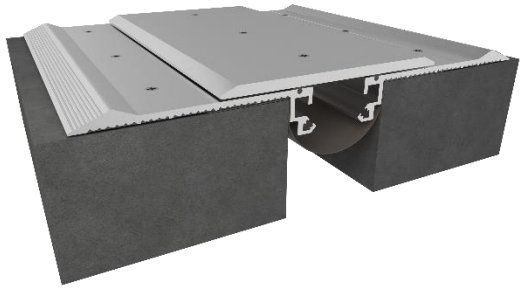
nystrom®

Installation, Operation + Maintenance Manual

SEISMIC ALUMINUM HEAVY-DUTY FLOORING SYSTEM – SURFACE APPLICATION

Model(s): PTS/PTSw

PTS Floor to Floor System – 2” Through 12” Sizes



GENERAL DESCRIPTION

The Heavy-Duty Seismic Surface System can accommodate larger openings with multidirectional movement requirements. An integral moisture barrier keeps the weather out.

GENERAL SAFETY PRECAUTIONS Improper selection, installation, or use can cause personal injury or property damage. It is solely the responsibility of the user, through their own analysis, to select products suitable to the specific application requirements, ensure proper maintenance and use as intended. Follow local, state, and federal regulations for proper installation and operation requirements.

Introduction + Safety

Please read the complete instructions carefully before beginning any work. To ensure proper installation and performance of the product, the following actions must be completed by the installing contractor. Failure to do so will affect product warranty.

Transportation + Storage

- Inspect all shipments and materials for missing or damaged components and hardware.
- Material must be stored in a clean, dry location.

Preparation

- Locate the packing slip(s) and/or shop drawings.
- Verify that all products listed on the packing slip are included in the package.
- Check the products for damage. If products are damaged, report a freight claim immediately and leave the products in their packaging. If you sign for products without reporting damage, you waive your right to a freight claim and will be responsible for replacement costs.
- Read the instructions thoroughly before beginning installation.

Tool List

- Tape measure
- Chop saw to cut product to length
- Electric drill with Ø1/8”, Ø3/16” & Ø5/16” masonry bits
- Slotted drivers for anchors
- Rubber mallet
- Broom & dustpan or vacuum
- Level
- Masking tape
- Silicone sealant
- Structural epoxy or construction adhesive

Included with the expansion joint system:

- Ø1/4” x 1-3/4" Tapcon anchors

Preinstallation

1. Ensure that the area where the expansion joint system is being installed is smooth and level. High spots should be ground down and low spots filled in. Make sure substrate is clean by sweeping and/or vacuuming substrate.

INSTALLATION (EJN-PTS-400 THRU EJN-PTS-1200 ONLY)

1. After predrilling and countersinking Ø1/4" clearance holes in the base frames (per the shop drawings), position them in the expansion joint as shown below. Using the frames as a template, mark, and drill Ø3/16" holes (staggered 12" o.c. each side) for the Ø1/4" Tapcon anchors. **Do not fasten to the substrate yet, See Step 2. See Figure 1**.

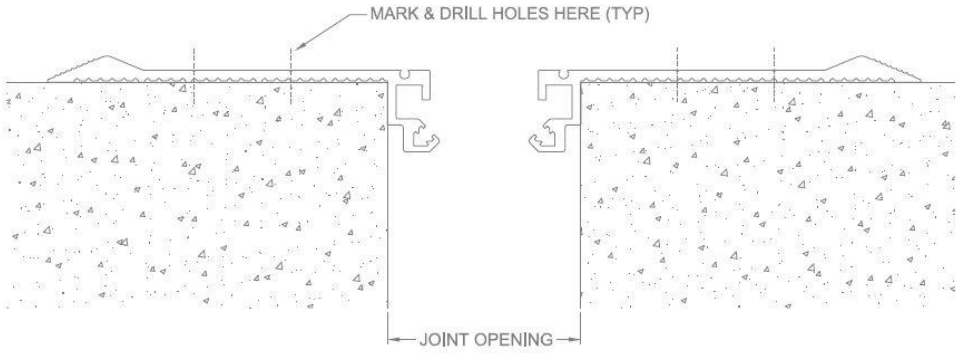


FIGURE #1

2. Using Tape or other temporary methods, drape moisture barrier sheet into joint opening and across each side. Care must be taken to provide enough slack in the joint opening so the moisture barrier can "flex" during thermal and seismic movements. Minimal tape should be used – just enough to hold the moisture barrier temporarily in place, as supplied Tapcons will be used to hold base frames and moisture barrier in place. End of sheet good should extend past 1st predrilled hole for proper anchoring. Note: if possible, moisture barrier "gutter" should be installed to guide moisture to nearest drain tube or side of building. A five-degree (5°) slope should be adequate to accomplish this. **See Figure 2**

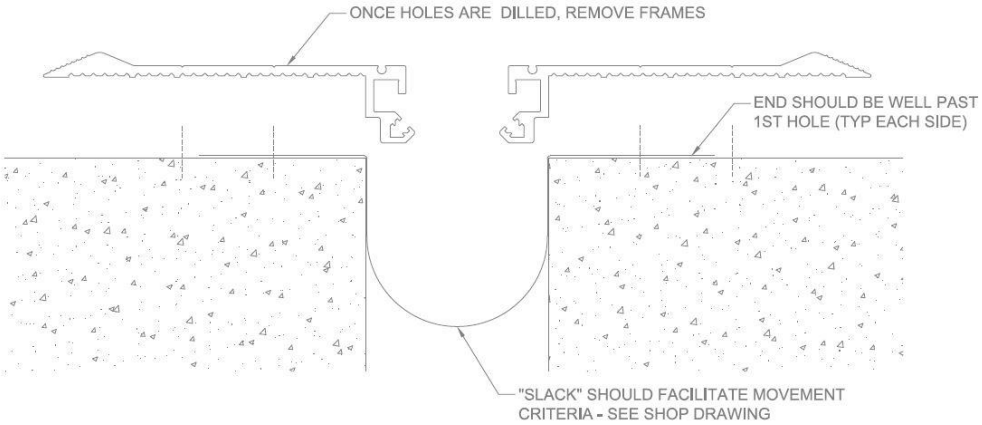


FIGURE #2

3. Apply structural epoxy or construction adhesive bedding (by others) to the serrated bottom of the base frames. Set the base frames into position and attach with supplied Tapcon anchors through the previously drilled holes. Make sure the 1st row of Tapcons (closest to joint opening) will pass through the base frames, the moisture barrier and into the substrate. **See Figure 3**.

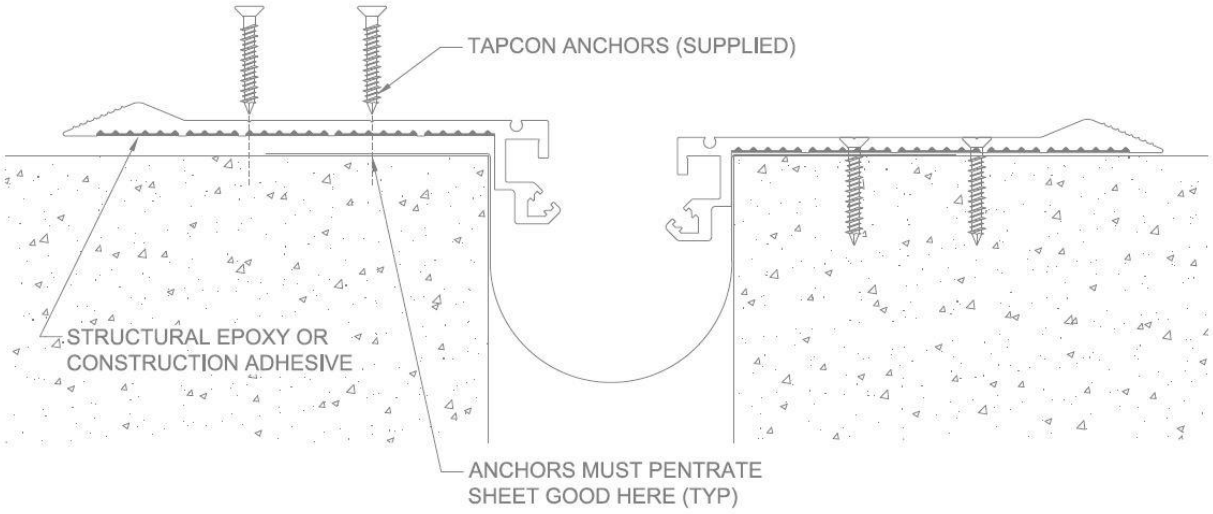


FIGURE #3

4. Lay the cover plate over the left base frame with ends flush and mark the cover plate center holes onto the base frame near the inside edge using masking tape. Repeat this on the right side. Position the centering bar mechanisms into the channels of the base frames. Align the centering bar mechanism with the marked locations. The centering bar mechanism will be diagonal to the opening. **See Figure 4a.** Tape may be needed to hold the centering bar mechanisms in place. **See Figure 4**.

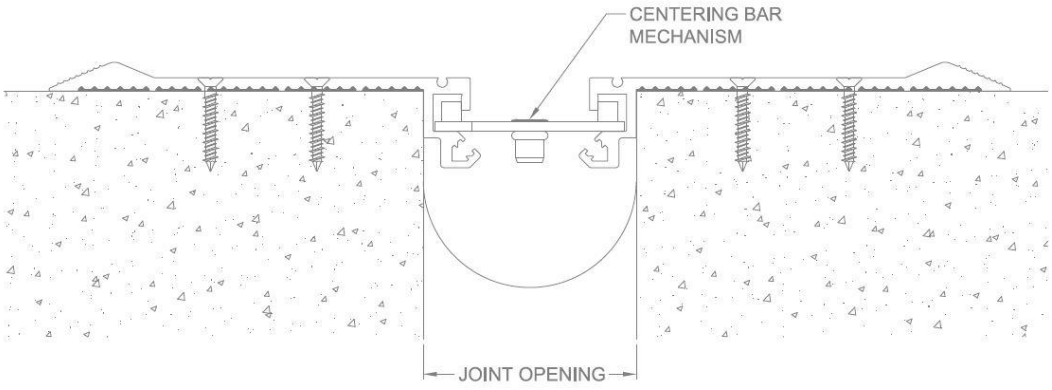


FIGURE #4

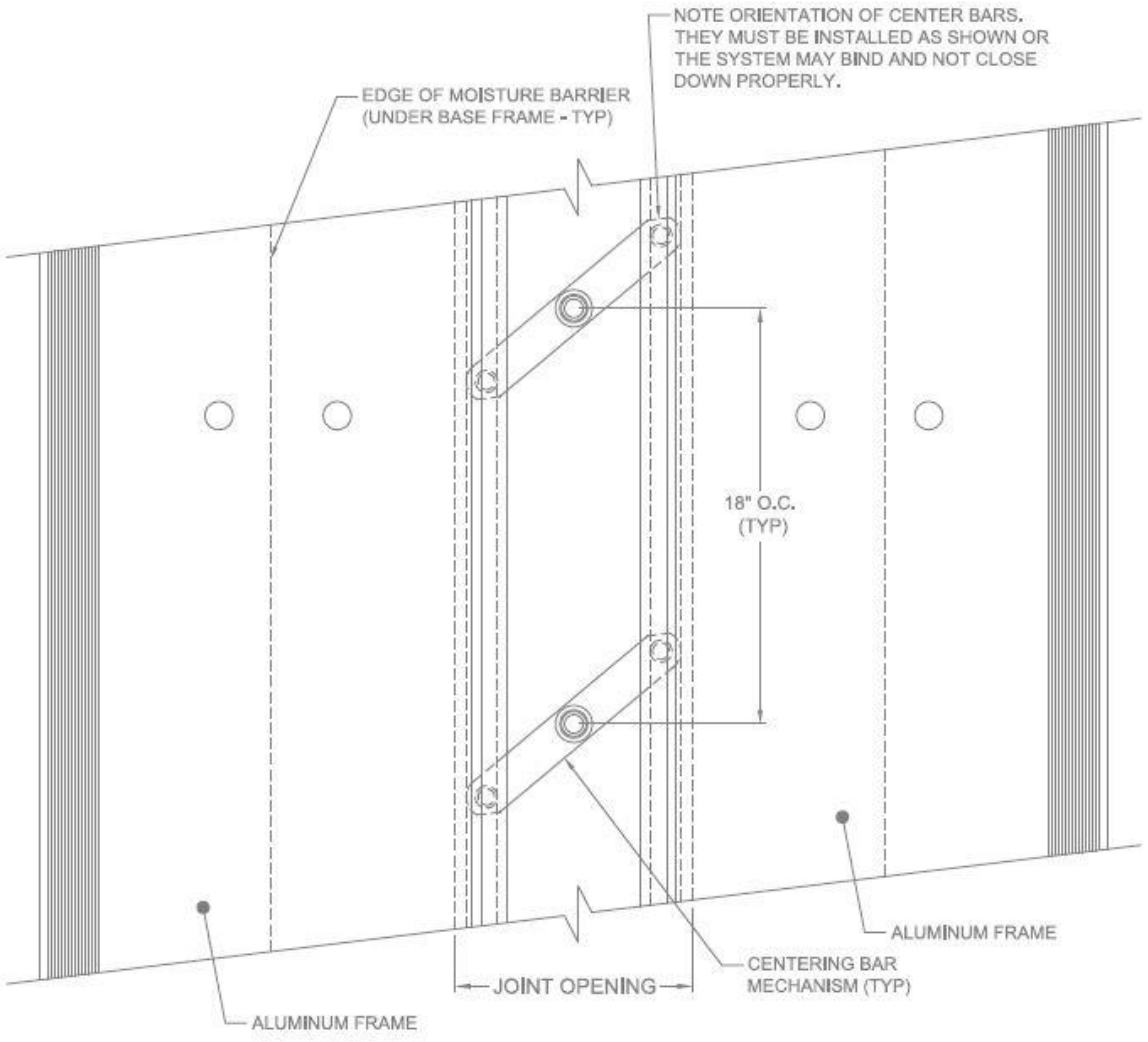


FIGURE #4a - SHOWN AS 'VIEW FROM ABOVE'

5. Attach gaskets (supplied), one on each side of the cover plate, by sliding them into the half-round channels in the topside of the base frames from the ends. Position the cover plate centered over the base frames and with the center hole aligned with the center bar mechanisms. Attach the cover plate to the center bar mechanism with the provided screws through the predrilled holes. Do not overtighten. **See Figure 5**.

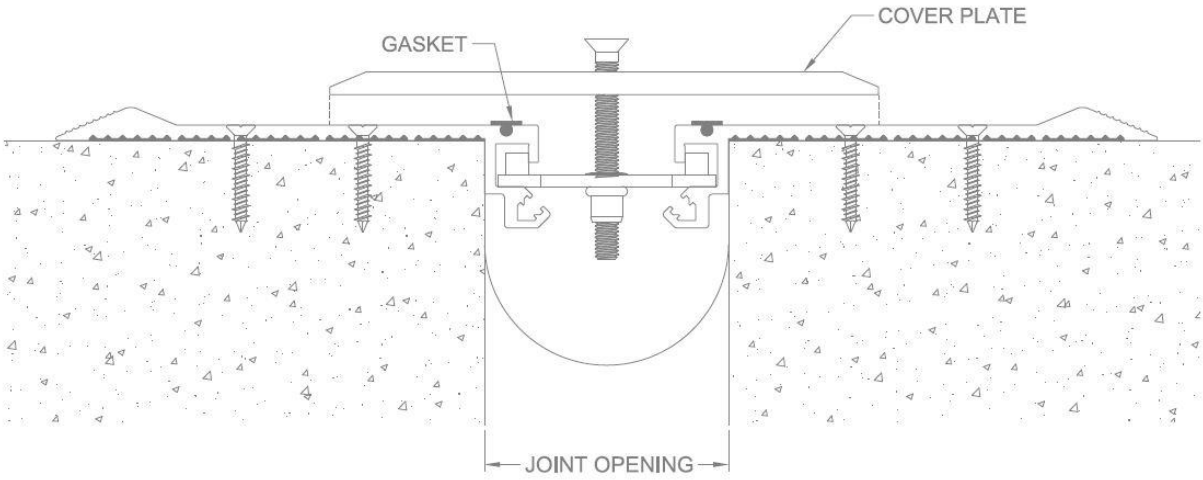


FIGURE #5

INSTALLATION (EJN-PTS-200 ONLY)

6. After predrilling and countersinking Ø1/4” clearance holes in the base frames (per the shop drawings), position them in the expansion joint as shown below. Note: base frames must be inset into joint opening 3/16” – this is to accommodate the centering bar mechanisms. Using the frames as a template, mark and drill Ø3/16” holes (staggered 12” o.c. each side) for the Ø1/4” Tapcon anchors. **Do not fasten to the substrate yet, see Step #7**. **See Figure 6**.

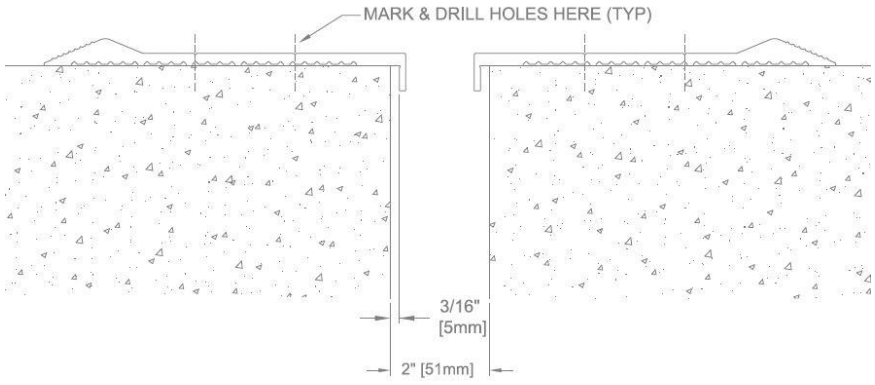


FIGURE #6

7. Using Tape or other temporary methods, drape moisture barrier sheet into joint opening and across each side. Care must be taken to provide enough slack in the joint opening so the moisture barrier can “flex” during thermal and seismic movements. Minimal tape should be used – just enough to hold the moisture barrier temporarily in place, as supplied Tapcons will be used to hold base frames and moisture barrier in place. End of sheet good should extend past 1st predrilled hole for proper anchoring. Note: if possible, moisture barrier “gutter” should be installed to guide moisture to nearest drain tube or side of building. A five-degree (5°) slope should be adequate to accomplish this. **See Figure 7**

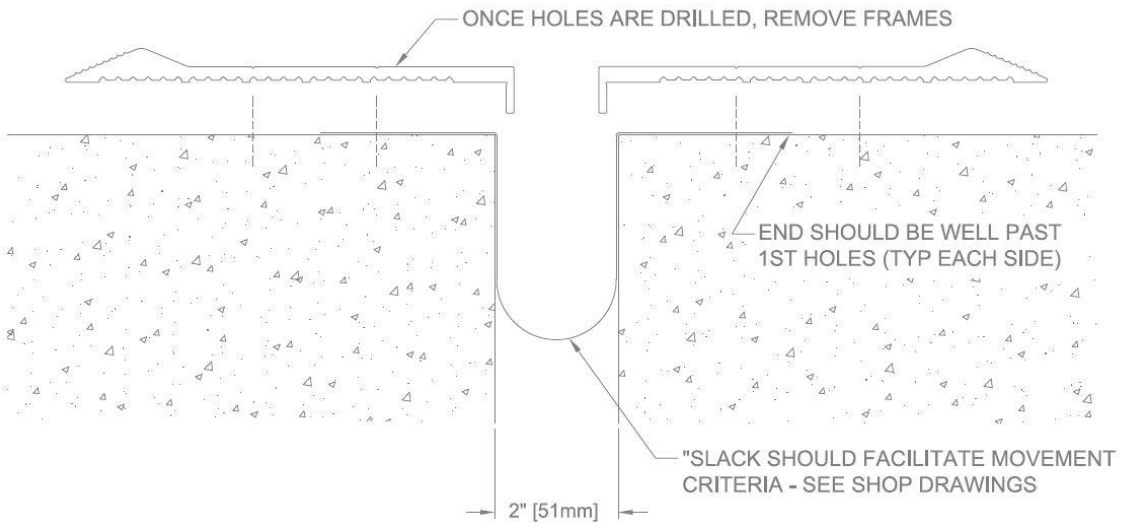


FIGURE #7

8. Apply structural epoxy or construction adhesive bedding (by others) to the serrated bottom of the base frames. Set the base frames into position and attach with supplied Tapcon anchors through the previously drilled holes. Make sure the 1st row of Tapcons (closest to joint opening) will pass through the base frames, the moisture barrier and into the substrate. **See Figure 8.**

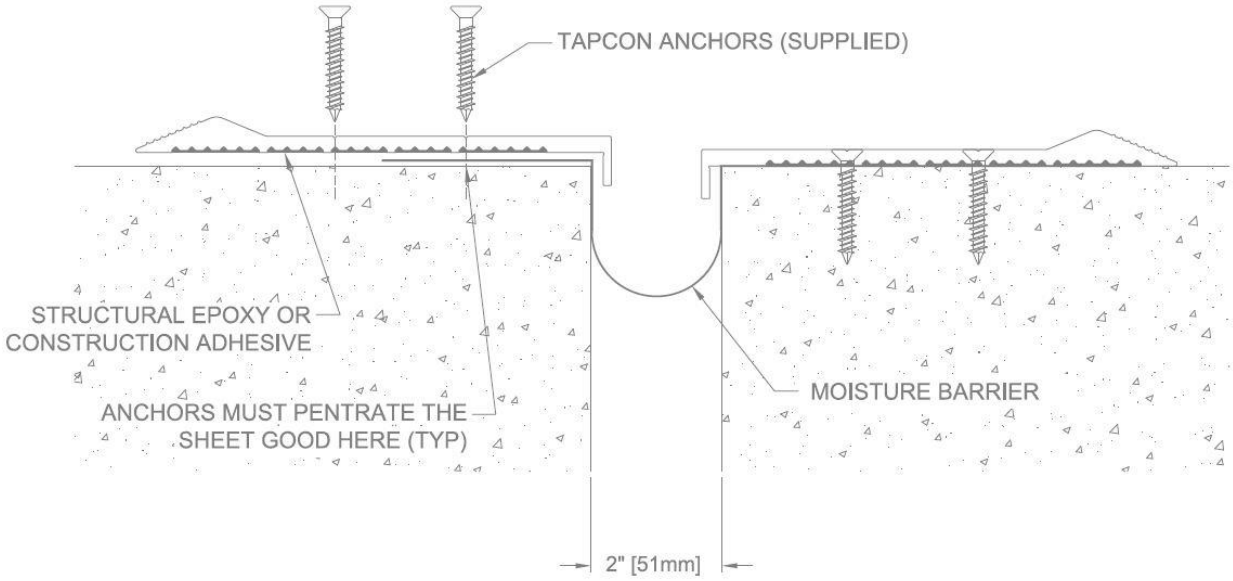


FIGURE #8

9. Install the centering bar mechanisms to the cover plate. Drop cover plate and centering bar mechanisms into place with centering bar mechanisms parallel to joint opening. Turn screw quarter turn and pull up to position centering bar mechanisms in place. Keep upward pressure on screw and tighten until secure. The centering bar mechanisms will be diagonal to the opening. Do not over tighten. **See Figure 9**.

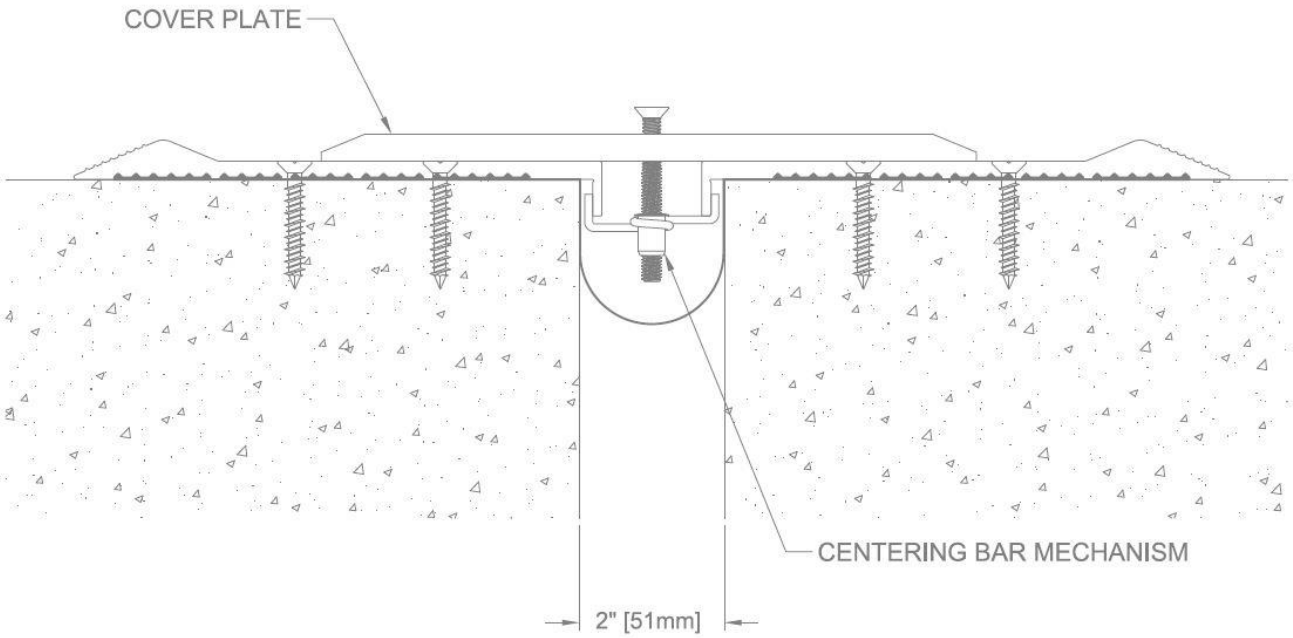


FIGURE #9

PTSw Floor to Corner System – 2” Through 12” Sizes

GENERAL DESCRIPTION

Nystrom PTSw Heavy-Duty Seismic Surface System is designed to match the PTS system in corner applications.

Included with the expansion joint system:

- Ø1/4” x 1-3/4" Anchors
- Ø3/16” x 1-3/4” Tapcon Anchors
- Ø5/16” x 7/8” Screws
- Ø3/8” x 2-1/2” Tapcon Anchors
- #10 x 1” self-drilling screws Self-Drilling Screws (used on EJN-PTS-200w only)

Preinstallation

1. Ensure that the area where the expansion joint system is being installed is smooth and level. High spots should be ground down and low spots filled in. Make sure substrate is clean by sweeping and/or vacuuming substrate.

INSTALLATION (EJN-PTS-400w THRU EJN-PTS-1200w ONLY)

1. Prior to beginning the installation, confirm clearance for your tools. If the wall frame / bracket can be mounted easily, please continue to follow the steps below. If your site condition is like Figure #1 below, please skip to Step #4 and mount the wall frame first, then follow the appropriate steps.

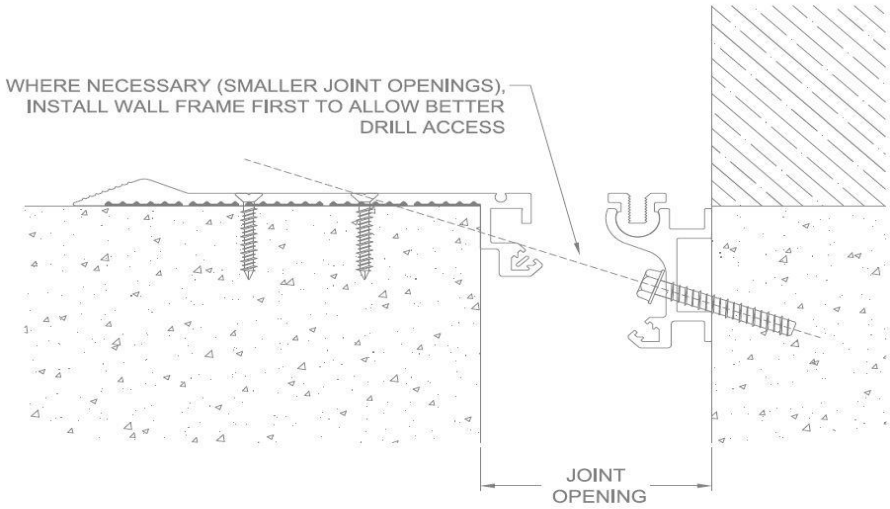


FIGURE #1

2. After predrilling and countersinking Ø 1/4" clearance holes in the base frames (per the shop drawings), position them in the expansion joint as shown below. Using the base frame as a template, mark and drill Ø3/16" holes (staggered 12" o.c.) for the Ø1/4" Tapcon anchors. **Don't fasten to the substrate yet, see Step #3. See Figure 2**.

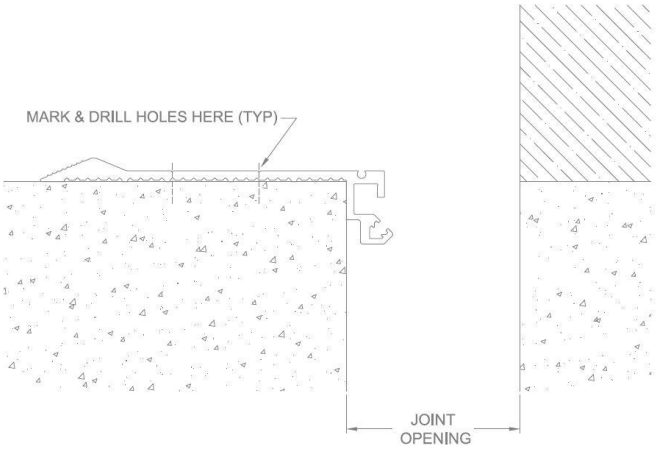


FIGURE #2

3. Using tape or other temporary methods, drape moisture barrier sheet into the joint opening and across each side. Care must be taken to provide enough slack in the joint opening so the moisture barrier can "flex" during thermal and seismic movements. Minimal tape should be used – just enough to hold the moisture barrier temporarily in place, as supplied Tapcons will be used to hold base frames and moisture barrier in place. End of sheet good should extend past 1st predrilled hole for proper anchoring. Note: if possible, moisture barrier "gutter" should be installed to guide moisture to nearest drain tube or side of building. A five-degree (5°) slope should be adequate to accomplish this. See Figure 3.

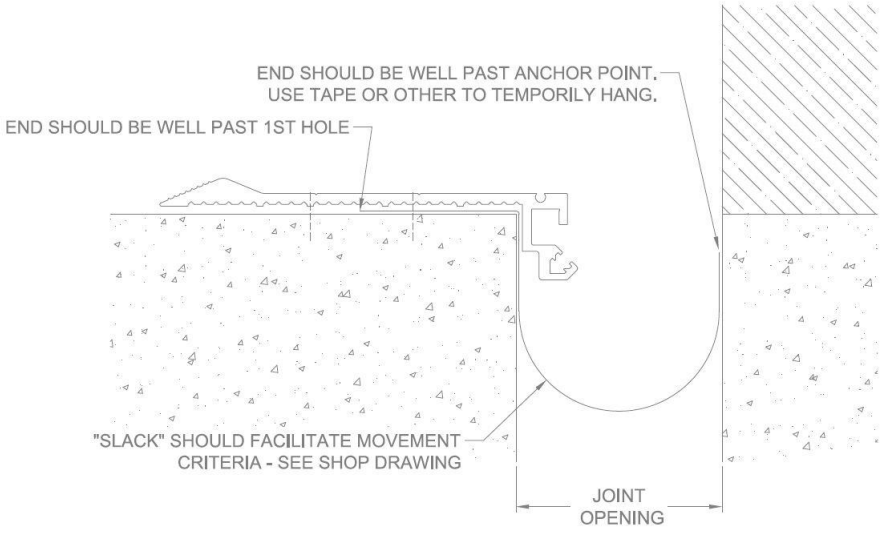


FIGURE #3

4. Apply structural epoxy or construction adhesive bedding (by others) to the serrated bottom of the base frame. Set the base frame into position and attach with supplied Tapcon anchors through the previously drilled holes. Make sure first row of Tapcons (closest to the joint opening) will pass through the base frames, the moisture barrier and into the substrate. **See Figure 4**.

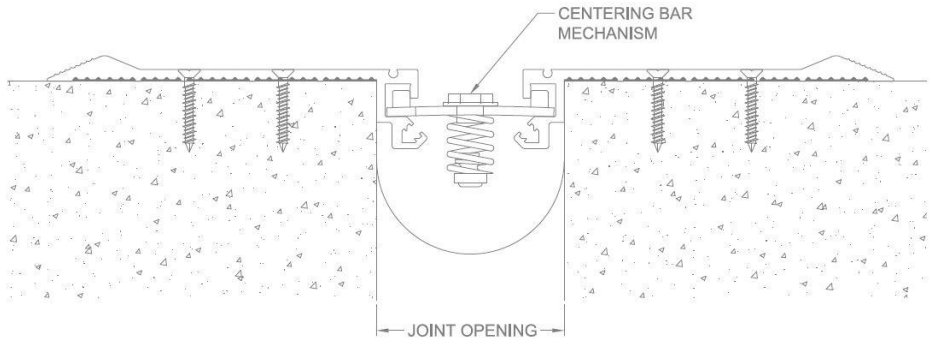


FIGURE #4

5. Drill Ø3/8” clearance holes into wall frame centered on the V-shaped mark on the frame. Holes to be drilled 2” from each end and then spaced 12” o.c. (as per the shop drawings). Attach pivot to wall frame by sliding it into the half round opening on the wall frame from the end **See Figure 5**.

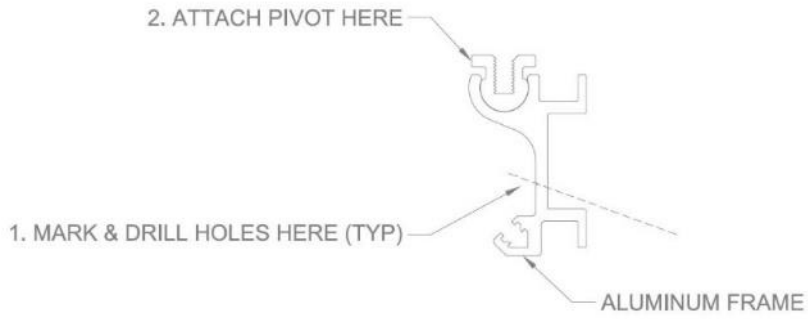


FIGURE #5

6. Place wall frame against the wall with the top of the pivot level with the top of the base frame. Drill Ø5/16” holes into the substrate at the hole locations on the wall frame and then attach wall frame to the substrate with the supplied Ø3/8” Tapcon screws. **See Figure 6.**

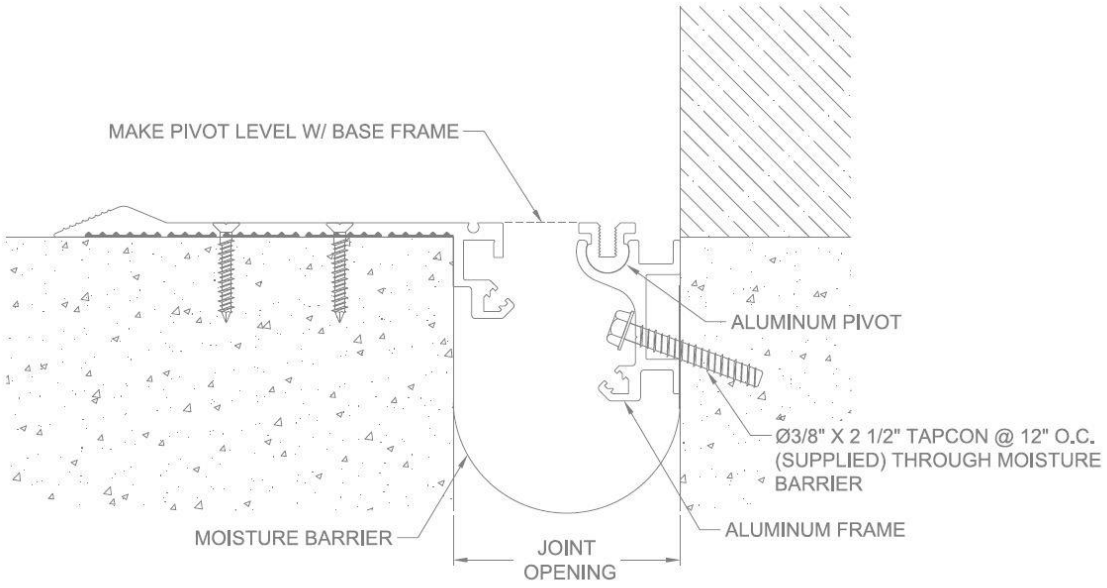


FIGURE #6

7. Attach gasket (supplied), by sliding them into the half-round channels in the topside of the base frame from the ends. Position the cover plate so the pre-drilled holes are centered over the aluminum pivot. Attach the cover plate to the pivot with the provided screws through the predrilled holes. Do not over tighten. Fill 1/8” gap with silicone sealant (by others). **See Figure 7.**

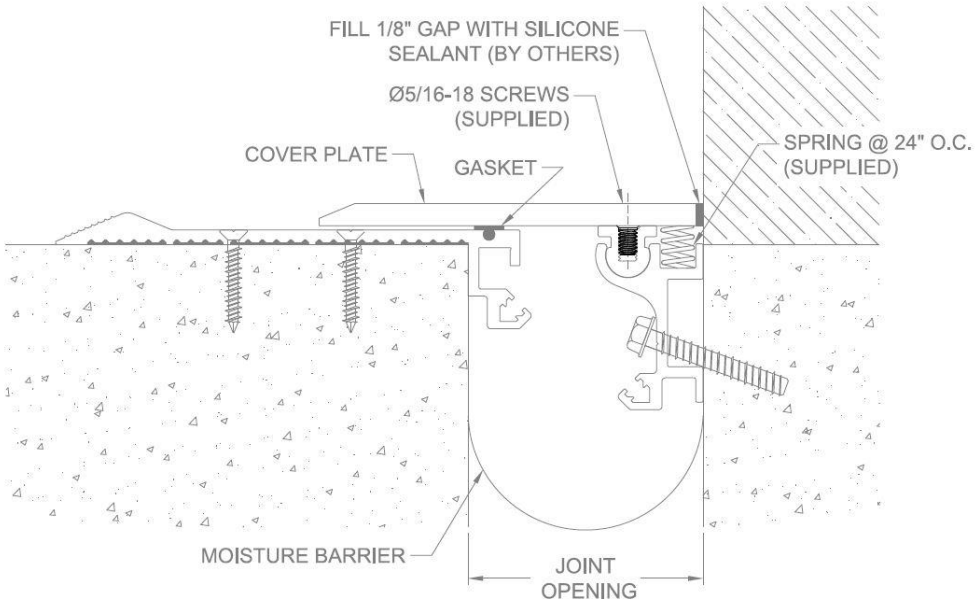


FIGURE #7

INSTALLATION (EJN-PTS-200w ONLY)

8. Temporarily position base frame in expansion joint per shop drawing. Note: base frame must be inset into joint opening 3/16". Using the base frame as a template, mark and drill Ø3/16" holes (staggered 12" o.c.) as shown on the shop drawings. **See Figure 8**.

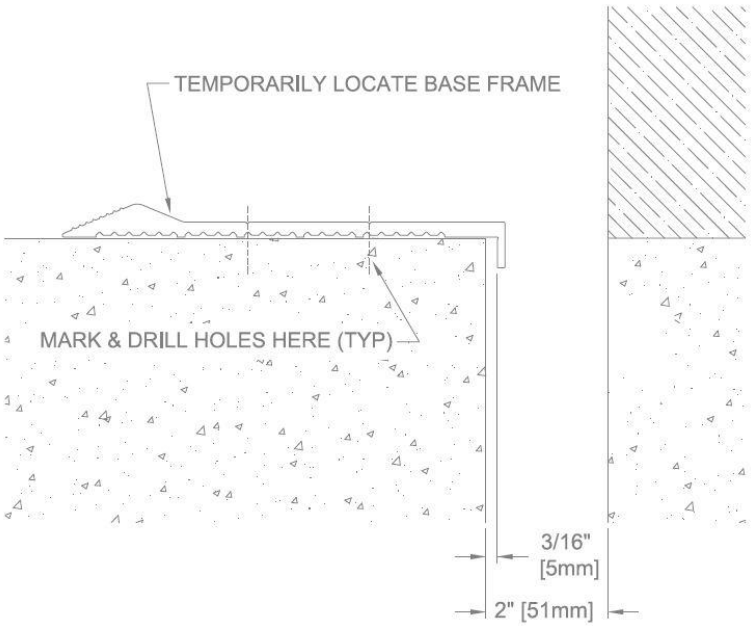


FIGURE #8

9. Place support bracket against the wall with the top of the support bracket level with the top of the base frame. Drill Ø5/32" holes into the concrete at the hole locations on the wall frame. **See Figure 9.**

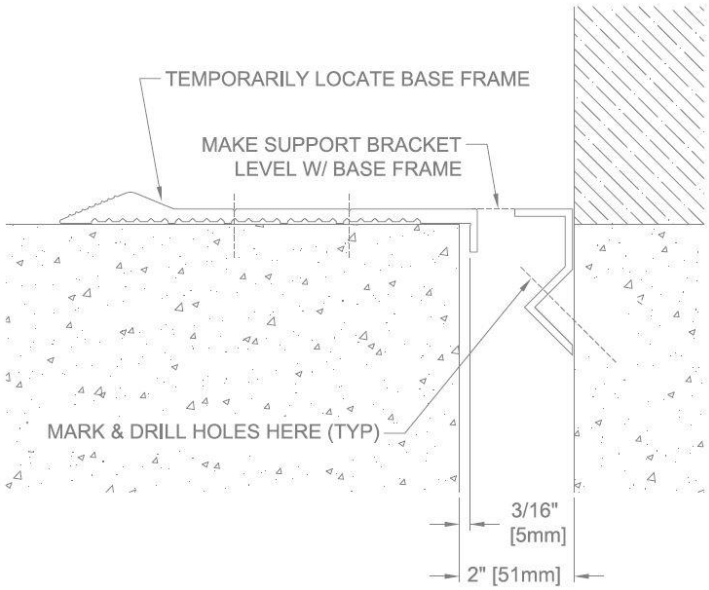


FIGURE #9

10. Insert the moisture barrier so that there is enough slack in the joint opening to accommodate the required movement (see shop drawing). Temporarily hold in place with tape on both sides, if necessary. Then attach support bracket to the wall with the supplied Ø3/16" Tapcon screws. **See Figure 10.**

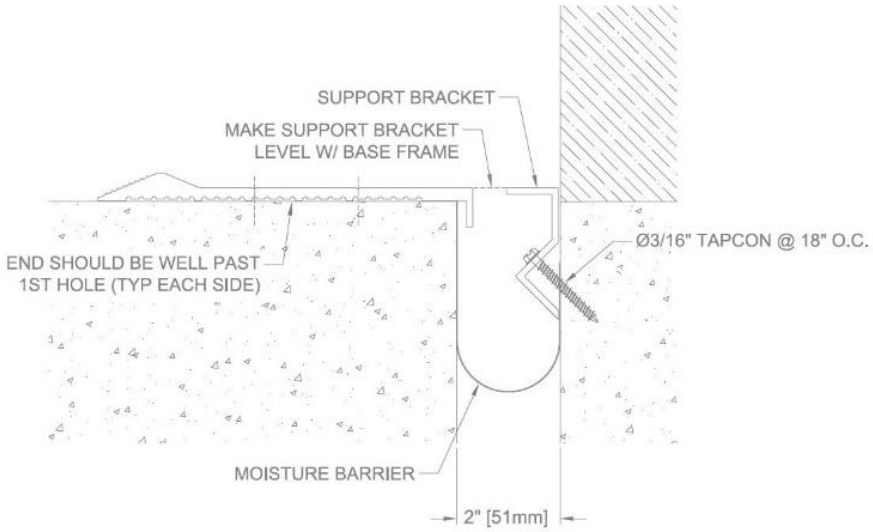


FIGURE #10

11. After predrilling and countersinking Ø1/4" clearance holes in the base frame (per the shop drawings) position it in the expansion joint as shown below. Note: base frame must be inset into joint opening 3/16". Using the frame as a template, mark and drill Ø3/16" holes (staggered 12" o.c.) for the Ø1/4" Tapcon anchors. Apply structural epoxy or construction adhesive bedding (by others) to the substrate. Insert the moisture barrier so that there is enough slack in the joint opening to accommodate the required movement (see shop drawing). Temporarily hold in place with tape if necessary. Set the base frame into position and attach with supplied Tapcon anchors through the previously drilled holes. **See Figure 11**.

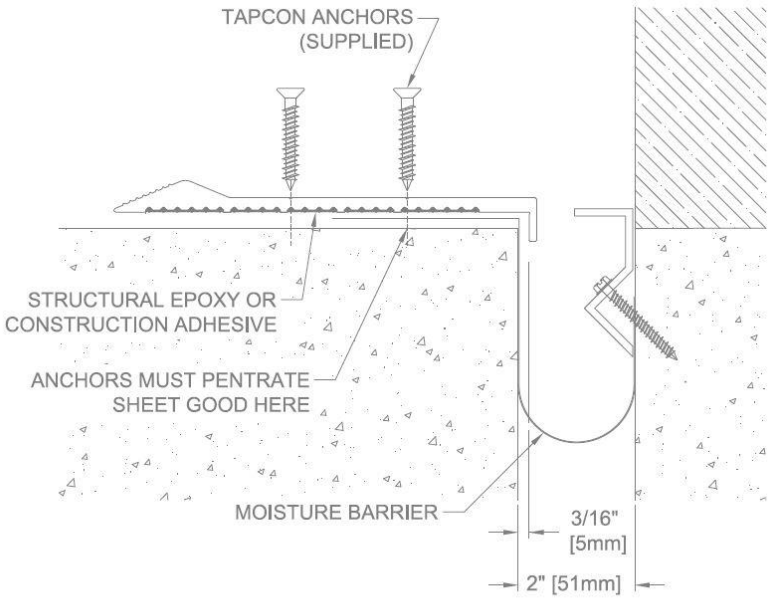


FIGURE #11

12. Attach gasket (provided) into the cover plate by sliding it into the half-round channel in the underside of the cover plate from the end. Attach cover plate with supplied #10 x 5/8” self-drilling screws through the predrilled holes. Do not over tighten. Fill 1/8” gap with silicone sealant (by others). **See Figure 12.**

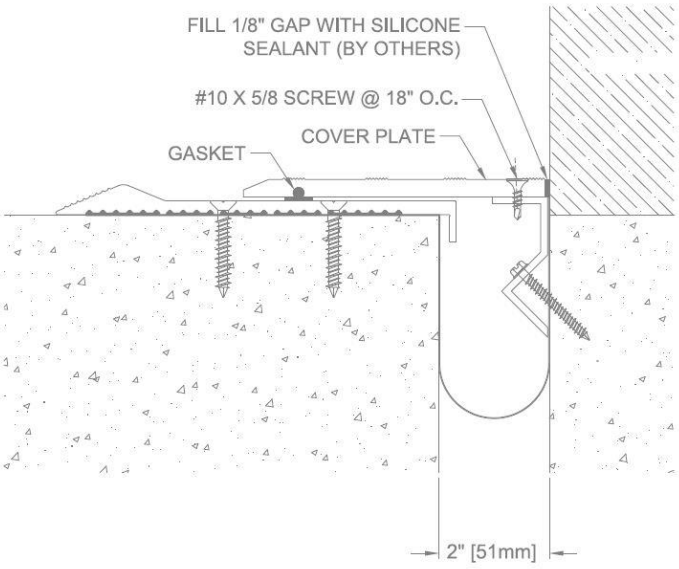


FIGURE #12

OPERATION

Expansion Joints are designed and built for years of dependable service.

MAINTENANCE

Perform annual inspections to make sure the system is in position; all fasteners are tight and in place and that there is no impedance of joint cover movement. Repair and/or replace as needed.

QUESTIONS?

For more information on installation, repair, or replacement, please contact Customer & Sales Support at 800-547-2635 or visit nystrom.com