

MODEL FB17 FIRE BARRIER 90° CORNER TRANSITION 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.

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

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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. See separate installation instructions for straight runs of fire barriers.

TOOLS:

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

- Fabric or Leather Work Gloves
- Measuring Tape
- Hammer Drill
- Permanent Marker
- Tin Snips or Grinder
- Hammer
- Utility Knife
- Drill
- Quick Grip Clamps

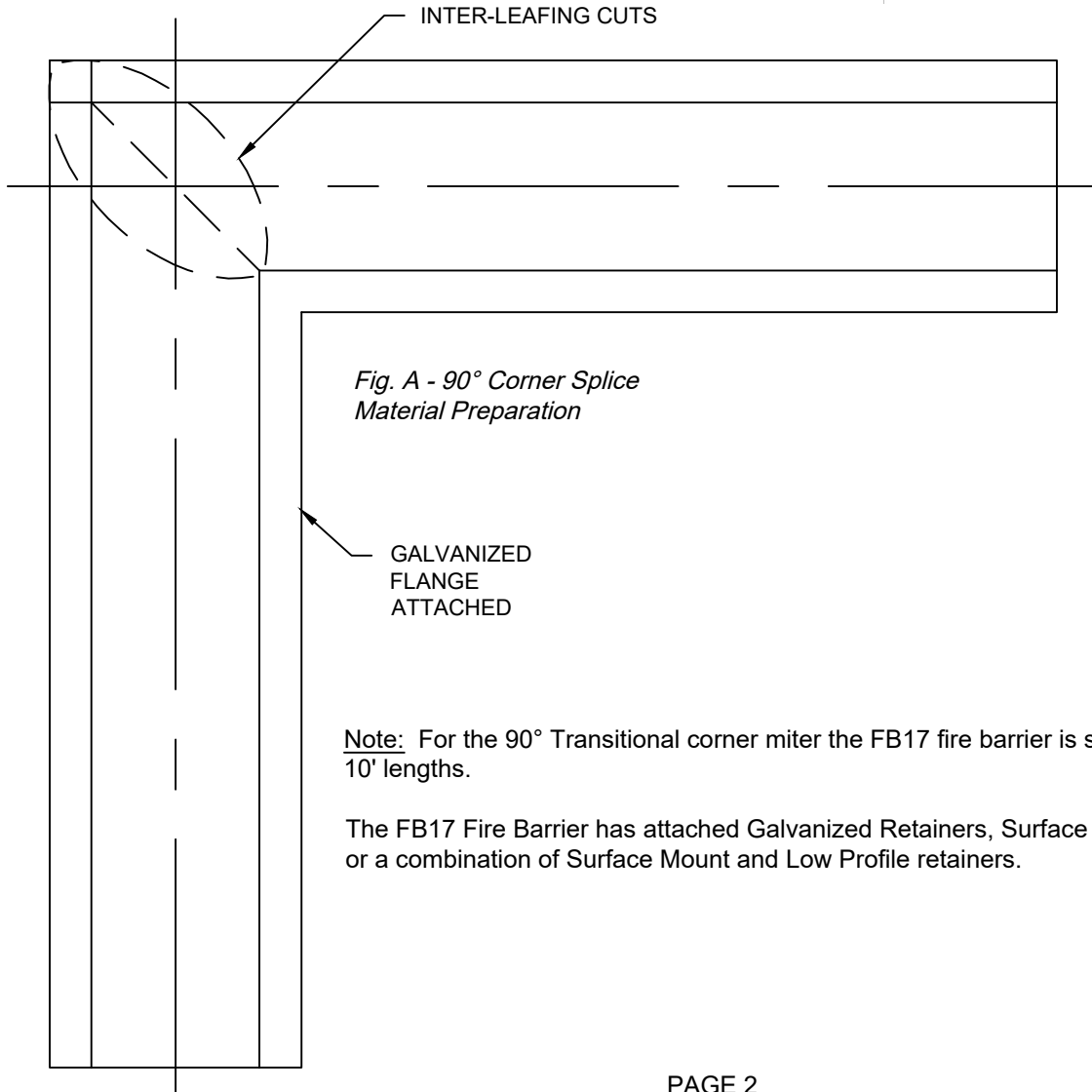
Model designating - FB17 supplied is based on the max. open width.

FB17 Nomenclature

Example: 2FB17 - F12



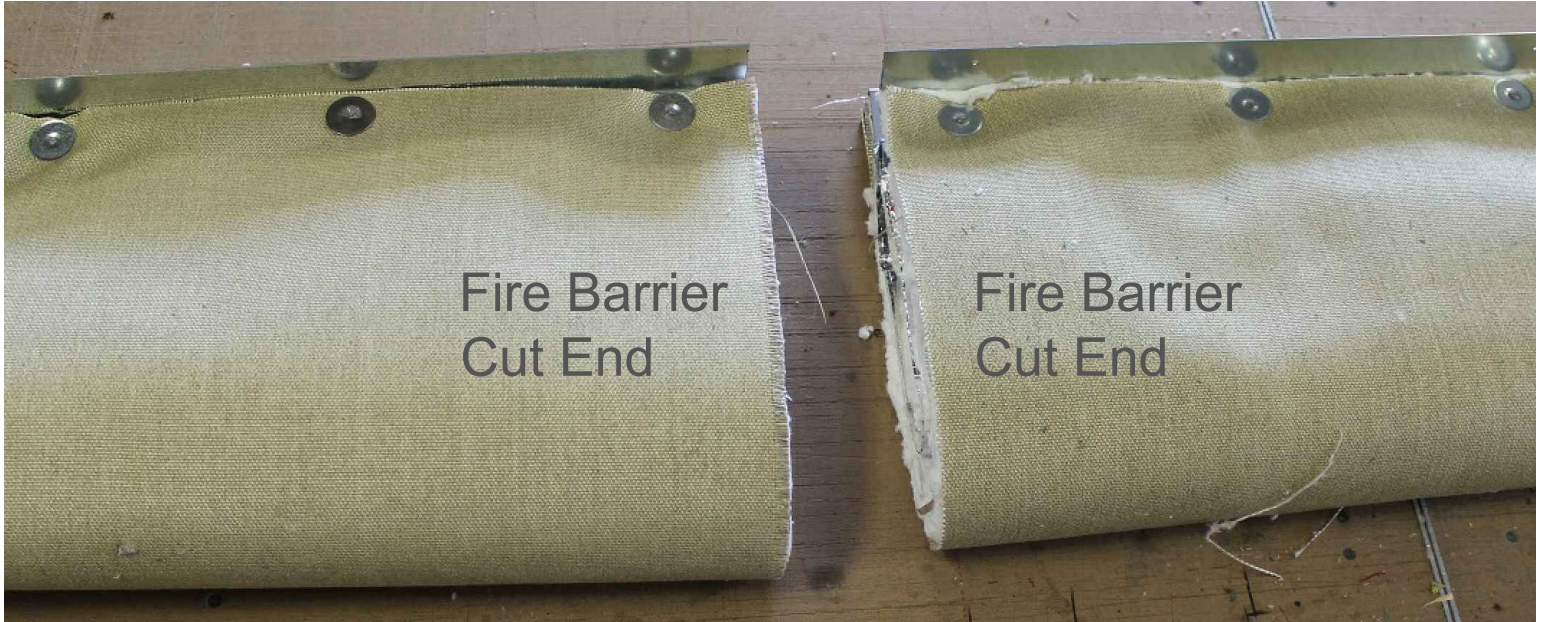
To view / download Installation Instructions for Fb17 use QR code or visit www.c-sgroup.com/expansion-joint-covers/accessories/fb-17



STEP 1

90° CORNER SPLICING INSTRUCTIONS

Note: The following instructions are to be used to creating a 90° corner transition from two fire barrier segments.



(Fig. 1A)

- 1.1) On the FB17 fire barrier galvanized retainers (surface mount or low profile) lengths measure in from the cut end and mark the nominal joint opening size on the retainer. (see Fig. 1A & 1B)



(Fig. 1B)

STEP 1 Con't

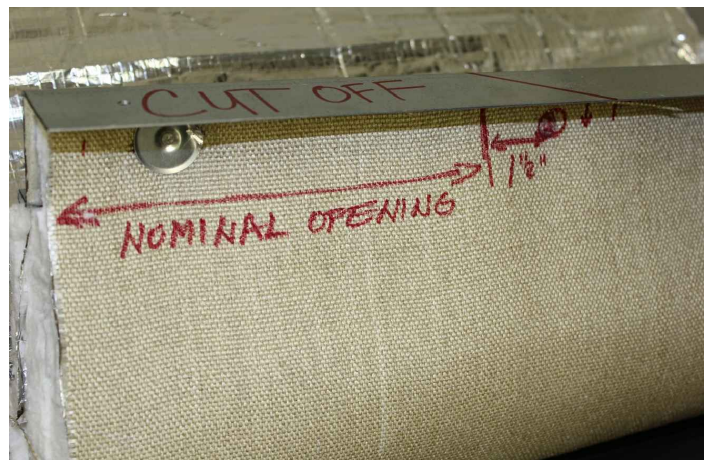
CUTTING DOWN GALVANIZED RETAINERS

Note: Weld pins located within the nominal opening measurement, cut end of the fire barrier, will need to be removed. Install a sheet metal screw past the nominal opening to hold the fire barrier and insulation layers in place.

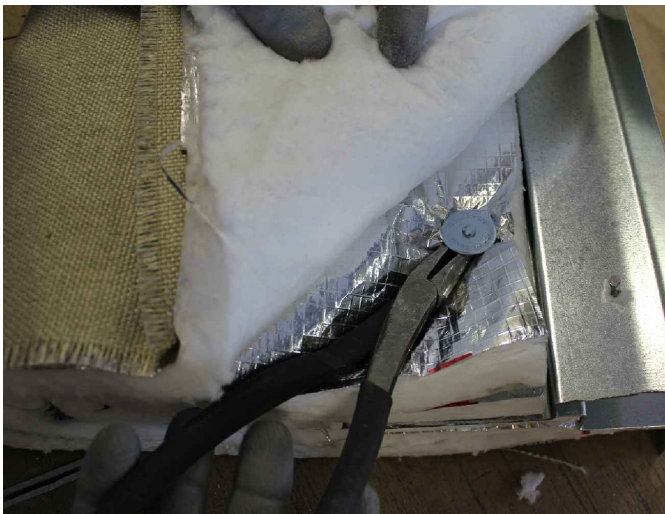
- 1.2) Measure over from the nominal opening measurement 1 1/2" and 1" down from the flange to install the supplied sheet metal screw. (Fig.1C) Install the screw through the fire blanket area in the upper portion of the galvanized retainer. (Fig. 1D) Cut off the screw portion that protrudes out from the galvanized retainer.
- 1.3) Remove the Weld Pins located within the nominal joint opening measurement in the fabric and under the first fire barrier blanket areas. (Fig. 1E-1F)



(Fig. 1D)



(Fig. 1C)



(Fig. 1F)

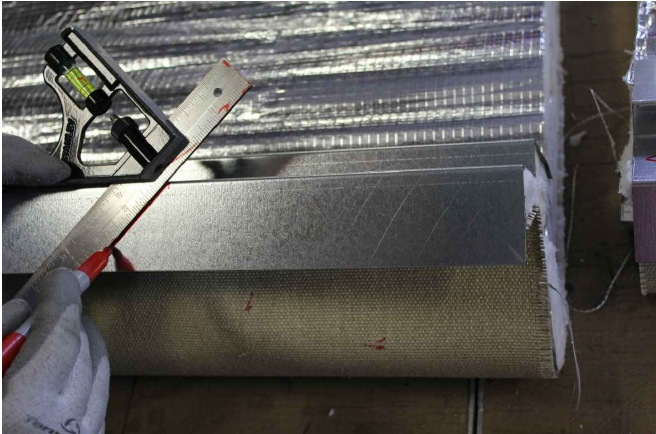


(Fig. 1E)

STEP 1 Con't

CUTTING DOWN GALVANIZED RETAINERS

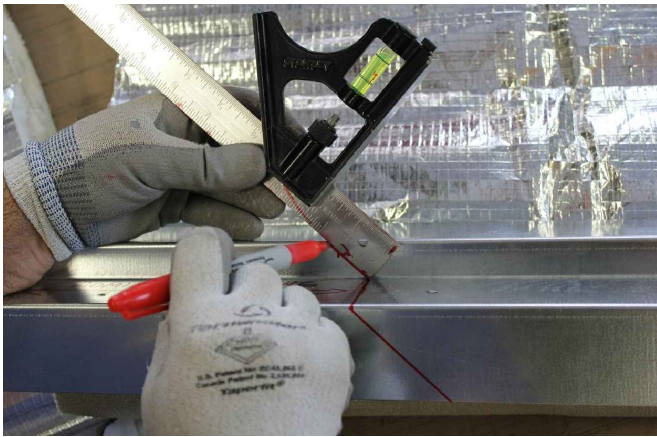
- 1.4) Using the nominal opening size marked on the galvanized retainers, follow the profile and mark the galvanized retainer profiles at a 45° angle. (See Fig. 1G - 1K)



(Fig. 1G)



(Fig. 1H)

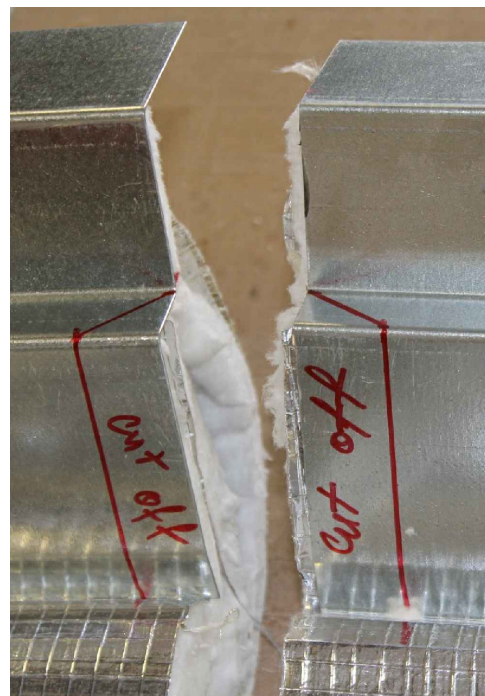


(Fig. 1J)



(Fig. 1K)

- 1.5) On the opposite side of the galvanized retainers, at the outside corner, measure and mark a 45° angle only on the bottom portion of the galvanized flange and a cutting line down the face of the galvanized retainer. (Fig. 1L)



(Fig. 1L)

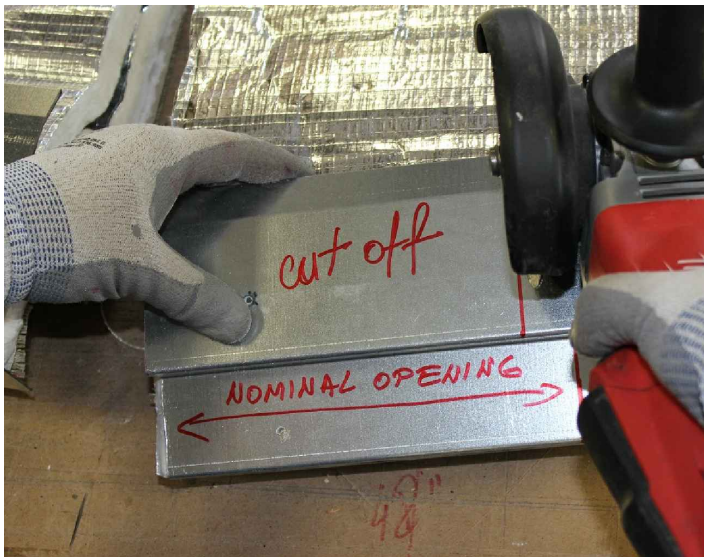
STEP 1 Con't

CUTTING DOWN GALVANIZED RETAINERS

1.6) Using a grinder cut off the Galvanized Retainers along the marked cutting lines. (Fig. 1M-1Q)



(Fig. 1M)



(Fig. 1N)



(Fig. 1P)

STEP 2

CUTTING THE FIRE BARRIER BLANKET

Note: The following instructions are to be used to cut down two fire barrier segments creating a 90° corner transition. This is to be performed on a flat surface prior to installing each segment into the joint. See Splice Chart nominal joint dimension for "A" and "B" dimensions..

- 2.1) Lay one length of fire barrier on a flat surface and fold the fire barrier length into a "U" shape with the angle cut galvanized retainer flange facing up. (Fig. 2A)
- 2.2) Using the 90° splice chart nominal joint size (Fig. 2B) , from the cut end of the fire barrier, measuring and mark dimension "A", 4 1/2" dimension down from "A", and dimension "B" along the cut end of the fire barrier. Draw a diagonal line connecting the 4 1/2" dimension down from "A" and dimension "B" points. (Fig. 2C)



(Fig. 2A)

90° SPLICE CHART		
FIRE BARRIER MODEL SIZE (MAX OPEN)	"A"	"B"
2FB17-F9	5"	11 1/2"
2FB17-F12	7"	12 1/2"
2FB17-F15	9"	14"
2FB17-F18	11"	15 1/2"
2FB17-F21	13"	17"
2FB17-F24	15"	18 1/2"
2FB17-F27	17"	19 1/2"
2FB17-F30	19"	21"



(Fig. 2C)



(Fig. 2D)



(Fig. 2E)

Note: Be careful to cut only the fire barrier fabric and insulation layers in one half of the of the folded fire barrier system. Insert a piece of cardboard or similar type of material in the center of the folded over "U" shaped fire barrier to prevent cutting the other half of the fire barrier system.

- 2.3) Cut only the fire barrier blanket layers on the angled cut retainer side of the fire barrier system. Follow the profile cutting line and be careful to not cut into the fire barrier blankets in the other half of the system. (Fig. 2D-2F) Cut off the fabric and insulation layer at the galvanized retainer to follow along the cut retainer profile. (Fig 2F)

- 2.4) Repeat Step 2 of instructions for the second segment of the 90° transition fire barrier length.



(Fig. 2F)

STEP 3

INSTALLATION OF TRANSITION

- 3.1) When beginning installation of the 90° transition fold the first fire barrier segment into a "U" shape and lower into the joint. Seat the fire barrier so that the surface mounted galvanized retainers rest on the surface of the slabs. Secure in place with adjustable grip clamps. Align the angle cut retainer with the inside 90° joint corner and butt the opposite retainer tightly against the substrate corner. (Fig. 3A) *If the fire barrier is with Low Profile Retainers align the top edge of the retainers with the top edge of the joint slab.

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.

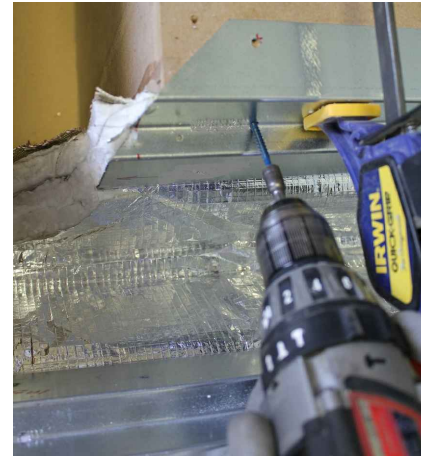
- 3.2) Retainer Fastener Locations:

*Note: Surface Mounted Galvanized Retainers are not pre-drilled. If with Surface Mounted Retainers and using the joint cover 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. To hold the fire barrier temporarily in place install fasteners in the flange at 24" O.C. (Fig. 3B)

Low Profile Galvanized Retainers - using the retainer as a template drill the holes for the supplied fasteners with maximum spacing of 18" O.C. With the fire barrier held in place install the supplied fasteners per the manufacturer's guidelines.



(Fig. 3A)



(Fig. 3B)

- 3.3) Pull the fire barrier blanket material, of the installed 90° Transition segment, up and back before installing the opposite fire barrier 90° transition corner segment. (Fig. 3C-3E)



(Fig. 3C)



(Fig. 3D)



(Fig. 3E)

STEP 3 Con't

INSTALLATION OF TRANSITION

3.5) Seat the fire barrier segment and secure in place with adjustable clamps. Follow installation instructions of 3.1 and 3.2. (Fig. 3F)



(Fig. 3F)



(Fig. 3G)



(Fig. 3H)



(Fig. 3J)

3.7) Using the supplied Foil Tape, tape the fire barrier foil scrim area across the transition corner sealing the fire barrier blanket areas. (Fig. 3K)



(Fig. 3K)



(Fig. 3L)

*Note: Picture of the 90° transition corner taken from inside the joint showing the underside, at the inner leafing of the fire barrier fabric splice. (Fig. 3L)

STEP 4

TOP HEAT SHIELD INSTALLATION

Note: The Top Heat Shield has been supplied in 50' lengths. Beginning at the same end of the 90° Corner Transition, for each leg of the transition, two angle cut pieces are installed.

- 4.1) On a flat surface unroll the Top Heat Shield, draw a reference line on a 45° angle and using a utility knife cut off the corner. (Fig. 4A) You will need two angle cut pieces for the transition. (Fig. 4B)



Fig. 4A



Fig. 4B

- 4.2) Place the length of angle cut Top Heat Shield over the joint with the shorter side of the Top Heat Shield to the outside corner of transition and the longer side extending beyond the joint space. (Fig. 4C)
- 4.3) Fasten in place along the top edge of the galvanized flange with the supplied fasteners at 12" O.C. starting from the outside corner of the transition. (Fig. 4D-4E)

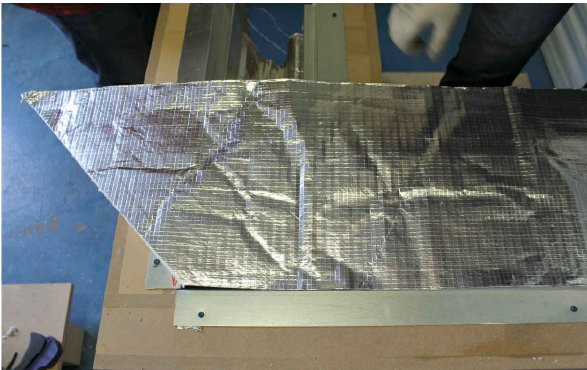


Fig. 4C



Fig. 4D

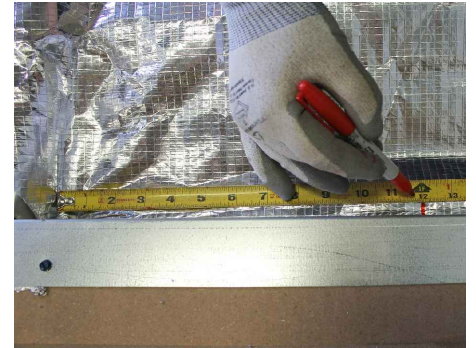


Fig. 4E

- 4.4) Fold the 45° angle cut edge of the Top Heat Shield at a 90° angle with the remaining material draped into the joint space. Fasten in place with the supplied fastener at the end of the angle cut. (Fig. 4F)
- 4.5) With the Top Heat Shield draped into the joint install the fasteners along the opposite side the transition joint. (Fig. 4G)

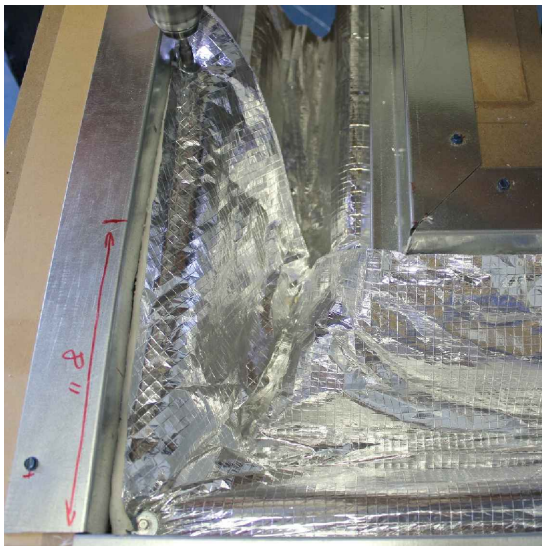


Fig. 4F



Fig. 4G

STEP 4 Con't

TOP HEAT SHIELD INSTALLATION

- 4.6) Install the second Top Heat Shield piece, overlapping the corner of the transition, with the shorter side to the outside of the transition corner. (Fig.4H) Follow installation instructions of Step 4 (4.2 - 4.5) to complete the Top Heat Shield Transition.



Fig. 4H



Fig. 4J



Fig. 4K

- 4.7) Using the supplied Foil Tape, tape the fire barrier foil scrim area across the transition corner sealing the Top Heat Shield fire barrier blanket area. (Fig. 4K-4L)



Fig. 4L