

Installation Procedure

Last Updated: August 2023



Wabo[®]HSeal

Pre-Compressed Horizontal Expansion Joint System

The following installation procedure is very important and must be fully understood prior to beginning any work. To ensure proper installation and performance of expansion joint system the following actions must be completed by the installing contractor. **Failure to do so will affect product warranty.**

- 1) Carefully read and understand installation procedure. Contact WBA's Technical Service Department at (800) 677-4922 for product assistance.
- 2) Inspect all shipments and materials for missing or damaged components and hardware. Contact Customer Service at (800) 677-4922 with WBA's order number and invoice for prompt assistance.
- 3) Inspect substrate or adjacent construction for acceptance before beginning work. Report unacceptable construction to the project manager for scheduled repair work.
- 4) Review WBA shop drawings for project specific detailed information if Engineering services were purchased at time of order.

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Health & Safety

During the installation of any Watson Bowman Acme product, appropriate personal protective items should be worn at all times, including but not limited to the following:

- Proper work clothing
- Safety glasses
- Safety boots
- Gloves
- Hard hat

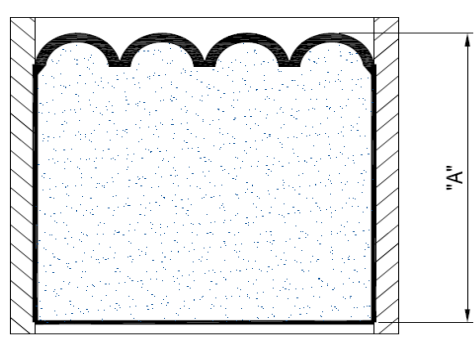


Local rules and regulations regarding safe work environments and health should be followed.

Product Components

In addition to safety equipment required to comply with applicable federal, state and local safety regulations, equipment to prepare and repair the joint faces, as well as normal tools of the trade, the following are required:

- Tape measure
- Heavy duty, plug-in, low speed, high torque drill
- Minimum 2 each 1 ½-inch diameter “jiffy mixers”
- Sausage caulk gun for 20-oz silicone sausages provided
- Long-bladed, serrated bread knife
- Hacksaw o Spray bottle with water
- Duct Tape (2 ½ times the length of joint)
- Spatula to scrape epoxy from can of Chemical-resistant gloves
- 2-inch wide (50mm) margin trowels for applying epoxy adhesive on joint faces
- Caulk knives for tooling sealant bands
- Acetone* for cleaning joint-faces, trowels and mixer tools
- Clean lint-free, 100% cotton rags
- Foam Expansion Joint



Model	Seal Depth	
	"A"	
	inches	mm
25EH	2.00	51
40EH	2.50	64
50EH	2.50	64
65EH	2.75	70
75EH	3.25	83
90EH	3.50	89
100EH	4.00	102

Pre-Installation Notes

Temperature can affect the expansion properties of the material during installation. Material will expand faster when hot and slower when cold.

Installation Tip: In cold temperatures, store material in a heated area 24hrs prior to installation. In hot temperatures, store material out of direct sunlight and not in an enclosed storage container where temperatures may exceed 100°F (38°C).

Clean & Prepare Joint Substrate

Concrete:

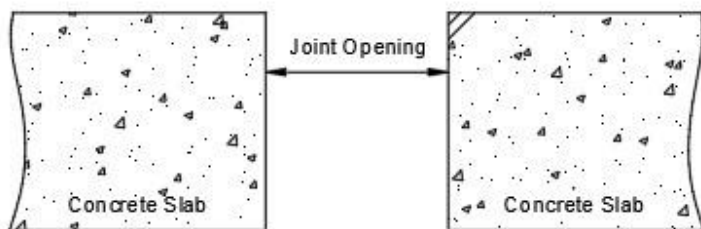
- Prior to beginning work, installer shall inspect and verify that the joint is clean, sound and will provide an appropriate surface (depth) for the installation of the Wabo®HSeal. Installer shall verify that the joint is uniform and that any spalls are repaired using proper materials and methods. Joint faces must be parallel.
- Confirm joint substrate is dry, clean and ready for the epoxy adhesive.
- Recommended abrasive blasting to achieve (ICRI) Concrete Surface Profile is 2-4. If abrasive blasting is not achievable, Disc grinding is an alternative method using Diamond Cup Wheel or Zec Wheel.

Metal:

- If metal is galvanized, wipe with solvent just prior to applying the epoxy.
- If metal is not galvanized, metal must be blasted to a SP-10 near-white steel just prior to applying the epoxy.

Installation

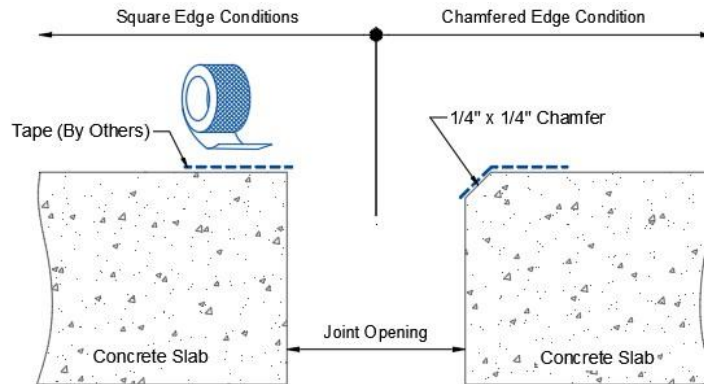
- 1 Prior to beginning work, installer shall inspect for proper wall construction and ensure that joint opening has enough depth to accept the Wabo®HSeal. Verify joint opening as called for on chart. Deficiencies in joint opening (such as spalled edges and protruding objects) must be corrected prior to beginning work to ensure a clean, smooth, dry surface for the installation of Wabo®HSeal.



Model	Joint Opening
25EH	1"
40EH	1 1/2"
50EH	2"
65EH	2 1/2"
75EH	3"
90EH	3 1/2"
100EH	4"

2

Before installation of Wabo®HSeal, tape off edges of the substrate to prevent the epoxy from coming in contact with the exposed surface.



3

Mix Epoxy

- 1) Epoxy adhesive may be used in the 40°F (5°C) to 95°F (35°C) temperature range.
- 2) Transfer the contents of Part B (hardener) into the contents of Part A (base). Always add Part B to Part A in a 1:1 ratio.
- 3) Mix the material thoroughly with a low speed drill (300rpm) and mixing paddle. Scrape the walls and bottom of the container to ensure uniform and complete mixing with no streaks. Failure to scrape all the contents out of the containers will cause you to get improper yield out of each unit. Mix until the black & white is evenly blended, leaving no streaks of either color.
- 4) Important: Do not thin the epoxy.

TIPS

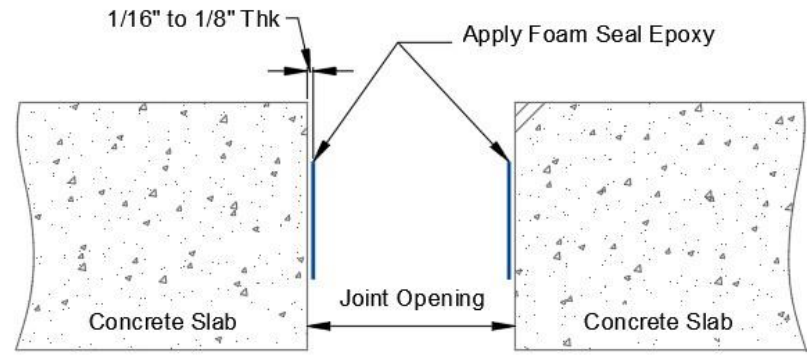
- 1) Ensure that the mixed epoxy adhesive is applied to the substrate before the pot life has expired (10 – 30 minutes depending on the ambient temperature).
- 2) Mix equal parts of A & B for at least 3 minutes until the material is a uniform gray color.
- 3) Epoxy will not cure when the temperature is below 40°F (5°C).
- 4) For every +17°F (+8°C), the epoxy cures twice as fast.
- 5) For every -17°F (-8°C), the epoxy takes twice as long to cure.

Apply Epoxy

- 1) Mix only the required amount of epoxy that will be used within a 30 minute time frame to prevent the epoxy from curing prematurely.
- 2) **WARNING:** Epoxy will harden more quickly when left in the pot. Apply mixed epoxy onto the joint face as soon as possible.
- 3) **IMPORTANT:** The epoxy must still be uncured and tacky when installing the Wabo®HSeal expansion joint sealant into the joint.
- 4) If the epoxy cures before installing the Wabo®HSeal, new epoxy can be reapplied within 2 hours.
- 5) After 2 hours, the substrate must be abraded to eliminate the amine blush that occurs in the final cure.
- 6) Apply epoxy to ensure contact with full height of Wabo®HSeal expansion joint system profile.

4 Apply a 1/16" – 1/8" coating of epoxy to both sides of the joint substrate using a 2" margin trowel to a depth of the Seal plus 1/2". The epoxy must still be wet upon installation of Wabo®HSeal. The working time for the epoxy is about 30 minutes at 60°F (less if warmer, more if colder).

Installation Tip: To extend the pot life of the epoxy, split up the mixed material into a couple smaller units.

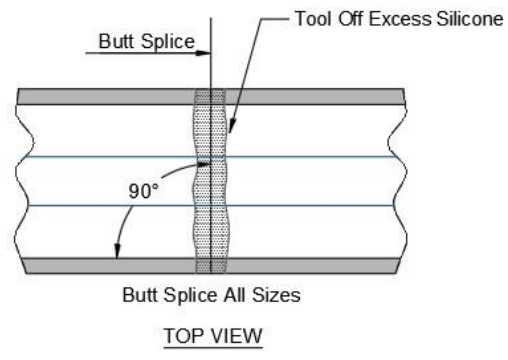


Important Note:

Do Not remove the outer plastic shrink wrap packaging until you read and understand the following Instructions.

- Make any cuts to Wabo®HSeal **before removing** the clear shrink wrap packaging. Please refer to Step 6 for proper splicing techniques.
- Prior to installation, lightly, quickly and thoroughly wipe off the coating on the silicone facing with a damp lint free cloth.

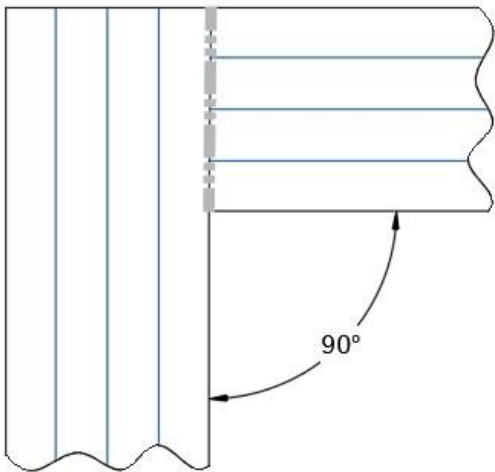
5 For all Seal sizes, splices will be installed as a "Butt" joint.



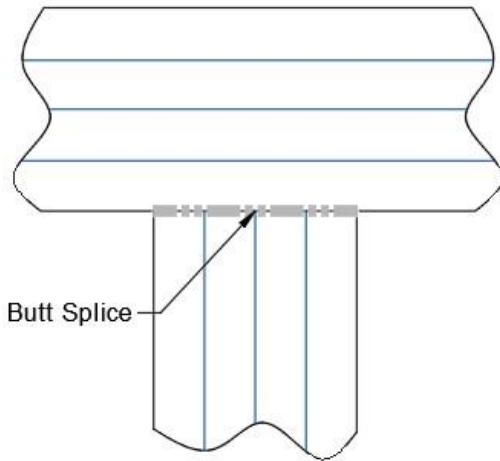
5A

For "L", "T" and "X" Transitions simply "Butt" the Seals together as shown.

NOTE: At all splice locations, contractor shall apply a bead of the silicone supplied to ensure a watertight splice connection,



"L" Transitions



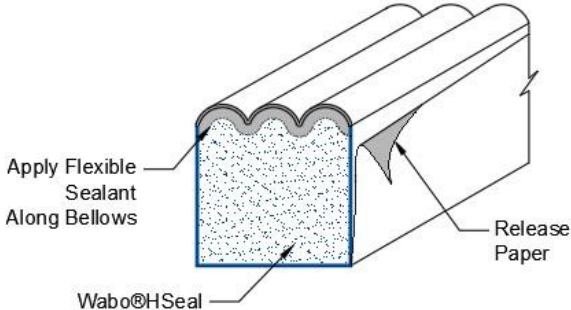
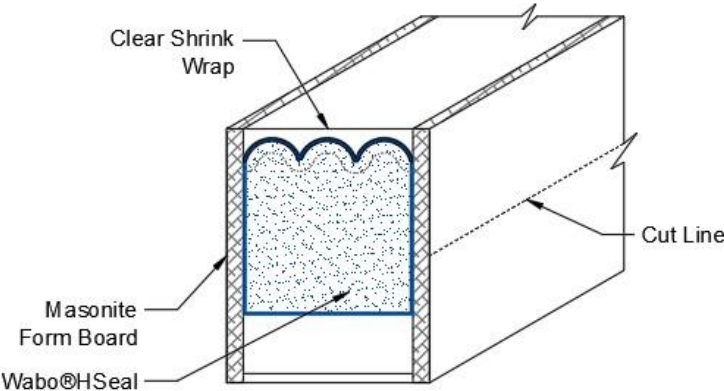
"T" Transitions

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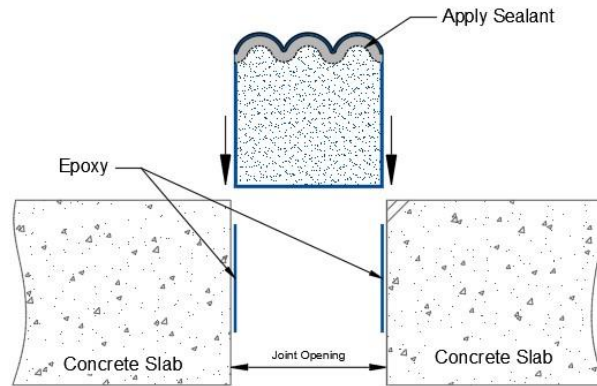
When you are fully prepared to install Wabo®HSeal, cut the shrink wrap packaging. Be prepared to install the Seal immediately once the packaging is removed to prevent the material from expanding past the joint width.

Note:

- When removing shrink wrap packaging, cut along Masonite Form. This is to ensure that the colorable Silicone Face has not been cut.
- Prior to installation, lightly, quickly and thoroughly wipe off the coating on the silicon facing with a damp lint free cloth.



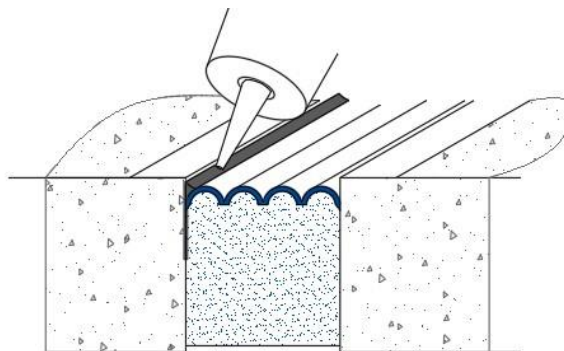
- 7** Apply a bead of Silicone Sealant to both Silicone Bellows faces to be joined. Do not apply sealant to foam. Do not coat faces of the Wabo®HSeal with the Silicone Sealant that will come in contact with epoxy.



- 8** Install the material, starting at one end of the joint working towards the other end of the joint. Make sure not to pull, twist or stretch the material in the process of installation. In cool weather, the Masonite board can be used to support the Seal over the joint opening until the Seal expands enough so that it can be installed.

- 9** **IMPORTANT: Silicone left between the wrinkles of the bellows could constrain movement - using a caulk knife, remove excess sealant and blend what remains into the bellows.**

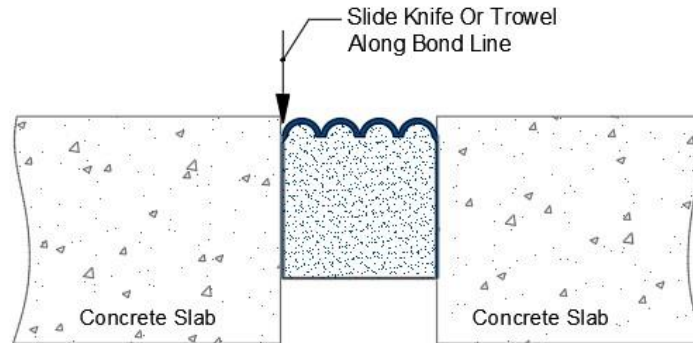
- Wipe any excess epoxy from top of material using a clean rag.
- Before the epoxy cures, force the tip of the silicone nozzle gun between the substrate and the Wabo®HSeal foam. Inject a 3/4-inch (20mm) deep silicone sealant bead between the foam, cured silicone facing and the joint-face.
- Tool the freshly applied silicone firmly to blend with the substrates and cured bellows facing, and to ensure a proper bond and seamless appearance.
- Where Wabo®HSeal foam meets at butt joints, tool the excess silicone that squeezes out from the top and between the bellows.



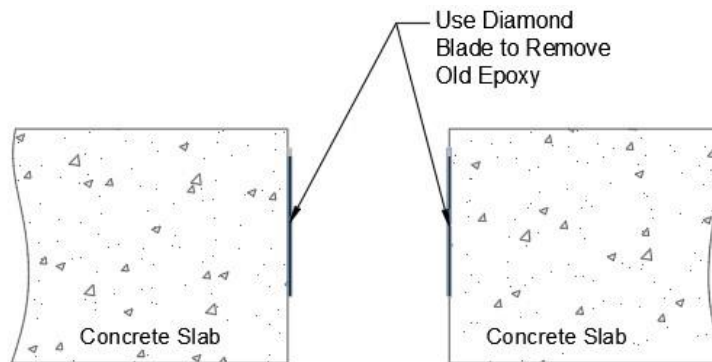
Repair Procedure

Please follow the repair procedure below for when Wabo®HSeal happens to fall down before or after the epoxy curing process.

- R1** Slide a large knife or trowel along the bond line as shown below and remove the affected section of Wabo®HSeal. Exercise care not to destroy the seal while trying to separate the seal from the Epoxy Bond Line.



- R2** Once the seal has been carefully removed from the concrete, the fastest way to remove the old epoxy is to use a concrete cutting saw with a diamond blade. When you run the diamond blade along the epoxy line, the blade will remove the epoxy and prep the surface as well.



- R3** After the seal and old epoxy has been removed, please follow the installation procedure for instruction on re-installing the Wabo®HSeal product.

*Watson Bowman Acme is your Strongest Partner for Expansion Joint Systems & Responsible Solutions.
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