## MODEL FB17 LATERAL SLIDE FIRE BARRIER INSTALLATION INSTRUCTIONS



#### IMPORTANT INFORMATION

Prior to the commencement of Installation, all materials MUST be inspected for Damage. Any damage must be reported to CONSTRUCTION SPECIALTIES, INC., as soon as possible, so that replacement materials may be furnished without delay.

All work must be completed as per Architect's Approved "Shop Drawings", and in accordance with these Installation Instructions. When installation is complete, all materials must be protected from damage until the Architect's FINAL INSPECTION. All materials should be arranged in the order that they are to be installed. All hardware required for each portion of the work should be placed with the appropriate materials.

12.JK

Please review all Approved Shop Drawings and this Document to familiarize yourself with all the details and components of this assembly.

#### IMPORTANT: READ THROUGH ALL INSTRUCTIONS PRIOR TO STARTING INSTALLATION

# CS

Construction Specialties®

6696 Route 405 Highway, Muncy, PA 17756 Phone: (800) 233-8493 / Fax: (570) 546-8022 This document is the property of Construction Specialties, Inc. and contains PROPRIETARY INFORMATION that is not to be disclosed to third parties and is not to be used without approval in writing from Construction Specialties, Inc.

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#### General Instructions:

ALWAYS WEAR GLOVES when handling and cutting the barrier.

Before beginning installation, review the architectural drawings and approved Construction Specialties Inc. shop drawings to familiarize yourself with the joint cover models and locations.

Check all of the joint cover components to confirm that the correct joint cover model and size have been received. Also, check for materials that may have been damaged during shipping. Report all incorrect and/or damaged components to CS at 800-233-8493.

Read through all the steps of these instructions prior to beginning work.

TOOLS:

The following tools may be needed for installation of the FB17 fire barriers:

- Fabric or Leather Work Gloves
- Tin Snips or Grinder
- Quick Grip Clamps

- Measuring Tape - Hammer

- Hammer Drill - Utility Knife
- Permanent Marker - Drill

Model designating - FB17 supplied is based on the max. open width.

To view / download Installation Instructions for FB17 use QR code or visit www.c-sgroup.com/expansion-joint-covers/ accessories/fb-17

STEP 1





<u>Note:</u> The FB17 Lateral Slide fire barrier is supplied in 10' lengths with extended fabric splice overlap end for field splicing. See field splicing instructions later in these instructions explaining the two splicing methods.

The FB17 Lateral Slide Fire Barrier has attached Galvanized Retainers, Lateral Slide Surface Mount on the Lateral Slide track side of the fire barrier and either a Low Profile (LP) or a Surface Mount (SM) retainer on the opposite side.

Note: The Tadpole Gasket will mount behind the Lateral Slide Track and should align with the top edge of the track. Depending on the adjacent joint cover system, both the Tadpole Gasket and Slide Track may need to provide clearance for the joint cover framing. Review the approved Construction Specialties shop drawings to establish dimension "X" for each condition and which side of the joint receives the Tadpole Gasket and Slide Track.



(Fig. 2A)



(Fig. 2B)

- 2.1) Establish dimension "X" and snap a level chalk line along the face of the slab (Fig. 2A)
- 2.2) Beginning at one end of the joint, place a length of the Fire Barrier Tadpole Gasket along the chalk line and temporarily hold in place with several strips of duct tape. (Fig. 2B & 2C)





- 3.1) Place a length of Lateral Slide Track along the top edge of the Tadpole Gasket. If the Tadpole Gasket is installed along the top edge of the concrete slab install Lateral Slide Track 1/4" down from the top edge. (Fig. 3A)
- 3.2) Install the Lateral Slide Track level and hold in place against substrate using adjustable grip clamps. Drill holes for the supplied fasteners at 18" O.C. per the manufacturer's guidelines. Tighten fasteners until they are snug to the Lateral Slide Track. (Fig. 3B)



(Fig. 3A)





3.3) Vacuum out the Lateral Slide Track to remove all concrete dust.
\*NOTE: It is very important to remove any and all concrete dust created from drilling fastener holes to allow the Sliding Insert

Trucks to function properly. Run a section of Lateral Slide Slider Assembly along the full length of the Lateral Slide Track to insure free movement. (Fig. 3C & 3D)



(Fig. 3C)





4.1) Using the lateral slide surface mount retainer predrilled hole locations measure and mark the Lateral Shear Slider Assembly stud centerline locations on the Lateral Slide Tracks. (Fig. 4A & 4B) Five Lateral Shear Slider Assemblies per 10' length of Slide Track.





(Fig. 4B)

(Fig. 4A)

4.2) Place a nut and washer on each Lateral Shear Slider Assembly studs. (Fig. 4C & 4D)



(Fig. 4C)



(Fig. 4D)

#### INSTALLATION OF FIRE BARRIER LATERAL SLIDE RETAINER

Note: When beginning installation make sure that the first barrier segment with the "Extended Fabric Splice Overlap End" is in the correct position for the next barrier segment.

5.1) Place the cut end of the first section of fire barrier into the joint, aligning with the end of the Tadpole Gasket (Fig. 5A). Align the holes in the Lateral Slide Surface Mount Retainers with the studs of the Lateral Shear Slider Assembly (Fig. 5B). Hold the fire barrier in place with adjustable grip clamps.





(Fig. 5B)



(Fig. 5A)

5.2) Install a locking washer and nut at each Lateral Shear Slider Assembly Stud. Tighten to secure this side of the fire barrier. (Fig. 5C)

# STEP 6

INSTALLATION OF FIRE BARRIER RETAINER

Note: The fasteners should be snug tight to the fire barrier, just enough that the fire barrier is in firm contact with the substrate. Fire Barrier installed without a cover plate, drill the Surface Mounted Galvanized Retainer starting 3" in from the end and 18" O.C. for supplied fasteners.

6.1) To install the opposite side of the Lateral Slide Fire Barrier Retainer

\*Note: Surface Mounted Galvanized Retainers do not have pre-drilled fastener holes and will need to be drilled in the field. To hold the fire barrier temporarily install fasteners as necessary. (Fig. 6A - 6B)

\*Low Profile Galvanized Retainer - using the retainer as a template, drill appropriate holes for the supplied fasteners with maximum spacing of 18" O.C., remove the barrier from this side of joint, and clean out holes. Reposition the barrier, hold in place with adjustable clamps and install supplied fasteners per manufacturer's guidelines.





(Fig. 6B)

### STEP 6 Con't

INSTALLATION OF FIRE BARRIER RETAINER

\*Surface Mounted Retainer using the joint cover frame to anchor the fire barrier retainer in place - Measure and mark the frame fastener centerline locations on the Surface Mounted Retainer flange and drill out prior to installing. Using the retainer as a template drill the substrate, remove and clean out the holes. (Fig. 6C - 6D)





(Fig. 6D)

(Fig. 6C)

# STEP 7

<u>Note:</u> Longer runs of Tadpole Gasket, Slide Track, and Fire Barrier segments use the following instructions to install and field splice two or more segments together. \*\*The recommended procedure is to splice the Fire Barrier segments with the Inner Splice Strip and splicing the Tadpole Gasket sections on a flat surface prior to installing in the joint space.

7.1) To splice Tadpole Gasket sections together, butt two pieces and tape with foil tape to seal. (Fig 7A & 7B)





(Fig. 7B)

7.2) Proper installation of the Slide Track is Critical. It is important that the two sections of track align and the Lateral Slide Slider Assembly slides smoothly at the butted Slide Track sections. For longer runs of Slide Track butt the next section of Slide Track and align along the top edge of the tadpole gasket. See Step 3 for installation instructions of the Slide Track. (Fig. 7C)



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(Fig. 7C)

## STEP 7 CON'T

FIELD SPLICE INSTRUCTIONS

<u>Note:</u> For longer runs of Fire Barrier segments install Lateral Slide Slider Assemblies prior to installing the Fire Barrier. See installation instructions in section 4.



- 7.3) See installation instructions Step 4 to locate and install Lateral Shear Slider Assemblies prior to installing the next section of Fire Barrier.
- 7.4) End segment of the Fire Barrier in place with Extended Fabric Splice Overlap End showing (Fig. 7D) position the next fire barrier segment with the cut end in the proper orientation for splicing.
- 7.5) Install the fire barrier cut end sitting overtop of the "Extended Fabric Splice Overlap End". (Fig. 7E) Align the holes in the Lateral Slide Surface Mount Retainer with the studs of the Lateral Shear Slider Assemblies. The first hole in the Lateral Slide Surface Mount retainer is installed on the stud of the Lateral Shear Slider Assembly at the splicing Extended Fabric Overlap End. The fire barrier is to butt tightly together. (Fig. 7F)





(Fig. 7E)

(Fig. 7F)

7.5) Complete the installation of the fire barrier following installation instructions in Step 4, 5 and 6.

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#### SPLICING INSTRUCTION METHODS

Use the following instructions to splice together two pieces of FB17 Lateral Slide Fire Barrier sections. Recommended procedure is to install the Inner splice Strip piece on a flat surface prior to installing in the joint space, but splicing can be done with the FB17 installed in the joint.

#### INSTALLING INNER SPLICE STRIP PIECE ON A FLAT SURFACE

8.1) Locate the 12" wide Splice Strip roll, using the Splice Strip chart measure to cut a Inner Splice Strip piece, per your max. open dimension. (Fig. 8A - 8C)



(Fig. 8A)



SPLICE STRIP FLOOR FIRE B		
FIRE BARRIER MODEL SIZE (MAX OPEN)	INNER SPLICE STRIP (IN.)	
2FB17-L9	9"	
2FB17-L12	12"	
2FB17-L15	15"	
2FB17-L18	18"	
2FB17-L21	21"	
2FB17-L24	24"	
2FB17-L27	27"	
2FB17-L30	30"	(Fig. 8B)

- 8.2) Using a utility knife cut the Inner Splice Strip to the max. open measurement. (Fig. 8D)
- 8.3) Draw a reference line marking the centerline of the max. open measurement on the Inner Splice Strip piece. (Fig. 8E)



(Fig. 8D)



### STEP 8 Con't

SPLICING INSTRUCTION METHODS

#### **INSTALLING INNER SPLICE STRIP PIECE ON A FLAT SURFACE**

8.4) At the cut end of the fire barrier (Fig. 8F) fully insert the cut Inner Splicing Strip piece between the first and second fire barrier layers (Fig. 8G) and align with the cut end of the fire barrier. (Fig. 8H)









(Fig. 8F)

8.5) Butt the cut end of fire barrier with the inserted Inner Splicing Strip to The installed end segment with the Extended Fabric Splice Material. (Fig. 8J)

8.6) Install the fire barrier retainers following installation instructions in Step 5 & 6. With the two fire barrier segments butted and anchored in place gently pull up and back the top layer of Fire Barrier blanket from each segment. (Fig. 8K)





- (Fig. 8K)
- 8.7) Slide the Inner Splicing Strip piece so that the centerline mark aligns with the butt ends of the galvanized retainers. (Fig. 8L)
- 8.8) Gently push down the top layer of fire barrier blankets into the joint "U" shaped drape. The fire barrier segments should be aligned and butted back together. (Fig. 8M)



(Fig. 8L)



#### TOP SPLICE STRIP INSTALLATION

<u>Note:</u> At the butted segments of Fire Barrier a Top Splice Strip of insulation is installed and taped in place to insulate the butt Joint.

9.1) Locate the 12" Splice Strip roll, using the Splice Strip Chart cut one Top Splice Strip at the max. open dimension. (Fig. 9A & 9B)



(Fig. 9A)

SPLICE STRIP FLOOR FIRE B		
FIRE BARRIER MODEL SIZE (MAX OPEN)	TOP SPLICE STRIP	
2FB17-L9	13"	
2FB17-L12	16"	
2FB17-L15	19"	
2FB17-L18	22"	
2FB17-L21	24"	
2FB17-L24	274"	
2FB17-L27	30"	
2FB17-L30	33"	(Fig. 9B)

9.2) Measure in 6" and draw a centerline mark the length of the cut Top Splice Strip. (Fig. 9C)



### STEP 9 Con't

TOP SPLICE STRIP INSTALLATION

- 9.3) At the Spliced section of fire barrier fold the Top Splice Strip into a "U" shape without creasing and place into the joint aligning the centerline mark with the butted segments of fire barrier in the joint. (Fig. 9D)
- 9.4) Using the supplied Foil Tape, tape all exposed fire barrier blanket areas of the Top Splice Strip, sealing the top edges and ends to the galvanized retainers and fire barrier blankets. (Fig. 9E 9G)



(Fig. 9D)



(Fig. 9F)



(Fig. 9E)





#### TOP HEAT SHIELD INSTALLATION

<u>Note:</u> The Top Heat Shield has been supplied in 50' lengths. Beginning at the same end as the Main Fire Barrier installation, begin installing the Top Heat Shield.

- 10.1) Place the length of Top Heat Shield over the joint, unroll, and align with the end of the fire barrier galvanized retainer. (Fig 10A)
- 10.2) With the Top Heat Shield folded into a "U" shape without creasing install into the joint. Align with the end of the fire barrier galvanized retainer. Attach with the supplied fasteners and washers at 12" O.C. along the edge of the galvanized retainers. On the Lateral Slide side install below the bolts. (Fig. 10A 10C)







Fig. 10B



10.3) If additional lengths of Top Heat Shield are required, overlap the previous length by 6". Proceed and install next section repeating attachment of the Top Heat Shield as indicated above.

#### CUTTING DOWN A FIRE BARRIER LENGTH

<u>Note:</u> Cutting down a Fire Barrier length or cutting between weld pins, follow the instructions below to properly secure blanket to the galvanized retainer.

11.1) Measure in from the cut end of the fire barrier the length needing to be cut off. Mark a cut line on the fire barrier blanket material and galvanized retainers to follow. (Fig. 11A & 11B)





Fig. 11A

Fig. 11B

11.2) Cut the galvanized retainers using a grinder and a utility knife to cut the fire barrier blanket material along the marked cutting line. (Fig. 11C through 11E)



Fig. 11C





- 11.3) 1 1/2" in and 1" down from the cut end of the galvanized retainer install the supplied self drilling #8 x 1/2" sheet metal screw. (Fig. 11F) The screw installed through the fire blanket area in the upper portion of the galvanized retainer. (Fig. 11G)
- 11.4) Cut off the screw portion that protrudes out from the galvanized retainer. (Fig. 11H & 11J)



Fig. 11F



Fig. 11G





Fig. 11H

Fig. 11J

Fig. 11E

11.5) Follow installation instructions Steps 2 through 7 to install / splice cut down fire barrier segments in the joint.

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#### CREATING FABRIC OVERLAP SPLICING END

<u>Note:</u> To create a fabric Overlap Splicing End on a cut down segment of Fire Barrier requires 6" of fabric to remain from cut end of the fire barrier segment. Follow the instructions below.

12.1) Measure in and mark the fire barrier / galvanized retainers the length needing to be cut off from the end segment of the fire barrier. To create the fabric Overlap Splicing End measure back 6" on the fire barrier fabric from the cut end of the fire barrier and draw a reference line. (Fig. 12A & 12B)





Fig. 12A



- 12.2) If a weld pin is located within the 6" fabric section, from the cut end, remove with a pair of pliers. (Fig. 12C)
- 12.3) Fold back the 6" fabric material, cut the galvanized retainers and fire barrier blanket material along the 6" folded fire barrier fabric. (Fig. 12D & 12E)





Fig. 12C



12.4) Fold the 6" Overlap Fabric back out over the cut end of the fire barrier blanket. (Fig. 12F)



- 12.5) 1 1/2" in and 1" down from the cut end of the galvanized retainer install the supplied self drilling #8 x 1/2" sheet metal screw. The screw installed through the fire blanket area in the upper portion of the galvanized retainer. (Fig. 12F & 12G)
- 12.6) Cut off the screw portion that protrudes out from the galvanized retainer. (Fig. 12H)



Fig. 12F







12.7) Follow installation instructions Steps 2 through 7 to install / splice cut down fire barrier segments in the joint.