal field splice joints to provide watertight joints using manufacturer's recommended procedures.
- K. Installation of Preformed Elastomeric Sealant Joint:
 - 1. Locate joint directly over joints in wall or floor substrates.
 - 2. Full length shall be fastened to substrate using a construction adhesive.
 - 3. Install flush or slightly below finish material.

3.4 PROTECTION

- A. Take proper precautions to protect the expansion joint covers from damage after they are in place.

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