Installation Instructions

Joint System: 221, 223 - A01

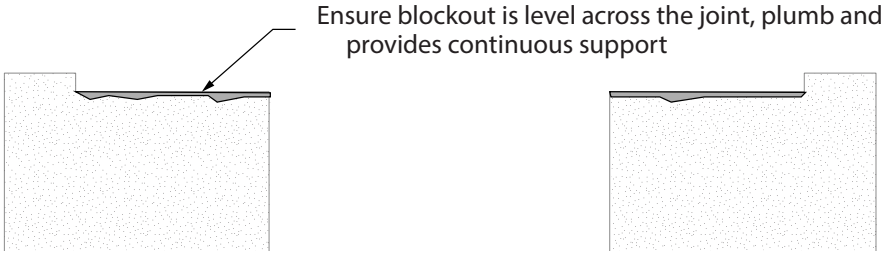
This Installation Instruction covers all 221-A01 and 223-A01 (floor to floor) expansion joint widths. See the follow pages for each joint width/range:

2" [50mm] - page 2-3

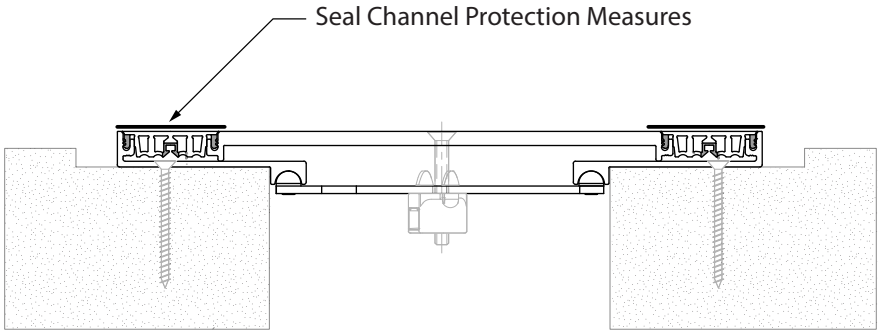
3" [75mm] thru 6" [150mm] - page 4-6

8" [200mm] and larger - page 7-9

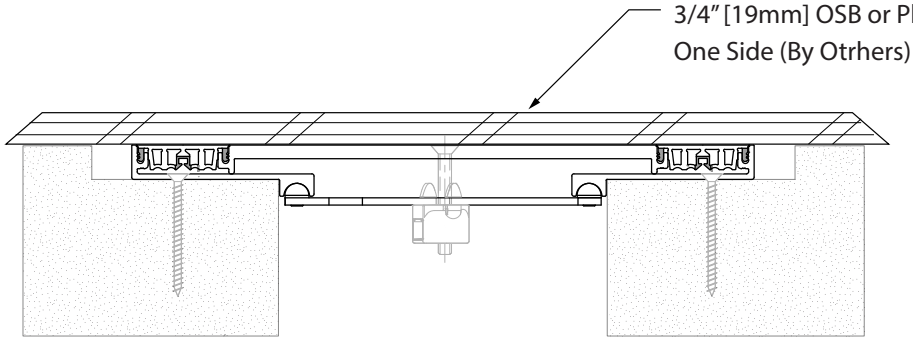
Note: Verify that the structural gap and blockout dimensions are in conformance with submittal data before beginning installation. If this is a Fire Rated Assembly, the fire barrier must be installed before the Architectural Joint System. Refer to the fire barrier instructions for specific system installation.



Note: It is important to protect the face of the seal or the seal channels, use painters tape applied to the top face f the seal/ frames when back filling. If backfill cures in channel, the black tips of the seal will not be able to lock into the channel.



Note: if system is being installed mid construction, it is critical to protect the system's components after installation. Apply protection over finished product to protect plate and seal from abrasion, damage, or overloading for the remainder of construction.



IPC.821.REV4

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Installation Instructions

Joint System: 221, 223 - A01 (2" [50mm] System)

Fig.1

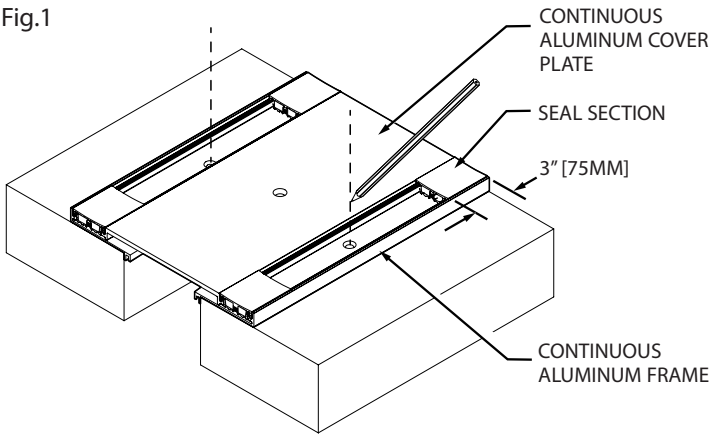


Fig.2

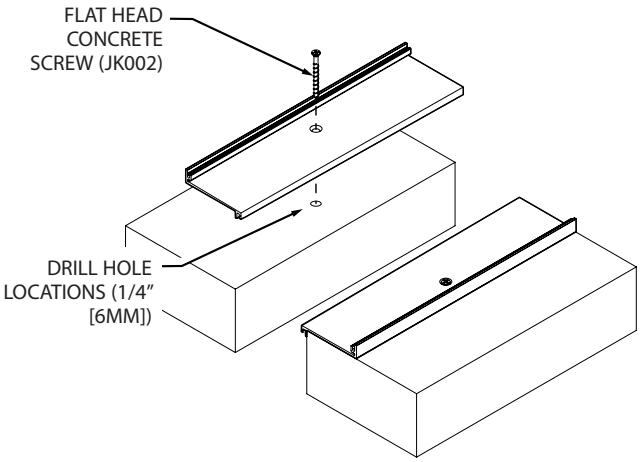
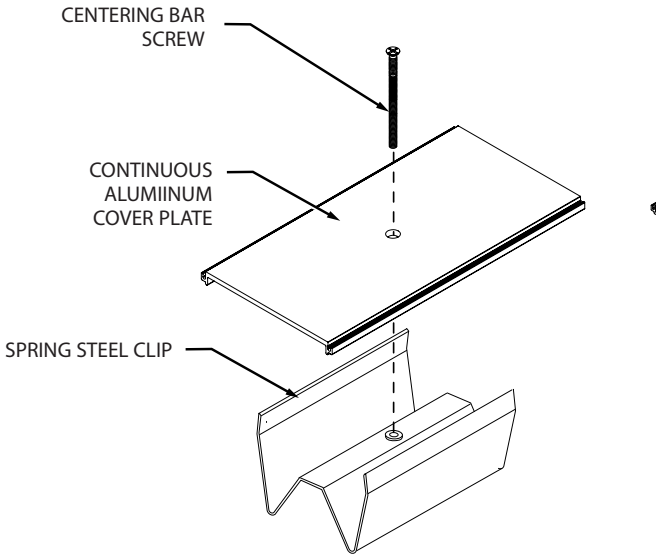


Fig.3



Expansion Joints: 2" [50mm]

1. Install the architectural joint system on a level surface within the blockout. To determine blockout depth, deduct thickness of floor finish from frame height. Make sure top of frame is level with the finished floor height. This may require adding epoxy leveling compound to raise the tops of the frames.

Figure 1

2. Cut the aluminum components to the desired length.
3. Place the outer frames in the blockout so that they are centered over the structural gap. Place the center pan/plate centrally over the outer frames. To properly space frames, cut six small 2" (50mm) sections of seal. Insert one at each end and one in the center of both sides of the outer frames.
4. Mark the pre-drilled hole locations on the substrate.
5. Remove the frame assembly from the blockout.

Figure 2

6. Drill holes in the blockout using a 1/4" (6mm) concrete drill bit to 2 1/2" (63mm) depth.

6a. Optional EPDM Vapor Barrier: Lay continuous bed of butyl rubber caulk in both sides of the blockout. Starting at one end of the frame assembly, place vapor barrier evenly in blockout allowing the excess material to drape into the structural gap. Secure in place using the floor frames. Reference seperate RVB Installs for complete instructions.

7. Return the frames into position over the drilled hole locations. Secure in place by using JK002 (3/16" x2 1/4" [m4.5x56]) flat head screw at each pre-counter sunk location.

Figure 3

8. To attach the center pan/plate to the outer frames, place spring steel "W" clips into the channels of the outer frames. Position spring clips beneath countersunk holes in pan/plate and secure loosely using 1/4-20 x 2" flat head screws.

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Joint System: 221, 223 - A01 (2" [50mm] System)

Fig.4

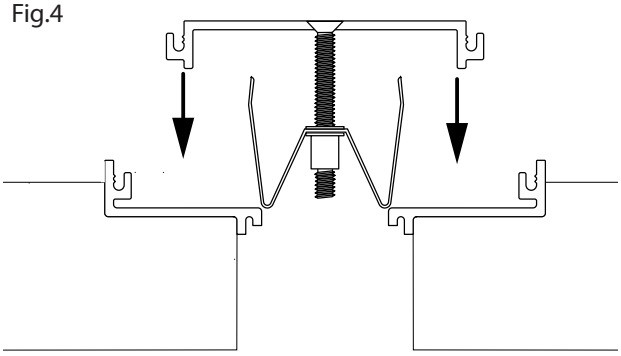


Figure 4.

9. install the cover plate by centering the pan/plate over the frames. Apply even pressues to the top of the plate, and push the cover down until it snaps into place.

10. Tighten cover pan/plate center screws by hand. Do not over tighten the clip.

11. Insert the Santoprene seals into the recessed frame slots until the seals are flush with the tops of the frames. NOTE: To assist in installing the seal, apply a mist of soapy water solution to the back of the seal. A 1" (25mm) wide seam roller may be used to fully engage the seal ears into the frame slots.

Fig.5

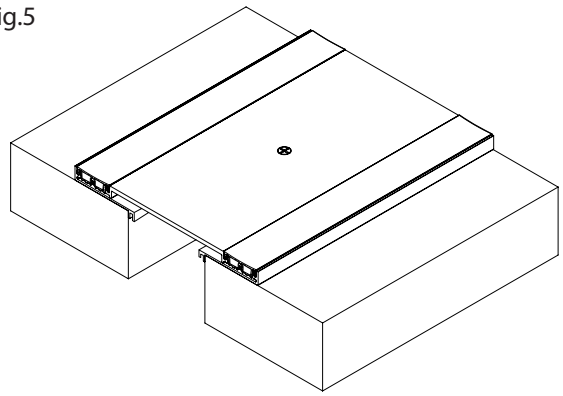


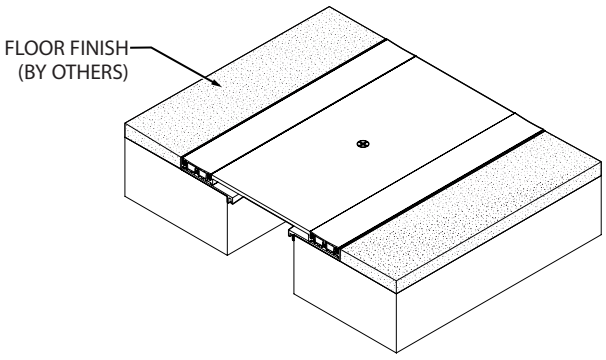
Figure 5

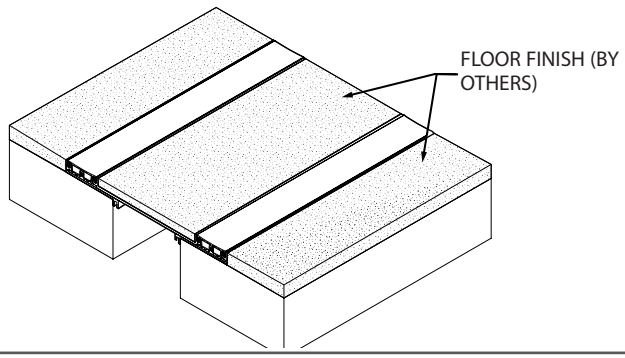
12 Backfill the blockout and install the floor finish level to the top of the outer frames.

Note: It is important to protect the face of the seal or the seal channels (if seal is being installed later in schedualing) using painters tape when back filling. If backfill cures in channel, the black tips of the seal will not be able to lock into the channel.

13. For 223 systems, install floor finish level to the top of the pan/plate. For thinner flooring, infill pan with floor leveling compound or underlayment. Clean the exposed surfaces with a non-solvent cleaner, such as 409 or xylene, as required.

14. After installation, apply protection over finished product to protect plate and seal from abrasion, damage, or overloading for the remainder of construction.





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Joint System: 221, 223 - A01 (3" [75mm] Through 6" [150mm] Systems)

Note: Verify that the structural gap and blockout dimensions are in conformance with submittal data before beginning installation. If this is a Fire Rated Assembly, the fire barrier must be installed before the Architectural Joint System. Refer to the fire barrier instructions for specific system installation.

Fig.1

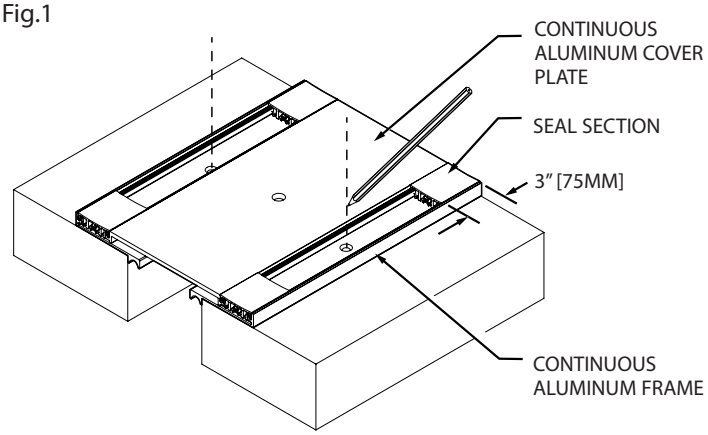


Fig.2

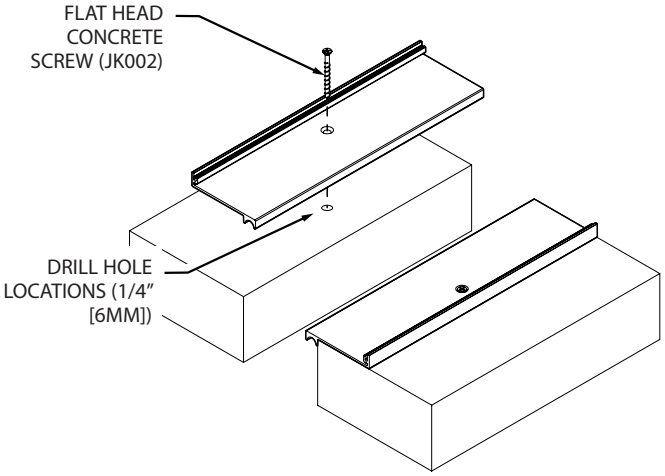
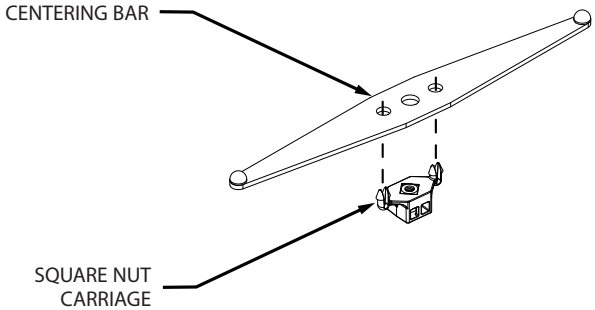


Fig.3



Expansion Joints: 3" [75mm] - 6" [175mm]

1. Install the architectural joint system on a level surface within the blockout. To determine blockout depth, deduct thickness of floor finish from frame height. Make sure top of frame is level with the finished floor height. This may require adding leveling compound to raise the tops of the frames.

Figure 1

2. Cut the aluminum components to the desired length.
3. Place the outer frames in the blockout so that they are centered over the structural gap. Place the center pan/plate centrally over the outer frames. To properly space frames, cut six small 2" (50mm) sections of seal. Insert one at each end and one in the center of both sides of the outer frames.
4. Mark the frame's pre-drilled hole locations on the substrate.
5. Remove the frame assembly from the blockout. Remove temporary spacers.

Figure 2

6. Drill holes in the blockout using a 1/4" (6mm) concrete drill bit to 1 1/8" (30mm) depth.

6a. Optional EPDM Vapor Barrier: Lay continuous bed of butyl rubber caulk in both sides of the blockout. Starting at one end of the frame assembly, place vapor barrier evenly in blockout allowing the excess material to drape into the structural gap. Secure in place using the floor frames. Reference seperate RVB Installs for complete instructions.

7. Return the frames into position over the drilled hole locations. Secure in place by using JK002 (3/16" x2 1/4" [m4.5x56]) flat head screw at each pre-counter sunk location.

Figure 3

8. Assemble centering bars and injection molded clips. Ensure the round pins of the centering bar are opposite of the clip.

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Joint System: 221, 223 - A01 (3" [75mm] Through 6" [150mm] Systems)

Fig.4

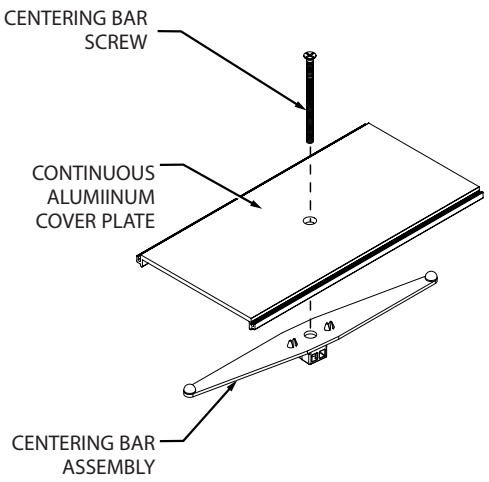


Figure 4

9. Pre-assemble the center pan/plate by inserting JK031 (1/4-20 x 2") flat head screws through the counter-sunk holes and threading them loosely onto the centering bar assembly. When bringing the center pan/plate assembly to the joint opening, ensure centering bars are parrallel with the length of the plate.

Note: Do not thread the screw beyond the bottom of the nut. If centering bar is threaded to high onto the screw, the pins will not rotate under the frames,

Figure 5

10. Position the assembled center pan/plate onto the floor frames and center. Begin to hand tighten the screws to engage the centering bars in the frame channels.

11. Do not overtighten screw, this will deform the centering bar and prevent rotation as the expansion joint moves. Cover pan/plate should be snug to frames.

Note: If Centering bars do not rotate as the screw is tightened, use Loctite applied to screw threads. Or use painters tape to hold centering bars to screws as the screw is tighted.

Fig.5

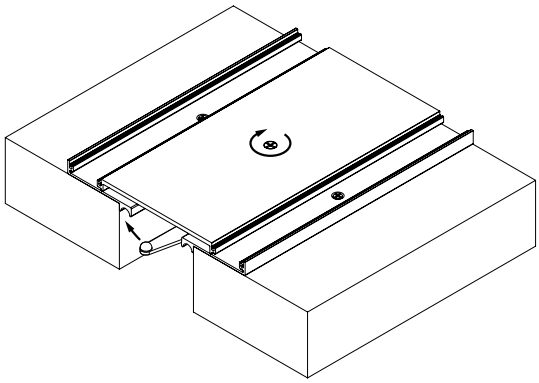
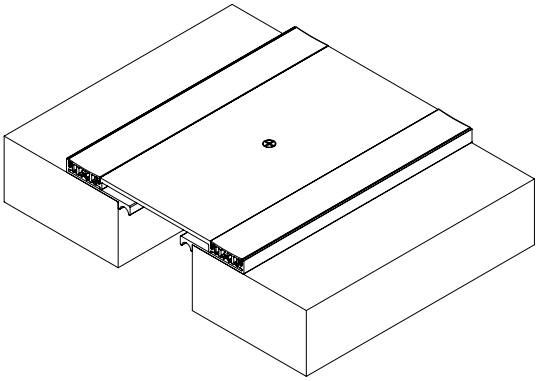


Figure 6

12. Insert the Santoprene seals into the recessed frame slots until the seals are flush with the tops of the frames. NOTE: To assist in installing the seal, apply a mist of soapy water solution to the back of the seal. A 1" wide seam roller may be used to fully engage the tips of the seal into the frame slots.

Fig.6



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Installation Instructions

Joint System: 221, 223 - A01 (3" [75mm] Through 6" [150mm] Systems)

Fig.7

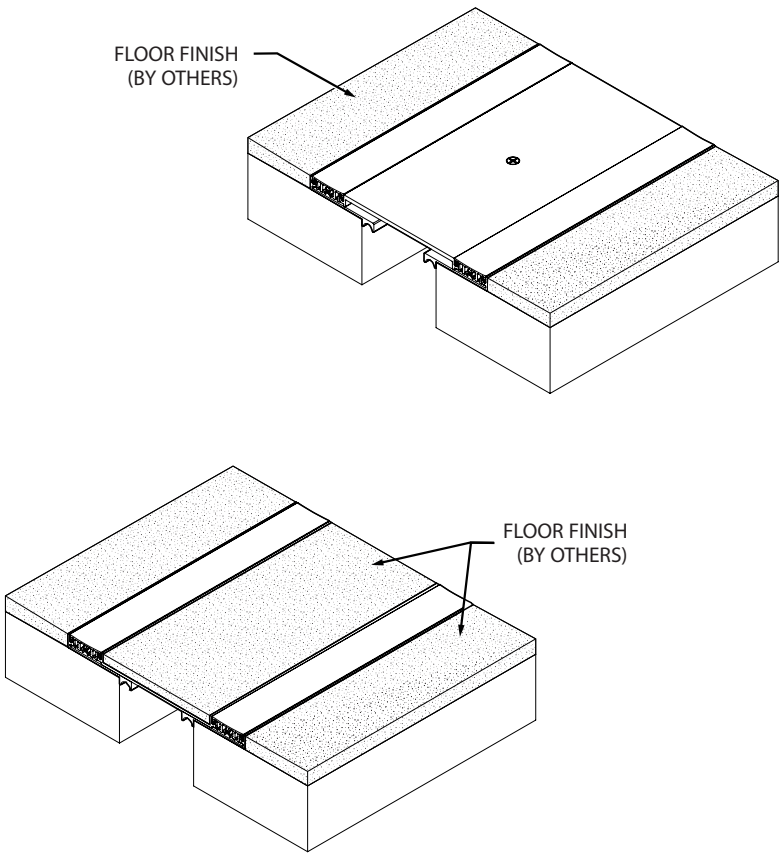


Figure 7

13. Backfill the blockout and install the floor finish level to the top of the outer frames.

    Note: It is important to protect the face of the seal or the seal channels, use painters tape applied to the top face f the seal/ frames when back filling. If backfill cures in channel, the black tips of the seal will not be able to lock into the channel.

14. For 223 systems, install floor finish level to the top of the pan/plate. For thinner flooring, infill pan with floor leveling compound or underlayment. Clean the exposed surfaces with a non-solvent cleaner, such as 409 or xylene, as required.

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Installation Instructions

Joint System: 221, 223 - A01 (8" [200mm] and larger systems)

Fig.1

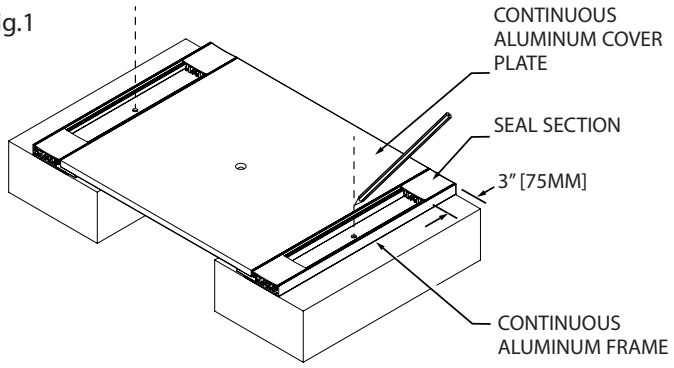


Fig.2

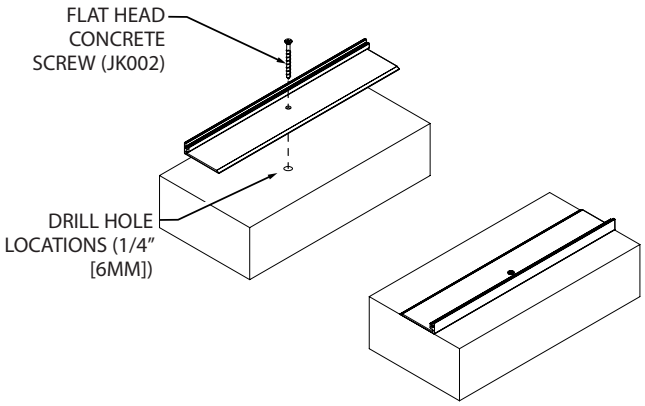
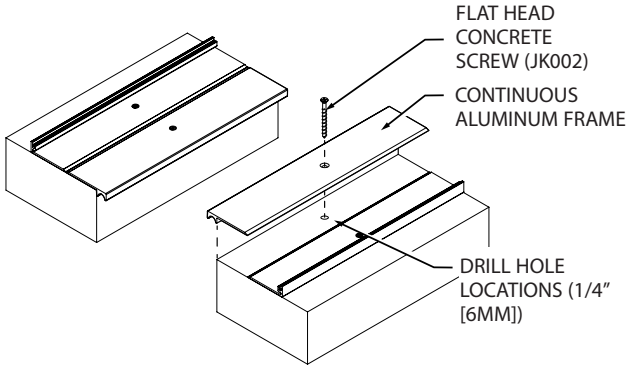


Fig.3



Expansion Joints: 8" [200mm] +

1. Install the architectural joint system on a level surface within the blockout. To determine blockout depth, deduct thickness of floor finish from frame height. Make sure top of frame is level with the finished floor height. This may require adding leveling compound to raise the tops of the frames.

Figure 1

2. Cut the aluminum components to the desired length.
3. Place the outer frames in the blockout so that they are centered over the structural gap. Place the center pan/ plate centrally over the outer frames. To properly space frames, cut six small 2" (50mm) sections of seal. Insert one at each end and one in the center of both sides of the outer frames.
4. Mark the pre-drilled hole locations on the substrate.
5. Remove the frame assembly from the blockout. Remove temporary spacers.

Figure 2

6. Drill holes in the blockout using a 1/4" (6mm) concrete drill bit to 1 1/8" (30mm) depth.

6a. Optional EPDM Vapor Barrier: Lay continuous bed of butyl rubber caulk in both sides of the blockout. Starting at one end of the frame assembly, place vapor barrier evenly in blockout allowing the excess material to drape into the structural gap. Secure in place using the floor frames. Reference seperate RVB Installs for complete instructions.

7. Return the frames into position over the drilled hole locations. Secure in place by using JK002 (3/16" x2 1/4" [m4.5x56]) flat head screw at each pre-counter sunk location.

Figure 3

6. Place centering bar frames in the joint opening. Ensure the channels sit flush against the joint edge.
7. Mark the pre-drilled hole locations on the substrate
8. Remove the frames and Drill holes in the blockout using a 1/4" (6mm) concrete drill bit to 1 1/8" (30mm) depth.
9. Return the frames to the joint opening and install using supplied JK002 (3/16" x2 1/4" [m4.5x56]) flat head screw at each pre-counter sunk location.

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Installation Instructions

Joint System: 221, 223 - A01 (8" [200mm] and larger systems)

Fig.4

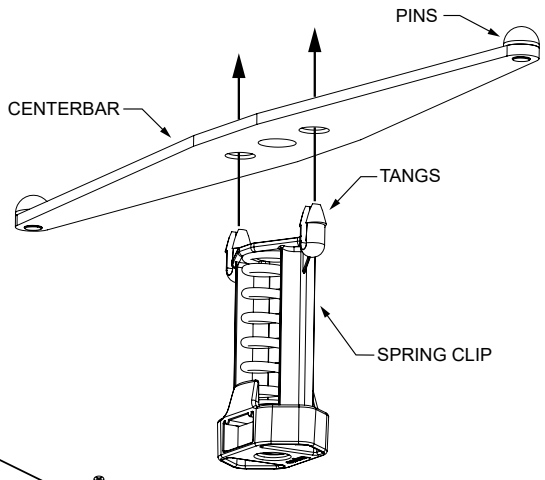


Fig.4a.

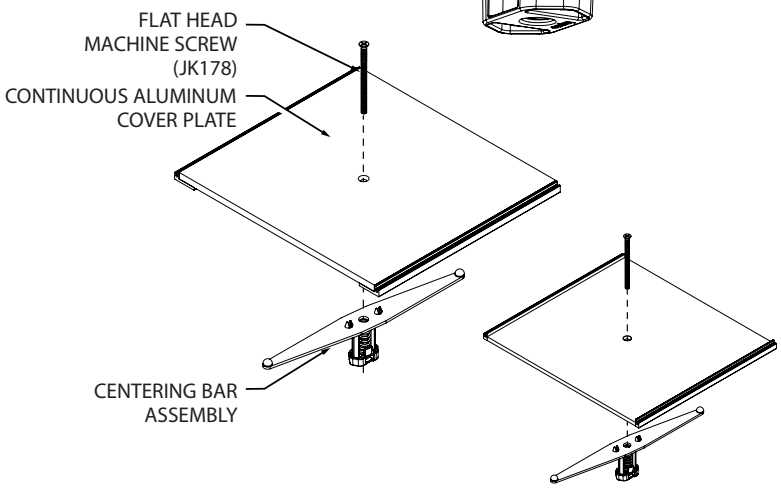


Figure 4

10. Assemble Centerbar & Spring Clip: Spring Clip should be installed opposite the Centerbar pins, with the tangs (located on top of the SpringClip) going into the holes with the angled edge.

Figure 4.a

11. Pre-assemble the center pan/plate by inserting JK178 (1/4-20 x 3") flat head screws through the counter-sunk holes and threading them loosely onto the centering bar assembly. When bringing the center pan/plate assembly to the joint opening, ensure centering bars are parrallel with the length of the plate.

Note: Do not thread the screw beyond the bottom of the nut. If centering bar is threaded to high onto the screw, the pins will not rotate under the frames,

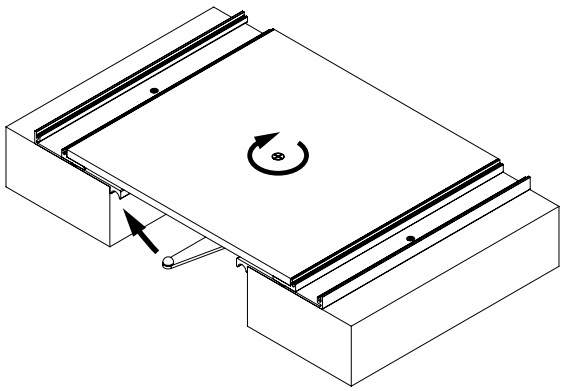
Figure 5

12. Position the assembled center pan/plate onto the floor frames and center. Begin to hand tighten the screws to engage the centering bars in the frame channels.

13. Do not overtighten screw, this will deform the centering bar and prevent rotation as the expansion joint moves. Cover pan/plate should be snug to frames.

    Note: If Centering bars do not rotate as the screw is tightened, use Loctite applied to screw threads. Or use painters tape to hold centering bars to screws as the screw is tighted.

Fig.5



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Fig.6

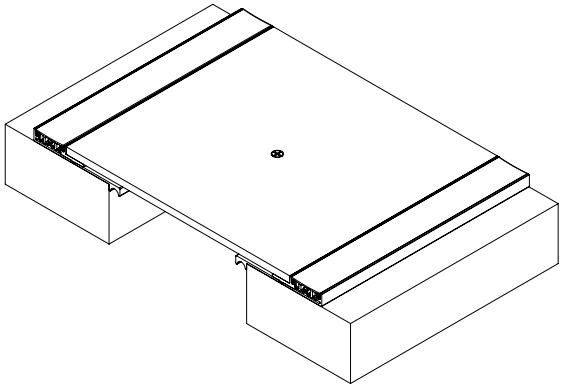


Figure 6

14. Insert the Santoprene seals into the recessed frame slots until the seals are flush with the tops of the frames. NOTE: To assist in installing the seal, apply a mist of soapy water solution to the back of the seal. A 1" wide seam roller may be used to fully engage the seal ears into the frame slots.

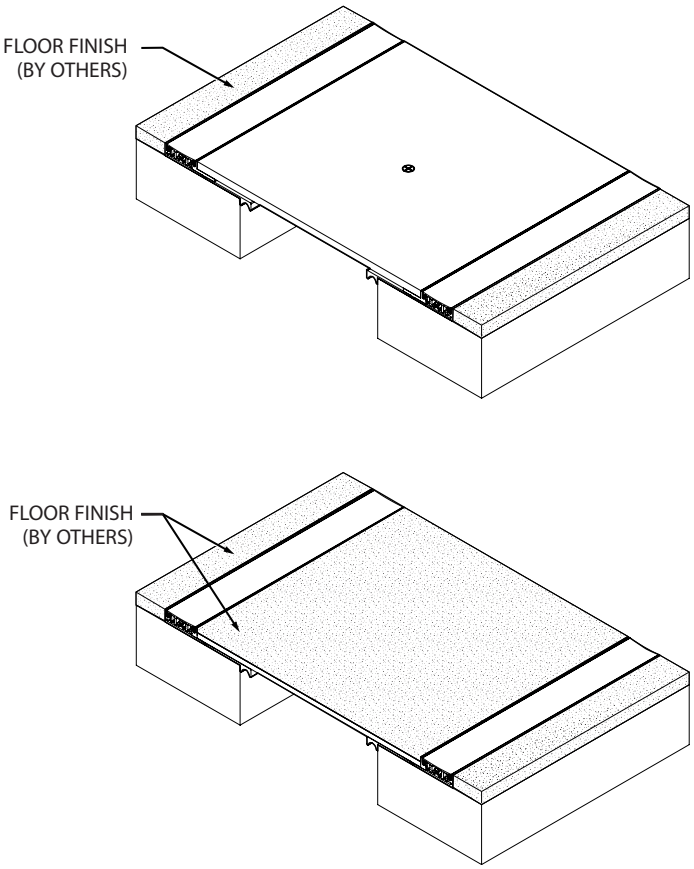
Figure 7

15. Backfill the blockout and install the floor finish level to the top of the outer frames.

    Note: It is important to protect the face of the seal or the seal channels, use painters tape applied to the top face f the seal/ frames when back filling. If backfill cures in channel, the black tips of the seal will not be able to lock into the channel.

16. For 223 systems, install floor finish level to the top of the pan/plate. CFor thinner flooring, infill pan with floor leveling compound or underlayment. Clean the exposed surfaces with a non-solvent cleaner, such as 409 or xylene, as required.

Fig.7



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