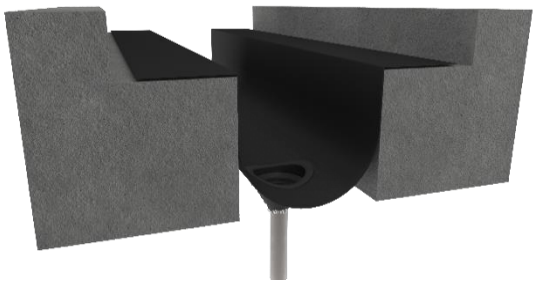
nystrom®

Installation, Operation + Maintenance Manual

MOISTURE BARRIER SYSTEM – UNDER SLAB, RECESSED AND BLOCKOUT APPLICATION

MODEL(S): UGS, RGS, BGS

EJN-BGS Recessed System (Shown Below)



GENERAL DESCRIPTION

Nystrom Moisture Barrier System is a flexible neoprene sheet good that works in seismic movement environments to help control moisture management. This system can be used independently of, or with many expansion joint systems.

Introduction + Safety

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.

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, climate-controlled, dry location.

Preparation

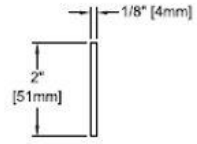
- Locate the packing slip(s) and/or shop drawings.
- Verify that all products listed on the packing slip are included in the package.
- Check the products for damage. If products are damaged, report a freight claim immediately and leave the products in their packaging. If you sign for products without 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.

Tool List

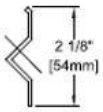
- Tape measure
- Sharp razor knife
- Level
- Drill
- Dremel tool
- Seam roller
- Broom & dustpan or vacuum
- Proper PPE (gloves & eye protection)

Dimension Chart *				
Model	Joint Opening @ Install	Available Sizes	Width (inch)	Thickness (inch)
21941	2" (51mm) to 3" (76mm)	100 ft roll	12" (305mm)	.062"
21942		50 ft roll		
21943	4" (102mm) to 6" (152mm)	100 ft roll	18" (457mm)	.062"
21944		50 ft roll		
21945	7" (178mm) to 10" (254mm)	100 ft roll	24" (610mm)	.062"
21946		50 ft roll		
21947	11" (279mm) to 18" (457mm)	100 ft roll	36" (914mm)	.062"
21948		50 ft roll		
21949	19" (483mm) to 26" (660mm)	100 ft roll	48" (1219mm)	.062"
21950		50 ft roll		

Accessory Part Numbers:



OPTION #1:
1/8" x 2" x 10FT
ALUMINUM FLAT BAR
(#AFB125X2000-10)



OPTION #2:
10FT EXTRUSION
(#32101)

DRAIN TUBE SYSTEM – OPTIONAL
(#EJN-DRAINTUBE-KIT)

Preinstallation

Proper surface preparation is required. Ensure that the area where the moisture barrier is being installed is smooth and level. Any high spots should be ground down and low spots filled in. After any prep work is done, all residues should be blown off with compressed air.

For horizontal joints, sidewall adhesives are required as they support joint performance.

INSTALLATION (EJN-UGS without Drain Tube Assembly)

1. Ensure proper surface preparation has been done (see Preinstallation step above). Using the purchased termination bar (#AFB125X2000-10), hold the neoprene sheet good against the concrete as shown. Note: Termination bar comes with predrilled holes will act as a template where holes can be predrilled for anchors. After holes have been drilled, remove sheet good and flat bars, then clean out holes of debris from the drilling process. When locating termination bars and anchors care should be taken to ensure proper drape and relaxation to accommodate joint movement. Temporarily hold in place with tape. **See Figure 1.**

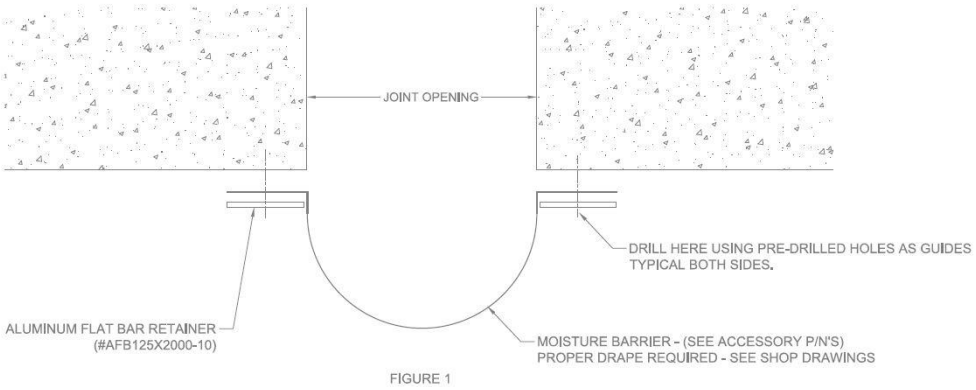


Figure 1

Prior to installing the anchors, apply a bead of sealant (by others) to the substrate that will be covered by the moisture barrier, typically both sides. This will help ensure that no moisture will propagate between the substrate and the moisture barrier. Then using the included anchors, fasten the flat bar retainer and moisture barrier to the substrate. Fill the end voids and the ends of the retainers with sealant (by others). Note: if possible, care should be taken to slope the moisture barrier system to nearest column or chase so that standing water in the system is minimized. **See Figure 2.**

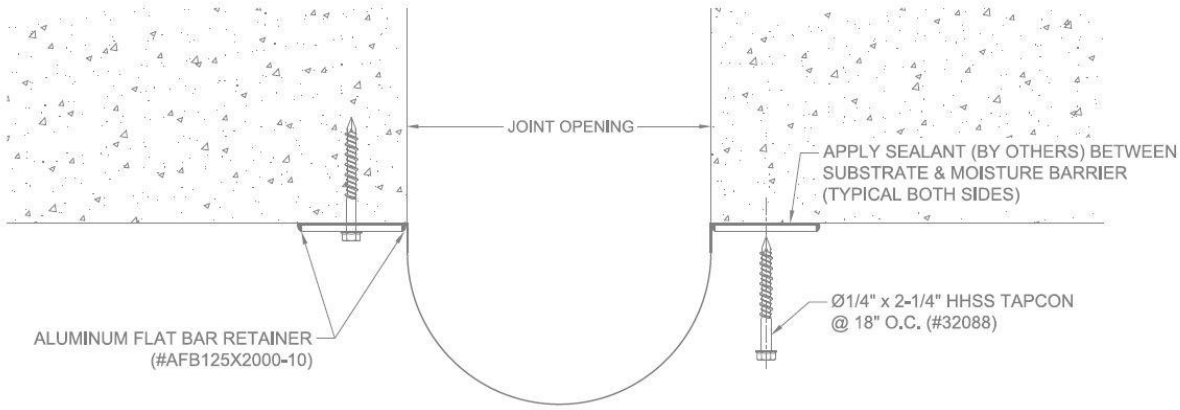


Figure 2

INSTALLATION (EJN-RGS without Drain Tube Assembly)

2. Ensure proper surface preparation has been done (see Preinstallation step above). Using the purchased termination bar (#32101), hold the neoprene sheet good against the concrete as shown. Note: Termination bar #32101 comes with a fabricated ID mark that will act as a locator where holes can be predrilled for anchors. After holes have been drilled, remove sheet good and termination bars, then clean out holes of debris from the drilling process. When locating termination bars and anchors care should be taken to ensure proper drape and relaxation to accommodate joint movement. Temporarily hold in place with tape. **See Figure 3.**

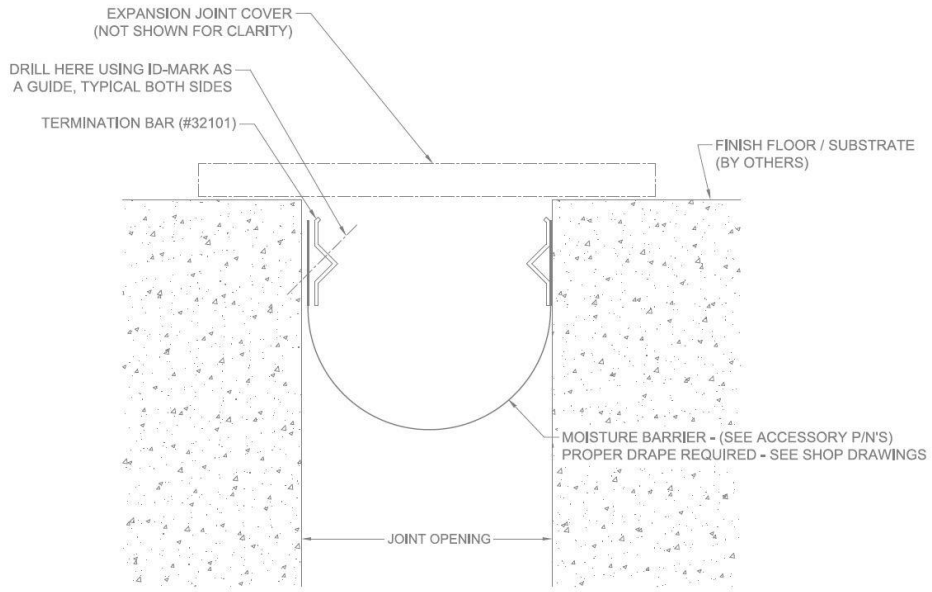


Figure 3

3. Prior to installing the anchors, apply a bead of sealant (by others) to the substrate that will be covered by the moisture barrier, typically both sides. This will help ensure that no moisture will propagate between the substrate and the moisture barrier. Then using the included anchors, fasten the termination bar and moisture barrier to the substrate. Fill the end voids and the top ends of the termination bars with sealant (by others). Note: If possible, care should be taken to slope the moisture barrier system to nearest column or chase so that standing water in the system is minimized. **See Figure 4.**

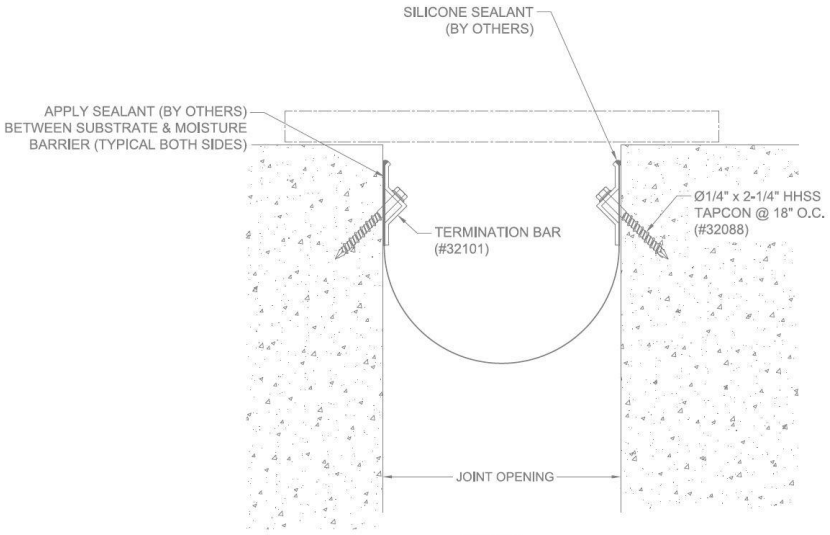


Figure 4

INSTALLATION (EJN-BGS without Drain Tube Assembly)

4. Ensure proper surface preparation has been done (see Preinstallation step above). Using the base members of the purchased expansion joint system: 1), hold the neoprene sheet good against the concrete in the block out as shown. Note: Most expansion joint base members come with a fabricated ID mark or predrilled holes that will act as a locator where holes can be drilled for anchors. After holes have been drilled, remove sheet good and base members, then clean out holes of debris from the drilling process. When locating the moisture barrier care should be taken to ensure proper drape and relaxation to accommodate joint movement. Temporarily hold in place with tape. **See Figure 5.**

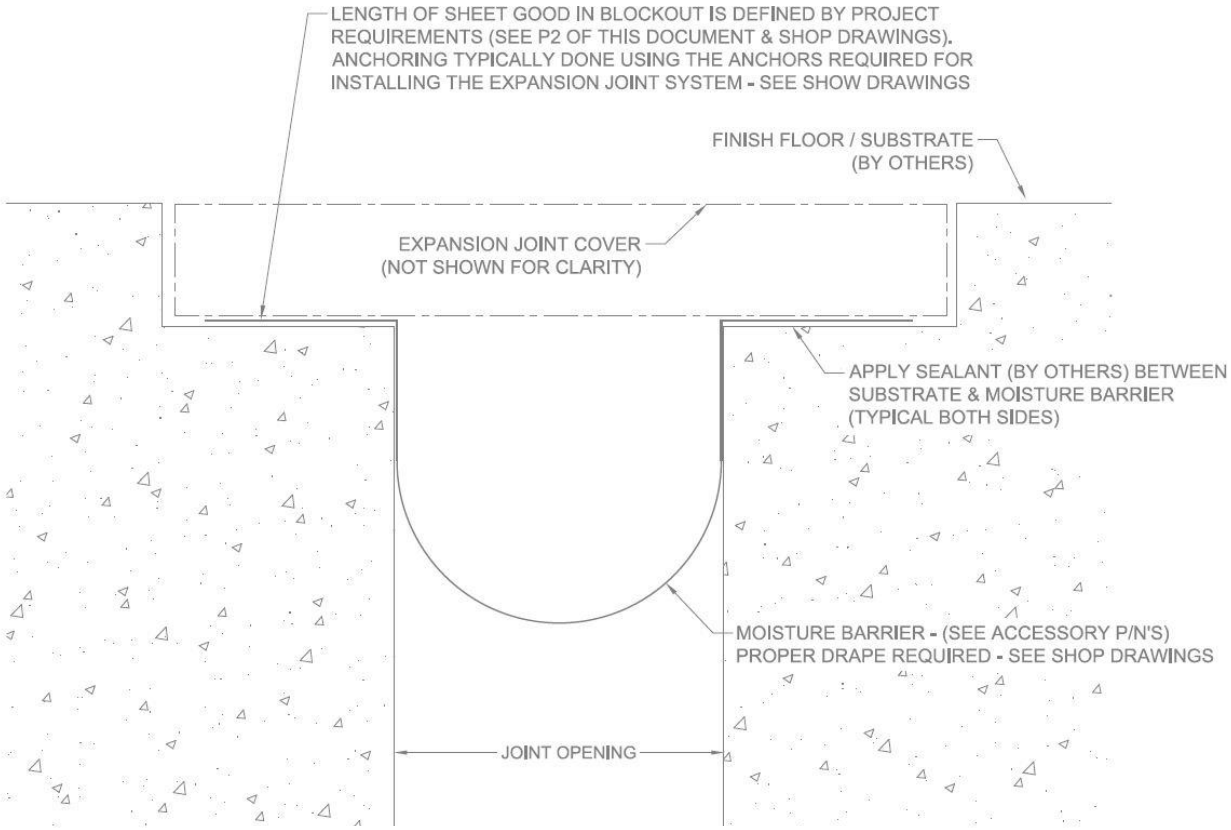


Figure 5

SPLICING INSTRUCTIONS (without Drain Tube Assembly)

To connect long runs of moisture barrier a “splice” may be needed. The following steps outline the process to create a proper splice to have a continuous moisture barrier under an expansion joint system.

1. Prior to anchoring to substrate place both pieces of sheet good on a flat, clean surface. Both sections should be cut straight as shown in Figure 6. **See Figure 6.**

Figure 6

2. Next cut the “splice” from the same sheet good such that no less than 3.00” [76mm] will overlap each side, making the splice a minimum of 6.00” [152mm] wide. **See Figure 7.**

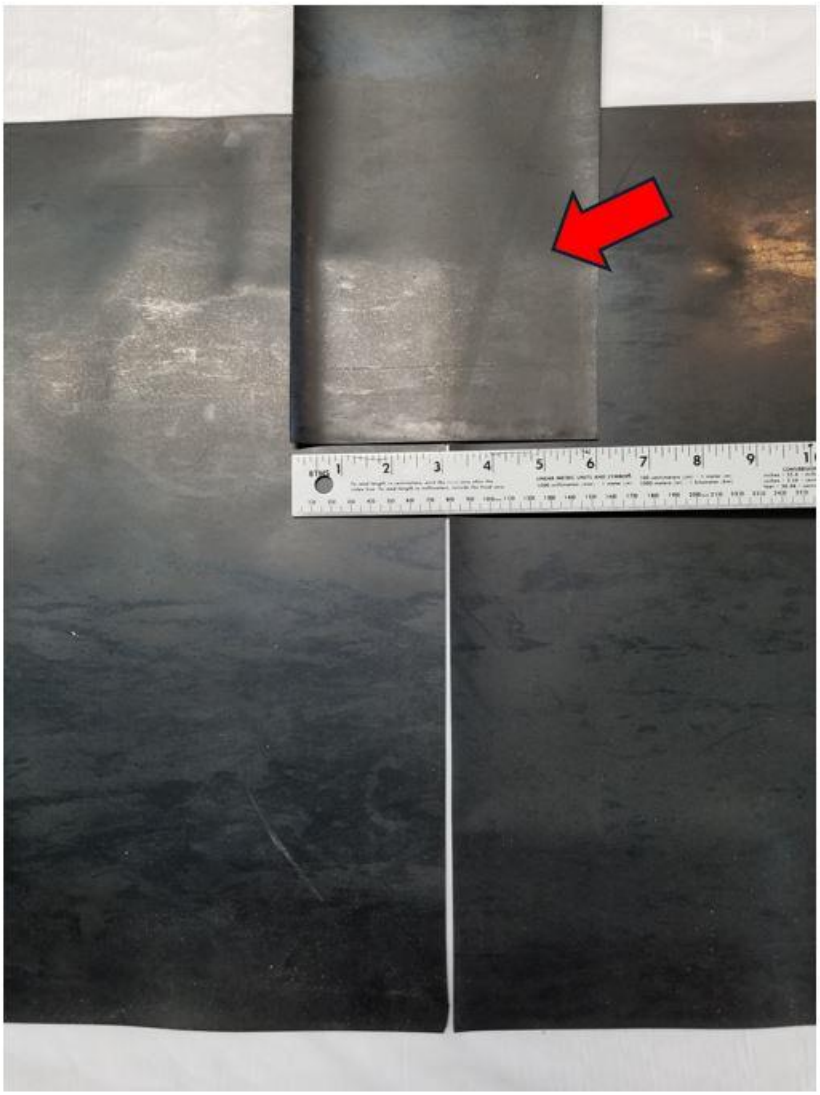


Figure 7

3. Next, solvent wipe the contact areas where the splice will be and the splice itself. **See Figures 8 & 9.**

Figure 8

Figure 9

4. Bring both ends of the moisture barrier together as tight as possible. Apply cyanoacylate glue or similar adhesive (by others) to the contact areas previously cleaned and the splice itself. Use a seam rollers to create a proper bond and unsure that no air bubbles are present. Apply equal pressure to all contact areas. **Figure 10.**

Figure 10

DRAIN TUBE ASSEMBLY INSTRUCTIONS

To help shed moisture in long continuous runs of moisture barrier a “drain tube assembly” may be needed. The following steps outline the process to create a proper drain tube assembly for use with a continuous moisture barrier under an expansion joint system. NOTE: Drain tube assemblies should be assembled and installed into the continuous run of moisture barrier prior to installation of the moisture barrier to the substrate.

1. Prior to assembly find a flat, clean surface to work on. Take the pipe boot (#MB-BOOT) and remove the top at the 2” mark. **Figure 11.**

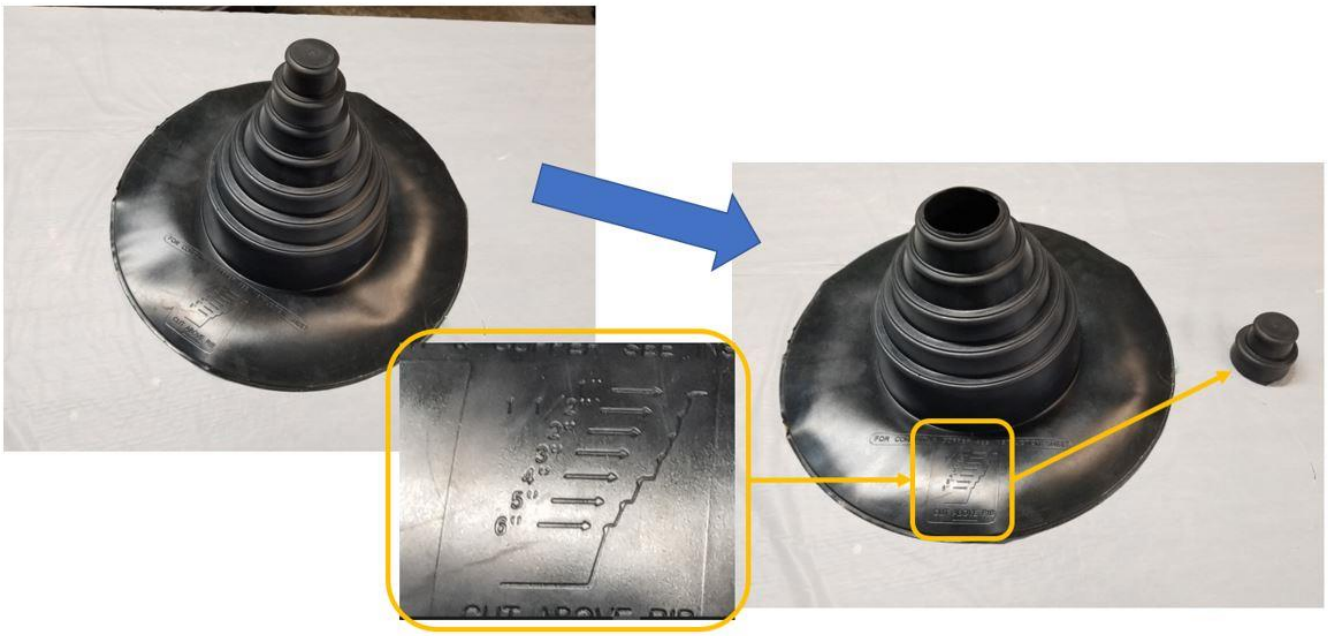


Figure 11

2. Pull through (invert) so the cone is now on the same side as the adhesive and set it aside for future steps. **Figure 12**.

Figure 12

3. Locate the drain tube assembly location(s) in the continuous run of moisture barrier (prior to hanging moisture barrier). Using a Ø6.50” template (cardboard or other) trace and cutout a Ø6.50” hole in the center of the sheet good at the required location(s). See **Figure 13**.

Figure 13

4. Using a dremel tool, abrade the area where the adhesive from the “cone” will land. Once the entire area is done, brush clean and remove any dust and debris. Then wipe the entire area clean with a solvent (denatured alcohol shown) and allow it to flash off and dry. See **Figure 14**.

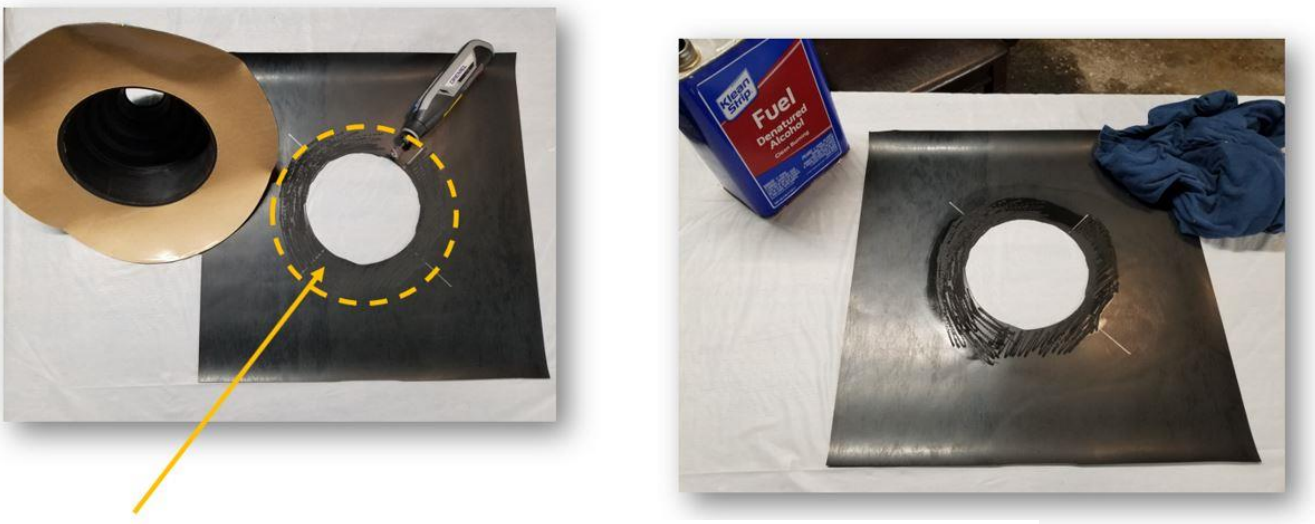


Figure 14

5. Carefully cover the roughed area (circled below) with cyanoacrylate glue or similar adhesive (by others) then gently remove the paper covering the adhesive on the "cone" and place the cone through the Ø6.50" opening made in the moisture barrier ensuring that the adhesive is set in the abraded area flatly and evenly without any bubbles or creases. Use seam roller or similar and roll both sides to make sure full contact is made and all air bubbles are squeezed out. **Figure 15.**

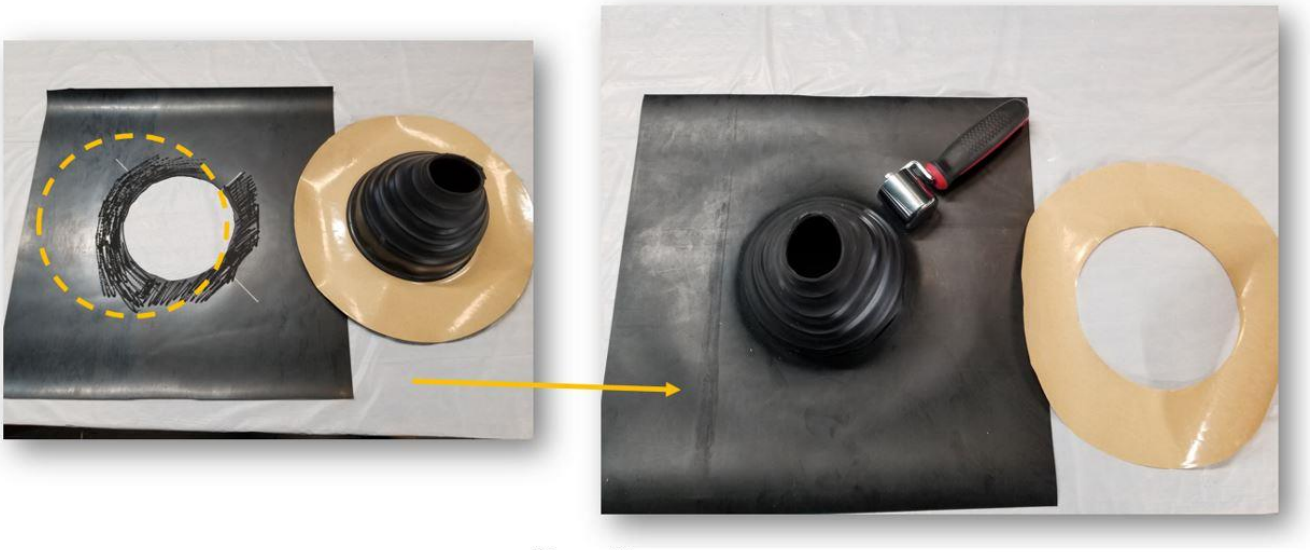


Figure 15

6. Once the cone is adhered to the moisture barrier, attach the vinyl tube (#MB-TUBE) to the cone, using the included pipe clamp (#MB-CLAMP). Below are pictures of a final drain tube assembly and what the inside of the moisture barrier will look like once the drain tube assembly is attached. **Figures 16 & 17**.

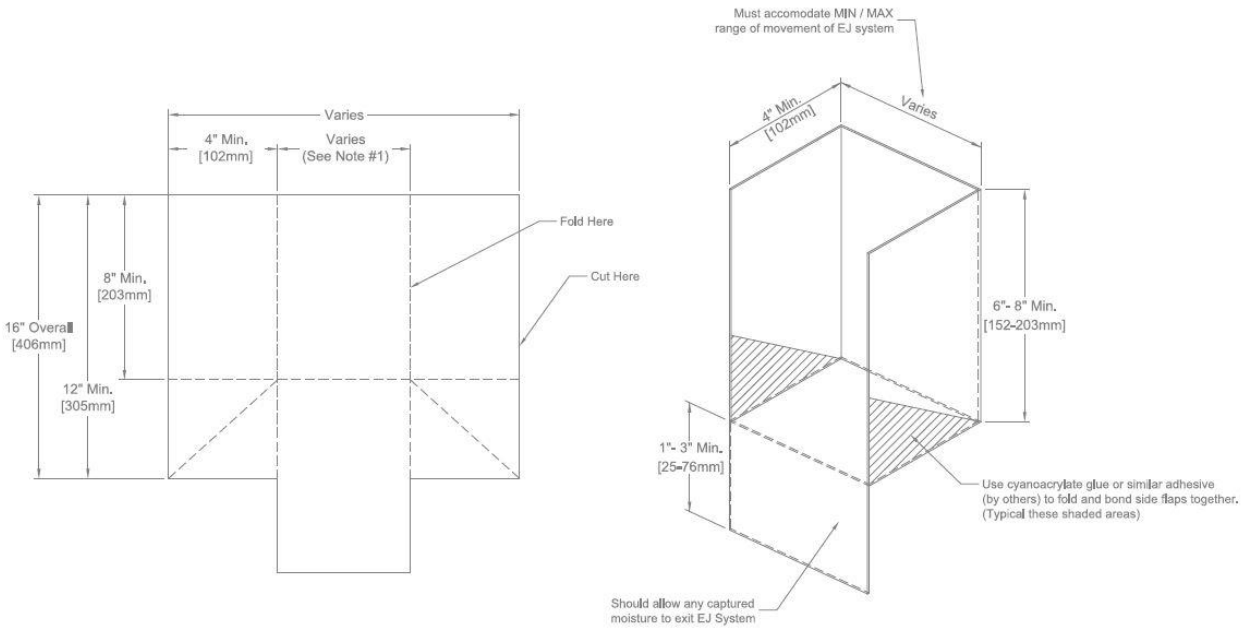
Figure 16

Inside view of Final Assembly.

Figure 17

7. Nystrom recommends the use of a “termination boot” at the base of the structure where the moisture is being sent to, to aid in removing any moisture that may accumulate in the moisture barrier(s). This component should be in place prior to the expansion joint system installation.

Note: The termination boot can be made of the same elastomeric sheet good used during the BGS/RGS/UGS moisture barrier installation, but the boot must be created to accommodate the minimum and maximum movement criteria of the specific expansion joint system being installed. Boots must also be watertight (see detail below).



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 components are tight and in place and there is no impedance of joint 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