

Wabo®SPS Joint System

Preformed Silicone Joint Sealing System

RECOMMENDED EQUIPMENT

Watson Bowman Acme recommends the following equipment and tools for ease of installation

- Sandblasting equipment to remove laitance in new concrete, and debris or other contaminants for joint replacement in blockout area.
- Air compressor capable of achieving 150 psi to operate sandblaster and pneumatic gun
- Denatured alcohol to clean seal profile
- White cotton rags to use with denatured alcohol
- Pneumatic caulking gun to dispense adhesive (WBA Part # 40501)
- Small trowels (3 inch wide) or putty knives for tooling adhesive
- Foam backer rod or blue board to stabilize seal profile during installation
- Non serrated blade for cutting seal
- Solvent brush
- PP Primer (WBA Part # 2717) for splices
- Aron Alpha 241 (WBA Part 2716) for splices

A. GENERAL

The work shall consist of furnishing and installing a Wabo®SPS Joint System in accordance with the details shown on the plans, and the requirements of the specifications. Placement of the Wabo®SPS joint system shall consist of proper surface preparation, material and application of materials. Substitution of alternate materials may affect product performance and are prohibited.











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Step1. JOINT PREPARATION

The joint interface 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.

<u>Durable Concrete</u>- sound and durable concrete should have a cap pull-off strength that meets or exceeds ACI 503R, Appendix A.

<u>Unsound Concrete</u> – Loose, contaminated, spalled, deteriorated and/or delaminated concrete must be removed to sound concrete and repaired prior to placement of Wabo®SPS Joint System. Any patching materials must be approved by manufacturer prior to use.

<u>Steel</u> – Steel substrates should be sound, steel surfaces must be abrasive blasted SP-10 near white metal, immediately prior to installation.

Joint interfaces should be sandblasted to remove any residue that may be present. It is recommended that sandblasting operations be performed in two steps, one step per joint interface.

The joint should be blown clean using compressed air (>90 psi). The compressed air shall be free of moisture and oil. The joint interfaces should be checked after sand blasting is complete. Should any contaminates remain, the joint must be reblasted and blown clean. To ensure proper adhesion each joint interface should be wiped clean with a clean rag without solvent to remove any dust remaining after sandblasting.





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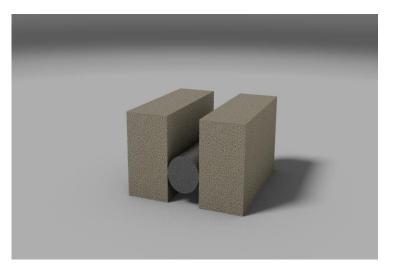
Step2. SEAL POSITIONING

Inspect joints for proper depth as detailed in the plans. A closed-cell, expanded polyethylene foam backer rod is recommended for seal depth positioning. The backer rod stabilizes the seal and acts as a seat to prevent the preformed silicone seal from migrating below the recommended joint depth during installation.

Minimum groove depth placement is as follows:

Model number	Groove (installation) depth
Wabo®SPS-150	2.00" (50mm)
Wabo®SPS-225	2.625" (67 mm)
Wabo®SPS-400	3.75 (95 mm)
Wabo®SPS-5400	4.75 (121 mm)

The size of the backer rod should be approximately 20-25% greater than the joint opening to be sealed. For larger openings, foam board or "hot-dogging" the backer rod (increasing a standard backer rod by cutting it partially open and inserting a smaller foam rod) can be used.



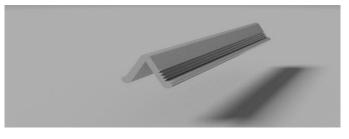


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Step3. PACKAGING / COMPONENTS

- Wabo®SPS preformed silicone seal, custom packaged to specific lengths
- WaboSil Adhesive 29 oz cartridge
- Pneumatic Applicator Gun sold separately
- Splice Kit (PP Primer and Aron Alpha 241) sold separately













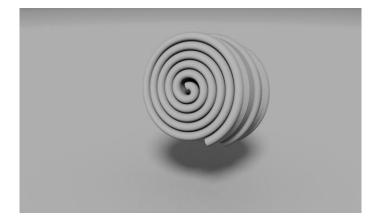


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Step4. PREFORMED SILICONE PREPARATION

Unroll the Wabo®SPS preformed silicone seal adjacent to the joint opening and cut to the proper length. With a clean rag, wipe the serrated sidewalls and rounded lugs of the silicone seal with denatured alcohol (supplied by others). This is to ensure a clean surface for bonding of the adhesive.



Step5. ADHESIVE APPLICATOR

Set pressure on air compressor to 90 psi after attaching trigger. Press the trigger of the pneumatic adhesive applicator to engage the plunger. A cushion of compressed air will build up inside the applicator to initiate the flow of the adhesive. Releasing the trigger, the adhesive flow will cease. Controlling the adhesive flow rate is achieved with the integral pressure regulator fitted to the trigger handle. To increase flow, turn knob clockwise, to decrease the flow, turn the knob anti-clockwise,

CAUTION: the line pressure connect to the applicator should not exceed 145 psi. (1 MPa). Always disconnect the air line prior to dismantling the applicator. To ensure trouble-free operation of the applicator, it should be wiped clean of sealant residue with denatured alcohol after use





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Step6. PREFORMED SILICONE SEAL PLACEMENT

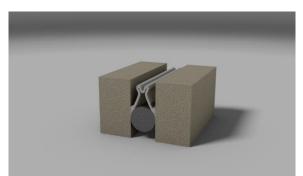
Recommended application temperature is 40° F (5 °C) and rising. Contractor shall apply adhesive to both sides of the joint interfaces with a continuous 3/8" to $\frac{1}{2}$ " (10mm to 12.5 mm) bead of Wabo®Sil Adhesive approximately at the recommended depth.





Fold the Wabo®SPS preformed silicone seal and insert into the joint. Push the Wabo®SPS preformed silicone seal into the joint maintaining contact with the joint interfaces and the Wabo®Sil Adhesive until it has rested upon the backer rod,







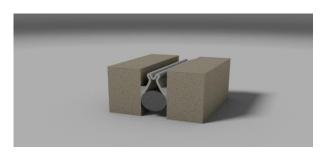
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Apply a second bead of Wabo®Sil Adhesive along each side of the seal and fill to the top of the serrations. Care should be taken not to exceed the serrated areas.

Tool the Wabo®Sil Adhesive on both sides to ensure the adhesive makes full contact with the seal and substrate. The Wabo®SPS joint system will be ready to accept traffic within one hour after installation



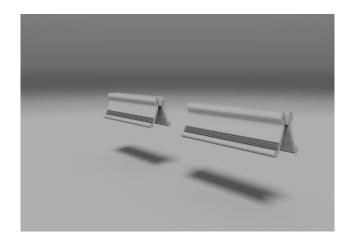


Step7. SEAL SPLICE

Cut preformed silicone seal material with a non serrated blade creating a fresh cut on both sides. A miter box is recommended to maintain a straight and accurate cut. A lubricating compound could be used to cut such as denatured alcohol.

Both ends of the preformed silicone seal shall be cleaned using a solvent brush and PP Primer (WBA Part # 2717) to cut the surface. Apply the Aron Alpha 241F (part #2716) to the cut surface of the preformed silicone seal one half at a time and compress pieces together, holding in place for 30 seconds under firm pressure.

It is recommended to let spliced section rest untouched for approximately 3 minutes prior to flexing in the joint opening, ensuring full cure of the splice adhesive.



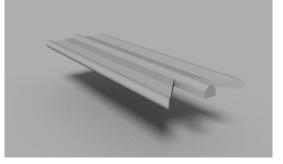


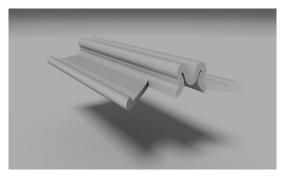
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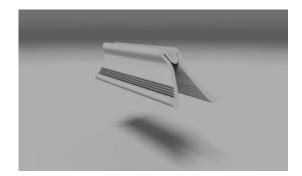
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Step8. CURB UPTURNS

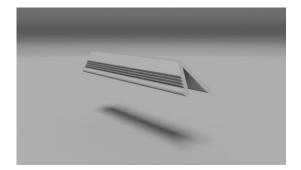
Before cutting measure seal to ¼" past face of curb and mark with a pen. From mark add appropriate angle (typically 45) with seal folded in half. Then lay seal flat and cut with razor stopping at center fold and remove triangle leaving center run long.







Fold seal in half and very carefully continue angle through center this will prevent a gap in center when putting two pieces together. Repeat on opposing side.

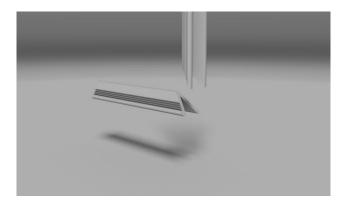


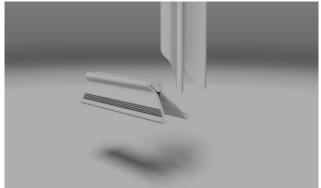


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- 1. Clean cut area with PP Primer all to flash off.
- 2. Apply Aron Alpha 241 Adhesive to one of the surfaces
- 3. Apply pressure bringing the two surfaces into tight contact immediately after adhesive is applied held in place for one to two minutes for initial bond.
- 4. Re-check quality of all splices/miters and apply glue as required.
- 5. To achieve proper working strength care shall be exercised as a result that it takes 24 hours for glue to fully cure.
- 6. After the glue has properly cured, tool Wabo Sil Adhesive over the spliced area to ensure water tightness





LIMITED WARRANTY:

Watson Bowman Acme Corp. warrants that this product conforms to its current applicable specifications. WATSON BOWMAN ACME CORP. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. The sole and exclusive remedy of Purchaser for any claim concerning this product, including, but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the sole option of Watson Bowman Acme Corp. Any claims concerning this product bill be submitted in writing within one year of the delivery date of this product to Purchaser and any claims not presented within that period are waived by Purchaser. IN NO EVENT SHALL WATSON BOWMAN ACME CORP. BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDES LOSS OF PROFITS) OR PUNITIVE DAMAGES. Other warrantes may be available when the product is installed by a factory trained installer. Contact your local Watson Bowman Acme representative for details. The data expressed herein is true and accurate to the best of our knowledge at the time published; it is, however, subject to change without notice.