

Installation Instructions

Joint System: 221, 223 Series Floor to Floor (A01 Condition)

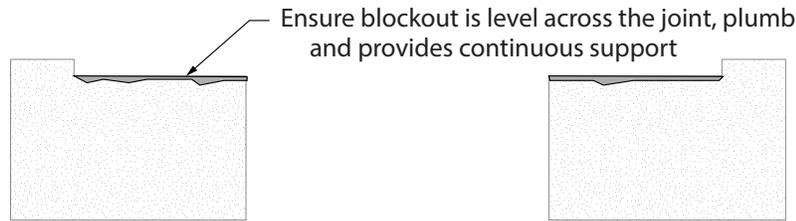
This Installation Instruction covers all 221-A01 and 223-A01 (floor to floor) expansion joint widths. See the follow pages for each joint width/range:

2" [50mm] - page 2-3

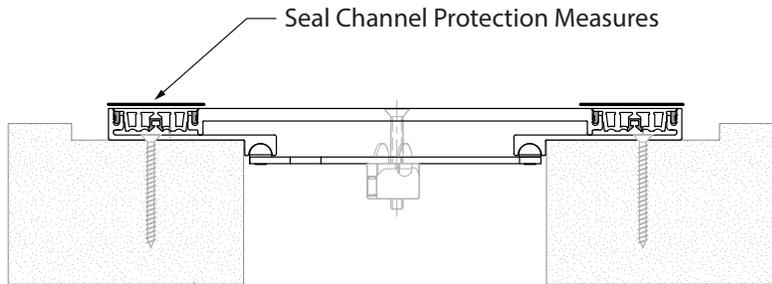
3" [75mm] thru 6" [150mm] - page 4-6

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

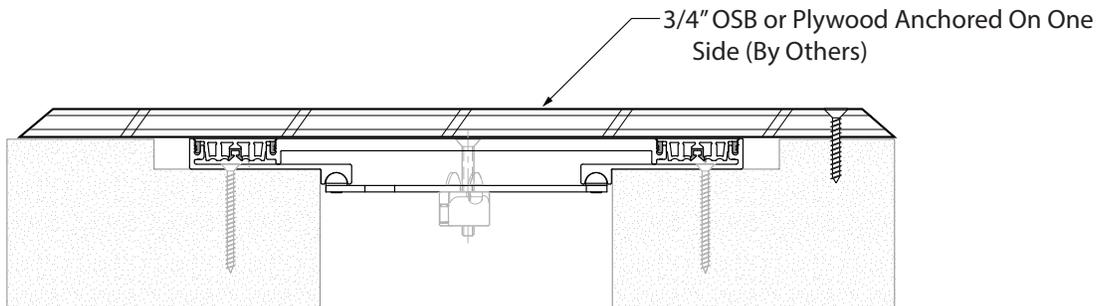
Note: Verify that the structural gap and blockout dimensions are in conformance with submittal data before beginning installation. If this is a Fire Rated Assembly, the fire barrier must be installed before the Architectural Joint System. Refer to the fire barrier instructions for specific system installation.



Note: It is important to protect the face of the seal or the seal channels, use painters tape applied to the top face of 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.



Note: When Installing the continuous santoprene seals, ensure you do not stretch the seal during installation into the frames. At transitions, use heatwelding for all seams and directional changes.

* Reference separate heatwelding instructions if applicable to your project.

IPC.821/REV 3

JOINTMASTER® Expansion Joint Systems

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Installation Instructions

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

Fig.1

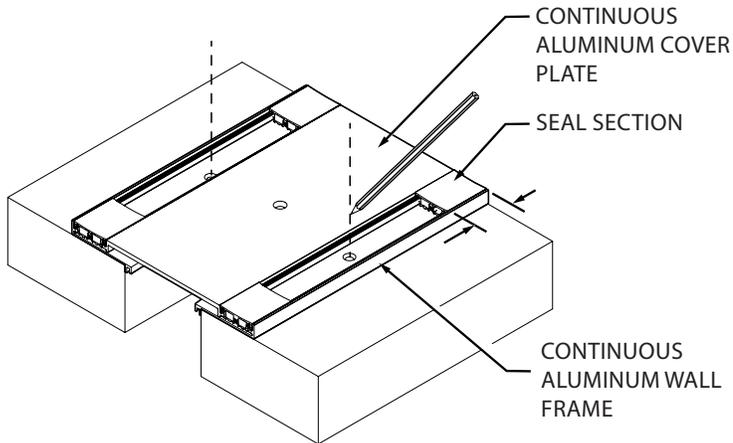


Fig.2

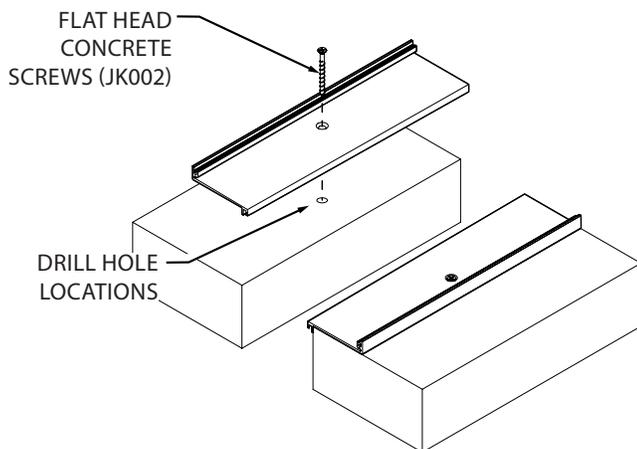
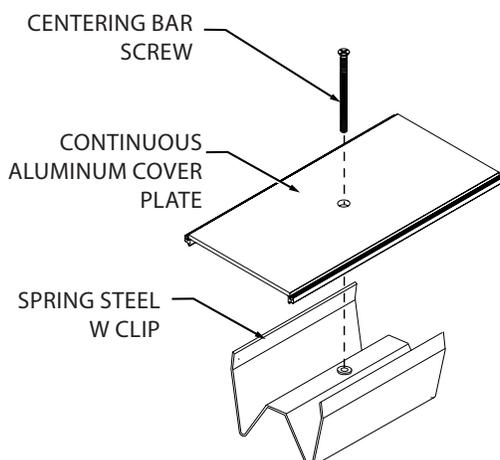


Fig.3



Expansion Joints: 2" [50mm]

1. Install the architectural joint system on a level surface, free of voids 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 (Do Not Shim).

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: Reference separate RVB Installs for complete instructions.
7. Return the frames into position over the drilled hole locations. Secure in place by using JK002 (3/16" x 2 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.

Installation Instructions

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

Fig.4

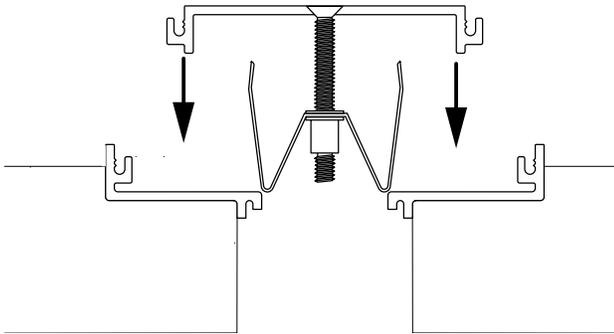


Figure 4

9. install the cover plate by centering the pan/plate over the frames. Apply even pressure 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.

Figure 5

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 roofing seam roller may be used to fully engage the seal barbs into the frame slots.

Fig.5

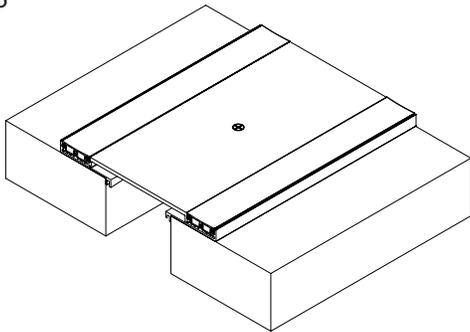
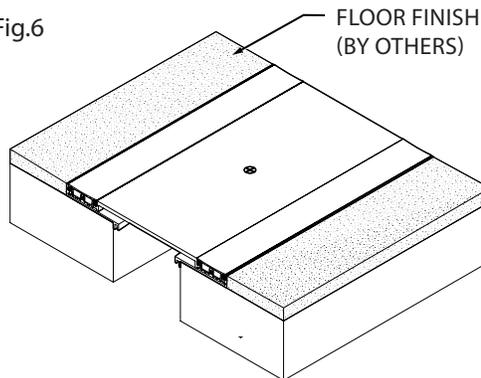


Figure 6

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

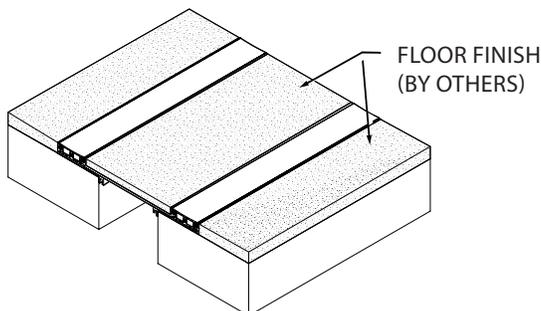
Note: It is important to protect the face of the seal or the seal channels (if seal is being installed later in scheduling) using painters tape when back filling. If backfill cures in channel, the black tips of the seal will not be able to lock into the channel.

Fig.6



13. For 223 systems, install floor finish level to the top of the pan/plate. For thinner flooring, infill pan with an underlayment of 1/4" [6mm] hardwood adhered to pan. Clean the exposed surfaces with a non-solvent cleaner, such as 409 or xylene, as required.

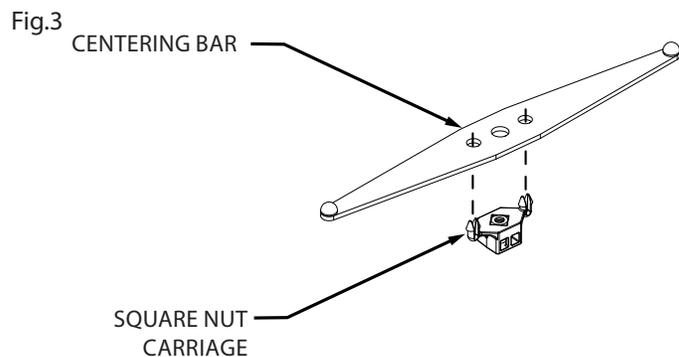
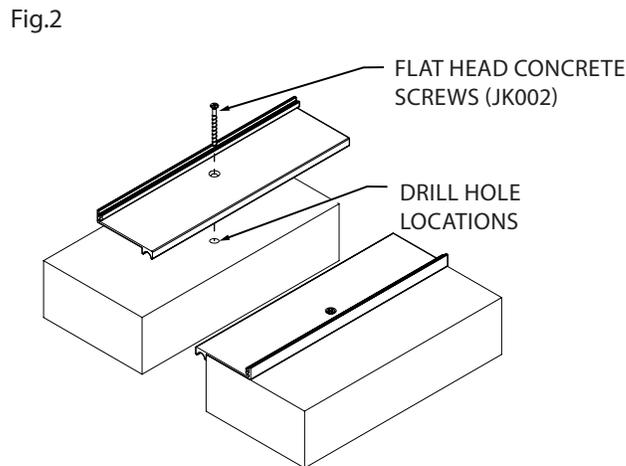
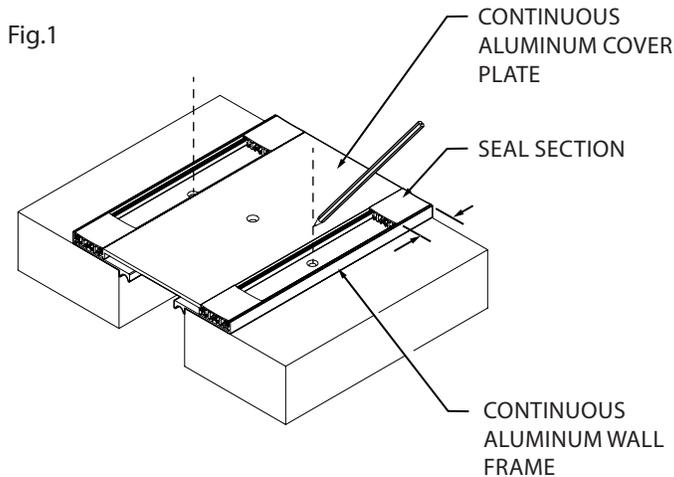
14. After installation, apply protection over finished product to protect plate and seal from abrasion, damage, or overloading for the remainder of construction.



Installation Instructions

Joint System: 221, 223 - A01 Series Floor to Floor (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.



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

1. Install the architectural joint system on a level surface, free of voids 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 (Do Not Shim).

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: Secure in place using the floor frames. Reference separate RVB Installs for complete instructions.
7. Return the frames into position over the drilled hole locations. Secure in place by using JK002 (3/16" x 2 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.

Note: Ensure the lips on the clip barbs are fully engaged and locked above the top surface of the centering bar .

Installation Instructions

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

Fig.4

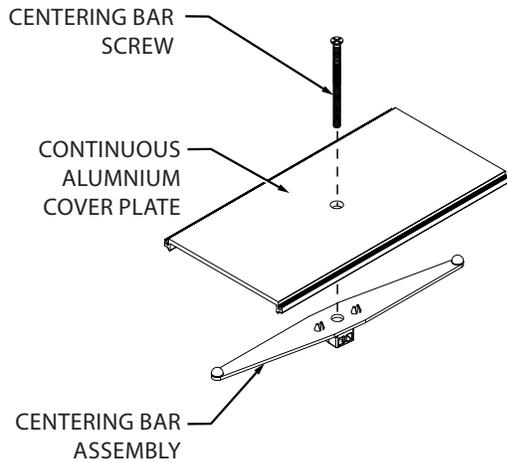


Figure 4

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 parallel with the length of the plate.

Note: Do not thread the screw beyond the bottom of the nut. If centering bar is threaded too 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 tightened.

Fig.5

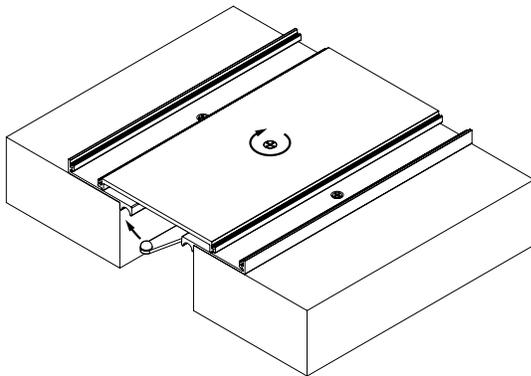
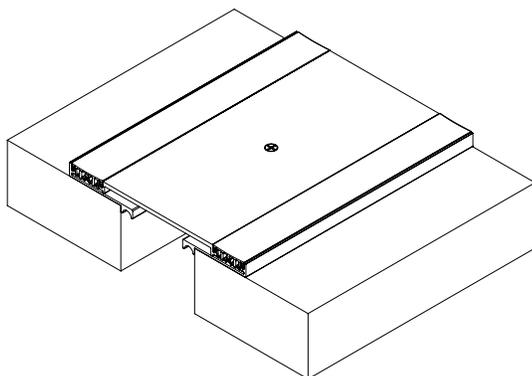


Figure 6

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 roofing seam roller may be used to fully engage the barbs of the seal into the frame slots.

Fig.6



Installation Instructions

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

Fig.7

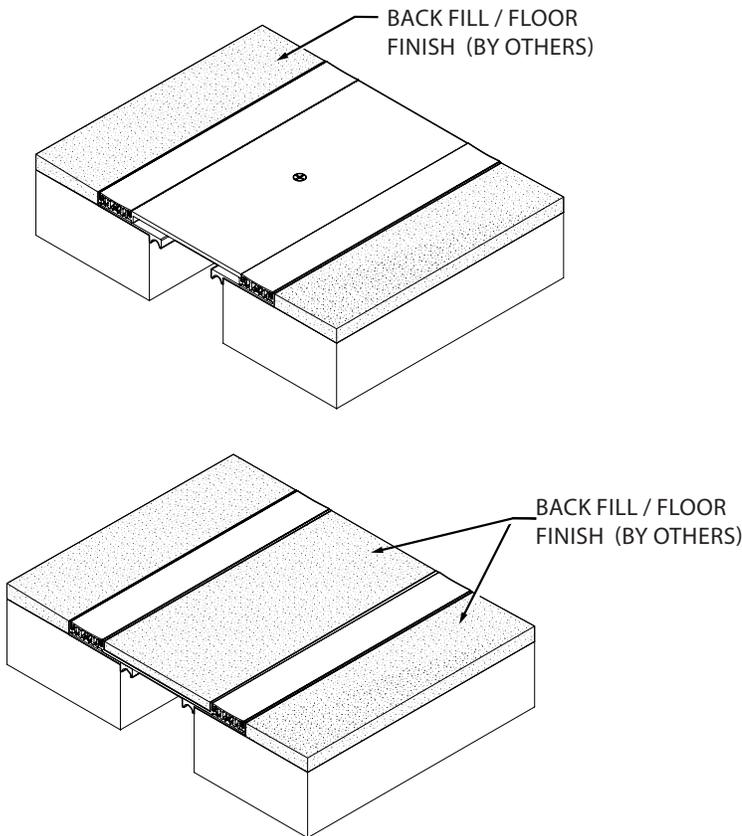


Figure 7

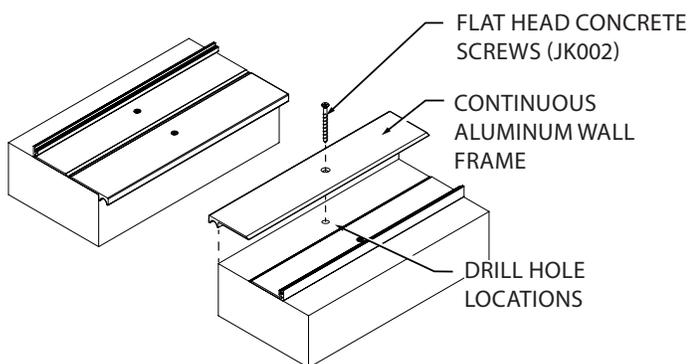
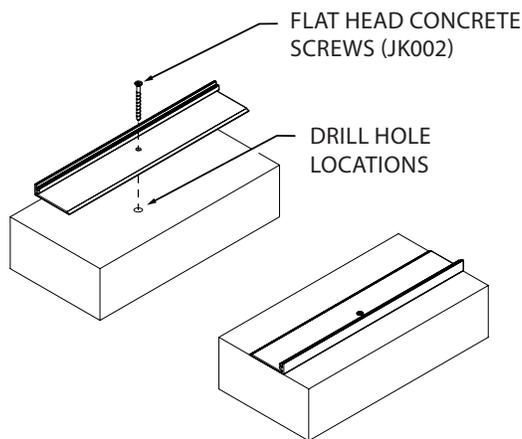
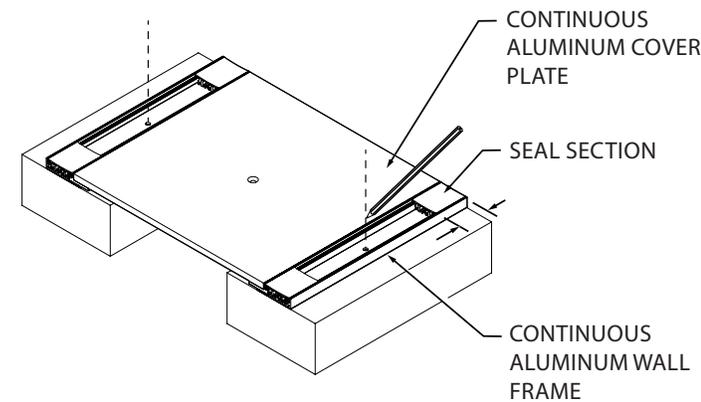
13. Backfill the blockout and install the floor finish level to the top of the outer frames.

Note: It is important to protect the face of the seal or the seal channels, use painters tape applied to the top face 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 an underlayment of 1/4" [6mm] hardwood adhered to pan. Clean the exposed surfaces with a non-solvent cleaner, such as 409 or xylene, as required.

Installation Instructions

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



Expansion Joints: 8" [200mm] +

1. Install the architectural joint system on a level surface, free of voids 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 (Do Not Shim).

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: Secure in place using the floor frames. Reference separate RVB Installs for complete instructions.
7. Return the frames into position over the drilled hole locations. Secure in place by using JK002 (3/16" x 2 1/4" [m4.5x56]) flat head screw at each pre-counter sunk location.

Figure 3

8. Place centering bar frames in the joint opening. Ensure the channels sit flush against the joint edge.
9. Mark the pre-drilled hole locations on the substrate
10. Remove the frames and Drill holes in the blockout using a 1/4" (6mm) concrete drill bit to 1 1/8" (30mm) depth.
11. Return the frames to the joint opening and install using supplied JK002 (3/16" x 2 1/4" [m4.5x56]) flat head screw at each pre-countersunk location.

Installation Instructions

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

Fig.4

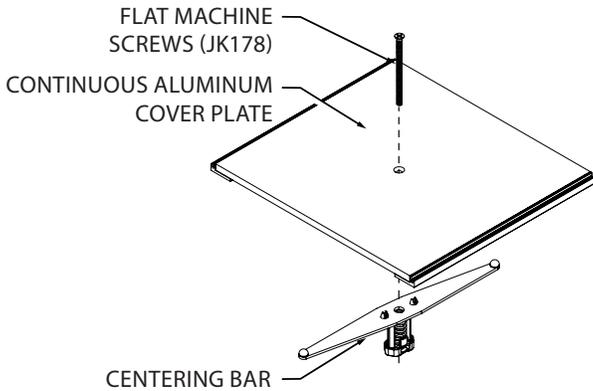


Figure 4

12. 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 parallel 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,

Fig.5

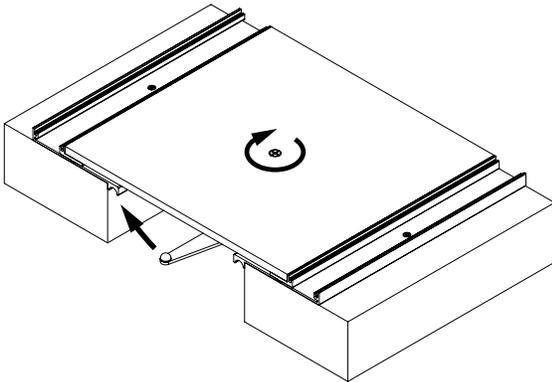


Figure 5

13. 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.

14. Do not over-tighten 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 tightened.

Fig.6

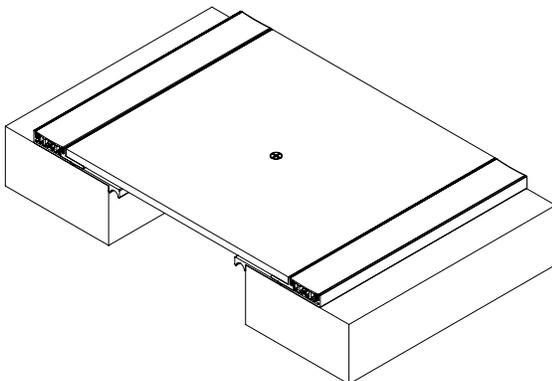


Figure 6

15. 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 roofing seam roller may be used to fully engage the seal barbs into the frame slots.

Installation Instructions

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

Fig.7

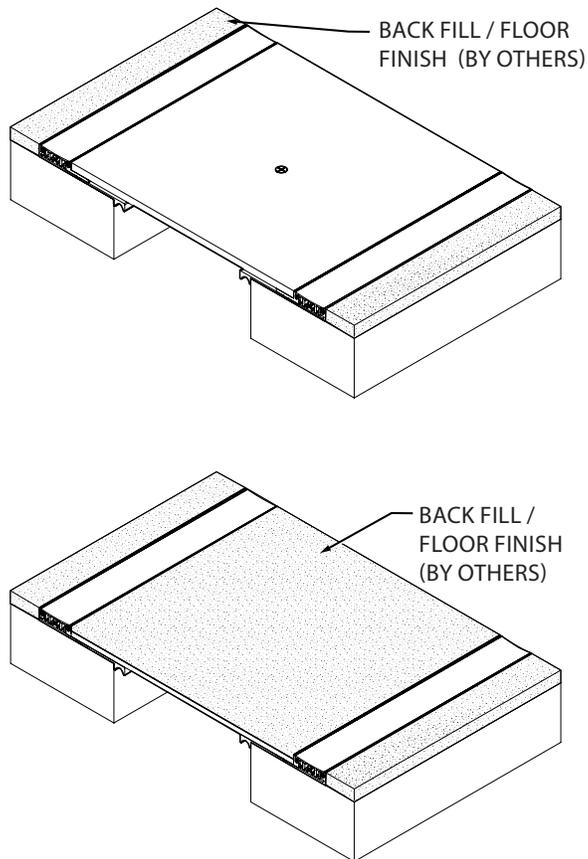


Figure 7

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 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. For thinner flooring, infill pan with infill pan with an underlayment of 1/4" [6mm] hardwood adhered to pan. Clean the exposed surfaces with a non-solvent cleaner, such as 409 or xylene, as required.