

Installation Procedure

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Wabo® Crete StripSeal

Armored Joint and Elastomeric Concrete Expansion Joint System for Parking Applications

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.

Pre-Installation Notes

The work shall consist of furnishing and installing a Wabo®Crete StripSeal joint system in accordance with the details shown on the plans and the requirements of the specifications. Placement of the Wabo®Crete StripSeal joint system shall consist of proper surface preparations, material and application of materials. The Wabo®Crete StripSeal joint system is prefabricated.

Blockout Preparation for Wabo®Crete Parking Series Elastomeric Concrete

- The blockout shall be constructed to the dimensions on the shop drawings. The concrete substrate must be clean (free of dirt, coatings, rust, grease, oil and other contaminants), sound and durable. New concrete must be cured (minimum of 14 days) and all laitance removed. Suitable preparation methods include sandblasting, chipping and scarification. Acid etching is not encouraged, although it may be required.
- Forming materials should be carefully removed to avoid edge spalling of the concrete. Joint gap edges should be chamfered to help prevent small fractures and spalling. Edge spalling conditions should be repaired and allowed to properly cure prior to installation of the Wabo®Crete StripSeal joint system. Repairs shall be made as directed by the Engineer.
- The substrate sidewalls must be sound and free of all contaminants such as grease, oil, form release agents, etc. prior to installation of the Wabo®Crete StripSeal joint system.
- The preferred method of surface preparation to produce laitance-free, roughened sidewalls is abrasive blasting. Where this is not permitted, disc grinding should be employed. Ensure a coarse disc is used to produce an abraded surface. The gap openings should be blown out with clean air to remove dust. Vacuum with HEPA rated equipment to remove dust if required by OSHA or another authority.
- Installation must be performed in joint gap openings with sound, clean and dry substrates. Any loose portion of substrate at the gap must be removed and the substrate properly repaired as directed by the engineer.



Preparation (New or Aged Concrete)

- The concrete substrate must be clean (free of dirt, coatings, rust, grease, oil and other contaminants), sound and durable. New concrete must be cured (minimum of 14 days) and all laitance removed. Suitable preparation methods include sandblasting, chipping and scarification.
 - Durable Concrete - Sound and durable concrete should have a cap pull-off strength that meets or exceeds ACI 503R, Appendix A.
 - Unsound Concrete – Loose, contaminated, weak, spalled, deteriorated and/or delaminated concrete must be removed to sound concrete and repaired. Prior to placement, any spalling, voids or structural cracking at the joint interface must be repaired. Follow International Concrete Repair Institute (ICRI) and American Concrete Institute (ACI) concrete repair and maintenance guidelines.

Preparation (Steel – New or Existing)

- Steel surfaces must be abrasive blasted immediately prior to installing the Wabo[®]Crete StripSeal joint system. This is a requirement in new or existing construction. All oxidation must be removed and “white steel” revealed. Where abrasive blasting is not permitted, steel surfaces will be aggressively disc-ground to roughen and abrade the surface to achieve the “white steel” condition.
- Stainless steel surfaces require aggressive grinding and/or blasting to remove the smooth, glassy surface for acceptable installations (SP-10 or “nearly white”). On galvanized steel surfaces, the galvanizing material must be removed to look like “white steel.” Galvanizing material should have good adhesion to steel. Steel must be solvent wiped with Denatured Alcohol or Xylene, and clean white cotton rags just prior to installation.

Field Preparation

- Proper field handling is of utmost importance to avoid damage to the fabricated joint system while it is lifted and lowered into its final position. The joint system shall be set to line and grade, ensuring that the system's uppermost plane matches the finished roadway profile.
- Before casting in the joint system to the structure, the setting dimension shall be adjusted under the direction of the Field Engineer, to correspond to the proper ambient temperature dimension as shown on the shop drawings. The adjustment is accomplished by means of shipping and leveling devices, furnished by the manufacturer, which shall accompany the expansion joint system to the job site.
- The structure temperature shall be measured by recording the surface temperature of the concrete and/or steel with a surface thermometer as described below.
- Record the temperature of the underside of the concrete slab at each end of the superstructure element adjacent to the expansion joint. Take the average of the readings to use with the temperature chart shown on the plans. In lieu of surface readings, internal slab readings may be taken by drilling a 1/4" diameter hole 3" into the concrete slab; filling the hole with water and inserting a probe thermometer.

For Best Results

- Protect the work area with appropriate plastic sheeting. It is always a good idea to utilize plastic sheeting on the underside of the joint opening to protect from objects, dripping liquids, or other materials from falling through the opening to lower levels.
- Do not allow any of the components to freeze prior to installation. Store all components out of direct sunlight in a clean, dry location between 50°-90°F (10°-32°C).
- Shelf life is 18 months.
- Proper application is the responsibility of the user. Field visits by Watson Bowman Acme personnel are for the purposes of making technical recommendations only.

Field Splicing

- If the system is to be installed in sections, the manufacturer will ship the joint with the appropriate ends beveled for field welding. Once the first joint section is installed and concrete has been cast, the adjacent length is field welded. Special care should be taken to the field weld details shown on the manufacturer's shop drawings.

Final Joint Placement

1

Complete all welded connections. Utilizing the manufacturer's leveling device, position joint system into the blockout. Properly align inside bottom face of the steel rails to reflect the structural gap opening, ensuring the rails are not unsupported or cantilevered into the joint opening.

2

When casting the joint system into the structure, care should be taken so that proper consolidation of Wabo[®]Crete Parking Series elastomeric concrete around the system is achieved. A minimum clearance of ½" (13 mm) between the bottom of the steel rail and the concrete substrate shall be consistent throughout the length of the joint, ensuring proper flow and consolidation of the elastomeric concrete material.

Mixing of Wabo®Crete Parking Series Elastomeric Concrete

- 1** **DO NOT** mix partial units of Wabo®Crete Parking Series Elastomeric Concrete. Thoroughly stir Part B, scraping the can before pouring entire contents of Part B into a clean 5 gallon plastic bucket. Add Part A and mix both components with a 3/4" Low RPM drill equipped with large grout paddle for 30 seconds and until well blended.
- 2** Add aggregate component to the liquid material and mix until all aggregate is coated (Approx. 1.5 minutes). Pour Wabo®Crete Parking Series Elastomeric Concrete mix flush to the top of the adjacent existing surface. The material will flow and self-level. Lightly trowel surface to a smooth finish. If desired, solvent (i.e. Xylene, Toluene) can be used while troweling and for cleanup of tools.
- 3** After 2-3 minutes, broadcast Masterseal 940 Aggregate to refusal (medium grit). This enhances Wabo®Crete Parking Series Elastomeric Concrete aesthetic, UV stability and skid-resistance. Remove tape from top of seal immediately after installation of Wabo®Crete Parking Series Elastomeric Concrete is completed.

Placement of Wabo®Crete Parking Series Elastomeric Concrete

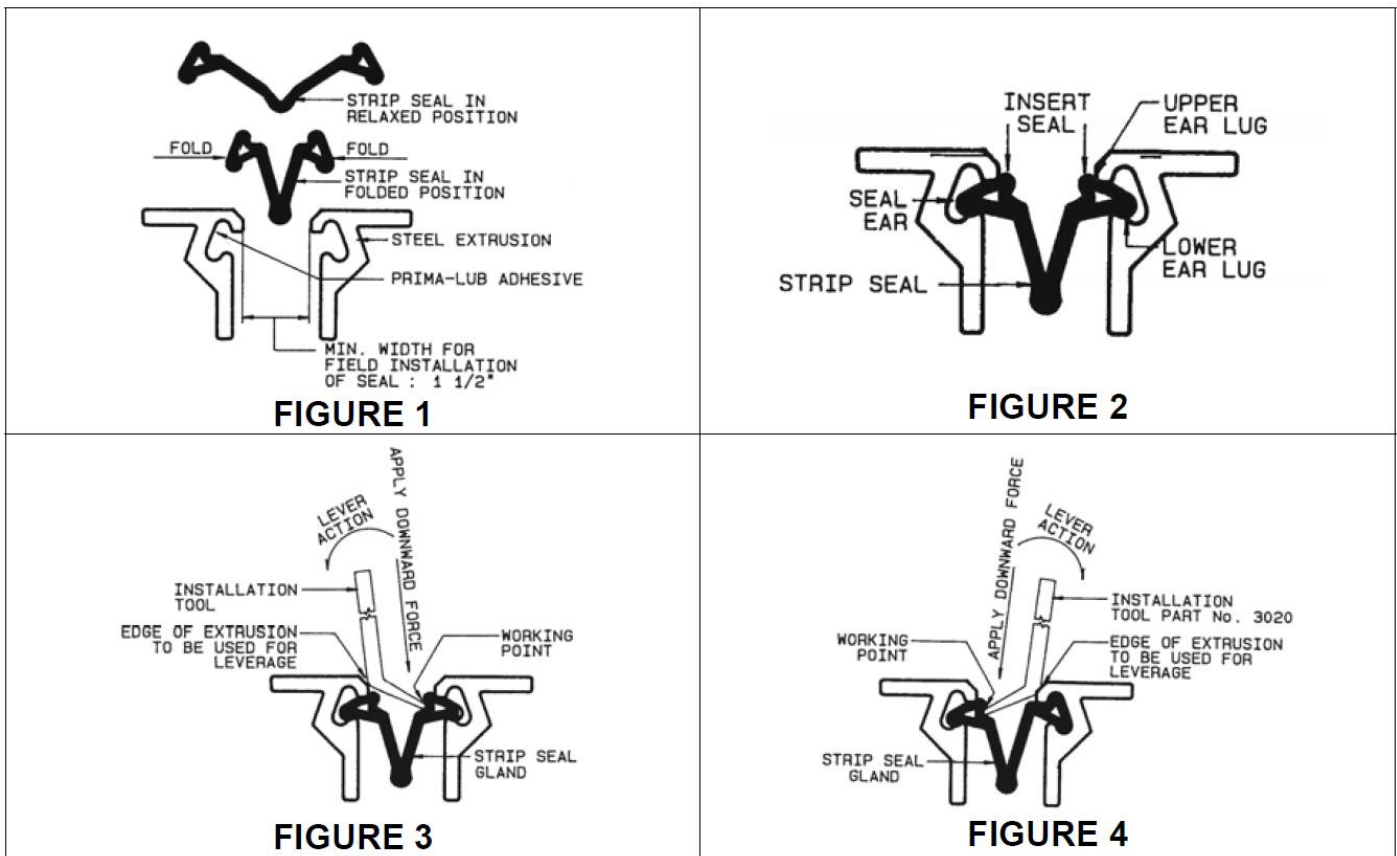
- 1** The final blend of Wabo®Crete Parking Series elastomeric concrete is poured out of the mixing bucket and into the blockout area. Wabo®Crete Parking Series is an ambient cure material. Cure times are, therefore, temperature dependent. Suggested cure times are listed below:

Cure Time (Open to Traffic)	70-90 °F (21-32 °C)	1- 1 ½ hours
	50-70 °F (10-21 °C)	1 ½ - 2 hours
	40-50 °F (4-10 °C)	2 -3 hours

Seal Installation

1 The neoprene seals shall be field installed in continuous lengths, spanning the entire roadway width. To ensure proper fit of the seal and increase the ease of installation, dirt, spatter or standing water shall be removed from the steel cavity using a brush, scraper or compressed air.

2 Apply Wabo®Prima-Lub by brush to the full perimeter on the walls of the steel shape machined cavity. (Refer to sketch below.)



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