



EDGE OF SLAB QUICKSEAL

Application Guideline



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EDGE OF SLAB FIRESTOPPING

That narrow gap between your floor slab and façade is bigger than it looks. Take a 100 x 100 ft. building with the usual 3" void: that's a tiny footprint, but it adds up to 100 ft² of open space for gas, smoke and flames to rise from floor to floor. Almost all international building codes now recognize how critical perimeter fire barriers are to the overall building safety plan. For all your edge of slab firestopping needs, Hilti's EOS QuickSeal is the ultimate choice.

EOS QuickSeal is a preformed solution that is easier to install, without the need for mineral wool and spray sealants. That means it can be installed in a wide range of temperature and weather conditions without affecting its performance and there is no heavy equipment to haul around or mess to clean up.

EOS QuickSeal does not rely on mineral wool compression, so it's faster and easier to inspect and as a preformed device may not be subject to the same destructive testing as may be required for other third-party inspections.



QUICKER AND MORE RELIABLE / HILTI EOS QUICKSEAL

The industry first preformed solution for the edge of slab firestopping is here.

Easier installation

- No spray, no mess, no heavy equipment, and no power needed
- Suitable for joint sizes 1.5"-5", which is the most common joint sizes for back pan, zero spandrel, aluminum foil face, precast and stick frame curtain wall systems



Superior product performance

- No itchy mineral wool or harmful formaldehyde
- Low VOC to meet owners sustainability requirements: LEED V4 and Living Building Challenge compliant



Increases the productivity of façade project

- 4 simple steps means less downtime.
- Compatible with stuff and spray
- No curing time involved
- Superior temperature ranges compared to traditional sprays and sealants. EOS QuickSeal range 23° F-122° F



Greater reliability

- Zero waste: easier to bid allows installers to more effectively manage the total material cost on a project
- Preformed solution helps ensure correct installation



Helps ensure inspection approval

- Branded bottom foil for easier inspections
- Preformed firestop solutions may not require 3rd party destructive testing



Optional Water Tightness with CFS-EOS WaterStop

The ultimate solution for water tightness at the edge of slab — helping contractors to reduce delays caused by weather, while improving your productivity and reducing the risk of water damage



EDGE OF SLAB QUICKSEAL CFS-EOS QS

Product description

- The industry's first preformed solution for edge of slab and curtain wall firestopping, the new CFS-EOS QuickSeal represents Hilti's leading innovation that is redefining the future of firestop safety.

Applications for use

- Sealing building perimeter gaps between floor slabs and exterior curtain wall facades

Advantages

- Easy, dry, and clean installation — no mineral wool fiber, spray or equipment required.
- Fast inspection — preformed firestop solutions may not require destructive testing
- Zero waste — controlled material cost / easy to bid
- Superior temperature ranges compared to traditional sprays and sealants
- Low VOC to meet owners sustainability requirements — LEED V4 and Living Building Challenge

Installation instructions

- Use minimum 1" width metal roller for concrete floor and pre-cast concrete walls to ensure flap glue adhesion. See Hilti's literature for third-party listings for complete application and installation for use.



Technical Data

Chemical basis	Polyurethane foam
Color	Silver/ Red
Recommended Application temperature	23° to 122°F (-5° to 50°C)
Storage and transportation temperature range	14° to 122°F (-10° to 50°C)
Temperature resistance range	-31° to 140°F (-35° to 60°C)
Movement	Yes
Mold and mildew performance	Class 1 (ASTM G21-96)
Tested in accordance with	ASTM E2307, CAN/ULC S115, ASTM D6904 (rain resistance)
LEEDv4.1 Compliant	CDPH Standard Method v1.2-2017
LEED VOC	2 g/L
Length	60 in (5ft)
Acoustics performance	52 (relates to specific construction) ASTM E90
Shelf Life	36 months at 23°F - 122°F
Joint Width	1.5" - 5" (compatible with Hilti Spray for joints outside the allowable range)

Specifications

- For the edge of slab conditions use pre-formed polyurethane foam based material for use as part of a perimeter fire barrier between fire resistance rated floors and exterior wall assemblies. Use tested systems HI/BPF 120-18 and 19, HI/BPF 120-20 and 21, HI/BPF 120-22 & 23, and HI/BPF 120-27 issued by Intertek Laboratories.

Order designation	Sales pack quantity	Item number
CFS-EOS QS Small (Joints 1.5" - 3")	28	2223950
CFS-EOS QS Medium (Joints 2" - 4")	21	2223951
CFS-EOS QS Large (Joints 3" - 5")	15	2223952



Instructions above are general guidelines - Always refer to 3rd party published listings or Hilti firestop system guide for complete installation information

Optional Water Tightness:

- CFS-EOS WS Edge of Slab WaterStop (for QuickSeal only)



Order designation	Item number
CFS-EOS WS	2242385

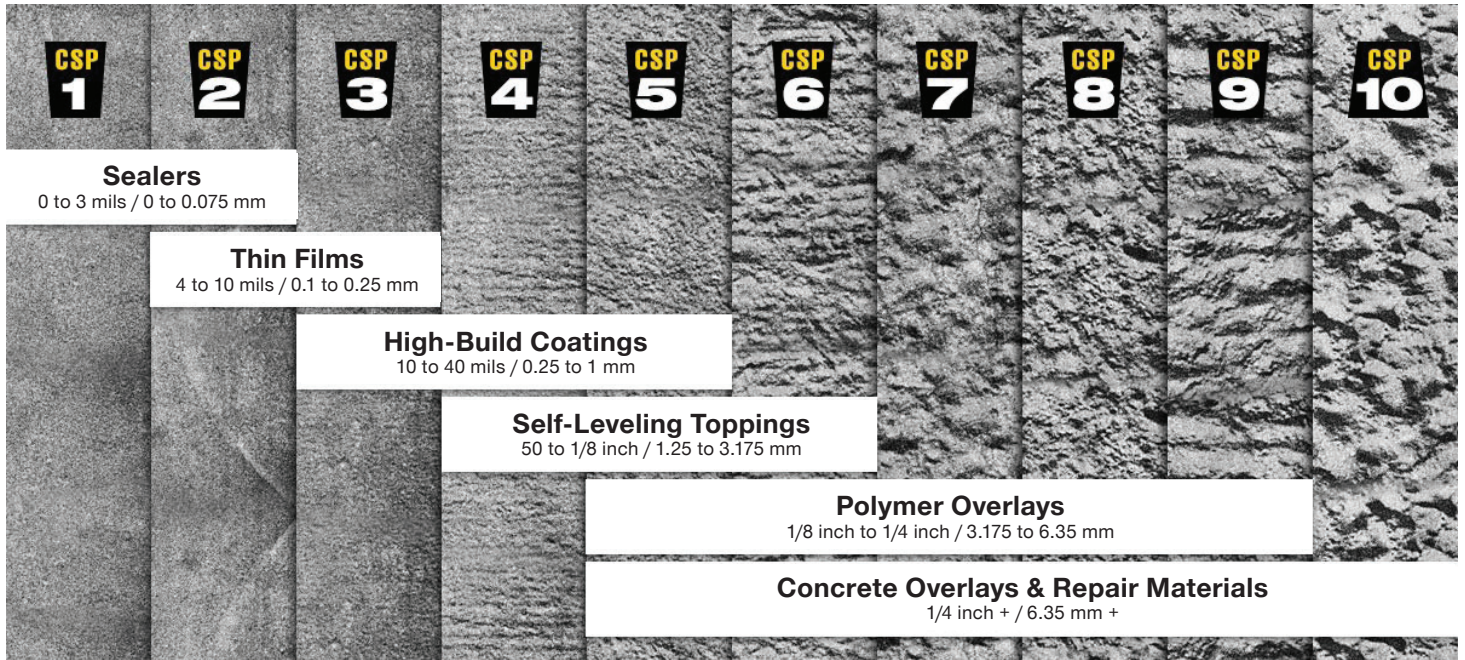
Specified Divisions

- DIV. 7: 07 84 43 Joint Firestopping
- DIV. 7: 07 84 53 Building Perimeter Firetopping
- DIV. 8: 08 44 00 Curtain Wall and Glazed Assemblies

INSTALLATION GUIDE

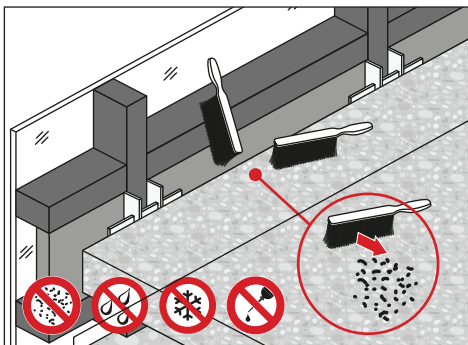
CONCRETE SURFACE CONDITIONS

A. Surface preparation for different types concrete roughness



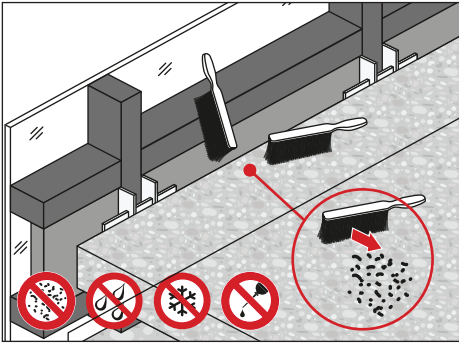
To properly install EOS QuickSeal, removing dust, oil, water and frost from the concrete is required for the flaps glue to adhere to the surface.

For concrete types 1-6, cleaning should be as follows:



- Evenly brush dust off with a PE brush from the concrete top, side and façade
- Dust, oil, water and frost should be removed from concrete surface

For concrete types 6-10, the recommended surface preparation includes using an adhesive primer



- Brush dust off the concrete with PE brush only



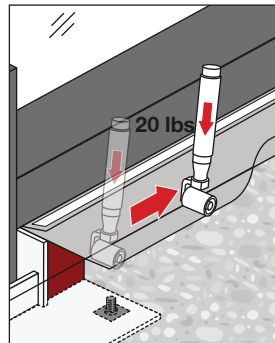
- Insert EOS QuickSeal into the joint



- Apply Henry blue skin liquid adhesive paint brush at the edge of the slab per its instructions for use



- Peel EOS QuickSeal glue silicone paper off



- Press glue down with a roller with around 20 lbs. of weight on it

B. Concrete cleaning methods

Traditional



The traditional method to remove dust from the concrete surface is by brushing using a PE bristle brush.

Compressed Air



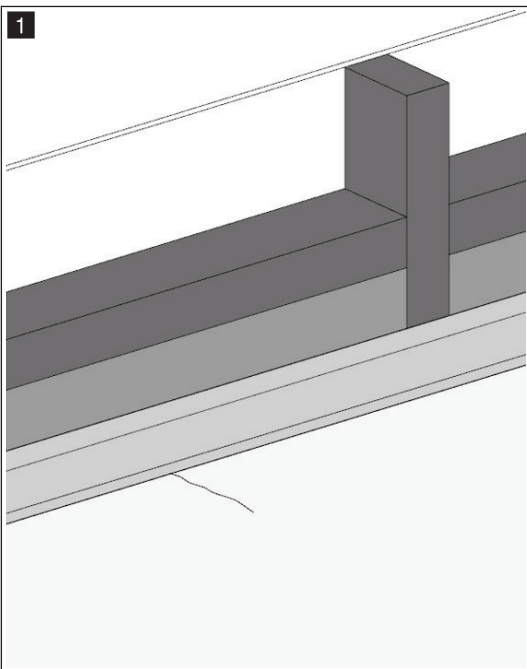
Using a compressed air machine can help to eliminate dust particles from the concrete.

Vacuum

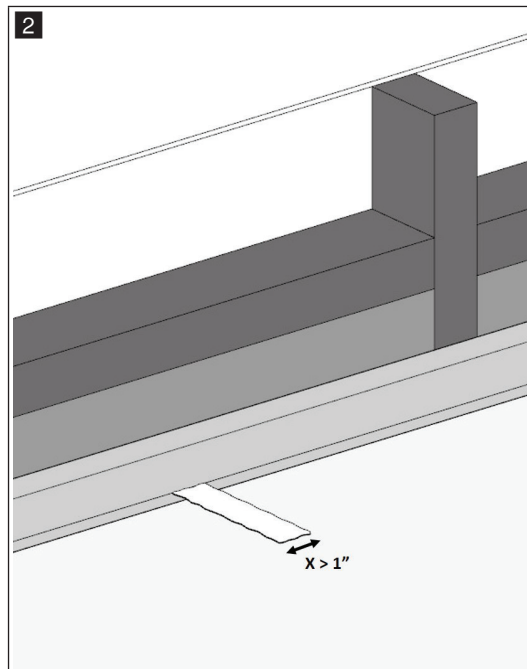


With the Hilti vacuum, the removal of dust particles from the concrete is effortless, reducing time spent cleaning.

C. Addressing cracks at the Edge of the Slab

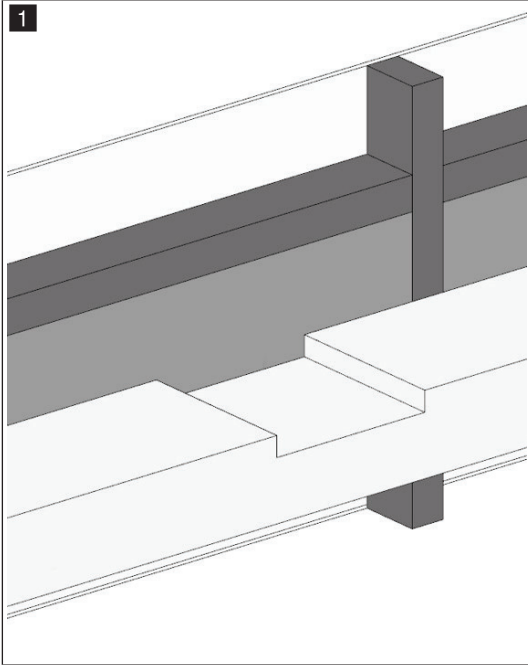


Cover the length of the crack with EOS WaterStop. The width should be approximately 1" and with a depth of 1/8".

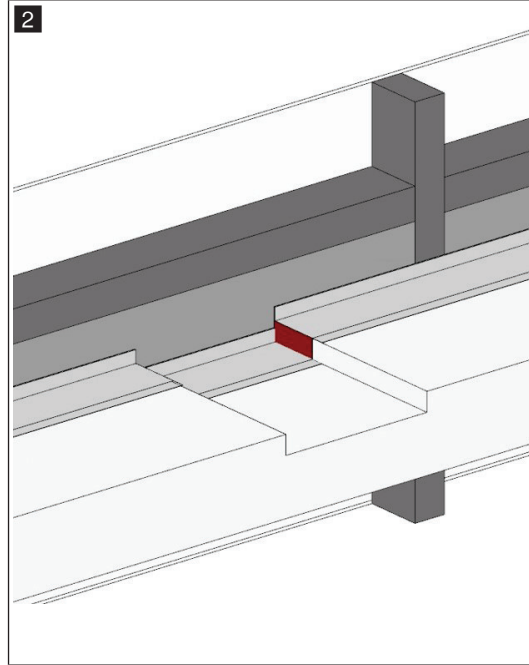


EOS WaterStop needs to overlap with the wing making sure EOS WaterStop is in contact with the glue for a tight seal.

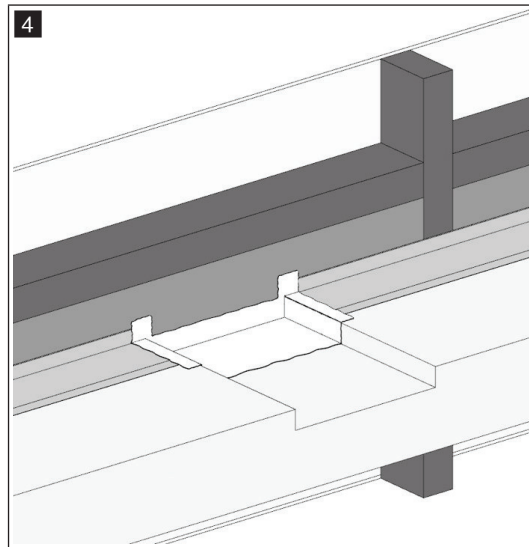
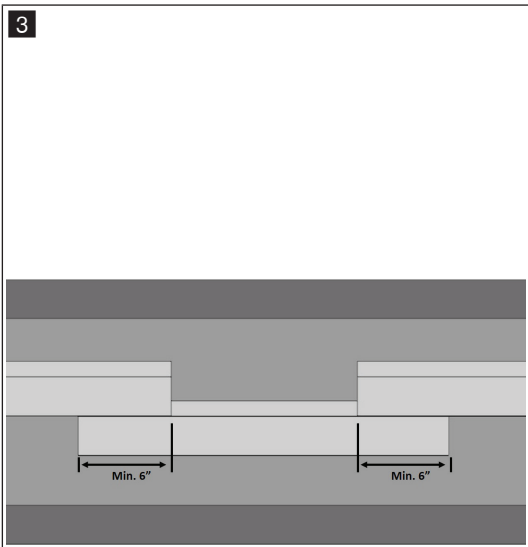
D. Addressing “bracket pockets” (concrete “step”)



Follow surface cleaning steps.



- Cut a piece of EOS QuickSeal the size of the concrete pocket + ¼” compression on each side
- Recess piece and flush with the top of the pocket
- This is not required when pockets are grouted back and install is typical



For water tightness, use EOS WaterStop. Apply sealant at 1/8” depth x 1” overlap to concrete and façade.

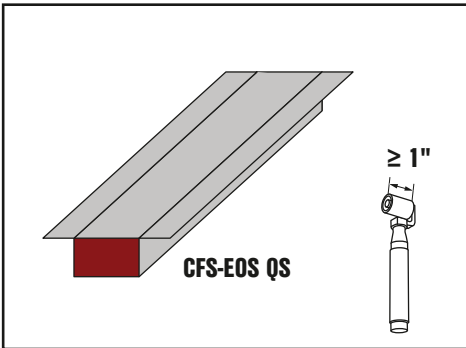
GENERAL IFU — CFS-EOS QUICKSEAL

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www.hilti.group

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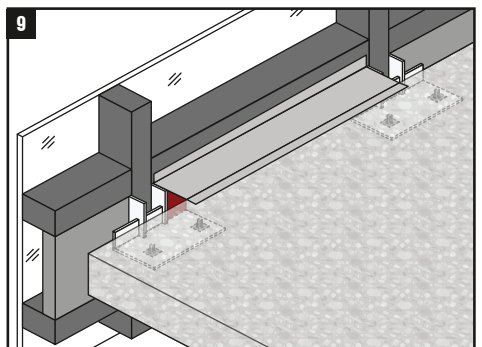
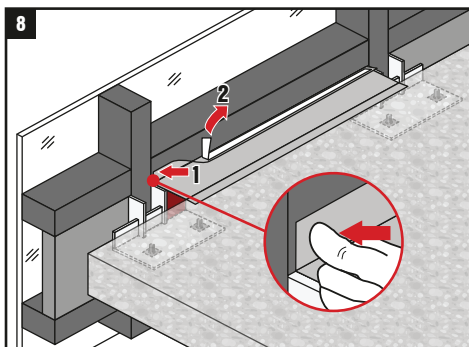
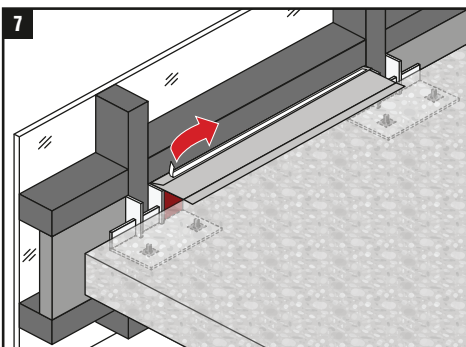
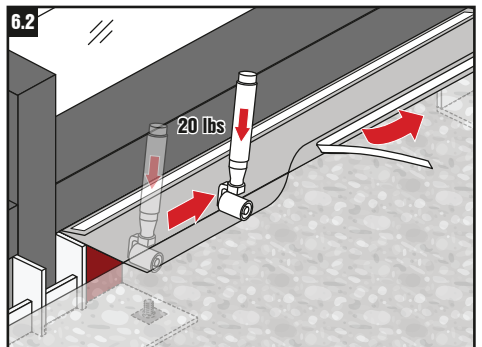
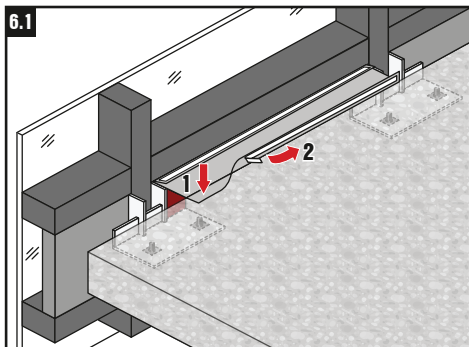
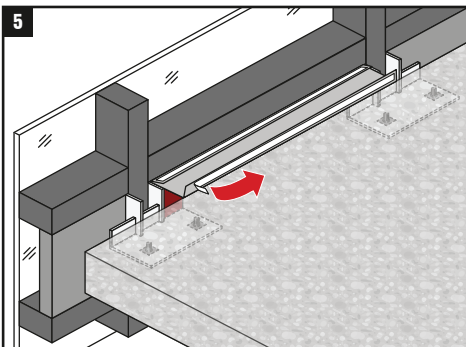
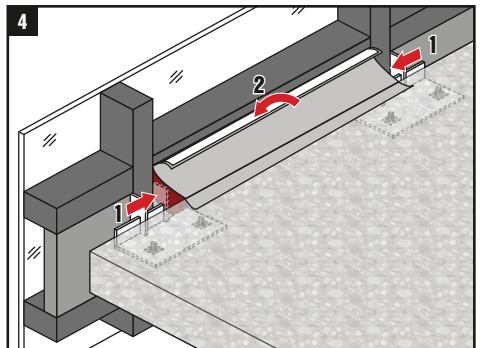
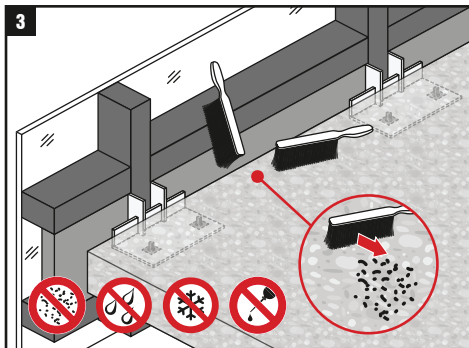
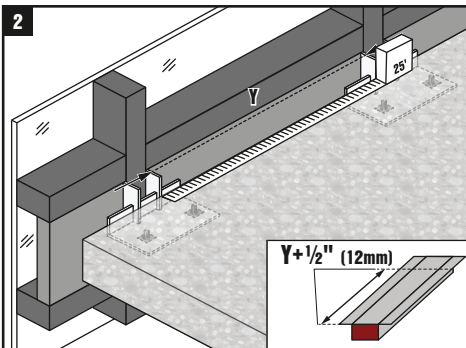


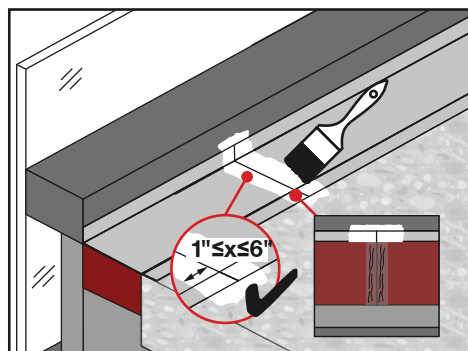
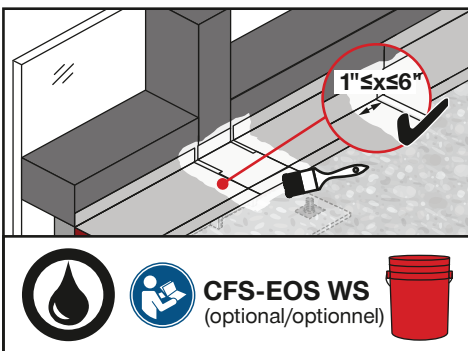
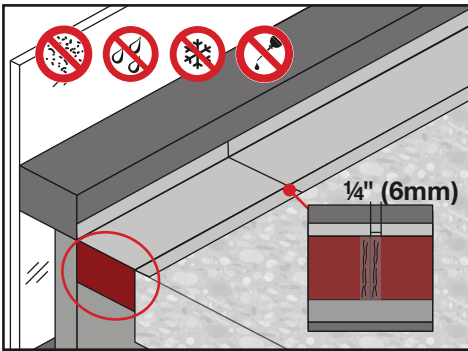
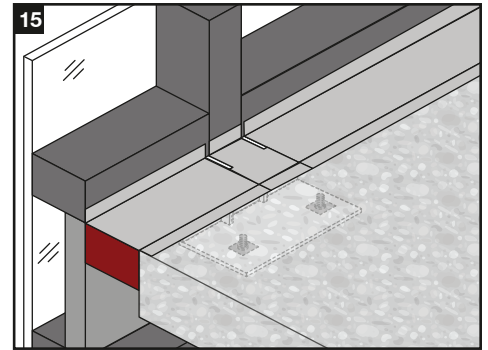
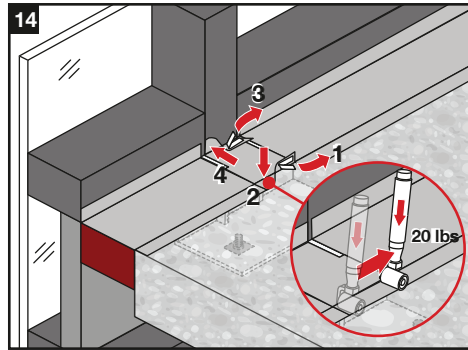
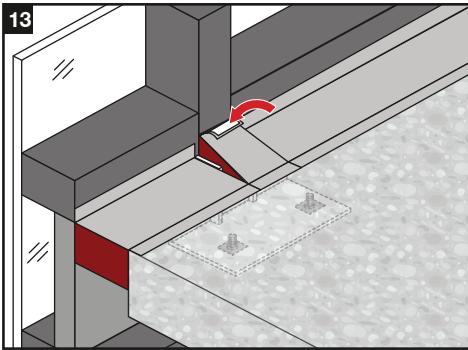
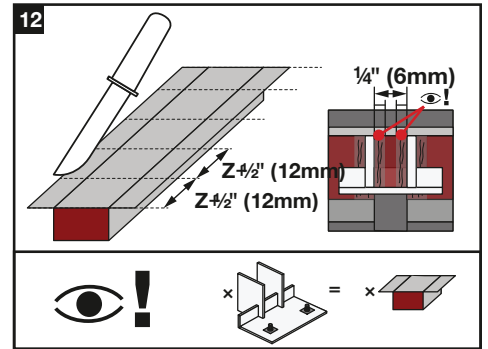
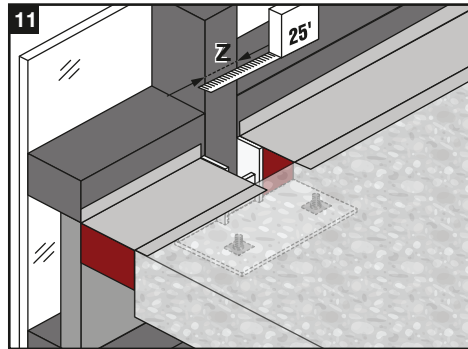
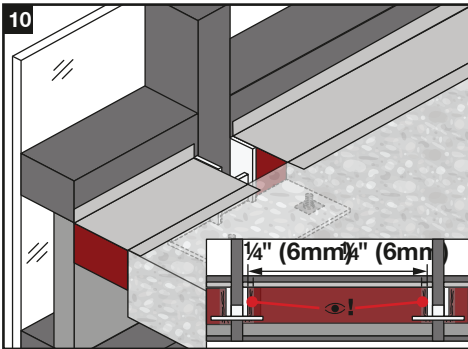
Application temperature: 23°F - 122°F (-5°C - 50°C)
 Temperature of resistance: -31°F - 140°F (-35°C - 60°C)
 Storage and transport temperature: 14°F - 122°F (-10°C - 50°C)



1

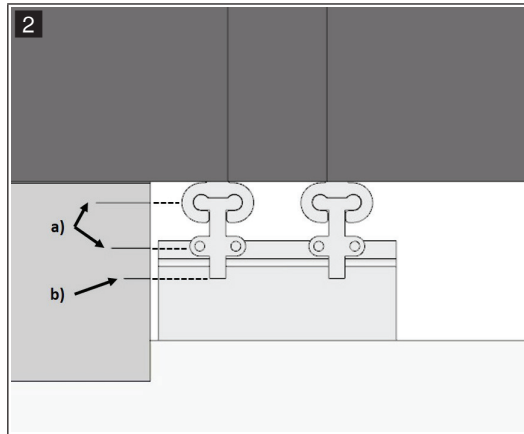
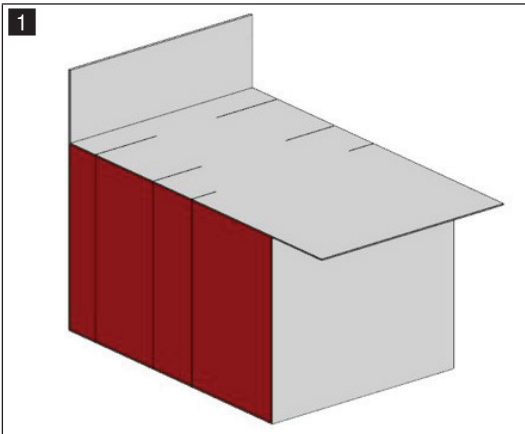
CFS-EOS QS Small: X= 1.5" - 3"
 CFS-EOS QS Medium: X= 2" - 4"
 CFS-EOS QS Large: X= 3" - 5"





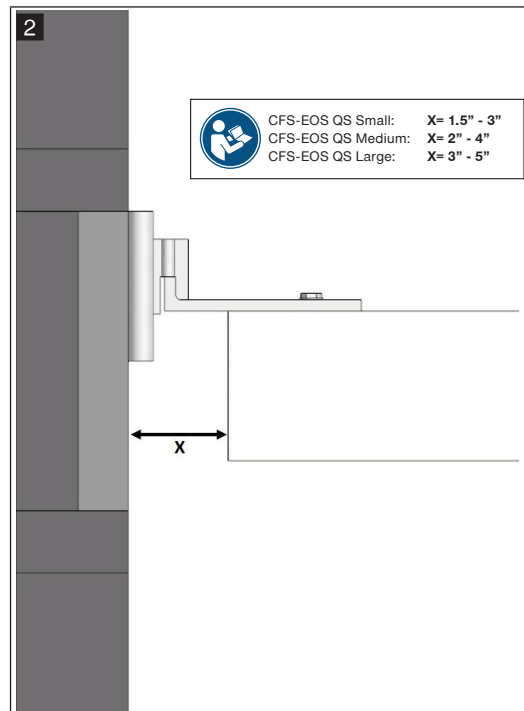
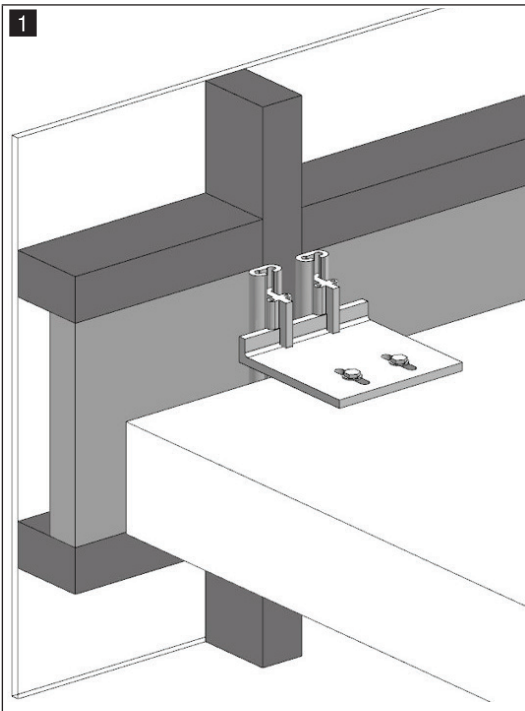
BRACKETS CONDITIONS

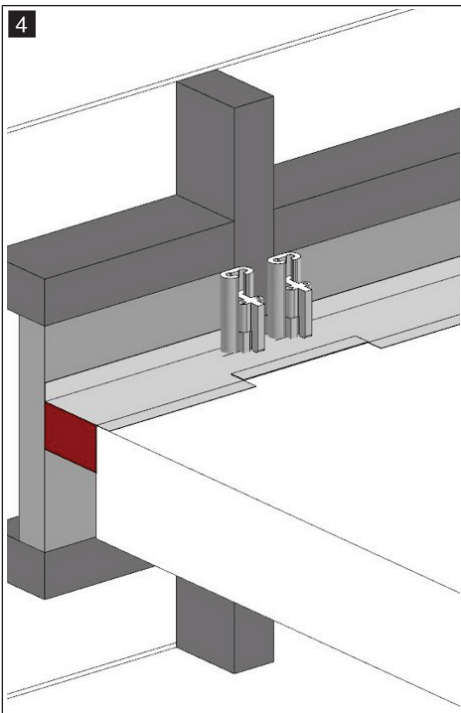
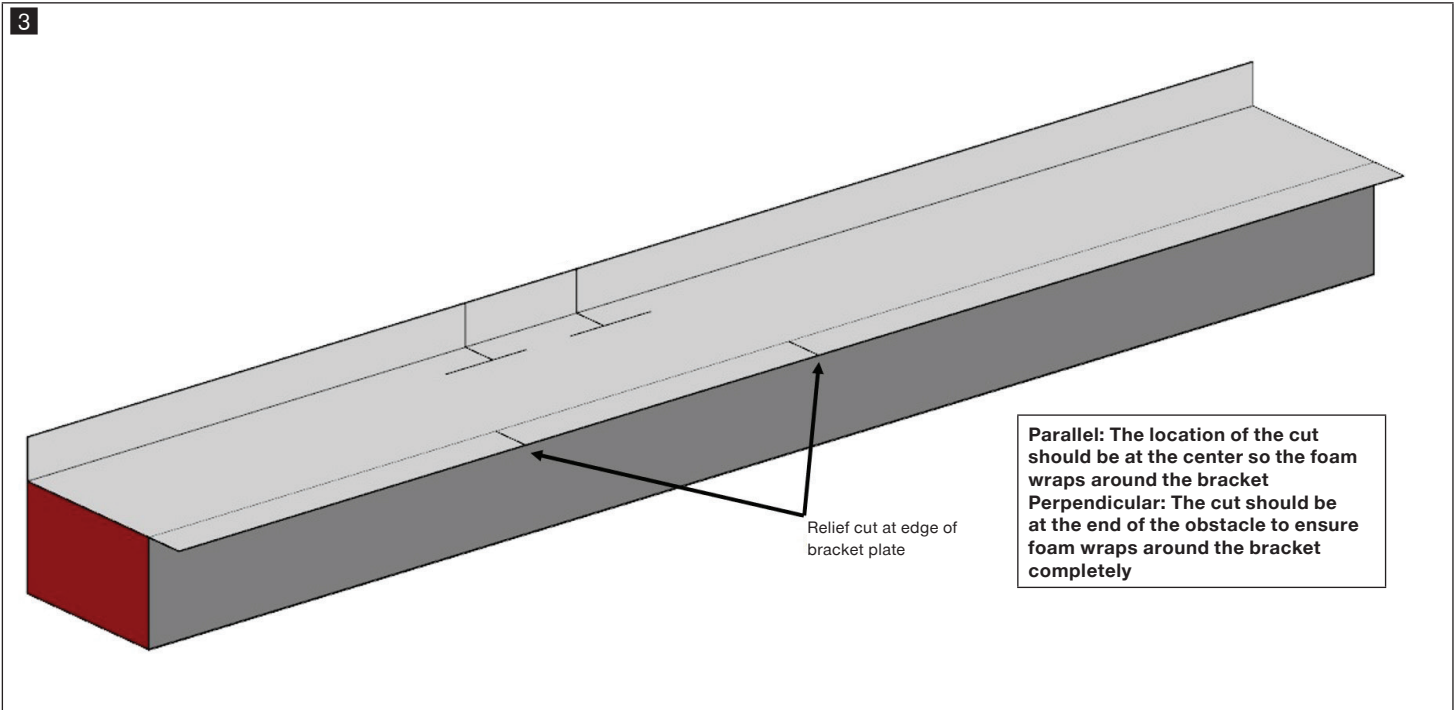
A. Bracket seal cuts



- Relief cuts are used to help allow the QuickSeal product to contour around bracket. This can be a large radius or abrupt directional change.
 - a) The location of the cut should be at the center so the foam wraps around the bracket
 - b) The cut should be at the end of the obstacle to ensure foam wraps around the bracket completely
- The depth of the relief cut should be deeper than the depth of the obstacle. The depth includes $\frac{1}{4}$ " compression and $\frac{1}{4}$ " of over cut. Over cut must not exceed $\frac{1}{2}$ ".

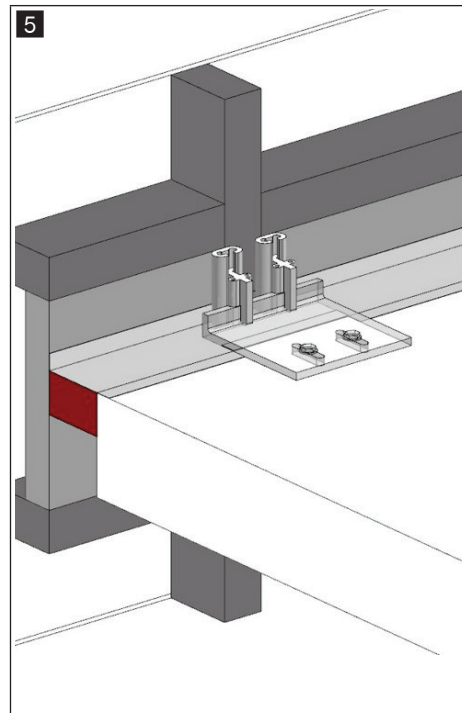
B. Top of Slab



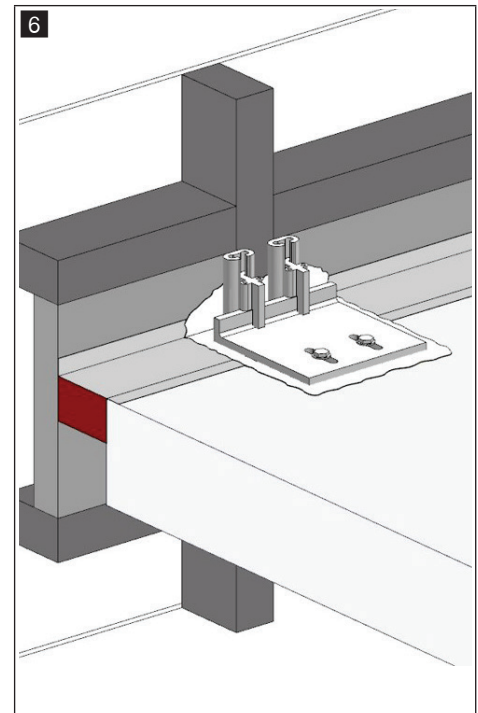


Insert EOS QuickSeal underneath top plate (not shown for illustrative purposes only) by

- Center of the relief cut with obstacle
- Fold the concrete side flap over the top of EOS QuickSeal
- Pull EOS QuickSeal up in line with the concrete surface and install the remainder per IFU.



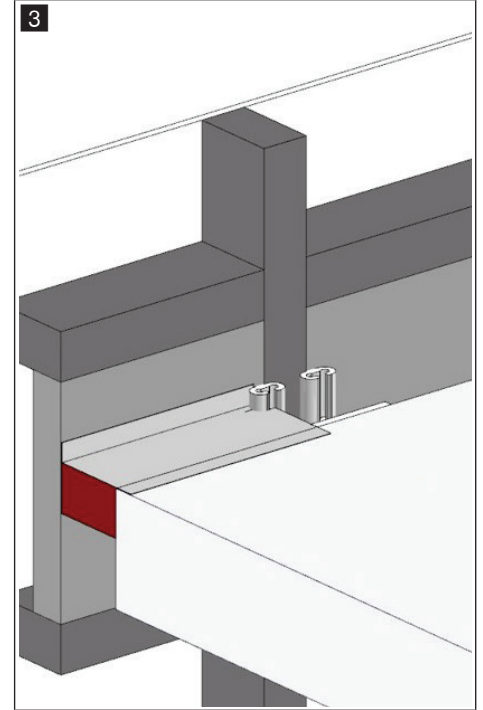
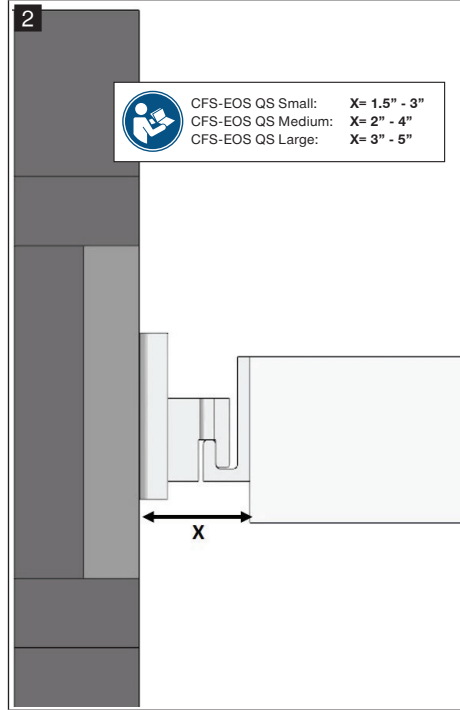
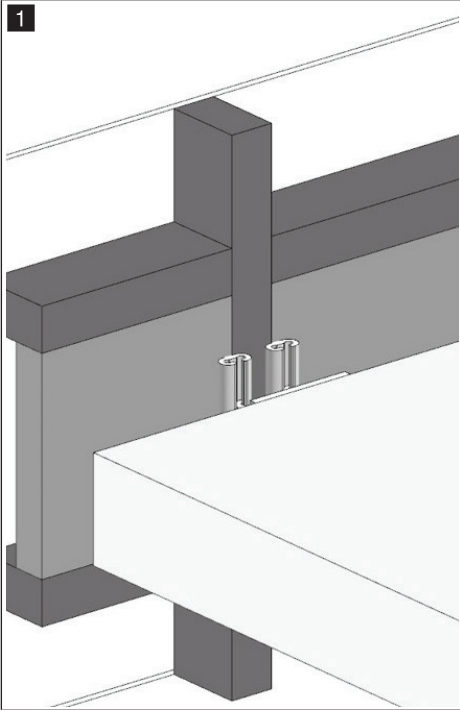
Final installation with top plate shown.



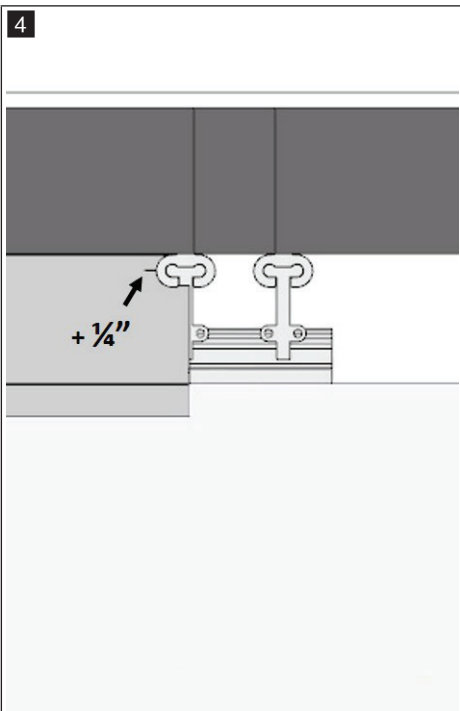
Optional Water tightness

- For water tightness around the mullion, apply a layer of EOS WaterStop 1/8" wet thickness around the bracket and all possible water intrusion areas (i.e. bolt slots, adjustment screws, vertical sliding slots)
- 1" overlap on concrete and façade

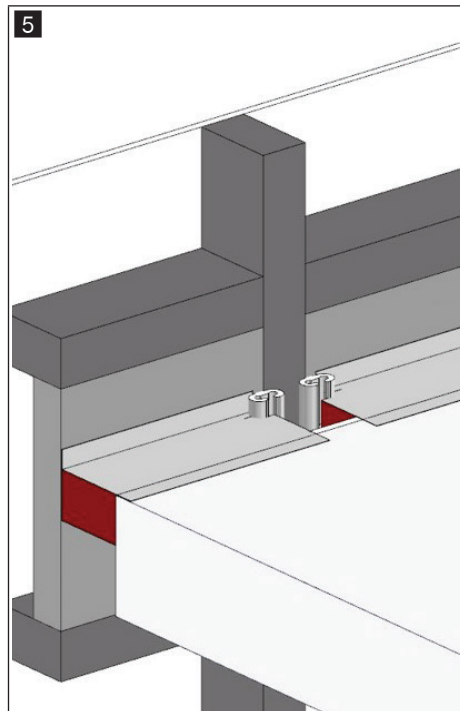
C. Face of slab



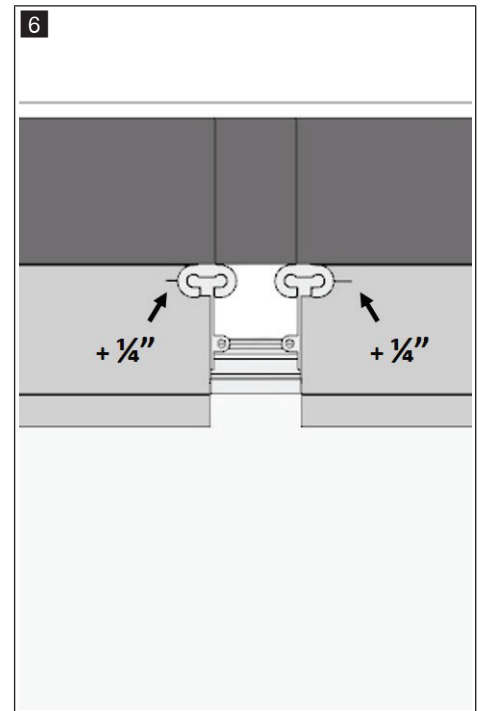
- The location of the relief cut should be at the center of the bracket to allow EOS QuickSeal to symmetrically contour
- The depth of the relief cut should be deeper than the depth of the obstacle. The depth includes $\frac{1}{4}$ " compression and $\frac{1}{4}$ " of over cut. Over cut must not exceed $\frac{1}{2}$ ".



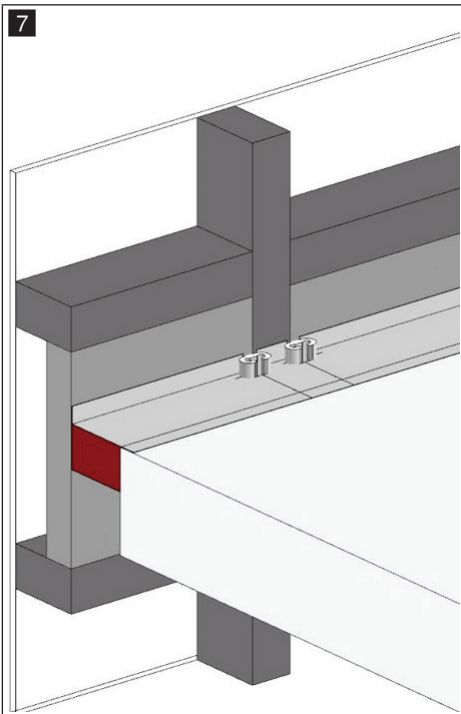
- Install EOS QuickSeal from the top. If the bracket is at least 2" recessed, install EOS QuickSeal from the top by compressing over the bracket. No relief cut needed.
- If the bracket recessed is less than 2". Refer to "recessed bracket section".



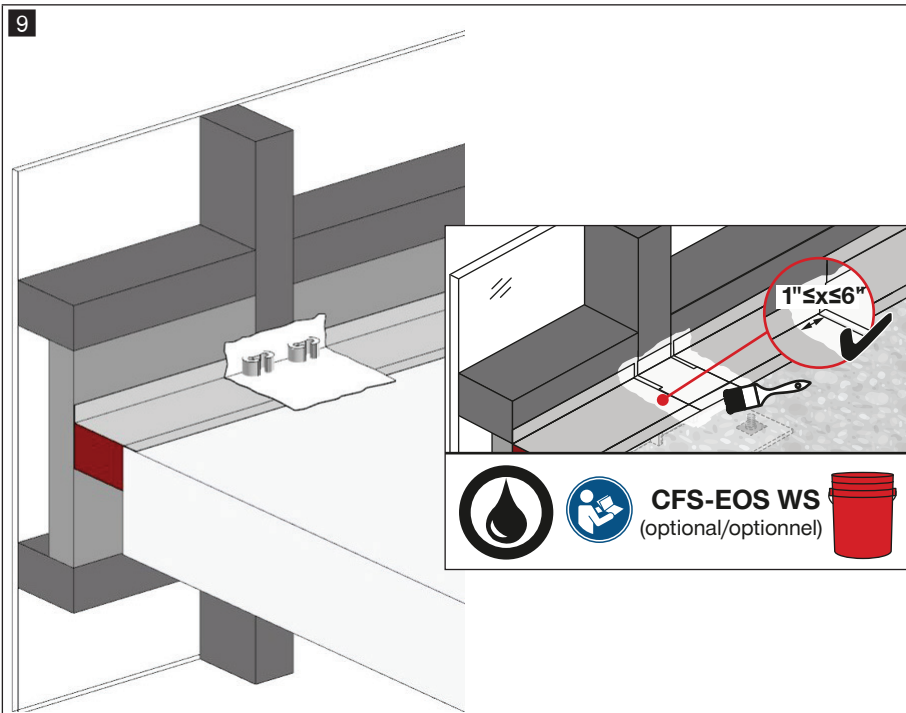
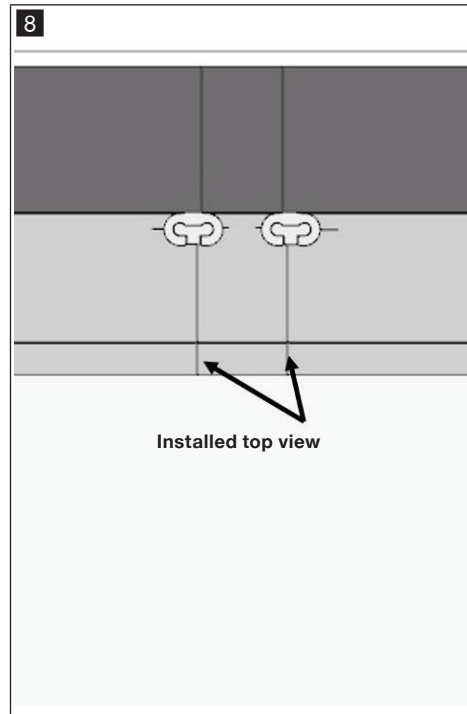
- Repeat installation as step 4



- Relief cuts will be replicated on both sides of the center piece



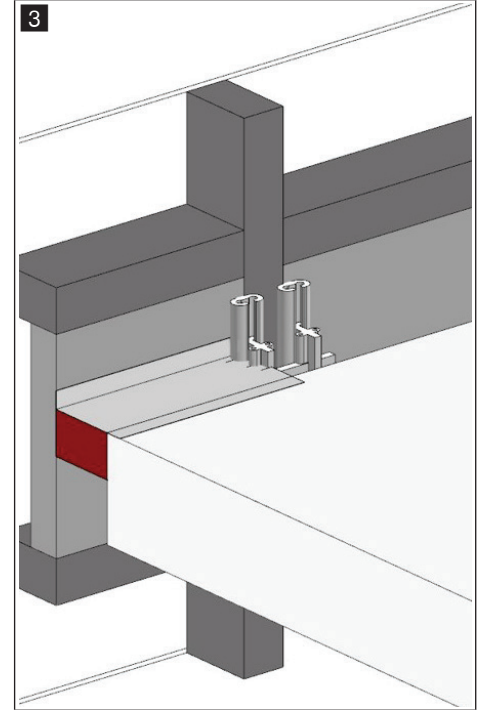
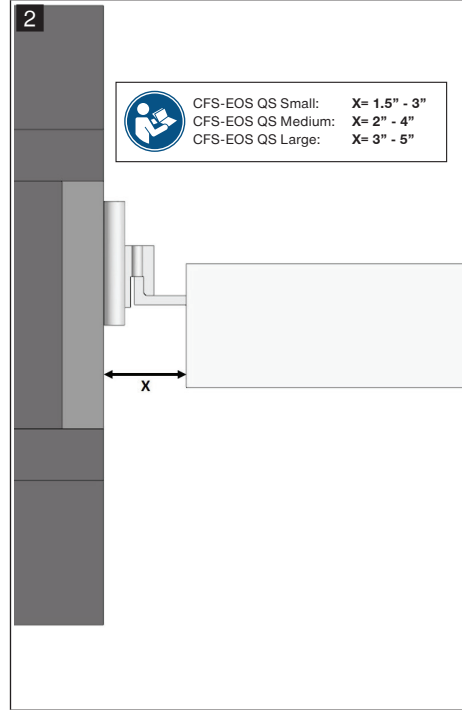
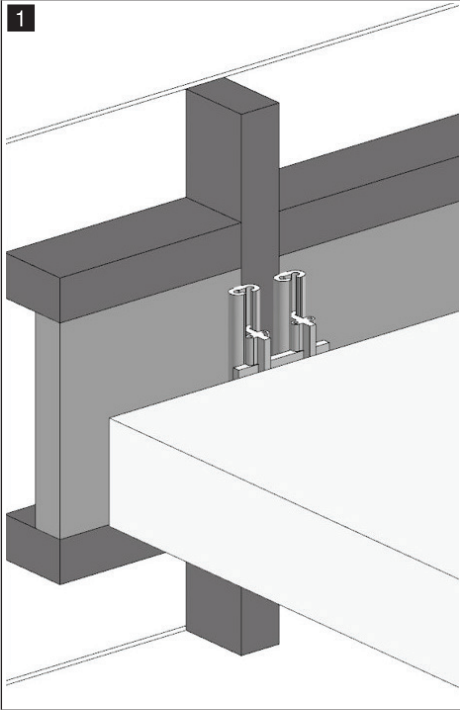
- Install center piece from the top



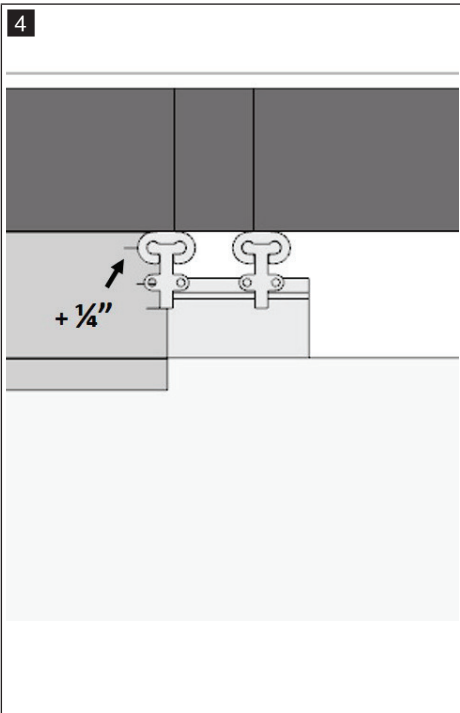
Optional

- For water tightness around the mullion, apply a layer of EOS WaterStop 1/8" wet thickness around the bracket and all possible water intrusion areas (i.e. adjustment screws, vertical sliding slots)
- 1" overlap on concrete and façade

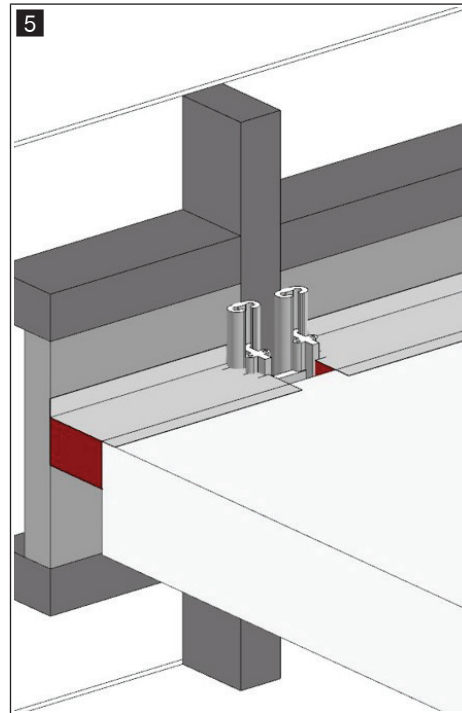
D. Recess Bracket Installation



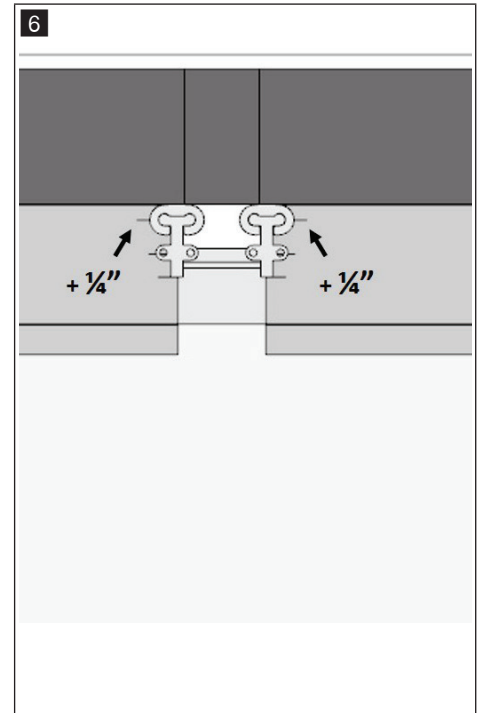
- The location of the relief cut should be at the center of the bracket to allow EOS QuickSeal to symmetrically contour
- To address the abrupt directional change, the relief cut should be at the end of the obstacle



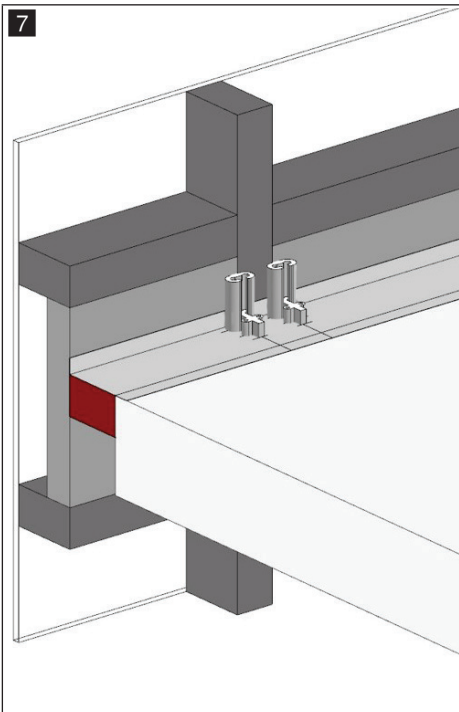
- Perpendicular: Compress EOS QuickSeal min. 1/4" against the bracket



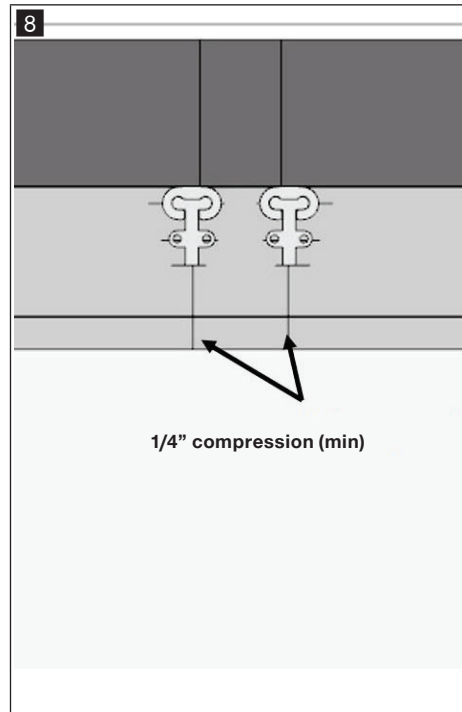
- Repeat step 4 on the other side



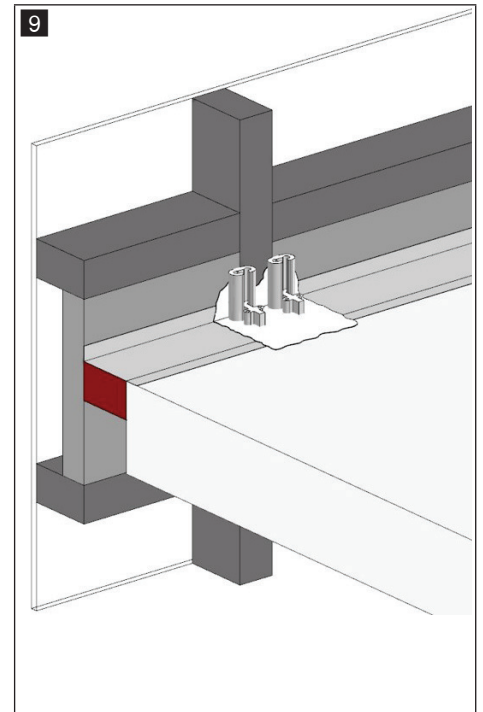
- Relief cuts will be replicated on both sides of the center piece



- Install center piece from the top



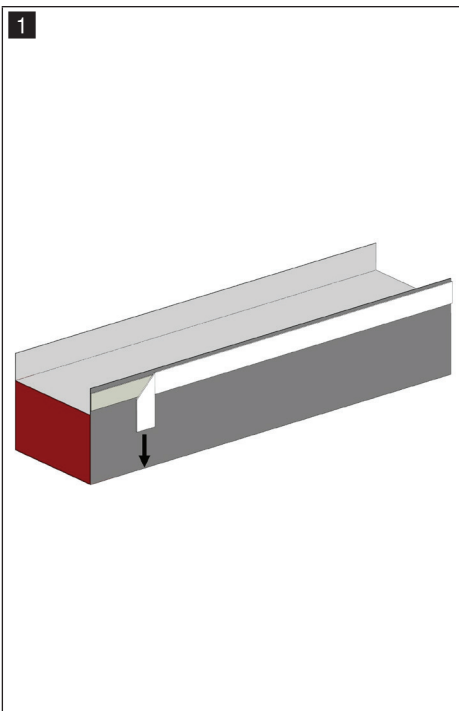
- Finished installation from top view



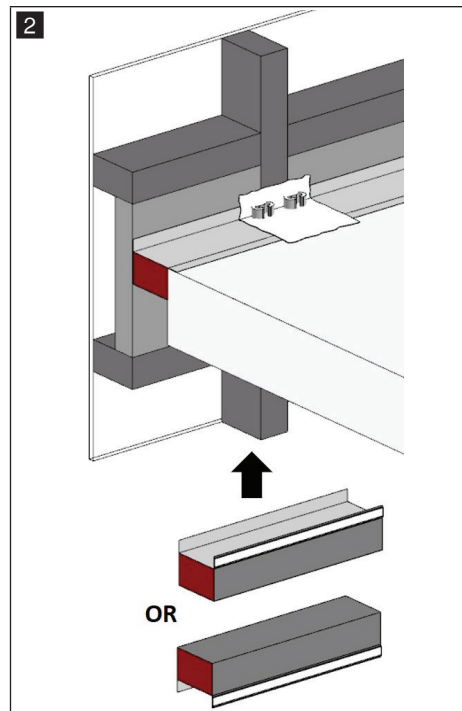
Optional

- For water tightness around the mullion, apply a layer of EOS WaterStop 1/8" wet thickness around the bracket and all possible water intrusion areas (i.e. adjustment screws, vertical sliding slots)
- 1" overlap on concrete and façade

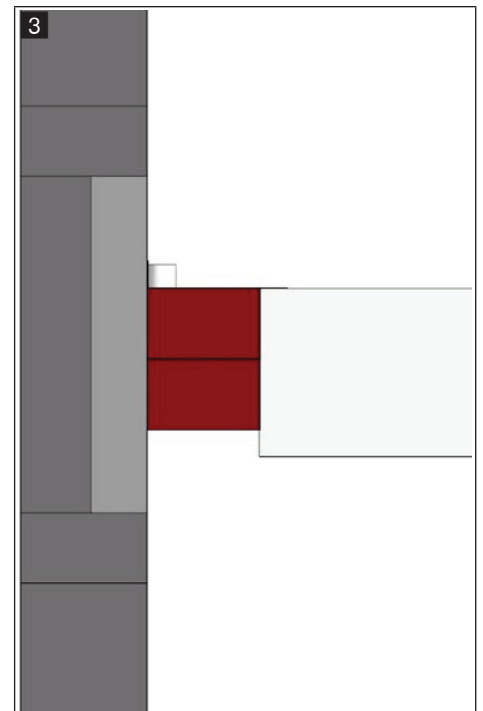
e. Bracket insulation from the bottom (dependent on AHJ requirement)



- Peel 1" of the edge of the silicone paper and bend over 45 degrees as shown on the picture, to allow access to the silicone paper once EOS QuickSeal (min. 1ft piece) is installed



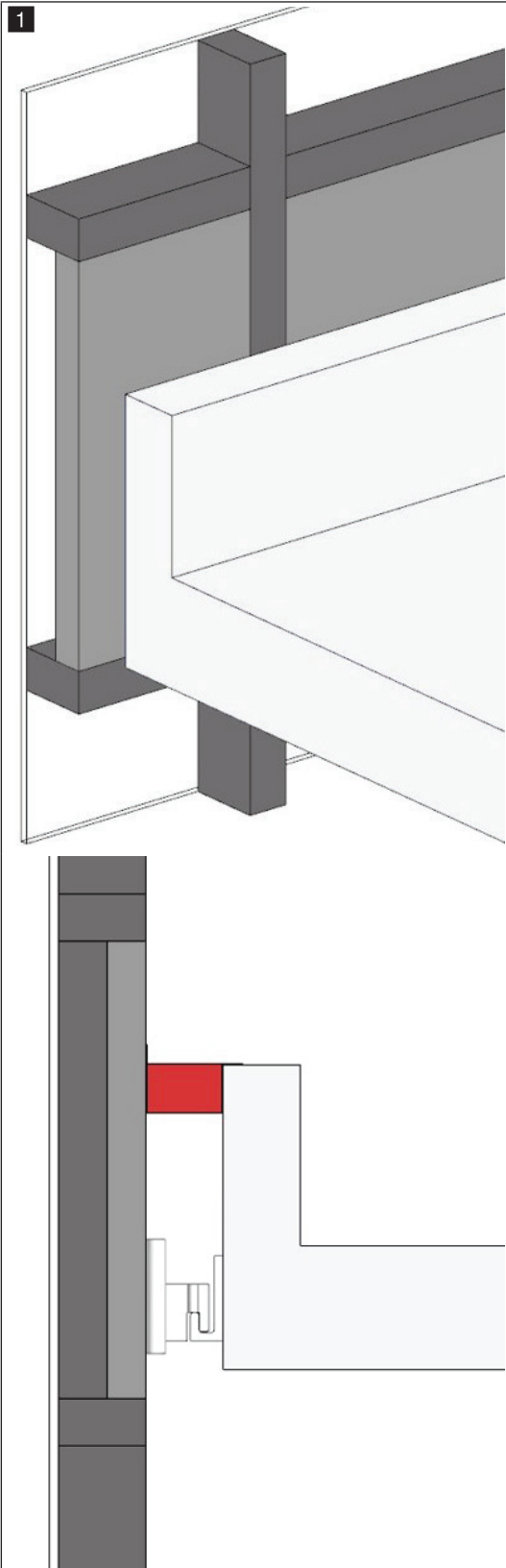
- Compress bracket insulation piece to EOS QS. Move foam with your fingers to insert the wings on the side of the top QS and glue it against the concrete side and facade side
- Installed bracket insulation piece centered with the bracket
- Install bracket insulation piece against EOS QuickSeal and underside of the bracket (rounding is permissible)



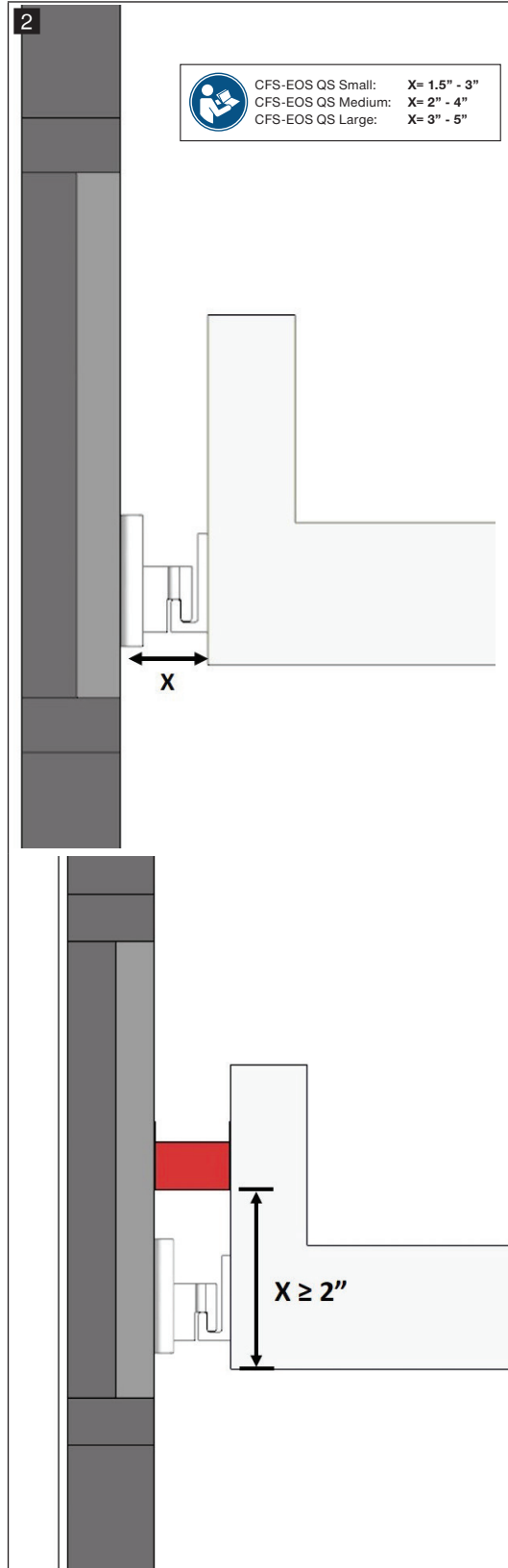
- Final installed view from the side

FAÇADE SIDE CONDITIONS

Knee wall



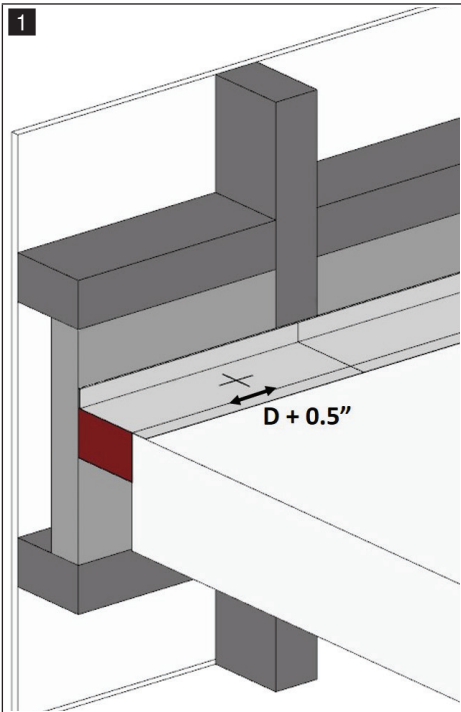
Install EOS QuickSeal at the top of the knee wall in accordance to the IFU



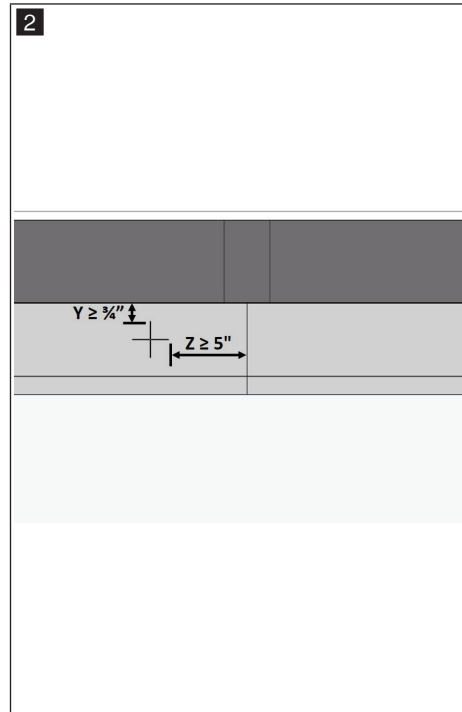
As an alternative, install EOS QuickSeal recessed as long as the bottom of QuickSeal is 2" above the underside of the slab

PENETRATIONS THROUGH EOS QUICKSEAL

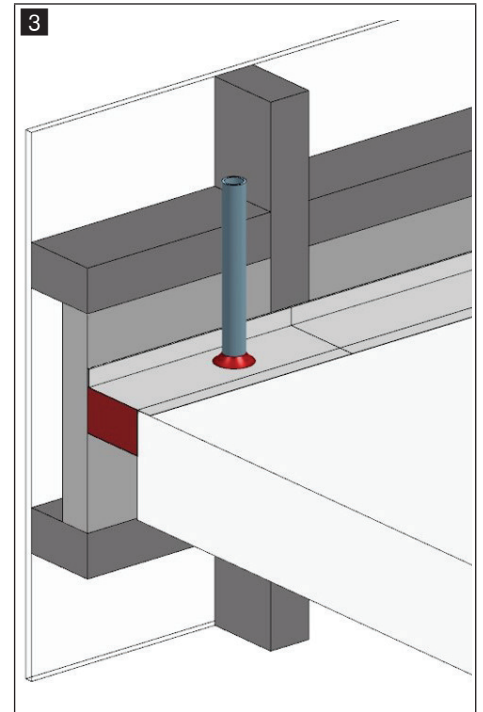
Metallic Conduit penetration (Metallic only)



- Do a relief cut where the conduit is going through ($D + 0.5''$). Max. nominal diameter 1"

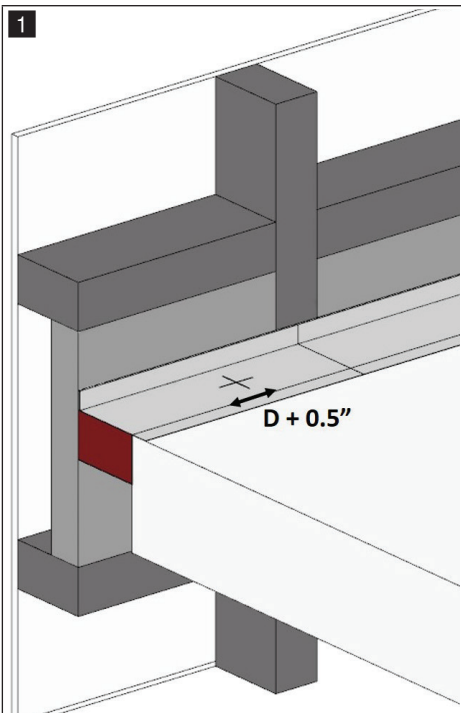


- Penetration should be at least away from the butt joints, and away from the façade

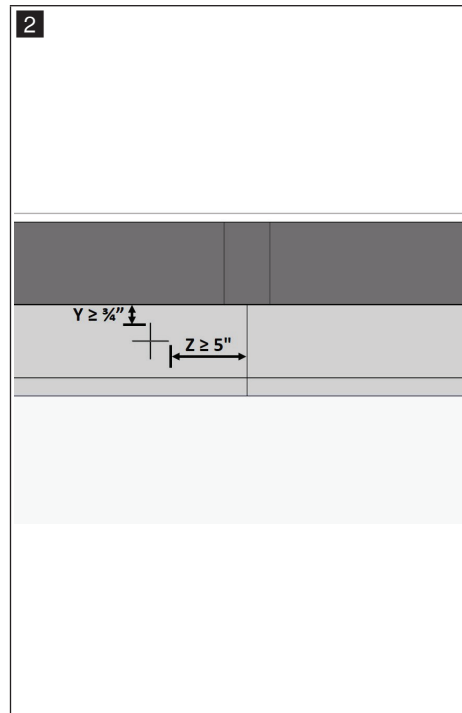


- Apply a bead of $\frac{1}{2}''$ thickness of FS One max around the conduit as shown on figure 3

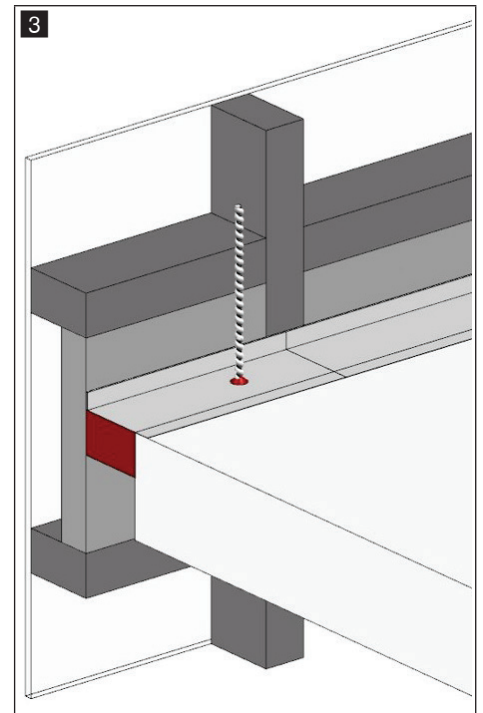
Cable penetration



- Do a relief cut where the conduit is going through ($D + 0.5''$). Max. nominal diameter 1"



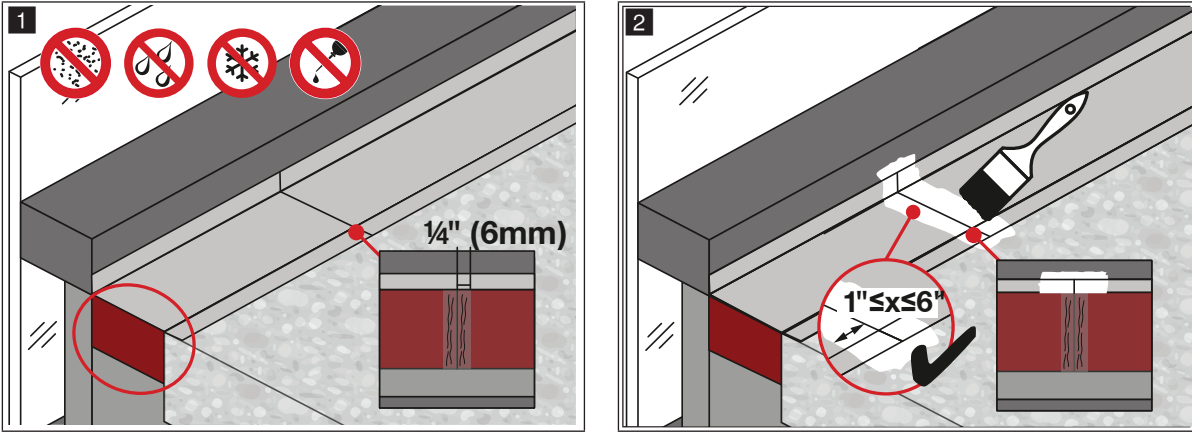
- Penetration should be at least away from the butt joints, and away from the façade



- Apply a bead of $\frac{1}{2}''$ thickness of FS One max around the cable as show on figure 3

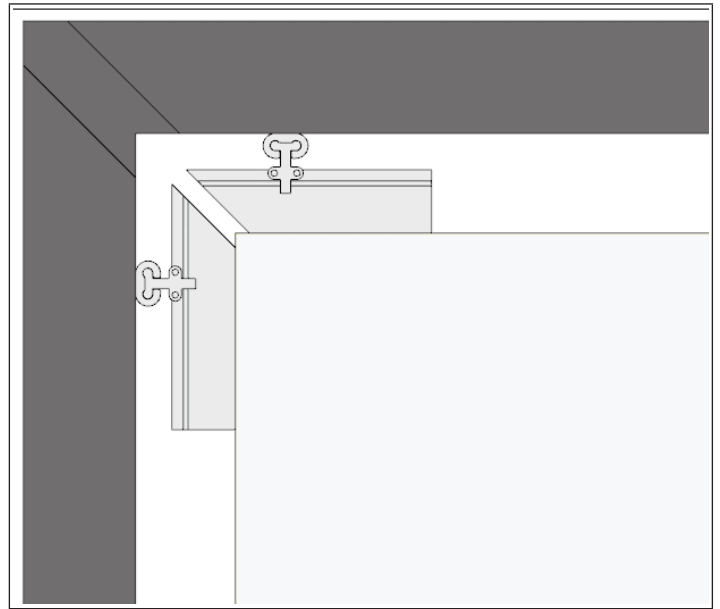
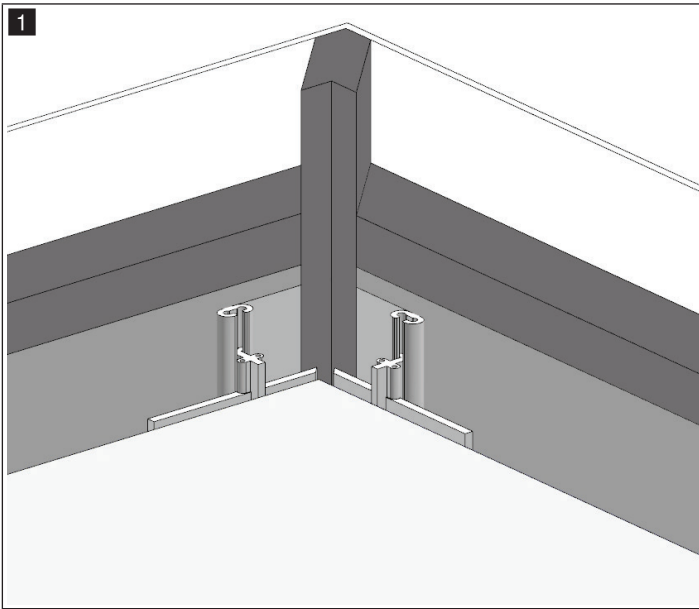
BUTT JOINTS

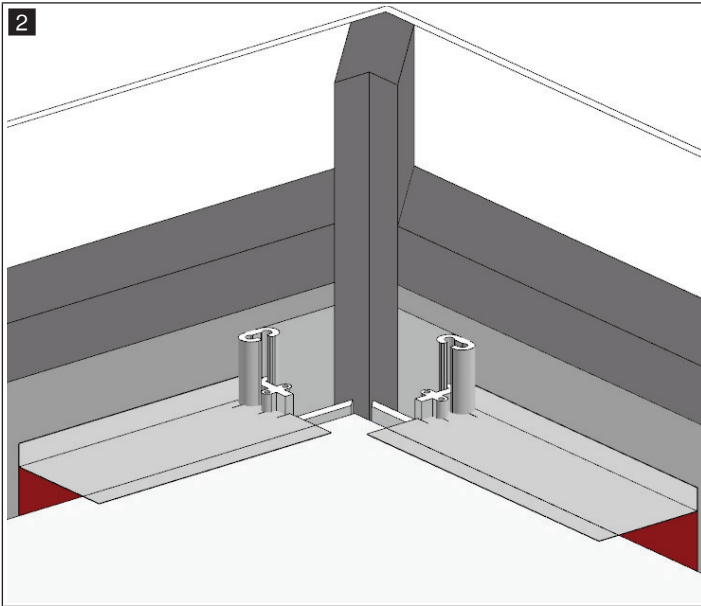
Parallel



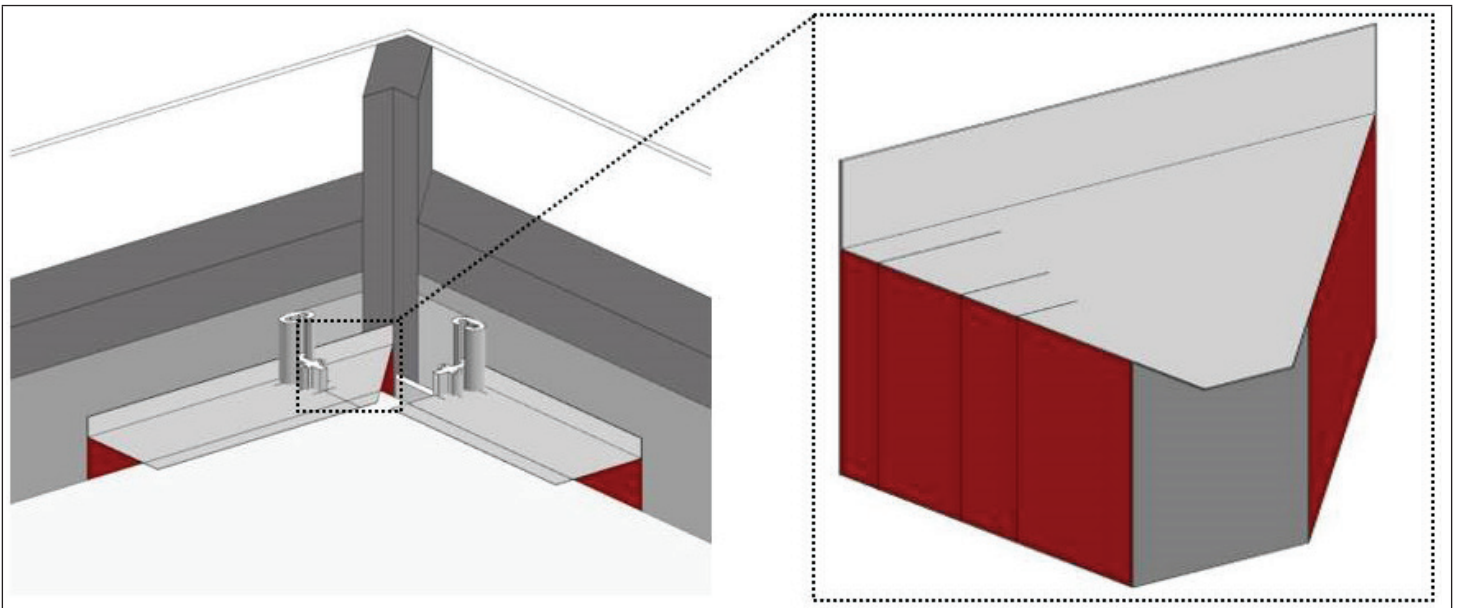
- For water tightness at the butt joint apply a layer of EOS WaterStop 1/8" wet thickness
- 1" overlap on concrete and façade

Corner (OPTION A)

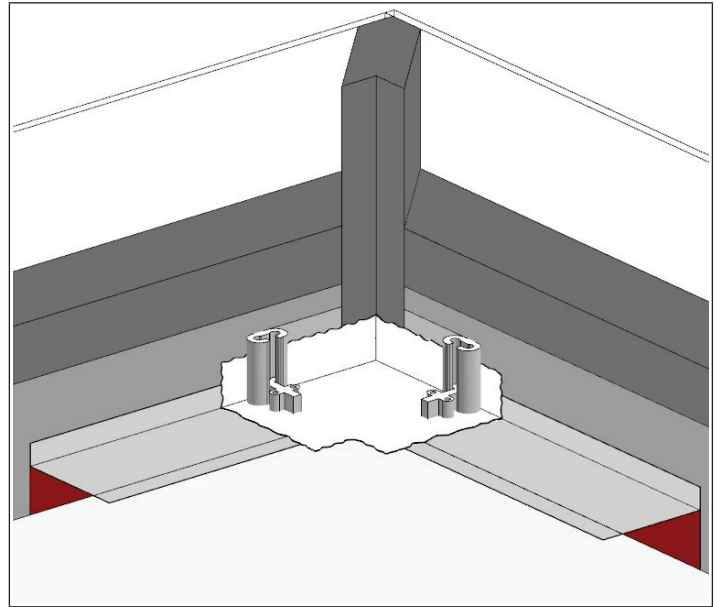
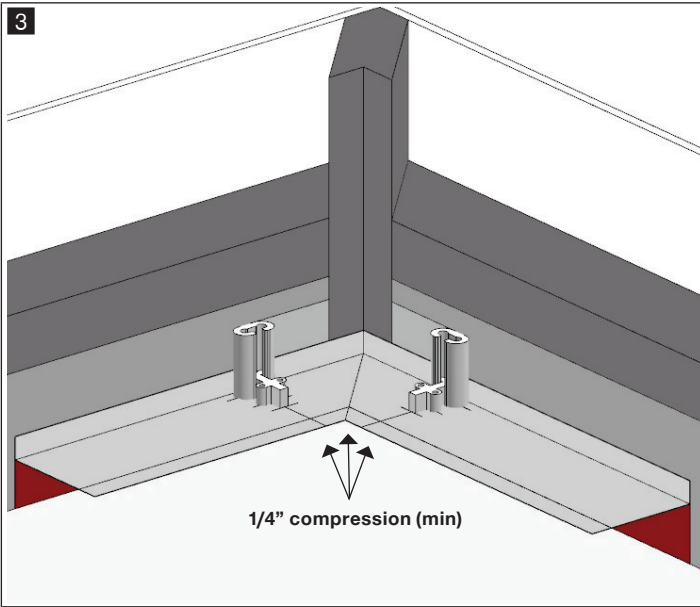




- The location of the relief cut should be at the center of the bracket to allow QS to symmetrically contour
- To address the abrupt directional change, the relief cut should be at the end of the obstacle

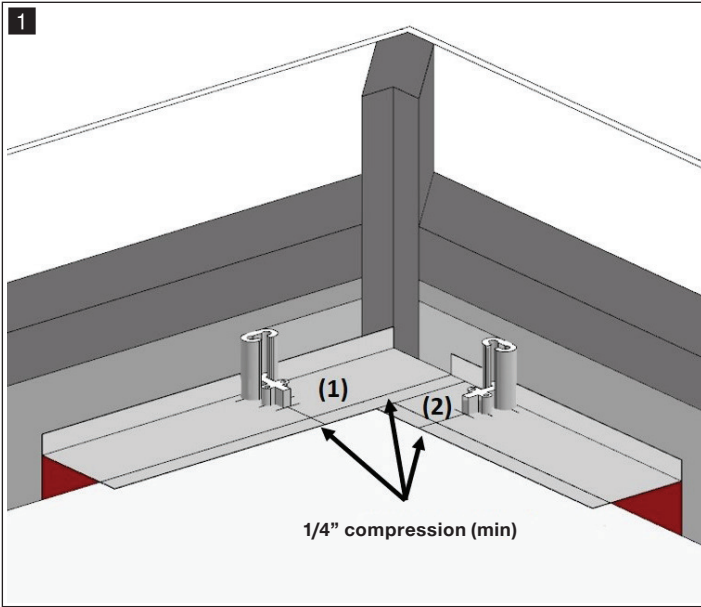


- The right picture shows magnified pre-cut piece. The location of the relief cut should be at the center of the obstacle to allow EOS QuickSeal to symmetrically contour
- To address the abrupt directional change, the relief cut should be at the end of the bracket
- Cut 45-degree angles to a piece of EOS QuickSeal

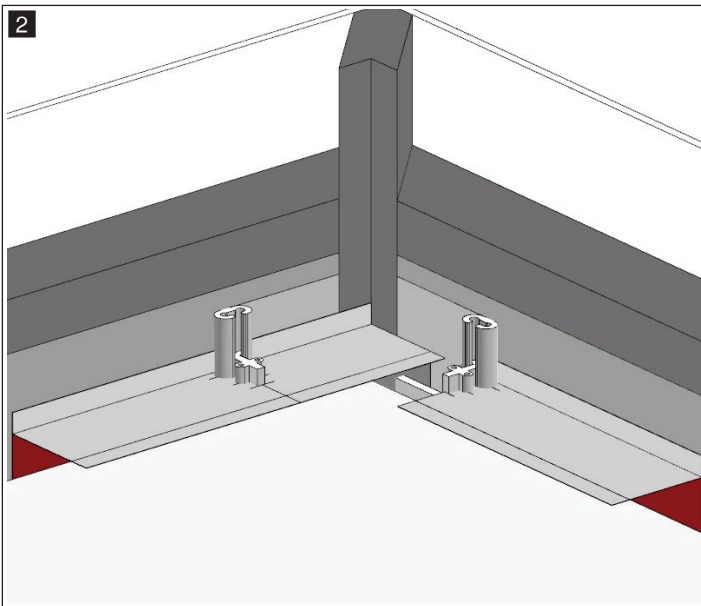


- For water tightness around the bracket, apply a layer of EOS WaterStop 1/8" wet thickness on the butt joint, around the bracket and all possible water intrusion areas (i.e. adjustment screws, vertical sliding slots)
- 1" overlap on concrete and façade

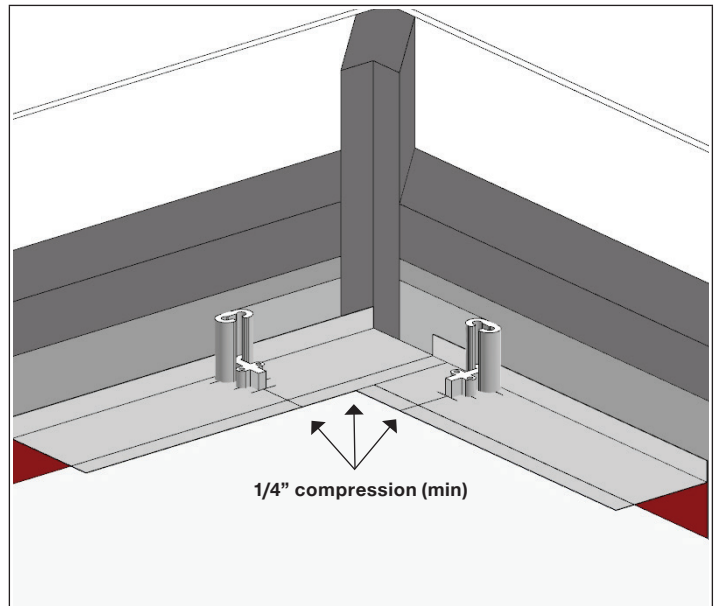
Corner (OPTION B)



- The location of the relief cut should be at the center of the bracket to allow EOS QuickSeal to symmetrically contour.
- To address the abrupt directional change, the relief cut should be at the end of the obstacle.
- Oversize a piece of EOS QuickSeal 1/2" against the façade and 1/4" against the bracket.



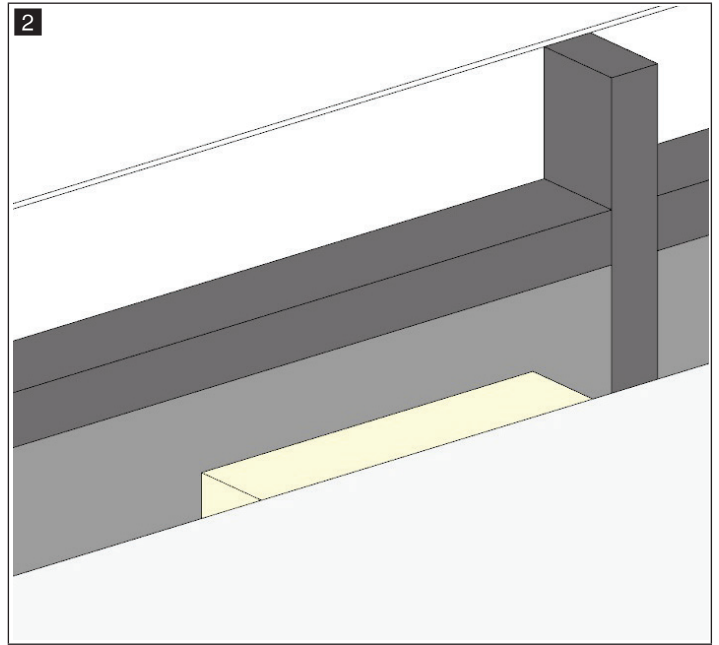
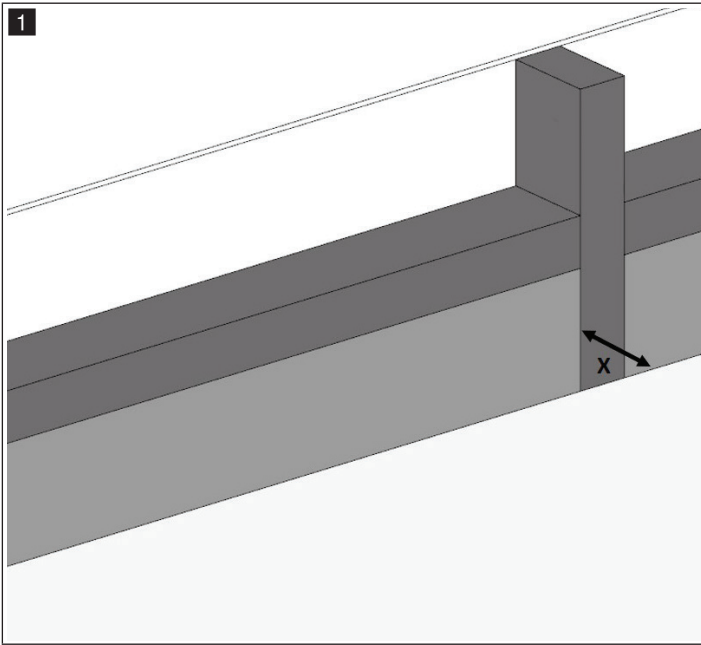
- For relief cuts, repeat previous step
- Oversize EOS QuickSeal piece by 1/4" against the bracket and 1/4" against QuickSeal
- Bond EOS QuickSeal flap (1 long piece) on top of (2 short piece)



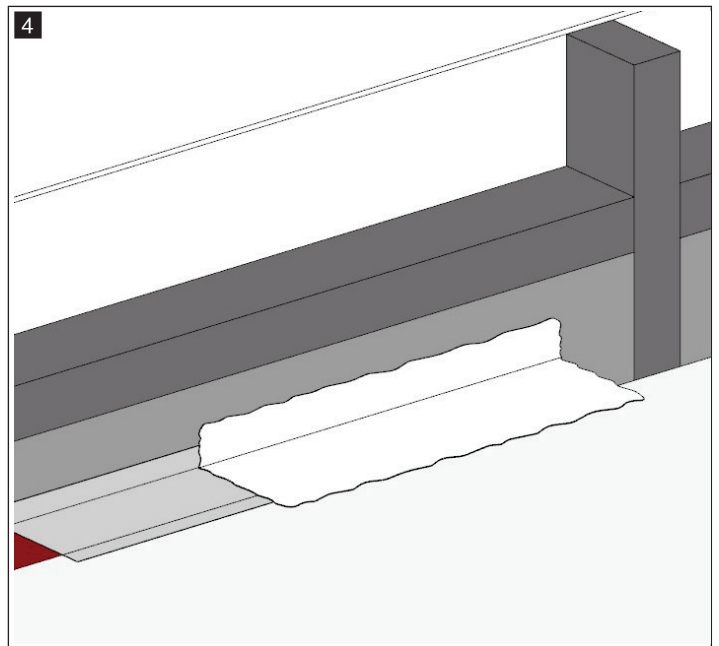
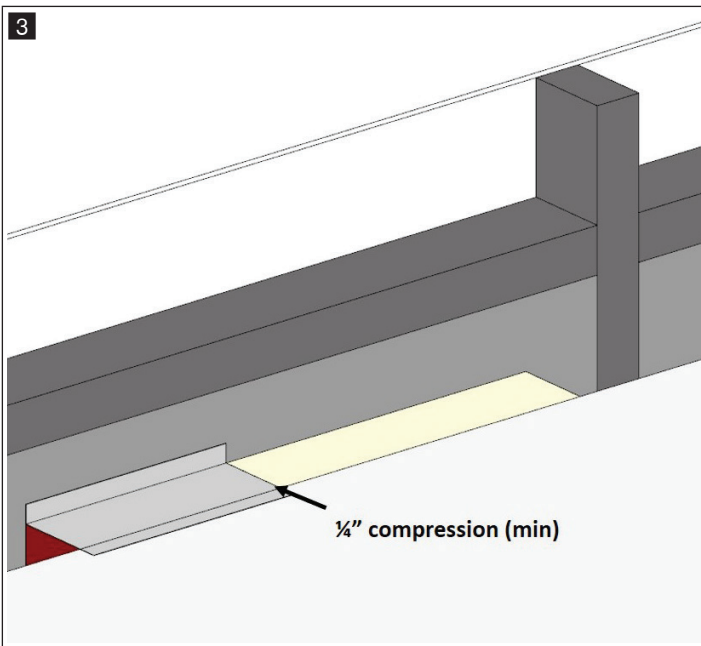
MIXED APPLICATION

Stuffing and Spraying + EOS QuickSeal

EOS QuickSeal can only be used for joint width 1.5" -5". If due to the concrete tolerances, you have a joint bigger than the range in some areas of the floor, address using stuffing and spaying.



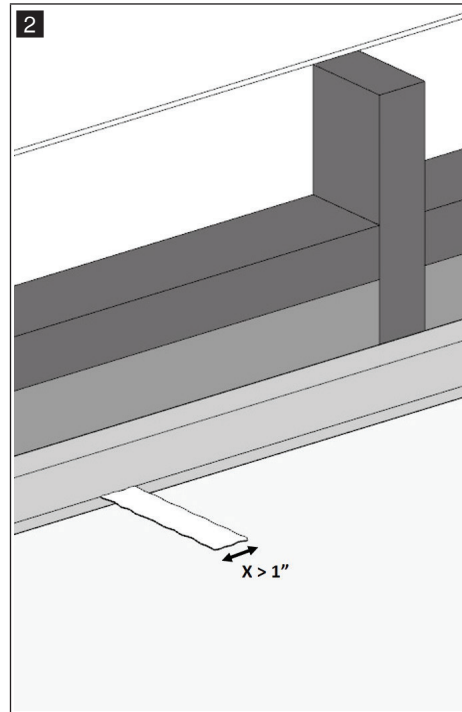
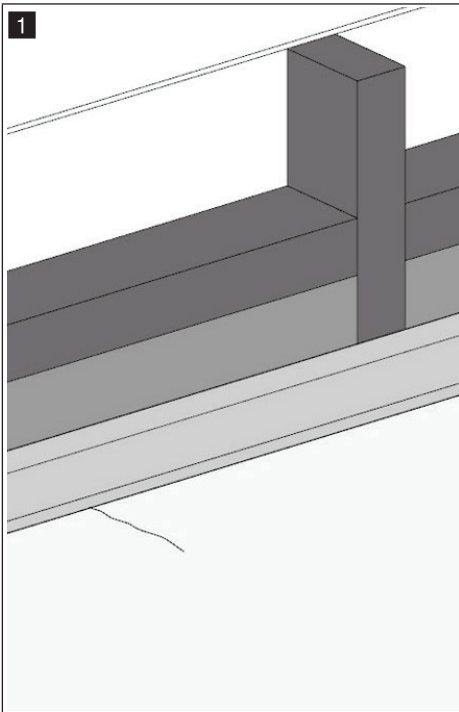
• Use mineral wool and spraying when joint width is less than 1.5" or more than 5"



• Compress EOS QuickSeal 1/4" against Mineral Wool

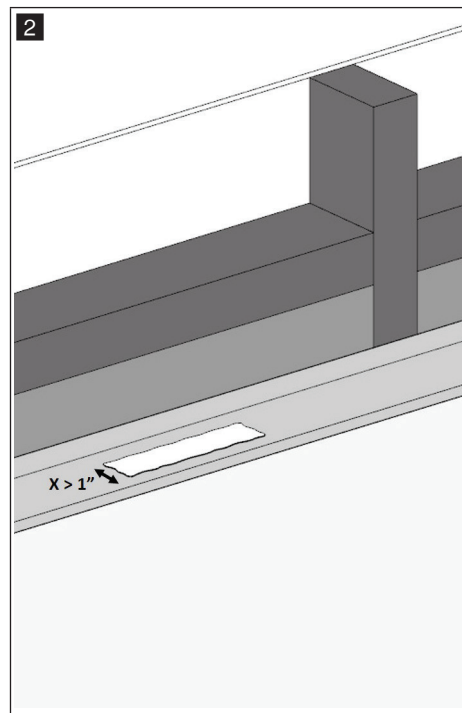
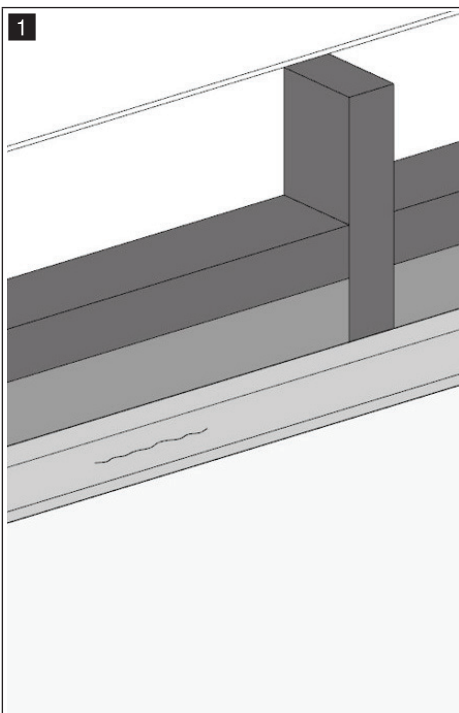
REPAIRS

Cracks



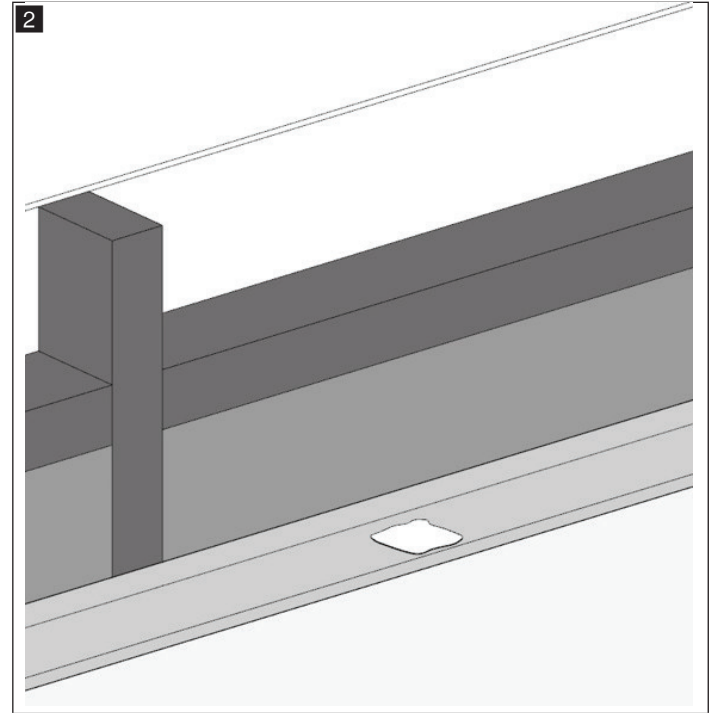
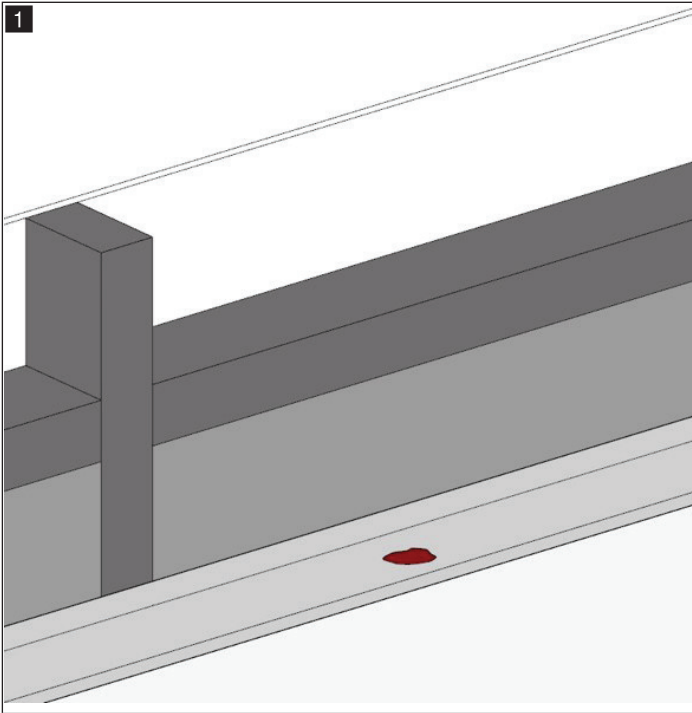
- Apply min. 1/8" wet thickness of EOS WaterStop around the crack to prevent water intrusion.
- EOS WaterStop needs to overlap with the wing making sure EOS Waterstop is in contact with the glue to ensure water tightness.

Cuts



- Apply min. 1/8" wet thickness of EOS WaterStop around the cut to prevent water intrusion.

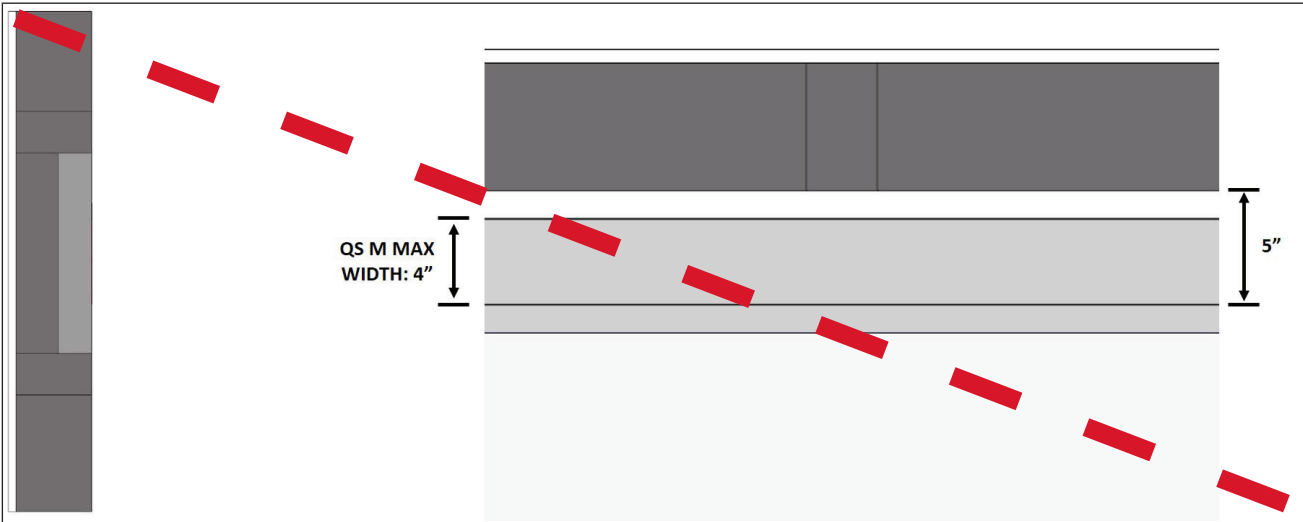
Top foil holes



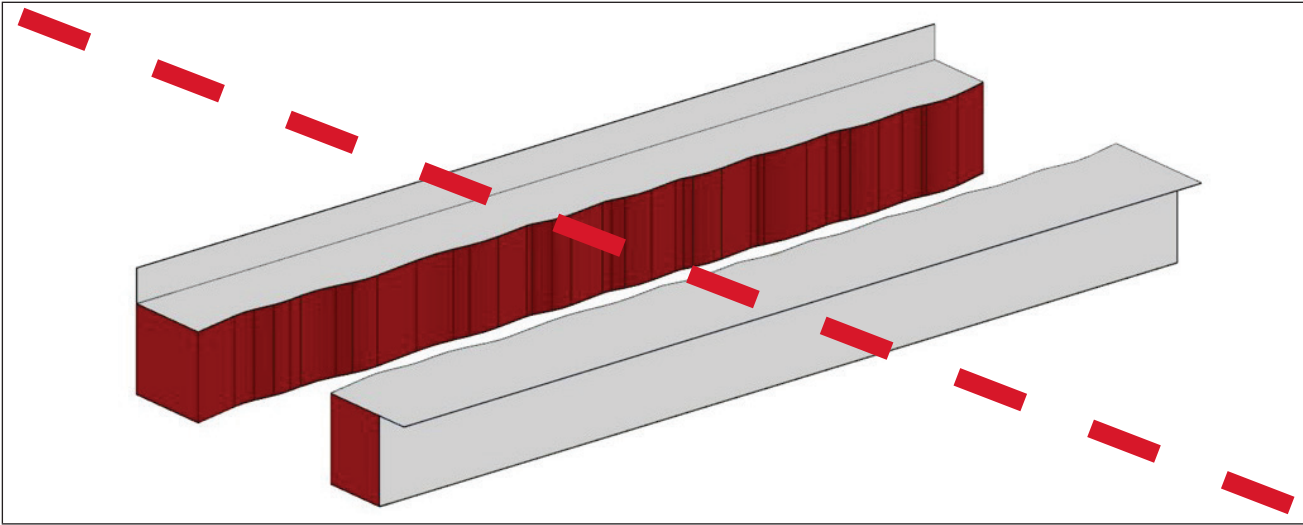
- Apply min. 1/8" wet thickness of EOS WaterStop around the hole to prevent water intrusion. Oversize sealant by 1".

FAQS

EOS QuickSeal Medium cannot be inserted in a joint bigger than 4". Similarly, EOS QuickSeal Small cannot be inserted in a joint bigger than 3". If your floor nominal joint is bigger than 5" stuffing and spaying is the recommended method to firestop the edge of the slab.

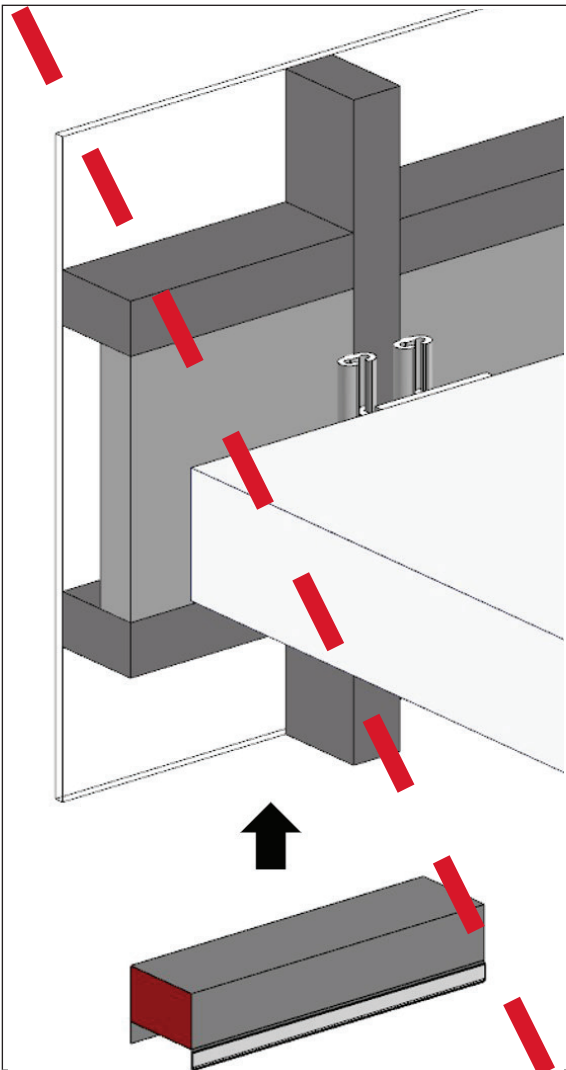


Product width should not be cut

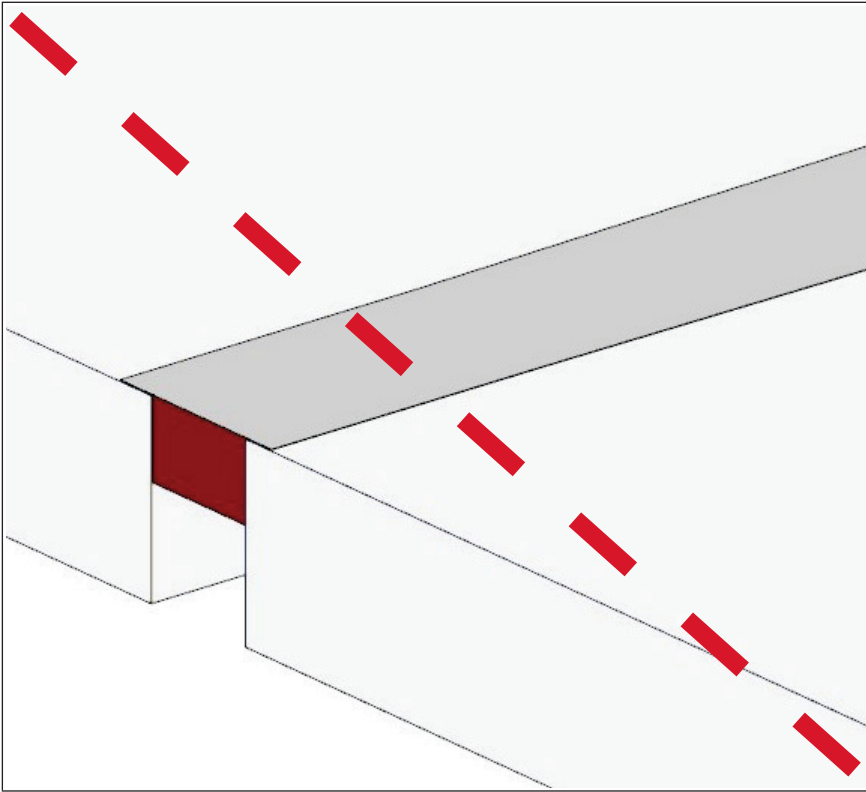


- EOS joint coverage is from 1.5" - 5". To preserve the integrity of the system, the product cannot be cut length wise to reduce width. This condition is not approved for fire ratings.

EOS QuickSeal cannot be installed upside down



EOS QuickSeal is not tested for floor to floor joints per UL2079



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