



Erie Metal Specialties, Inc.
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SPECIFICATION

Section 07 95 13

Erie Metal Specialties, Interior Architectural Systems

Model(s) "EFLC", "EFLC-W"

Seismic Expansion Control Systems

PART 1 - GENERAL

A.01 Work Included

- A. The work shall consist of furnishing and installing expansion joints in accordance with the details shown on the plans and the requirements of the specifications. The joints are proprietary designs utilizing extruded profiles, elastomeric seals and preformed shapes.
- B. Related Work
 - Cast-in-place concrete
 - Miscellaneous and ornamental metals
 - Flashing and sheet metal
 - Sealants and caulking

1.02 Submittals

- A. Template Drawings - Submit typical seismic joint cross-section(s) indicating pertinent dimensioning, general construction, component connections, and anchorage methods.

1.03 Product Delivery, Storage and Handling

- A. Deliver products in manufacturer's original, intact, labeled containers and store under cover in a dry location until installed. Store off the ground, protect from weather and construction activities.

1.04 Acceptable Manufacturer

- A. All joints shall be supplied by; Erie Metal Specialties, Inc. • 13311 Main Road • Akron • New York • 14001 • Phone (716) 542-3991 • Fax (716) 542-3996 • sales@eriemetal.com • www.eriemetal.com .
- A. Alternate manufacturers and their products will be considered, provided they meet the design concept and are produced of materials that are equal to or superior to those called for in the base product specification.
- C. Any proposed alternate systems must be submitted and receive approval 21 days prior to the bid. All post bid submittals will not be considered. This submission shall be in accordance with MATERIALS AND SUBSTITUTIONS.



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- Any manufacturer wishing to submit for prior approval must provide the following:

A working 6" sample of the proposed system with a letter describing how system is considered superior to the specified system.

A project proposal drawing that illustrates the recommended alternate system installed in the floor construction that is specific to the project. Typical catalog cut sections will not be considered.

A Verifiable list of prior installations showing prior and successful experience with the proposed Systems.

Any substitution products not adhering to all specification requirements within, will not be considered.

1.05 Quality Assurance

- A. Warranty: The expansion control system's performance shall be warranted for a period of 1 year. Installation shall be in strict accordance with manufacturer's technical specifications, details, installation instructions and general procedures in effect for normal intended usage and suitable applications under specified design movements and loading conditions.
- B. Manufacturer: Shall have a minimum ten (10) years experience specializing in the design and manufacture of Architectural Expansion Control Systems.
- C. Products: Expansion control systems must be installed with manufacturer's blockout repair and infill material(s).
- B. Maintenance: The manufacturer shall provide the owner-operator a preventive maintenance guideline for Expansion Control Systems

PART 2 - PRODUCT

2.01 General

- A. Provide seismic joint system that incorporates a flexible stainless steel leaf spring that is mechanically snap locked into the leaf mount extrusion using no fasteners. The system shall be capable of accommodating flexible finish floor materials up to 3/8 inch by utilizing an adjustable leaf spring support. The system shall show no visible aluminum surfaces except for that of a narrow trim strip extending across the finish floor or wall surface. Throughout the normal thermal movement cycle the system shall be capable of vertical displacement while providing a smooth transition particularly at walking surfaces between opposing floor slabs. (Leaf spring and trim strip profile features that do not provide a smooth transition across the joint opening will not be considered).
- B. Furnish Erie Metal Specialties, Expansion Control System Model "EFLC" for interior floors as indicated on drawings.



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2.02 Components and Materials

- A. Leaf Spring - Material shall conform to A.I.S.I. 301 Stainless Steel. Spring shall be tempered and secured to the retainer by a snap, lock fit. Mechanical attachments to secure the spring element or rotation of the same during movement will not be permitted.
- B. Exposed Trim Strip Extrusion - Material shall conform to properties of ASTM B221, Aluminum Alloy 6063-T6. The profile shall exhibit a visible exposed finish strip not exceeding 7/8 inch in width and provide a smooth angular sloping leg that guides the leaf spring during movement cycles. The profile shall be snapped into the base extrusion by appropriate locking features and a continuous threaded channel utilizing manufacturers recommended hardware.
- C. Floor Base Extrusion - Material shall conform to properties of ASTM B221, Aluminum Alloy 6063-T6. The profile shall exhibit a vertical pillar incorporating pre-engineered slot locations to receive the adjustable leaf spring support.
- D. Adjustable Leaf Spring Support - Material shall conform to properties of ASTM B221, Aluminum Alloy 6063-T6. The profile shall exhibit a sloped top surface with a minimum width of 1/2 inch to receive and support the leaf spring. The profile shall have the capability of accommodating flexible finish floor material thickness' ranging from .080" to .375" by its attachment to the corresponding slot location on the floor base extrusion.
- E. Leaf Mount Extrusion - Material shall conform to properties of ASTM B221, Aluminum Alloy 6063-T6. The profile shall exhibit a semi-closed rectangular cavity designed to receive and lock the leaf spring into position without the use of fasteners. Profiles that utilize fasteners and promote rotation of the spring element will not be permitted.
- F. Moisture Barrier - Material shall be flame retardant, extruded PVC in accordance with ASTM D412. Durometer 60± 5. The profile shall be designed with side lugs that ensure a snap lock fit into a corresponding aluminum cavity.
- G. Anchors - Provide 3/8" diameter by 2-1/4" LG Zinc plated hex head concrete expansion anchor with washer. At wall mounted aluminum profiles utilize 1/4" diameter anchors. Spacing shall be 18" o.c. maximum.
- H. Accessories - Provide necessary and related parts and fasteners required for complete installation.



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- I. Block-out Repair - Utilize manufacturer's single component rapid strength repair mortar meeting the following data requirements.

Compressive strength, psi (ASTM C 109)

2 hours	1,500
24 hours	4,500
7 days	8,000
28 days	9,000

- J. Blockout Infill - Utilize manufacturer's non-catalyzed, non-shrink grout containing mineral aggregate meeting the following data requirements.

Compressive strength at plastic consistency, psi

3 days	6,000
7 days	7,000
28 days	8,500

2.03 Fabrication

- A. Aluminum extrusions and stainless steel leaf springs to be shipped in standard 10 ft. lengths and shall be cut to length on jobsite where required. Extrusions shall be miter cut in the field to conform to directional changes unless otherwise contracted with expansion joint manufacturer.
- B. Moisture Barrier seals shall be shipped in the longest practical continuous length in manufacturer's standard shipping carton.
- C. Fire Barriers - Ship manufacturer's standard assembly including fire caulks, sealants (if applicable) and hardware for the required hourly rating with ends prepared for field splicing. Assemblies shall be miter cut in the field to accommodate changes in direction.

2.04 Finishes

- A. Aluminum extrusions shall be supplied in standard mill finish.

PART 3 - EXECUTION

3.01 Installation

- A. Install all Expansion Control Systems utilizing manufacturer's blockout repair and infill material(s).



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- B. Protect all expansion joint component parts from damage during installation, placement of concrete and thereafter until completion of structure.
- C. Expansion joint systems shall be installed in strict accordance with the manufacturer's typical details and instructions along with the advice of their qualified representative.
- D. Expansion joint systems shall be set to the proper width for the ambient temperature at the time of installation. This information is indicated in the contract plans.

3.02 Clean and Inspect

- A. Upon completing installation the contractor shall clean all exposed metal surfaces with a suitable cleaner that will not harm or attack the finish. Inspect for any damage that may have resulted from other work or building trades.