

# SEISMIC ALUMINUM HEAVY-DUTY FLOORING SYSTEM – RECESSED BLOCKOUT APPLICATION model(s): ptx/ptxw

# PTX Floor to Floor System – 2" Through 12" Sizes



# **GENERAL DESCRIPTION**

This Heavy-Duty Seismic Recessed 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 the 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 their replacement cost.
- Read the instructions thoroughly before beginning installation.

Level

# Tool List

- Tape measure
- Chop saw to cut product to length
- Electric drill with Ø1/8", Ø5/16", Ø5/32" masonry bit & Ø3/8" metal bit
- Slotted drivers for anchors
- Rubber mallet

# Included with the expansion joint system:

- Ø3/8" x 3.00" Lg. Wedge bolt screw
- Ø1/4-20 x 5/8" Lg. screw

# /32" • Masking tape

- Silicone sealant
- Structural epoxy or construction adhesive

Broom & dustpan or vacuum

# Preinstallation

- 1. Pour floors with blockouts as shown on shop drawings. The blockout should be a minimum of 2" wider than the exposed cover width by the specified depth.
- 2. Ensure the area where the expansion joint system is being installed (including the blockout area) is smooth and level. High spots should be ground down and low spots filled in. Make sure the substrate is clean by sweeping and/or vacuuming substrate.

# INSTALLATION (EJN-PTX-400 THRU EJN-PTX-1200 ONLY)

After predrilling Ø3/8" clearance holes in the base member frames per the shop drawings, position them in blockouts as shown below. Using the frame as a template, mark, and drill Ø5/16" holes for the Ø3/8" wedge bolts. Do not fasten to the substrate yet, 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 anchors will be used to hold base frames and moisture barrier in place. End of sheet good should extend past 1<sup>st</sup> 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



3. Set the base frames into position and attach with supplied wedge bolts through the previously drilled holes. Before installing base member frames to the blockout opening with supplied anchors, apply a bead of silicone sealant to the underside of the base extrusion at the outside end of the extrusion. **See Figure 3.** 



FIGURE #3

Install the wing plates to the base member frames with the Ø1/4-20" screws. Protect the exposed surface of the expansion joint before installing, JointCrete<sup>™</sup> (sold separately) in the blockout, and making sure the filler is level with the surrounding substrate. See Figure 4.



FIGURE #4

5. 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 in the track on the base frames and align with the marked locations. The centering bar mechanisms will be diagonal to the opening. See Figure 5a. Tape may be needed to hold the mechanisms in place. See Figure 5.



FIGURE #5

### Installation & Operation + Maintenance SEISMIC ALUMINUM HEAVY DUTY FLOORING SYSTEM – RECESSED BLOCKOUT APPLICATION Model(s): PTX/PTXw



FIGURE #5a - SHOWN AS 'VIEW FROM ABOVE'

6. Position the cover plate centered over the base frame and with the center hole aligned with the centering bar mechanisms. Attach the cover plate to centering bar mechanisms with the provided screws through the pre-drilled holes. Do not over tighten. **See Figure 6.** 



FIGURE #6

# **INSTALLATION (EJN-PTX-200 ONLY)**

1. 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. After predrilling Ø3/8" holes in the base member frames per the shop drawings, position them in blockouts as shown below. Using the frame as a template, mark and drill Ø5/16" holes for the Ø3/8" wedge bolts. Before installing base member frames to the blockout opening with supplied anchors, apply a bead of silicone sealant to the underside of the base extrusion at the outside end of the extrusion. Set the base frames into position and attach with supplied wedge bolts through the previously drilled holes. See Figure 7.



Install the wing plate to the base member frame with the Ø1/4-20" screws. Protect the exposed surfaces of the expansion joint, before installing JointCrete<sup>™</sup> (sold separately) in the blockout, making sure the filler is level with the surrounding substrate. See Figure 8.



#### Direct Service Done Right

3. Lay cover plate over the left base frame with ends flush. Mark the cover plate center holes onto the base frame near the inside edge. Repeat this on the right side. Position the centering bar mechanisms in the spring track on the base frames and align with the marked locations. The centering bar mechanisms will be diagonal to the opening. **See Figure 9a.** Tape may be needed to hold the mechanisms in place. **See Figure 9.** 



#### **Direct Service Done Right**

4. Position the cover plate centered over the base frames and with the center hole aligned with the centering bar mechanisms. Attach the cover plate to the centering bar assemblies with the provided centering bar mechanisms through the predrilled holes. Do not over-tighten. **See Figure 10.** 



FIGURE #10

# PTXw Floor to Wall Cover System - 2" Through 12" Sizes



### **GENERAL DESCRIPTION**

Nystrom PTXw Heavy-Duty Seismic Recessed System is designed to match the PTX cover plate in floor to wall applications.

# Included with the expansion joint system:

- Ø3/8" x 3.00" Lg. Wedge bolt screw
- Ø3/8" x 2-1/2" Lg. HH Tapcon screws
- Ø1/4-20 x 5/8" Lg. FHM screws
- Ø5/16-18 x 7/8" Lg. Stainless steel screws
- #10 x 1" Lg. Self-Drilling Screws (used on EJN-PTX-200w only)
- Ø3/16" x 1-3/4" Lg. Anchor (used on EJN-PTX-200w only)

# Preinstallation

- 1. Pour floors with blockouts as shown on shop drawings. The blockout should be a minimum of 1" wider than the exposed cover width by the specified depth.
- 2. Ensure the area where the expansion joint system is being installed (including the blockout area) is smooth and level. High spots should be ground down and low spots filled in. Make sure the substrate is clean by sweeping and/or vacuuming substrate.

### INSTALLATION (EJN-PTX-400w THRU EJN-PTX-1200w ONLY)

 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 similar to Figure #11 below, please skip to Step #3 and mount the wall frame first, then follow the appropriate steps. See Figure 11.



2. Place base member frame with attached wing plate in blockout per shop drawings, mark on the wall the location that is level with the top of the wing plate. **See Figure 12.** 



#### **Direct Service Done Right**

3. Drill Ø3/8" clearance holes into the wall frames centered on the V-shaped mark on the frames as per the shop drawings. Holes to be drilled 2" from each end and then spaced 12" o.c. Attach pivot to wall frame by sliding it into the half-round opening on the wall frame from the end. **See Figure 13**.



FIGURE #13

4. Using tape or other temporary methods, drape moisture barrier sheet into joint opening and across and up wall 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 moisture barrier temporarily in place, as supplied anchors/screws will be used to hold base frames and moisture barrier in place. End on sheet good should extend past pre-drilled holes in blockout and above wall anchor hole. 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 14.



#### Direct Service Done Right

5. Remove base member frames with attached wing plate from blockout. Place wall frames against the wall with the top of the pivot level with the location marked on the wall. Drill Ø5/16" holes into the substrate at the hole locations on the wall frame and attach wall frame to the substrate with the supplied Ø3/8" Tapcon screws. See Figure 15.



After predrilling Ø3/8" clearance holes in the base member frames per the shop drawings, position it in blockout as shown below. Using the frame as a template, mark and drill Ø5/16" holes for the supplied Ø3/8" wedge bolts. Before installing base member frames to

the blockout opening with supplied anchors, apply a bead of silicone sealant to the underside of the base extrusion at the outside end of the extrusion. Install base member frame to the blockout opening with fasteners making sure not to over-tighten. Set the base frames into position and attach with supplied wedge bolts through the previously drilled holes. **See Figure 16.** 



Protect the exposed surfaces of the expansion joint before installing JointCrete<sup>™</sup> (sold separately) in the blockout, making sure the filler is level with the surrounding substrate.
 See Figure 17.



8. Place spring in channel on the wall frame as shown and attach cover plate with Ø5/16-18 screws through the predrilled holes into the pivot. Do not over tighten. Fill 1/8" gap with silicone sealant (by others). **See Figure 18.** 



# **INSTALLATION (EJN-PTX-200w ONLY)**

1. Place base member frame with attached wing plate in blockout per shop drawings, mark on the wall the location that is level with the top of the wing plate. **See Figure 19.** 



2. 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. Remove base member frame with attached wing plate from blockout. Place wall frame against the wall with the top of the pivot level with the location marked on the wall. Drill Ø5/32" into the substrate at the hole locations on the wall frame and attach wall frame to the substrate with the supplied Ø3/16" Tapcon screws. See Figure 20.



#### Direct Service Done Right

3. After predrilling Ø3/8" clearance holes in the base member ALUMINUM FRAME frames per the shop drawings, Ø3/8" X 3" WEDGE BOLT SCREW @ 18" O.C. position it in blockout as shown below. Using the frame as a SILICONE SEALANT template, mark and drill Ø5/16" (BY OTHERS) holes for the supplied Ø3/8" wedge bolts. Before installing base member frames to the blockout opening with supplied anchors, apply a bead of silicone sealant to the underside of the base extrusion at the 2" [51mm] outside end of the extrusion. MOISTURE BARRIER Install base member frame to FIGURE #21

the blockout opening (w/ moisture barrier underneath) with fasteners making sure not to over-tighten. **See Figure 21.** 

Install the wing plates to the base member frames with the Ø1/4-20 screws. Protect the exposed surface of the expansion joint before installing JointCrete<sup>™</sup> (sold separately) in the blockout, making sure the filler material is level with the surrounding substrate. See Figure 22.



#### Direct Service Done Right

5. 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 23.** 



# **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 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 <u>nystrom.com</u>