



SUBSTITUTION REQUEST

(After the Bidding/Negotiating Phase)

Project: _____ Substitution Request Number: _____

 From: _____
 To: _____ Date: _____

 A/E Project Number: _____
 Re: _____ Contract For: _____

Specification Title: _____ Description: _____
 Section: _____ Page: _____ Article/Paragraph: _____

Proposed Substitution: _____
 Manufacturer: _____ Phone: _____
 Address: _____
 Trade Name: _____ Model No.: _____
 Installer: _____ Phone: _____
 Address: _____

History: New product 1-4 years old 5-10 years old More than 10 years old

Differences between proposed substitution and specified product: _____

Point-by-point comparative data attached — REQUIRED BY A/E

Reason for not providing specified item: _____

Similar Installation:

Project: _____ Architect: _____
 Address: _____ Owner: _____
 _____ Date Installed: _____

Proposed substitution affects other parts of Work: No Yes; explain _____

Savings to Owner for accepting substitution: _____ (\$ _____).

Proposed substitution changes Contract Time: No Yes [Add] [Deduct] _____ days.

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST

(After the Bidding/Negotiating Phase — Continued)

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
 - Same warranty will be furnished for proposed substitution as for specified product.
 - Same maintenance service and source of replacement parts, as applicable, is available.
 - Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
 - Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
 - Proposed substitution does not affect dimensions and functional clearances.
 - Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
 - Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.
-

Submitted by: _____

Signed by: _____

Firm: _____

Address: _____

Telephone: _____

Attachments:

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: _____ Date: _____

Additional Comments: Contractor Subcontractor Supplier Manufacturer A/E
 Other:

ESFG/E/C/P Series Seismic System

Interior Joints (Floor)

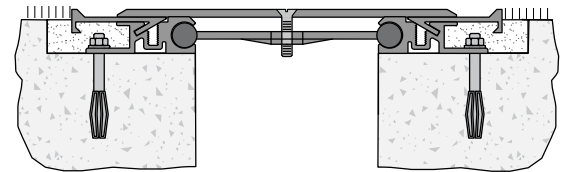
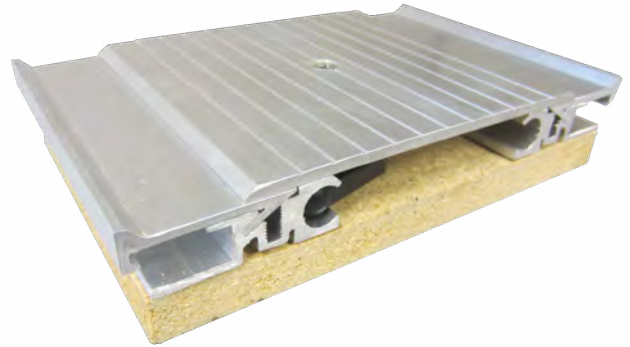
The Architectural Seismic System is designed to cover expansion control openings in structural, high movement floor joints, when standard aluminum is acceptable.

FEATURES

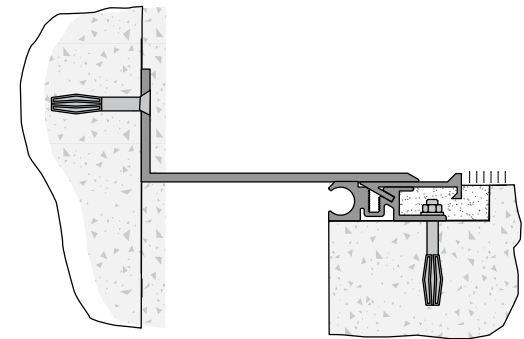
SEISMIC TECHNOLOGY The cover plate stays centered over openings before, during and after a seismic event with the use of the seismic centering bar.

ANTI-SLIP SURFACE Designed with serrations to create an anti-slip surface.

ADA COMPLIANT Heavy-duty loading requirements are met while maintaining a smooth ADA compliant transition.



Floor-to-Floor



Floor-to-Wall/Corner

DETAILS

MATERIAL 6063-T6 Aluminum

FINISH Mill

MOVEMENT

- Thermal: Horizontal and Vertical
- Seismic: Lateral Shear

MOUNTING Block Out

JOINT SIZE 2 inches to 24 inches

LENGTH 10 Linear Feet

APPLICATION Interior

LOAD Pedestrian and Light Cart

INSTALLATION Floor

OPTIONS Moisture Barrier, Fire Barrier

MODELS

FLOOR-TO-FLOOR

MODEL	JOINT SIZE AT MEAN T°F	SYSTEM WIDTH	TOTAL MOVEMENT
ESFG-200	2" (51mm)	5.75" (146mm)	2" (51mm)
ESFG-400	4" (102mm)	10.38" (264mm)	5" (127mm)
ESFG-600	6" (152mm)	13.75" (349mm)	8" (203mm)
ESFG-800	8" (203mm)	15.75" (400mm)	11" (279mm)
ESFG-1000	10" (254mm)	18.75" (476mm)	14" (356mm)
ESFG-1200	12" (305mm)	21.75" (552mm)	17" (432mm)
ESFG-1800	18" (457mm)	31.75" (806mm)	26" (660mm)
ESFG-2400	24" (610mm)	40.75" (1035mm)	35" (889mm)

FLOOR-TO-WALL/CORNER

MODEL	JOINT SIZE AT MEAN T°F	SYSTEM WIDTH	TOTAL MOVEMENT
ESFG-200W	2" (51mm)	3.88" (99mm)	1.5" (38mm)
ESFG-400W	4" (102mm)	7.19" (183mm)	4" (102mm)
ESFG-600W	6" (152mm)	9.88" (251mm)	6.5" (165mm)
ESFG-800W	8" (203mm)	11.88" (302mm)	9" (229mm)
ESFG-1000W	10" (254mm)	14.38" (365mm)	11.5" (292mm)
ESFG-1200W	12" (305mm)	16.88" (429mm)	14" (356mm)
ESFG-1800W	18" (457mm)	24.88" (632mm)	21.5" (546mm)
ESFG-2400W	24" (610mm)	32.38" (822mm)	29" (737mm)

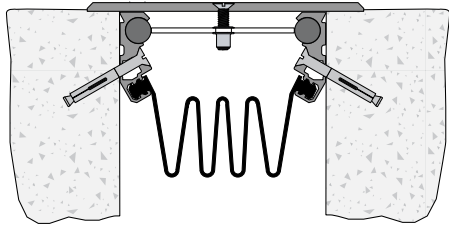


Erie Metal Specialties, Inc.
13311 Main Road
Akron, NY 14001

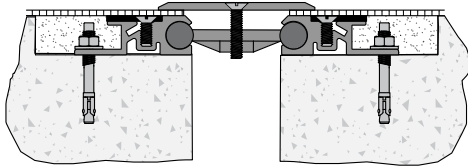
Phone: 716-542-3991
Website: www.eriametal.com
E-Mail: sales@eriametal.com

ESFG/E/C/P Series Seismic System (Cont.)

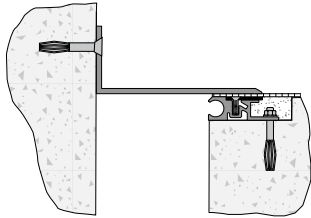
Interior Joints (Floor)



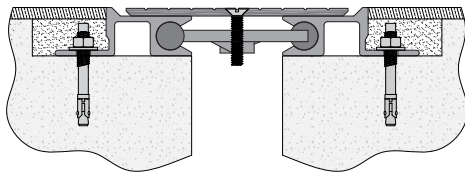
Floor-to-Floor
Model: ESFE



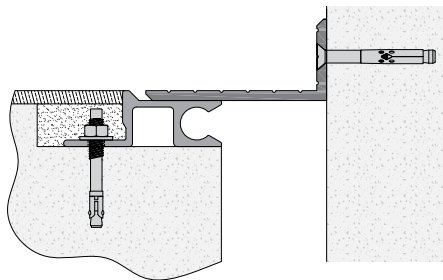
Floor-to-Floor
Model: ESFC



Floor-to-Wall/Corner
Model: ESFC/W



Floor-to-Floor
Model: ESFP



Floor-to-Wall/Corner
Model: ESFP/W

MODELS

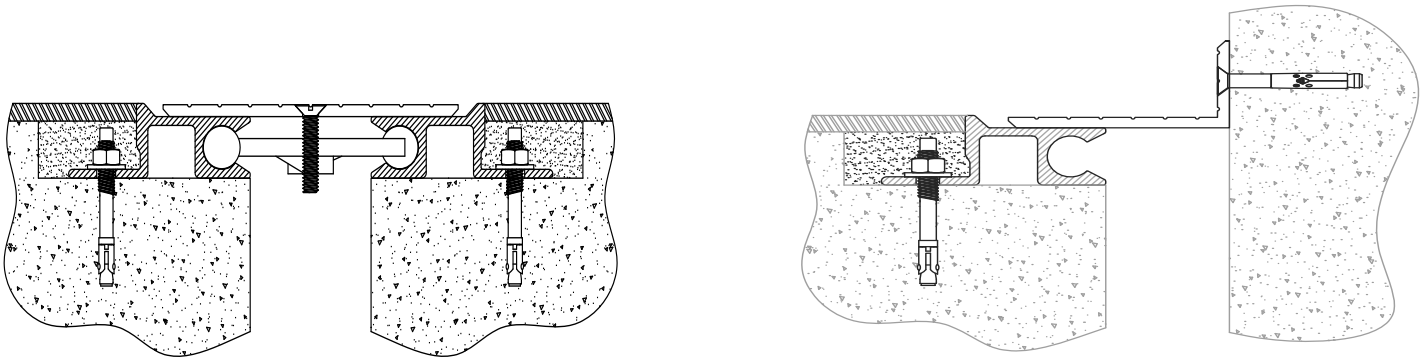
MODEL	APPLICATION	JOINT SIZE AT MEAN T°F	SYSTEM WIDTH	TOTAL MOVEMENT	
Surface Mount					
ESFE-400	Surface Mount	4" (102mm)	6.5" (165mm)	4" (102mm)	
ESFE-600		6" (152mm)	9.5" (241mm)	7" (178mm)	
ESFE-800		8" (203mm)	12.5" (318mm)	10" (254mm)	
ESFE-1000		10" (254mm)	15.5" (394mm)	13" (330mm)	
ESFE-1200		12" (305mm)	18.5" (470mm)	16" (406mm)	
ESFE-1800		18" (457mm)	27.5" (699mm)	25" (635mm)	
Top Plate					
ESFC-200	Block Out	2" (51mm)	3.5" (89mm)	2" (51mm)	
ESFC-400		4" (102mm)	6.5" (165mm)	5" (127mm)	
ESFC-600		6" (152mm)	9.5" (241mm)	8" (203mm)	
ESFC-800		8" (203mm)	12.5" (318mm)	11" (279mm)	
ESFC-1000		10" (254mm)	15.5" (394mm)	14" (356mm)	
ESFC-1200		12" (305mm)	18.5" (470mm)	17" (432mm)	
ESFC-1800		18" (457mm)	27.5" (699mm)	26" (660mm)	
ESFC-2400		24" (610mm)	36.5" (927mm)	35" (889mm)	
ESFC-200W		Block Out	2" (51mm)	2.75" (70mm)	1.5" (38mm)
ESFC-400W			4" (102mm)	5.25" (133mm)	4" (102mm)
ESFC-600W	6" (152mm)		7.75" (197mm)	6.5" (165mm)	
ESFC-800W	8" (203mm)		10.25" (260mm)	9" (229mm)	
ESFC-1000W	10" (254mm)		12.75" (324mm)	11.5" (292mm)	
ESFC-1200W	12" (305mm)		15.25" (387mm)	14" (356mm)	
ESFC-1800W	18" (457mm)		22.75" (578mm)	21.5" (546mm)	
ESFC-2400W	24" (610mm)		30.25" (768mm)	29" (737mm)	
Top Plate - No Bump System					
ESFP-200	Block Out	2" (51mm)	5.75" (146mm)	2" (51mm)	
ESFP-300		3" (76mm)	7.75" (197mm)	5" (127mm)	
ESFP-400		4" (102mm)	7.75" (197mm)	5" (127mm)	
ESFP-500		5" (127mm)	11.75" (299mm)	8" (203mm)	
ESFP-600		6" (152mm)	11.75" (299mm)	8" (203mm)	
ESFP-800		8" (203mm)	15.19" (386mm)	11" (279mm)	
ESFP-1000		10" (254mm)	17.81" (452mm)	14" (356mm)	
ESFP-1200		12" (305mm)	20.81" (529mm)	17" (432mm)	
ESFP-1800		18" (457mm)	30.19" (767mm)	26" (660mm)	
ESFP-2400		24" (610mm)	37.19" (945mm)	34.5" (876mm)	
ESFP-200W		Block Out	2" (51mm)	3.88" (98mm)	2" (51mm)
ESFP-300W			3" (76mm)	5.38" (137mm)	4" (102mm)
ESFP-400W			4" (102mm)	5.88" (149mm)	5" (127mm)
ESFP-500W			5" (127mm)	8.38" (213mm)	7" (178mm)
ESFP-600W			6" (152mm)	8.88" (225mm)	8" (203mm)
ESFP-800W			8" (203mm)	13.06" (332mm)	10.8" (273mm)
ESFP-1000W	10" (254mm)		13.94" (354mm)	12.8" (324mm)	
ESFP-1200W	12" (305mm)		16.42" (417mm)	15.4" (390mm)	
ESFP-1800W	18" (457mm)		24.09" (612mm)	23" (584mm)	
ESFP-2400W	24" (610mm)		30.59" (777mm)	29.3" (743mm)	





Erie Metal Specialties, Inc.
13311 Main Road
Akron, NY 14001

Phone: 716-542-3991
Website: www.eriemetal.com
E-Mail: sales@eriemetal.com



Seismic Floor Series

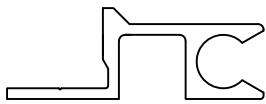
Model(s) ESFP & ESFP-W

Horizontal Expansion Control Systems

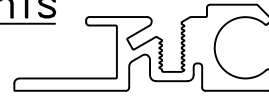
The following installation procedure is very important and must be fully understood prior to beginning any work. To ensure proper installation and performance of expansion joint system the following actions must be completed by the installing contractor. Failure to do so will affect product warranty.

- 1) Carefully read and understand installation procedure. Contact Technical Service Department for product assistance.
- 2) Inspect all shipments and materials for missing or damaged components and hardware. Contact Customer Service with order number and invoice for prompt assistance.
- 3) Inspect substrate or adjacent construction for acceptance before beginning work. Report unacceptable construction to the project manager for scheduled repair work.


Standard Components

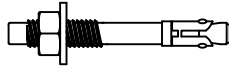



Aluminum base assembly
(Models: 200 thru 400)
PN: 11112



Aluminum base assembly
(Models: 500 thru 2400)
PN: 15804

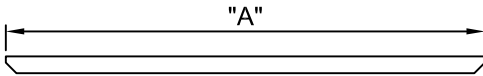

1/4" X 1 1/4" Lg Screw
PN: 5621


1/4" x 2-1/4" Concrete
anchor with nut and washer
PN: 6581

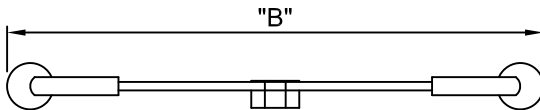

1/4" X 5/8" Lg Screw
PN: 5620

Components shown below vary in size depending on model of system

Aluminum Cover Plate

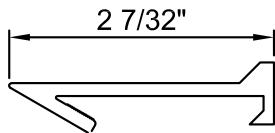


Model	"A"	Part Number	Model	"A"	Part Number
ESFP-200	4 7/8"	12150	ESFP-800	14 1/4"	12153
ESFP-300	6 7/8"	12151	ESFP-1000	16 5/8"	12154
ESFP-400	6 7/8"	12151	ESFP-1200	19 5/8"	12155
ESFP-500	10 3/4"	12152	ESFP-1800	29"	12156
ESFP-600	10 3/4"	12152	ESFP-2400	36"	12157

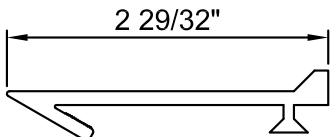
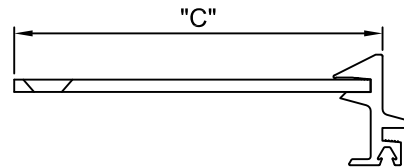


Self-centering bar

Model	"B"	Part Number	Model	"B"	Part Number
ESFP-200	7"	11089	ESFP-800	18 3/8"	15630
ESFP-300	7"	11089	ESFP-1000	18 3/8"	15630
ESFP-400	7 3/8"	15642	ESFP-1200	22 3/8"	15631
ESFP-500	12 3/8"	15643	ESFP-1800	32 3/8"	15644
ESFP-600	12 3/8"	15643	ESFP-2400	38 3/8"	15604

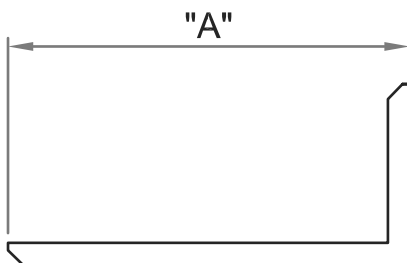


ESFP-500/600 & 500W/600W
Extension PN: 11015



ESFP-800 & 800W
Extension PN: 11091

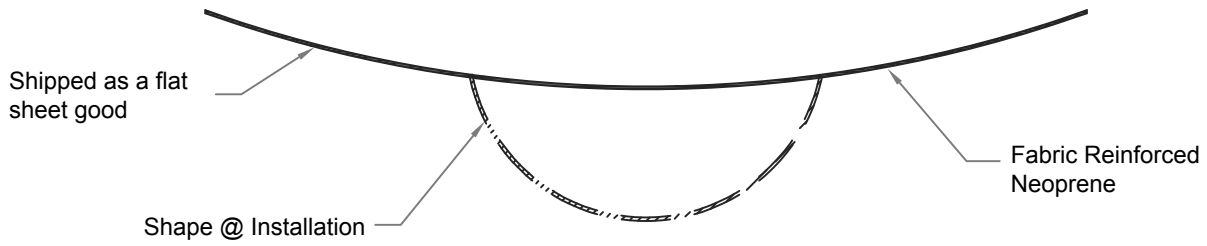
Model	"C"	Part Number	Model	"B"	Part Number
ESFP-1000/W	3 1/4"	12040	ESFP-1800/W	5 7/16"	12170
ESFP-1200/W	3 3/4"	12041	ESFP-2400/W	5 15/16"	12171



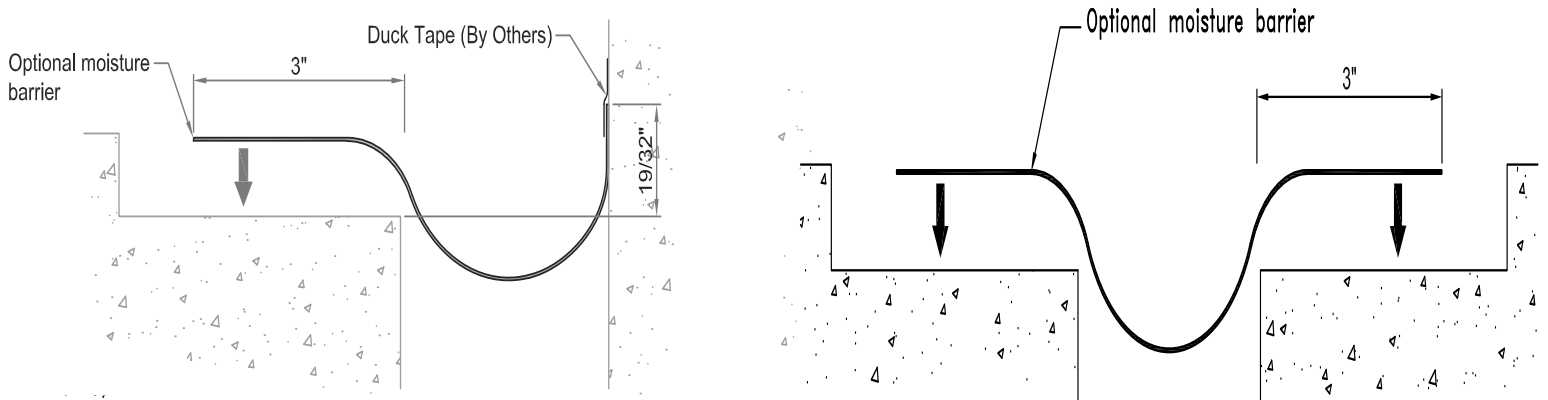
Aluminum Cover Plate

Model	"A"	Part Number	Model	"A"	Part Number
ESFP-200W	3 7/16"	12160	ESFP-800W	11 1/8"	12165
ESFP-300W	4 15/16"	12161	ESFP-1000W	13 5/16"	12166
ESFP-400W	5 7/16"	12162	ESFP-1200W	15 13/16"	12167
ESFP-500W	7 7/8"	12163	ESFP-1800W	23 1/2"	12168
ESFP-600W	8 3/8"	12164	ESFP-2400W	30"	12169

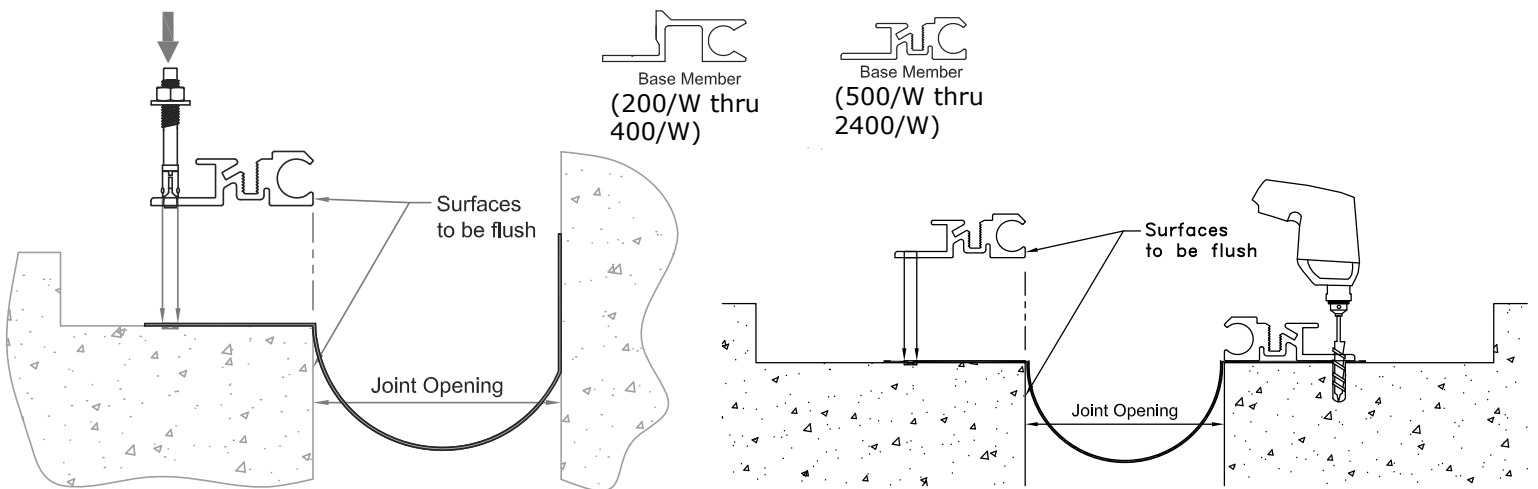
Optional Equipment



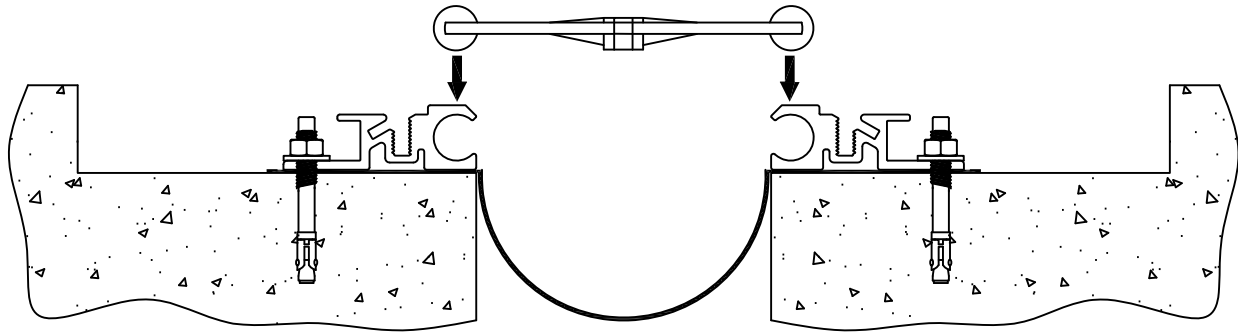
Optional Moisture Barrier



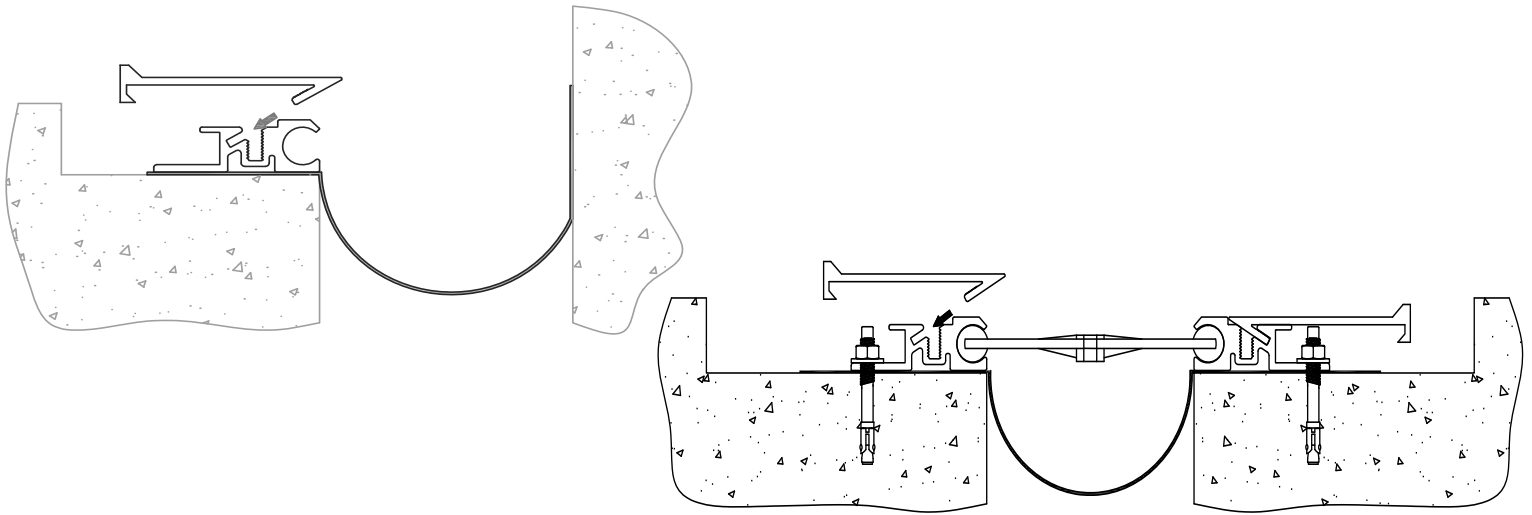
- 1 (Optional) Position moisture barrier in to blockout. Maintain proper overlap and temporarily affix with duct tape (if required).



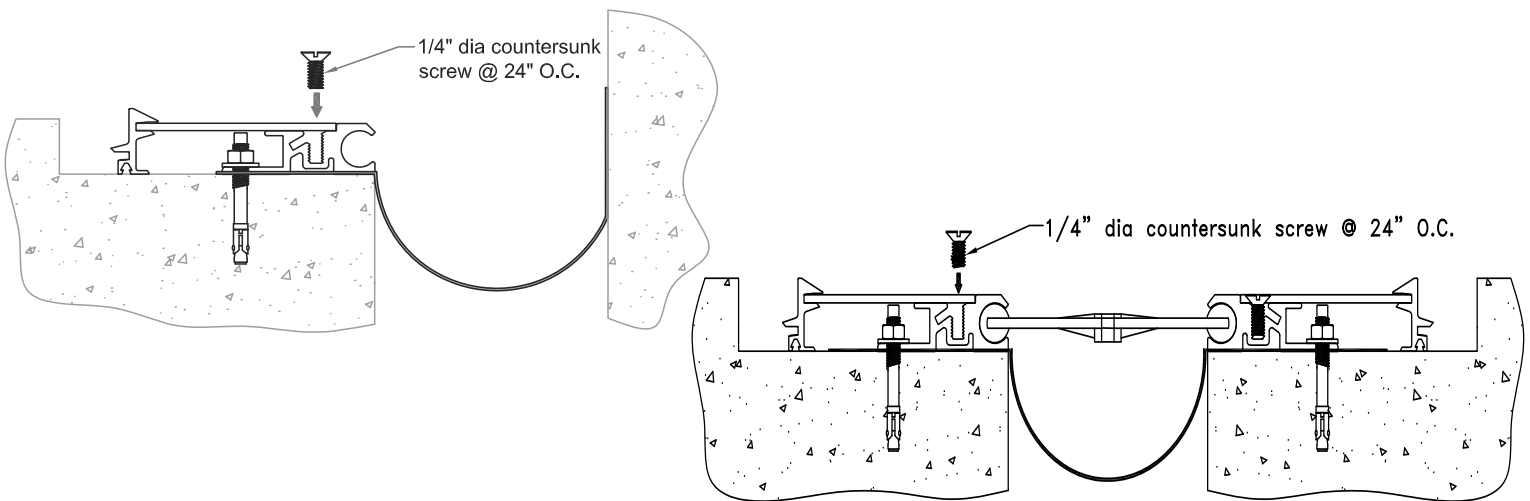
- 2 Position base member on block out so cavity of base member is flush with edge of opening. Using base member as a template and with its position fixed, drill hole for 1/4" x 2-1/4" concrete anchor to proper depth. Clean out holes.
Notes: Follow hilti's recommendations for proper anchor installation. Remove all debris from moisture barrier by utilizing shop vac.
Caution: do not install all base members prior to reviewing step 6



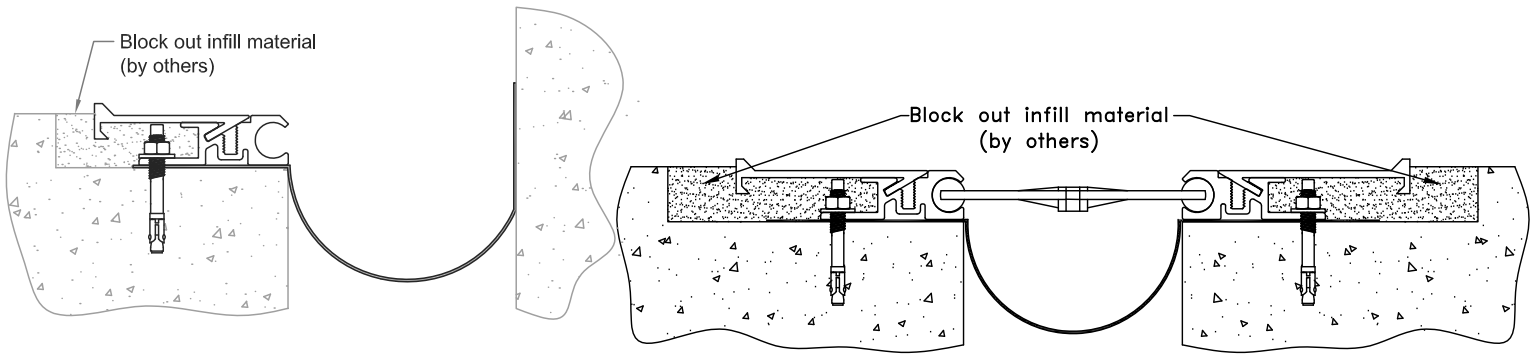
4 As work progresses with placement of base members, install self-centering bars by sliding the spherical ends of the bars into and through the circular cavities of the base members. Set at an approximate spacing of 18" O.C. Ensure that the "top" indicator is facing up and that all bars are in same orientation.



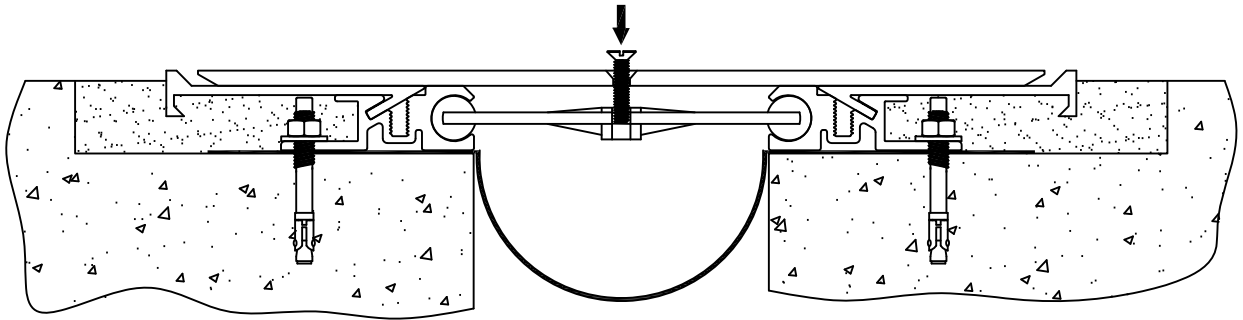
5A (500/W thru 800/W) Attach aluminum extension to base member. Aluminum extension type depends on system size. Check page 1 for proper extension size.



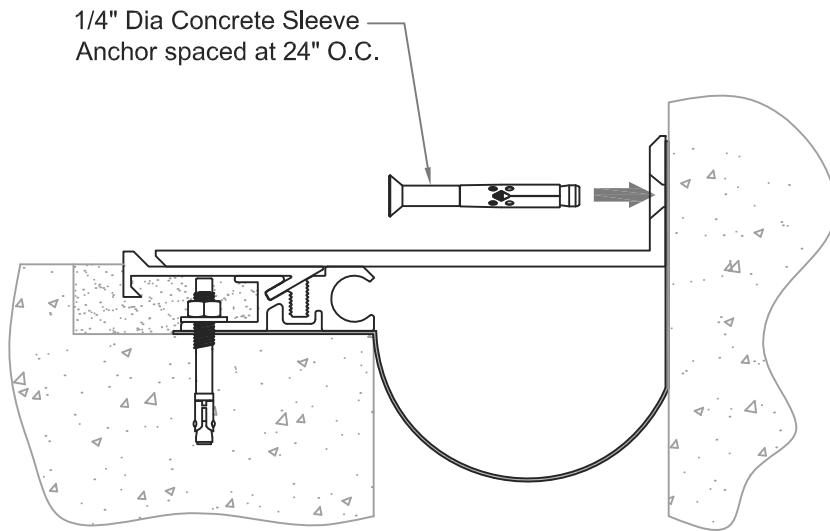
5B (1000/W thru 2400/W) Attach aluminum extensions to base member. Utilizing the 1/4" Dia x 5/8" lg screw, fasten extension wing to the top of the Aluminum Base Member at the pre-drilled locations in the extension wing.



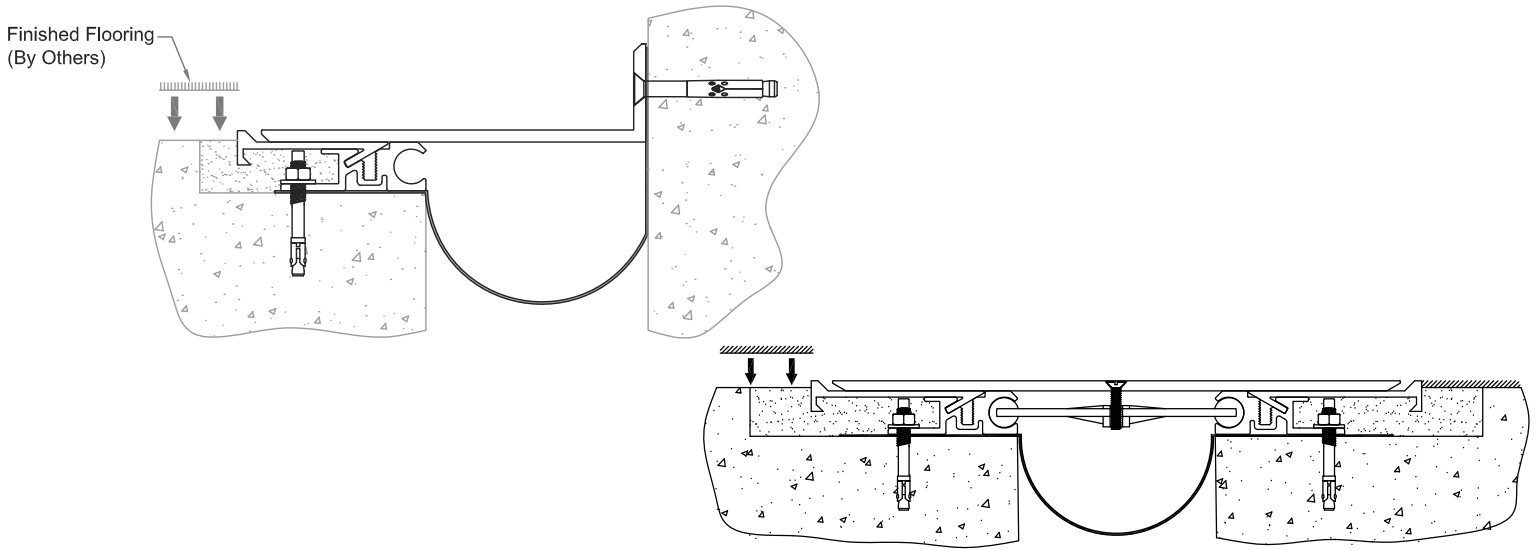
6 Fill block out with high quality non-shrink cementitious filler material. Protect surfaces during placement of filler material.



7 Position the center slide plate over expansion opening, align pre-drilled holes in slide plate with threaded insert in self-centering bars. Fasten with 1/4" x 1-1/4" CSK flat screw. Tighten to create measurable tension in the bar.



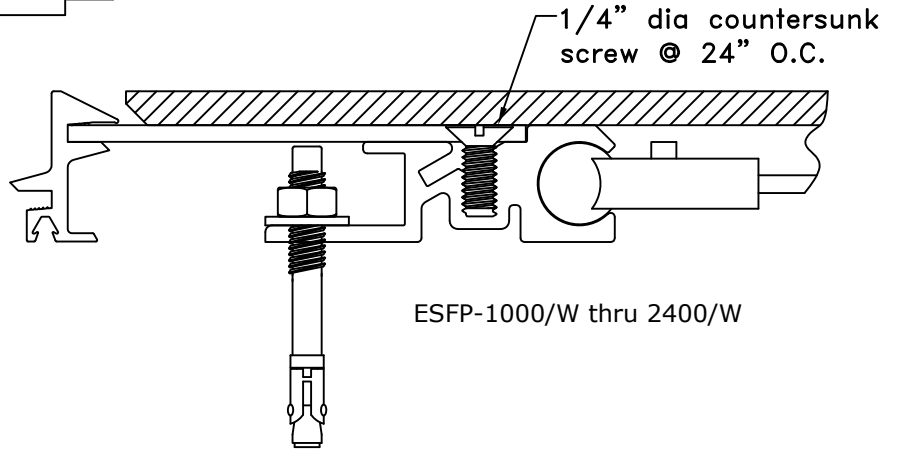
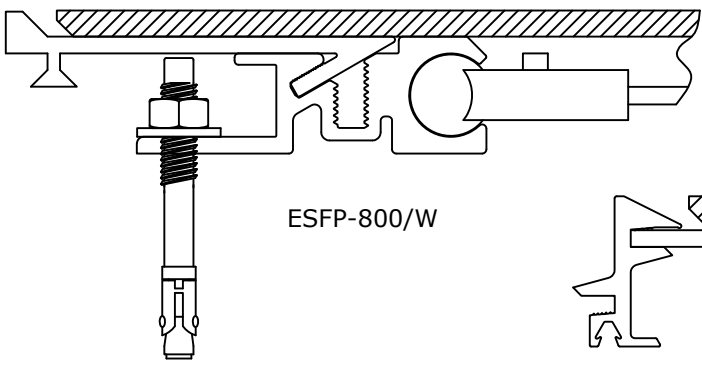
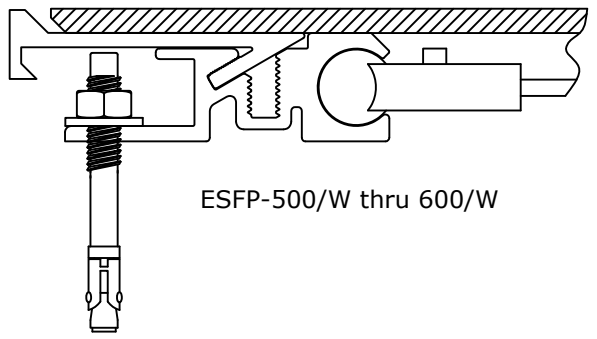
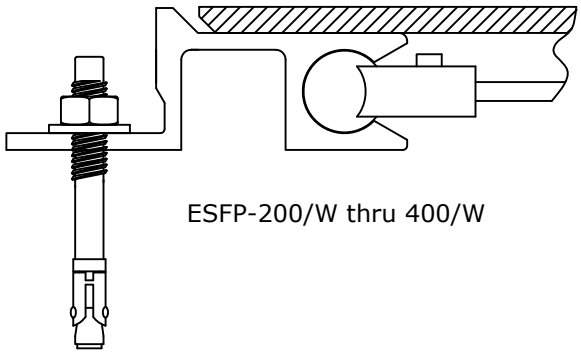
7A Position Corner Coverplate into the assembly and use the cover plate se member as a template and with its position fixed, drill hole for 1/4" Dia concrete anchor to proper depth. Clean out holes. **Notes:** Follow hilti's recommendations for proper anchor installation. Remove all debris from moisture barrier by utilizing shop vac.



8

Install flooring material. Ensure flush installation with top of expansion joint system. Caution – contact flooring manufacturer to discuss application and procedure for proper installation.

Aluminum Extension Design





Erie Metal Specialties, Inc.
13311 Main Road
Akron, NY 14001
Phone: 716-542-3991
Fax: 716-542-3996
E-mail: sales@eriemetal.com
Web: www.eriemetal.com

SPECIFICATION

Section 07 95 13

Erie Metal Specialties, Interior Architectural Systems

Model(s) “ESFP”, “ESFP-W”

Seismic Floor Expansion System

PART 1 - GENERAL

1.01 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 joint designs utilize extruded base members and inverted support plates.
- B. Related Work
 - Cast-in-place concrete
 - Miscellaneous and ornamental metals
 - Flashing and sheet metal
 - Sealants and caulking

1.02 Submittals

- A. CAD Drawings – Illustrating the typical joint cross-section of the seismic floor details. Present necessary dimensions, connections and anchorage methods.

1.03 Product Delivery, Storage and Handling

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



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Phone: 716-542-3991
Fax: 716-542-3996
E-mail: sales@eriemetal.com
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- 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.

- 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 Interior Floor Joint system's performance shall be warranted when installed by manufacturer's factory trained installer. Installation shall be in strict accordance with manufacturer's technical specifications, details, installation instructions and general procedures. Any variance of intended use excessive loading of the joint system will void the warranty.
- B. Manufacturer: Shall have a minimum ten (10) years experience specializing in the design and manufacture of Architectural Expansion Control Systems.
- C. Installation: The specified seismic system shall be installed by a factory trained installer approved to install the expansion joint system and fire barrier as required.
- D. Maintenance: The manufacturer shall provide the owner a preventive maintenance guideline for architectural expansion joint Systems.

PART 2 - PRODUCT

2.01 General

- A. Provide a floor joint cover expansion joint system that can accommodate multi-directional seismic movement without stress to its components. The system shall consist of metal profiles that utilize various finishes with a universal aluminum base member.
- B. The cover plate shall be sized to such a width and thickness necessary to satisfy the project movement and loading requirements. Secure cover plate to base members by utilizing manufacturer's self-centering bar. Anchor the joint cover system to the floor slab adjustable the provided clip angles and the manufacturer's standard anchors.
- C. Furnish EMS, Inc., model "ESFP" inverted joint cover, meeting ADA Guidelines for interior joint



Erie Metal Specialties, Inc.
 13311 Main Road
 Akron, NY 14001
 Phone: 716-542-3991
 Fax: 716-542-3996
 E-mail: sales@eriemetal.com
 Web: www.eriemetal.com

Systems as manufactured by Erie Metal Specialties, Inc. as indicated on the drawings.

2.02 Components and Materials

- A. Aluminum Extrusions - Material to conform to properties of ASTM B221, alloy 6061-T6 or 6063-T5.
- B. Aluminum Shapes - Material to conform to ASTM B209, alloy 6061-T6, or 5005-H34.
- C. Slide Plate - Provide minimum 3/16" thick plate with material to be aluminum conforming to ASTM B209, alloy 6061-T6, where loading requirements do not dictate a structural alloy, utilize 5005-H34 for slide plate installed in a floor to wall condition. Slide plate to be secured to joint assembly utilizing the self-centering bar that freely rotates in all directions. During seismic movement and full closure of the structural opening, the slide plate shall be capable of clearing the raised edge of the base member.
- D. Seismic-Centering Bar - Shall circular sphered ends that lock and slide inside the corresponding aluminum extrusion cavity to allow freedom of movement and flexure in all directions including vertical displacement. Bar shall be molded or manufactured incorporating corrosion resistant nylon components with sphered ends and 1" wide standard cross member for standard applications. Provide 1 1/2" wide cross member where heavy-duty application is required. Spacing shall be a maximum of 18" o.c.

During seismic activity design centering bar to permit vertical displacement of metal cover during inward and outward movement without evidence of fatigue and permanent deformation. Concurrently provide secure connection between plate and system components.

Bar shall exhibit the following physical properties to demonstrate ability to resist corrosion and fatigue.

PHYSICAL PROPERTIES

Molded End Profile:

Material:	Nylon
Color:	Black
Tensile Strength @ break:	ASTM D638 25,500 psi

Cross-Member:

Material:	Pre-tempered spring steel
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Damage Mitigation - Test Requirements:

Seismic-centering bar must exhibit ability to disengage (controlled release) from expansion joint edge member(s) when seismic movement exceeds the specified maximum allowable opening.



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Requirements

- a) Equipment: Instron Machine
 - b) Orientation: Specimen subjected to tensile load with cross member parallel to direction of load
 - c) Specimens: Test 4(min) – select at random
 - d) Disengagement range (lbs) : 800 (min.) – 1250 (max.)
- E. Moisture Barrier - Shall be a fabric reinforced tear resistant clean vinyl sheet material. Minimum thickness shall be .026".
- B. Anchorage - Provide minimum 1/4" diameter concrete expansion anchor at maximum 24" o.c. spacing to secure aluminum base member to floor slab.
- C. Block out Repair - Utilize a rapid strength repair mortar.
- H. Block out Infill - Utilize non-catalyzed, non-shrink grout containing aggregate.
- I. Accessories - Provide necessary and related parts, and fasteners required for complete installation.
- J. Fire Barrier Assembly - Designed for indicated or required dynamic structural movement without material degradation or fatigue. Tested in maximum joint width conditions with a field splice as a component of the expansion joint cover in accordance with ASTM E-119 at full rated period by a nationally recognized testing and inspecting organization. Supply Fire Barrier as governed by joint opening and fire rating.

2.03 Fabrication

- A. Extrusions and generic profiles to be shipped in standard 10 ft. lengths and shall be cut to length on jobsite where required. Profiles shall be miter cut in the field to conform to directional changes unless otherwise contracted with expansion joint manufacturer.
- B. Fire Barriers, ship manufacturer's standard assembly including fire caulks, sealants (if applicable) and hardware for the required hourly rating. Assemblies shall be miter cut in the field to accommodate changes in direction.

2.04 Finishes (Standard)

- A. The cover plate's exposed surface shall receive a 60-grit brushed finish. All other aluminum extrusions and shapes shall be supplied in standard mill finish.
- B. Surfaces of aluminum profiles that will be in direct contact with concrete where moisture is present shall receive one coat of manufacturer's recommended coating.



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- C. Finishes (optional) - Manufacturer shall utilize common aluminum alloys between system components to achieve consistency in product finish.
 - 1. Aluminum - (clear anodize)
 - Clear anodized finish in accordance with AA-M10 C22 A41 Class I (0.7 - 1.0 thick anodic coating).
 - 2. Aluminum - (color anodize)
 - Color Choice with matte or bright finish. Select from manufacturers standard color offering.

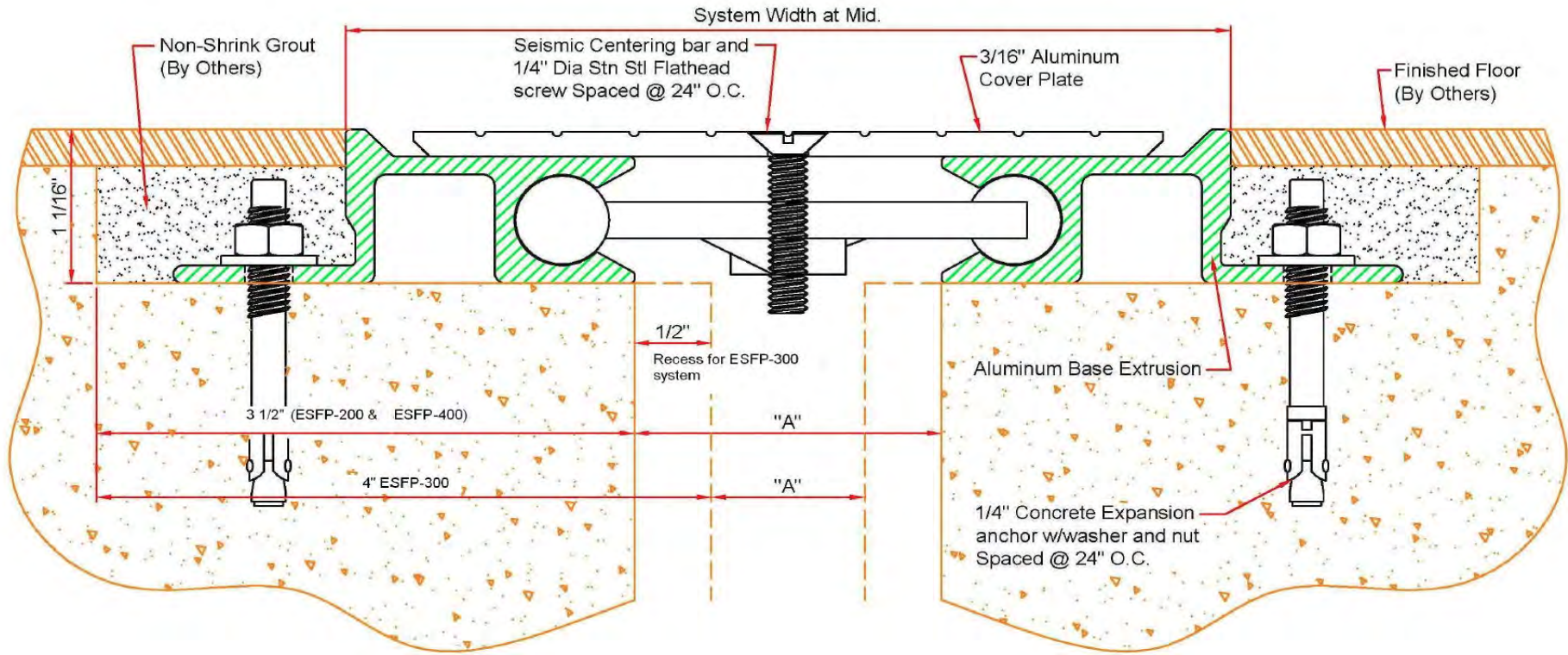
PART 3 - EXECUTION

3.01 Installation

- A. Install expansion joint systems utilizing manufacturer's block out repair and infill material(s).
- 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 Protect

- A. Protect system and its components during construction. After work is complete in adjacent areas clean exposed surfaces with a suitable cleaner that will not harm or attack the finish.



() – Denotes Millimeters

**ESFP-200 thru 400 DETAIL
FLOOR TO FLOOR CONDITION**

Model	Seismic Min.	Thermal Min.	"A" @ Mid.	"A" @ Max	Total Movement	System Width
ESFP-200	1" (25)	1-1/2" (38)	2" (51)	3" (76)	2" (51)	5-3/4" (146)
ESFP-300	1" (25)	2-1/2" (64)	3" (76)	6" (152)	5" (127)	7-3/4" (197)
ESFP-400	1" (25)	3-1/2" (89)	4" (102)	6" (152)	5" (127)	7-3/4" (197)

NO.	Description	Date	By

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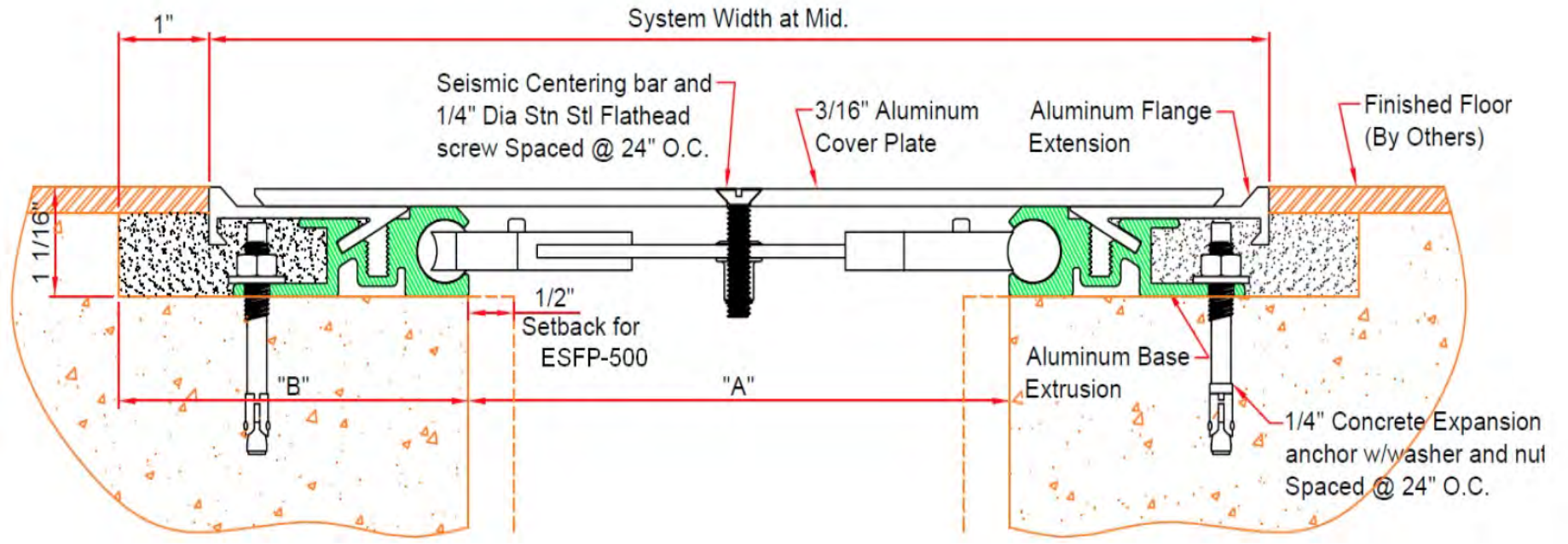


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 Phone: (716) 542-3991 • Fax: (716) 542-3996 • E-mail: sales@eriemetal.com

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Scale: NTS	EMS Job #:
Sheet No.: 1 of 1	Drawing No.:



**ESFP-500 thru 800 DETAIL
FLOOR TO FLOOR CONDITION**

() – Denotes Millimeters

Model	Seismic Min.	Thermal Min.	"A" @ Mid.	"A" @ Max	Total Movement	System Width	"B"
ESFP-500	1" (25)	4-1/2" (114)	5" (127)	9" (229)	8" (203)	11-3/4" (299)	4-3/8" (111)
ESFP-600	1" (25)	5-1/2" (140)	6" (152)	9" (229)	8" (203)	11-3/4" (299)	3-7/8" (98)
ESFP-800	1" (25)	7-1/2" (191)	8" (203)	12" (305)	11" (279)	15-3/16" (386)	5-1/8" (130)

NO.	Description	Date	By
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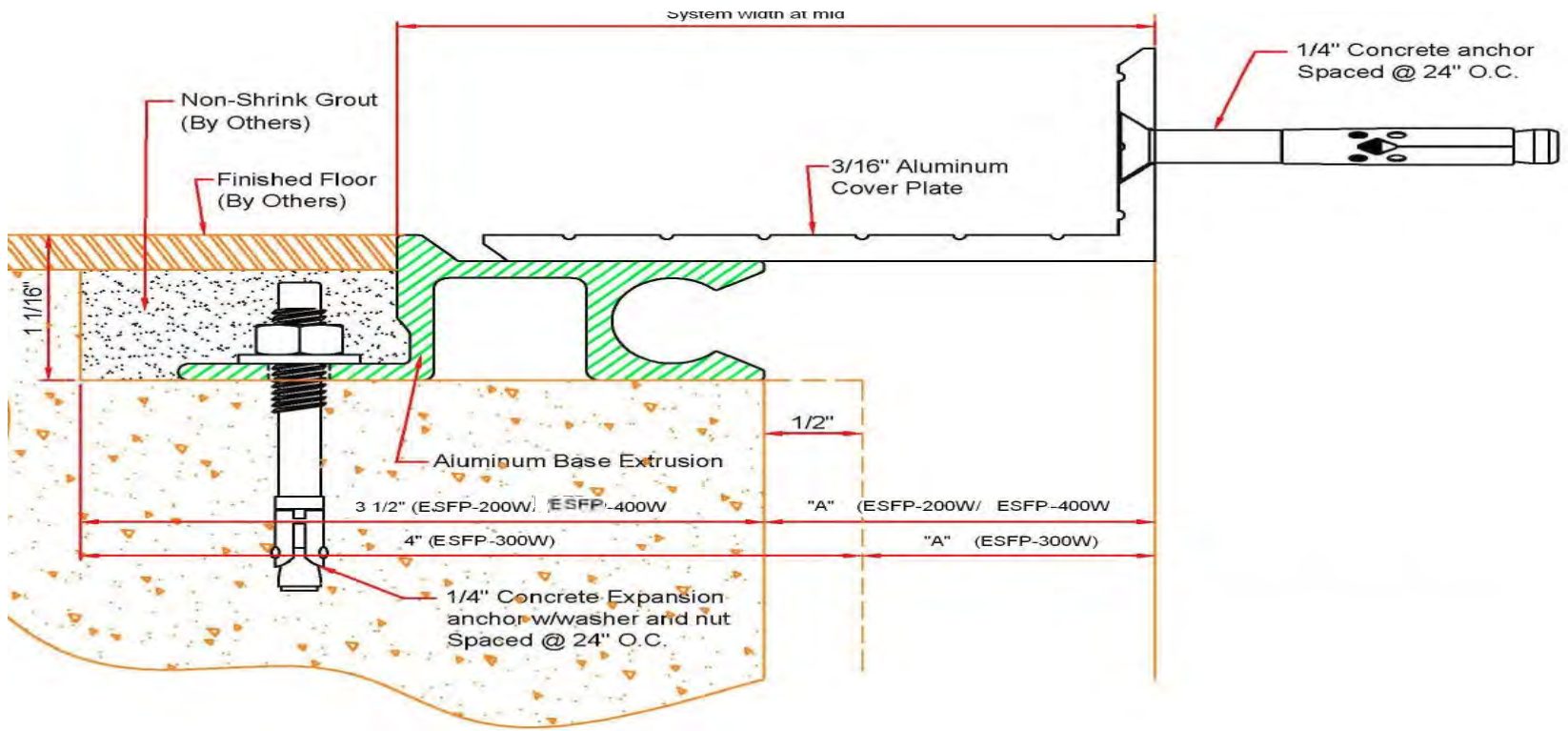


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() – Denotes Millimeters

**ESFP-200W thru 400W DETAIL
FLOOR TO FLOOR CONDITION**

Model	Seismic Min.	Thermal Min.	"A" @ Mid.	"A" @ Max	Total Movement	System Width
ESFP-200W	0	1-3/4" (44)	2" (51)	3" (76)	3" (76)	3-7/8" (98)
ESFP-300W	0	2-3/4" (70)	3" (76)	4" (102)	4" (102)	4-7/8" (124)
ESFP-400W	0	3-3/4" (95)	4" (102)	5" (127)	5" (127)	5-7/8" (149)

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