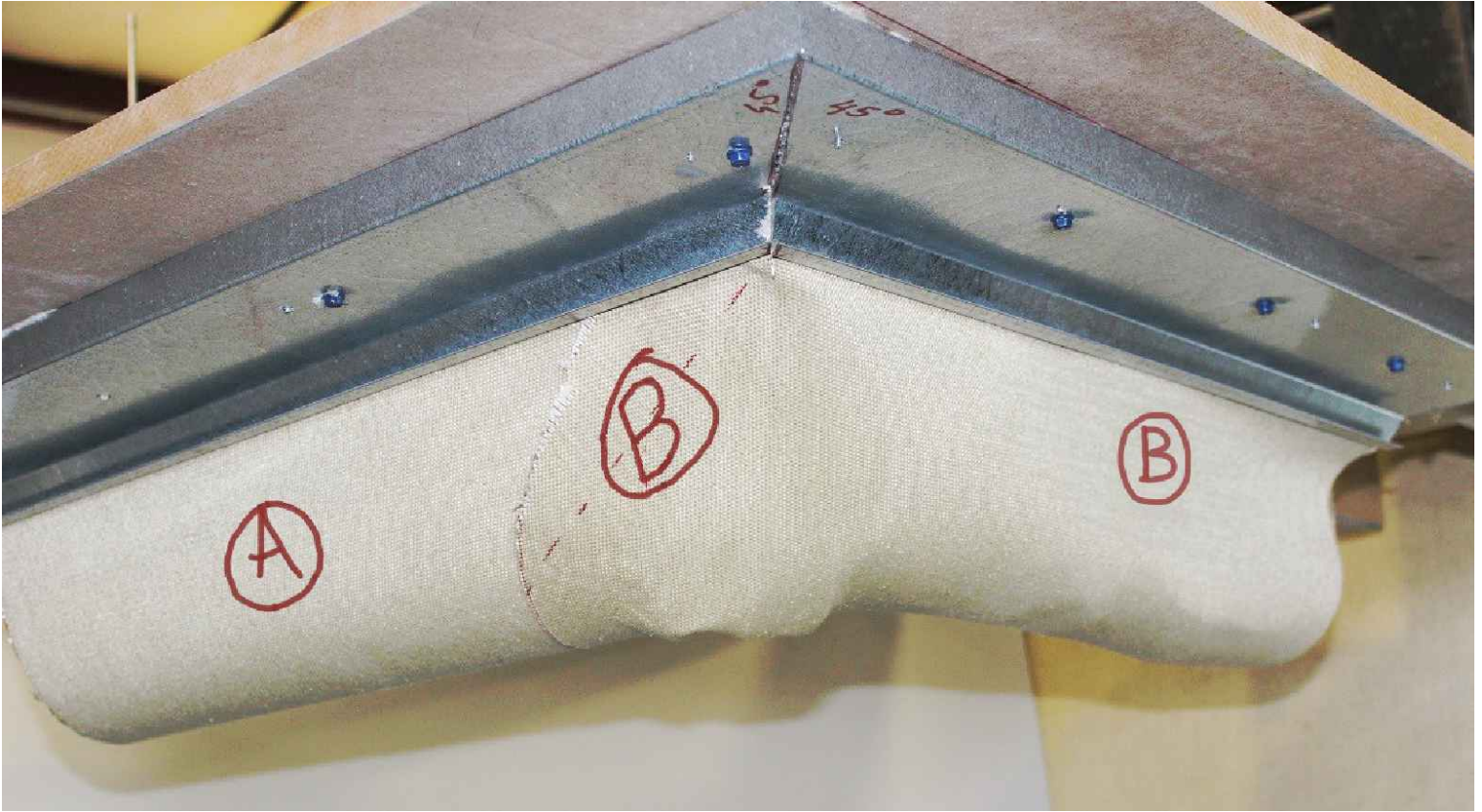


# MODEL FB17UM FIRE BARRIER 90° CORNER TRANSITION INSTALLATION INSTRUCTIONS



## 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

05/01/2023



**Construction Specialties®**  
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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:**

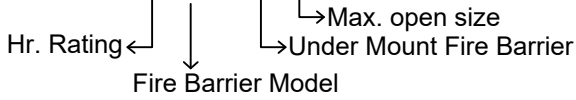
The following tools may be needed for installation of the FB17UM fire barriers:

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

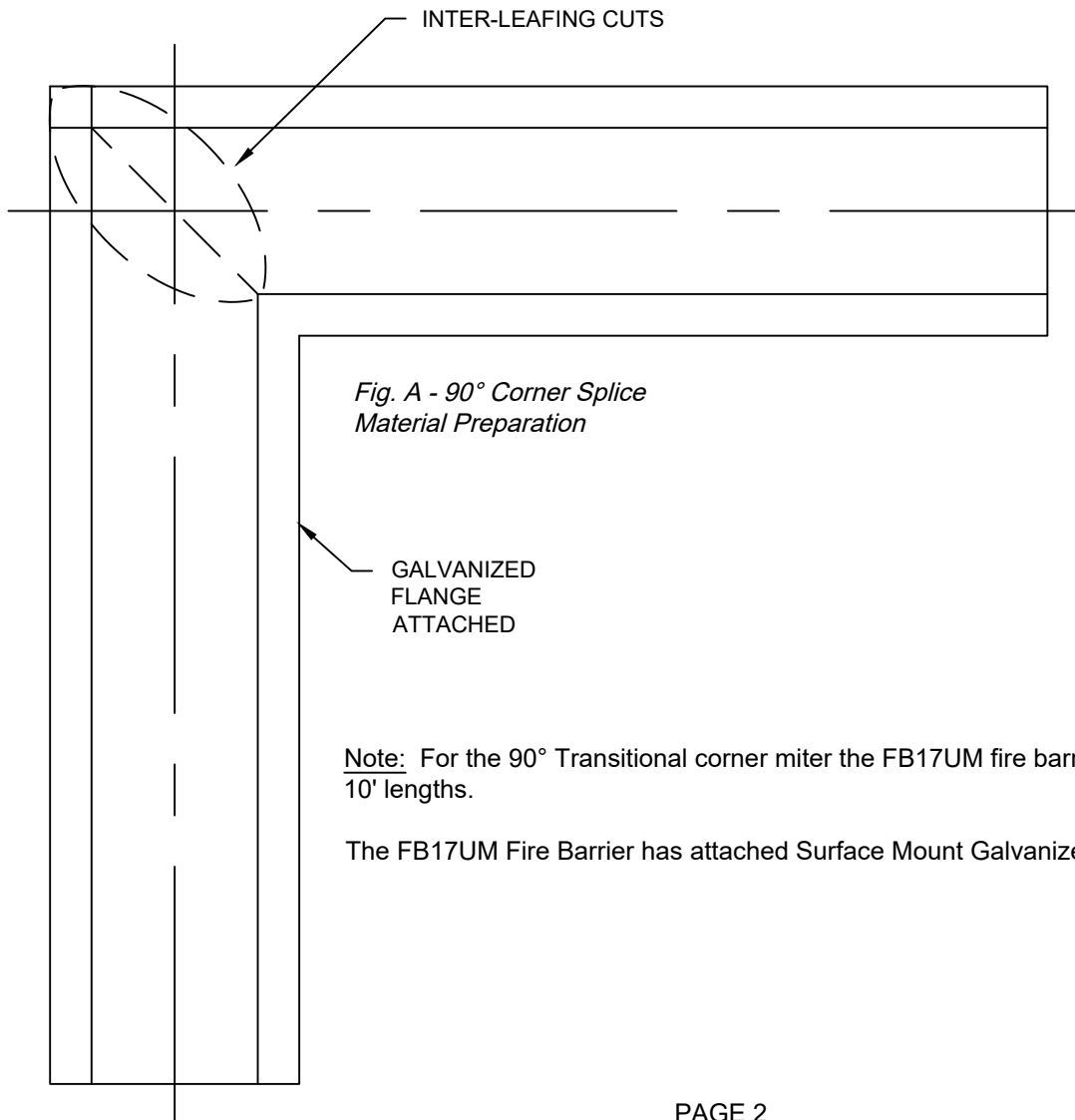
Model designating - FB17UM supplied is based on the max. open width.

FB17 Nomenclature

Example: 2FB17 - UM12



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



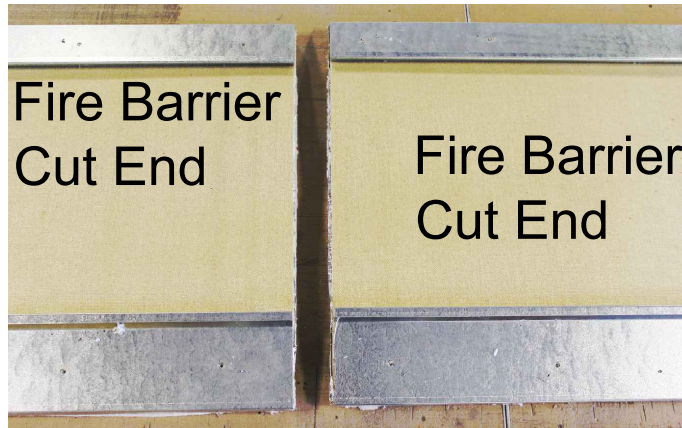
Note: For the 90° Transitional corner miter the FB17UM fire barrier is supplied in two (2) straight 10' lengths.

The FB17UM Fire Barrier has attached Surface Mount Galvanized Retainers.

# STEP 1

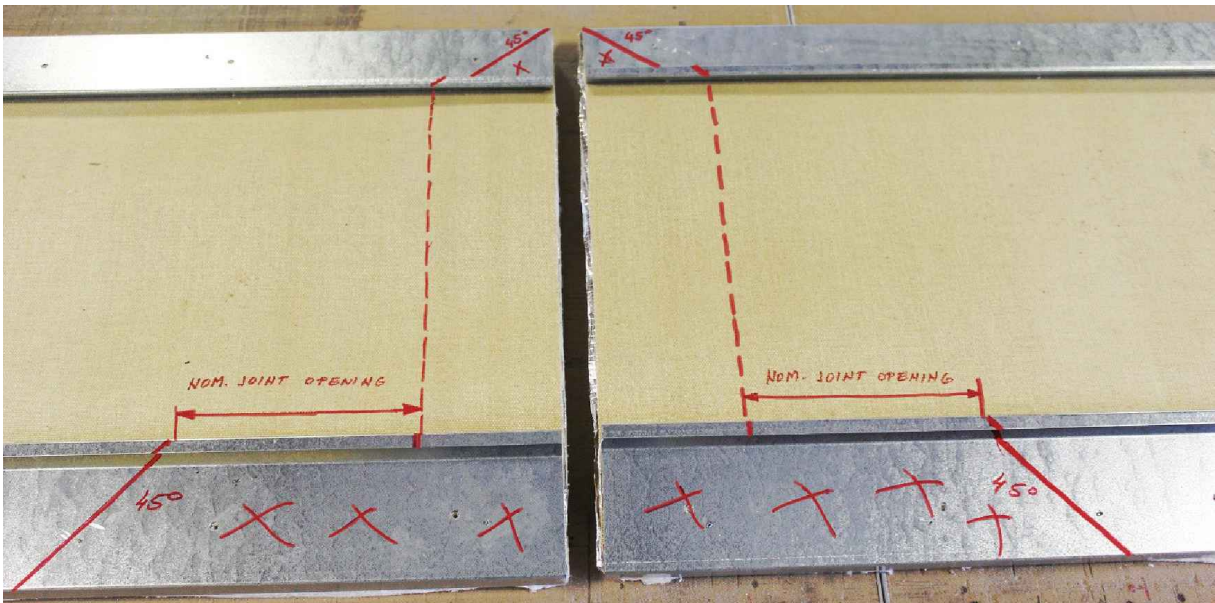
## 90° CORNER SPLICING INSTRUCTIONS

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



(Fig. 1A)

- 1.1) Mark 45° angle line from the corner edge of the fire barrier galvanized retainers. Project a straight line down to bottom flange. Measure over the nominal joint opening and mark a 45° angle line on the bottom galvanized retainer. (Fig. 1A-1B)
- 1.2) Cut the galvanized flanges along the 45° angle lines and remove. (Fig. 1C)



(Fig. 1B)



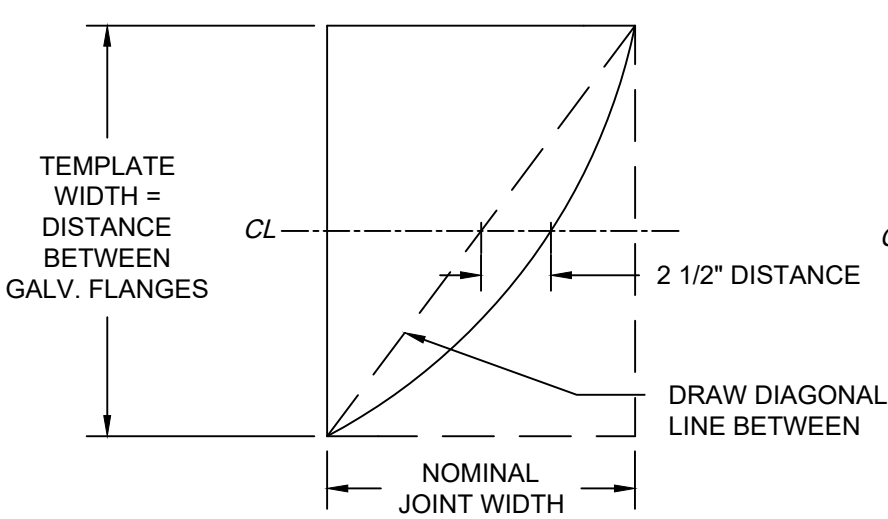
(Fig. 1C)



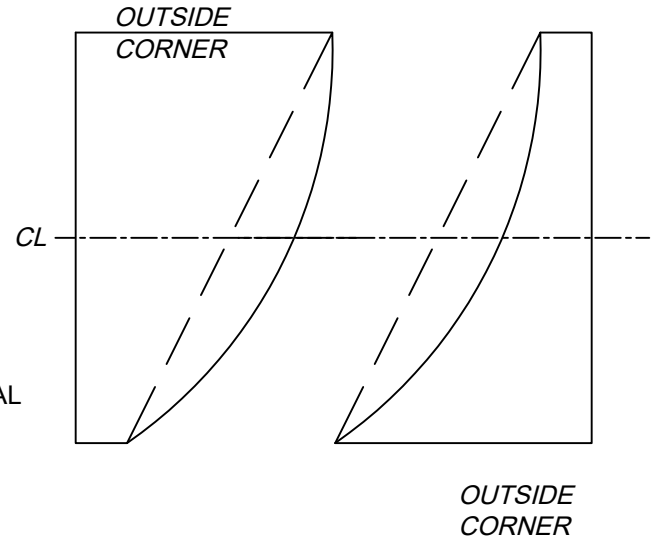
# STEP 2

## TEMPLATE CREATION

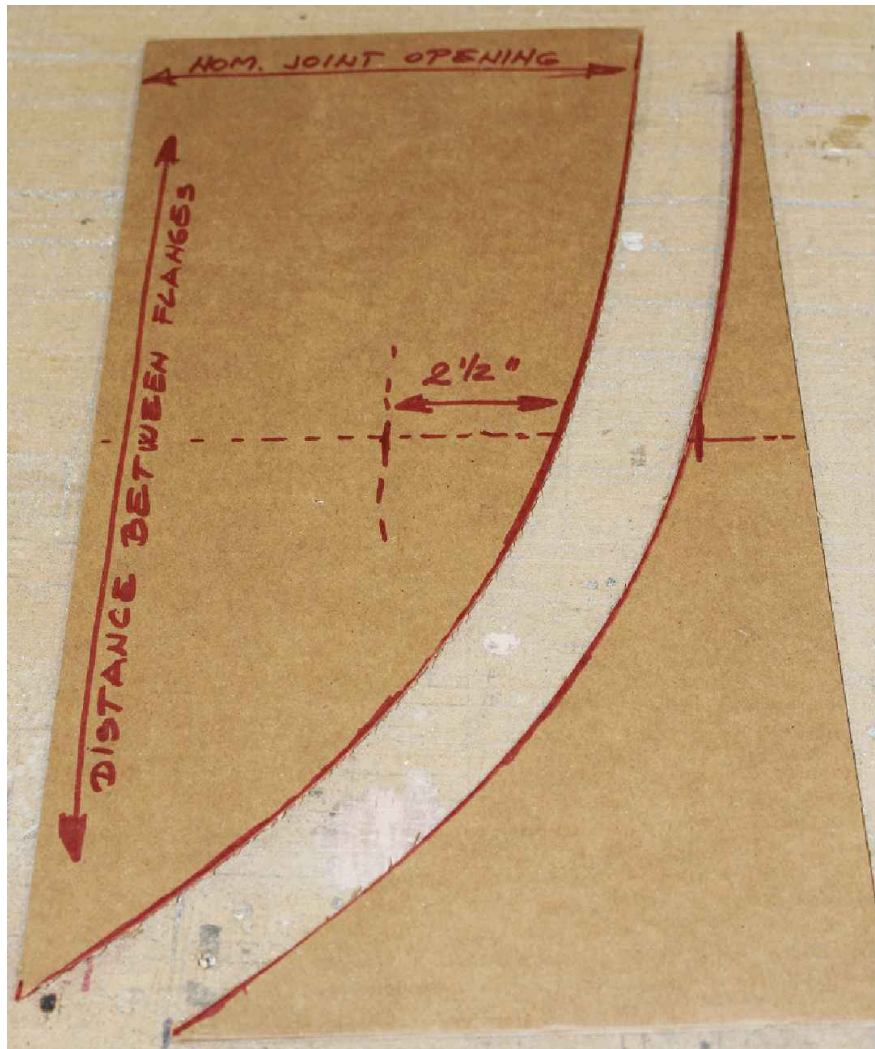
- 2.1) Make a cardboard concave and convex splicing arch template. The template width is the distance between galvanized flanges. Find and mark the centerline and diagonal line between the two outside corners. The concave and convex arch is 2 1/2" from the diagonal line. (Fig. 2A - 2D)



(Fig. 2A)



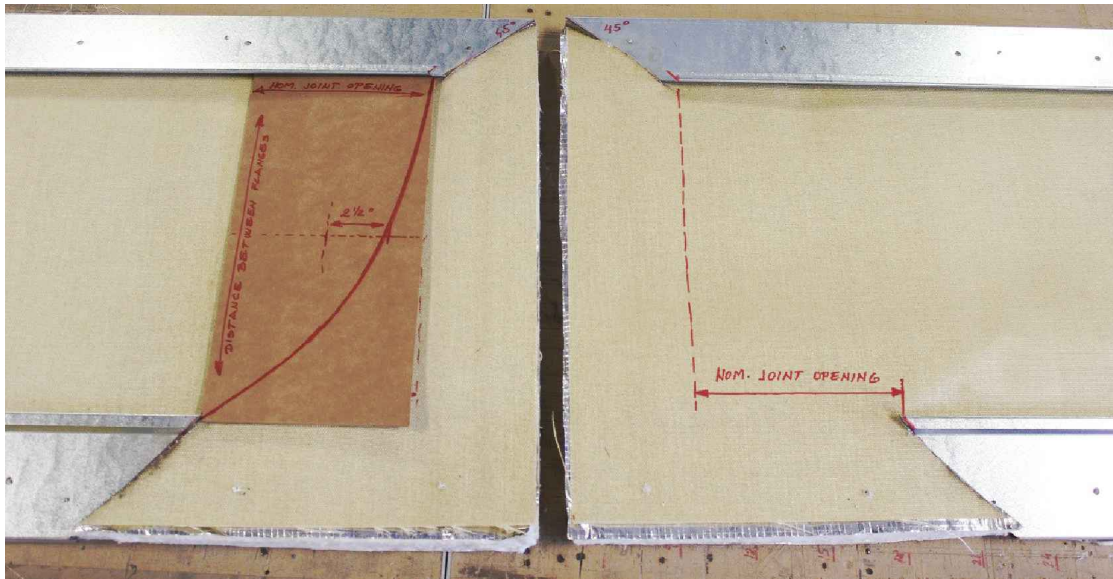
(Fig. 2B)



(Fig. 2C)

# STEP 2 Con't

## CUTTING FABRICATE & INSULATION LAYERS

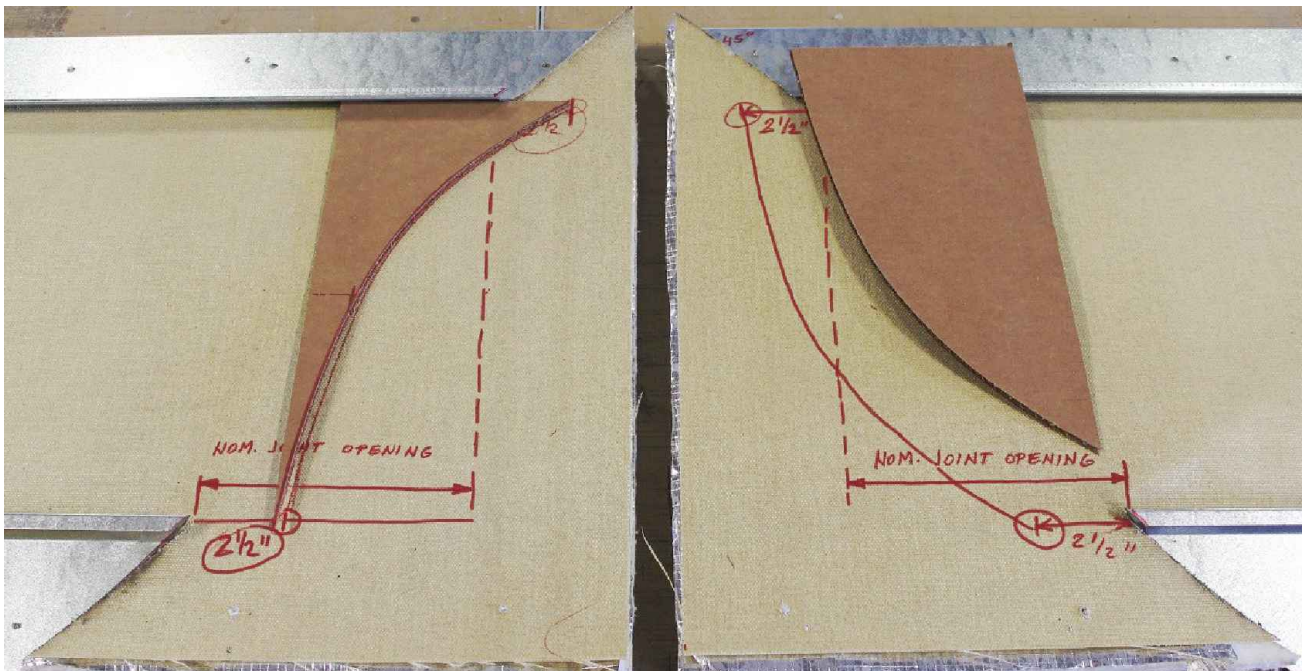


(Fig. 2D)

# STEP 3

## CUTTING FABRICATE LAYER

3.1) To cut the fabric layer measure over 2 1/2" from the diagonal cut on the flanges. Using the cardboard templates make a concave and convex arch. (Fig. 3A - 3B)

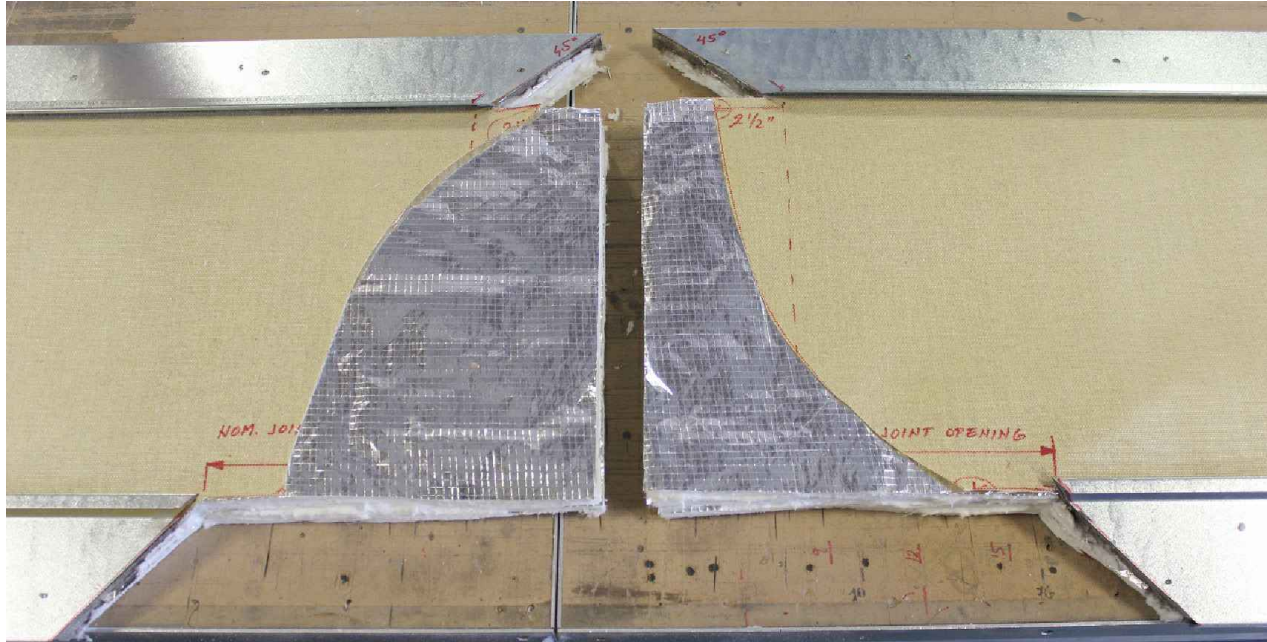


(Fig. 3A)



# STEP 3 Con't

## CUTTING FABRICATE LAYER



(Fig. 3B)

# STEP 4

## CUTTING INSULATION LAYERS

- 4.1) Fold the fabric back, slide the concave and convex cardboard templates under the fabric and align with the cut angle of the galvanized flange top and bottom. Following along the concave and convex template cut the first two insulation layers, cutting the same as the fabric without the 2 1/2" offset. (Fig. 4A)



(Fig. 4A)



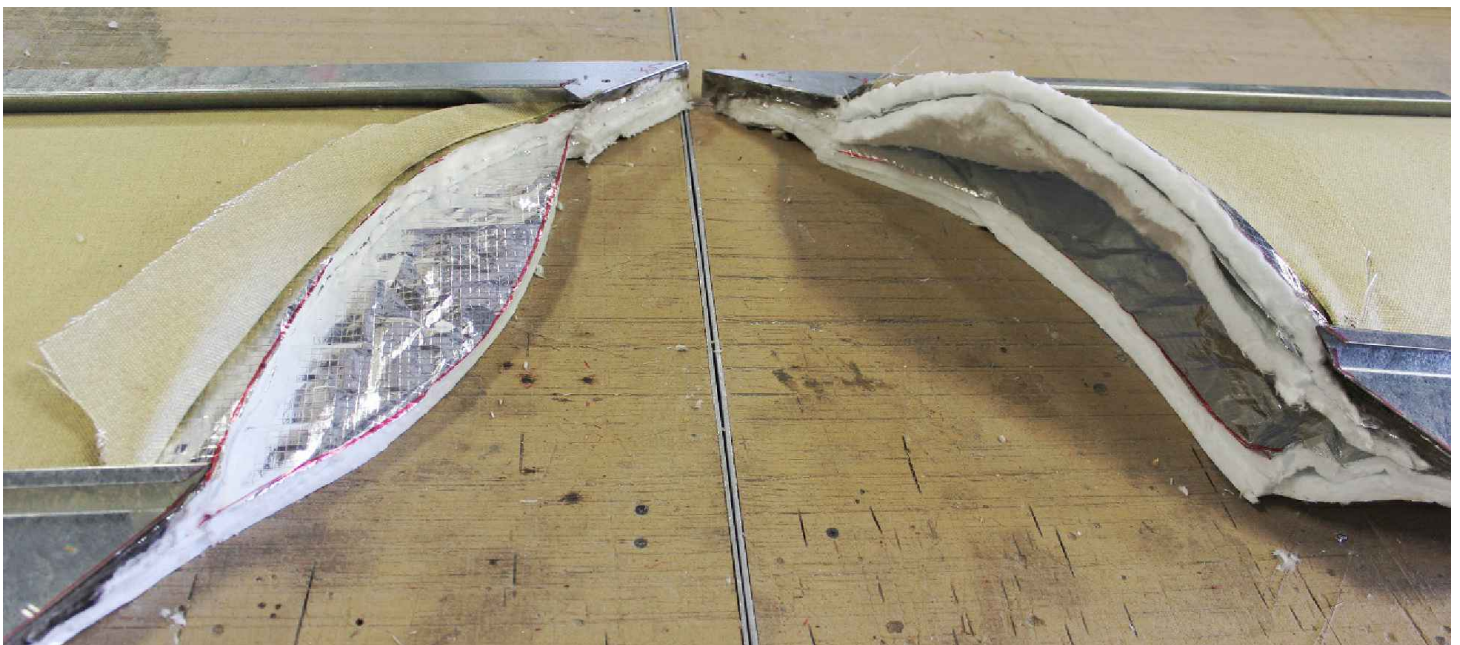
# STEP 4 Con't

## CUTTING INSULATION LAYERS

- 4.2) Alternate cutting a concave and convex curve from the insulation blanket layers switching the cardboard templates (opposite of the first two insulation layers). Align template with cut angle of the galvanized flange top and bottom. Following along the template cut the next two insulation layers creating an offset in the insulation layers to interleaf. (Fig. 4B-4C)



(Fig. 4B)



(Fig. 4C)

# STEP 5

## INSTALLATION OF TRANSITION

Note: It is recommended to install transitions before installing straight run lengths of fire barrier. When beginning installation of the 90° corner transition, make sure that the first barrier segment has the top 2 blanket layers extended.

- 5.1) Follow the installation instructions of the straight run lengths to measure and mark ceiling for placement of flange edge and fastening of the corner transition flanges. Install "A" transition section with the angle cut galvanized flange aligning with the inside 90° joint corner on the 5" marked line.
- 5.2) Pull the fire barrier blanket material, of the installed transition segment, back before installing the opposite transition corner segment. (Fig. 5A)



(Fig. 5A)

- 5.3) Pull the fire barrier blanket material of the transition segment "B" back before installing.
- 5.4) Install angle cut galvanized flange of transition segment "B" butting with the inside 90° joint corner of segment "A". Butt the flange tightly together on the 5" line and fasten in place. (Fig. 5B)



(Fig. 5B)



# STEP 5 Con't

## INSTALLATION OF TRANSITION

- 5.5) Align the galvanized flanges on the outside corners, making sure to butt the short insulation blanket layers of section "A" to the longer blanket layers of section "B", then the long blankets of "A" to the short blankets of "B" tightly together and fasten in place. Pull the fire barrier blanket material of the transition segment "B" back before installing. (Fig. 5C)



(Fig. 5C)

# STEP 5 Con't

## INSTALLATION OF TRANSITION

5.4) Pull section "A" fabric over the insulation and then the repeat for section "B" ovetop section "A" to form a corner. Tuck any loose fabric edges in under the flanges. (Fig. 5D)



(Fig. 5D)

This completes your insulation instruction for the 90° corner transition of FB17 UM fire barrier.