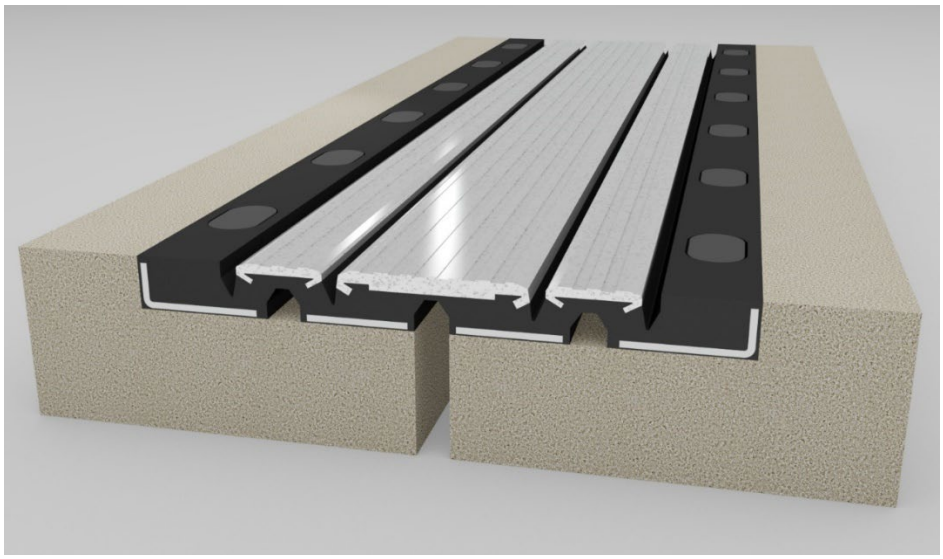
# Installation Procedure

**Last Updated: May 2024**



## Wabo®Flex SR

Molded Rubber Segmental Expansion Joint System for Bridge & Highway 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.

## Standard Components

The following components are required for the installation of this product:

- Wabo®Flex Panel
- Supplied Hardware
- Sikaflex®- 1A (or equivalent)
- URA Sealant
- Bedding Tape
- Backer Rod (supplied by others) to accommodate edge void opening

## Recommended Equipment

This product requires the following additional equipment for an easy and successful installation:

- Equipment for lifting panels
- Torque wrench (thin wall with deep well) to tighten anchors.
- Prybar to move or position panel.
- Hammer drill to install anchors.
- Panel Close-down device available (contact sales representative)
- Hydraulic rams or scissor jacks to aid in joining panels

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# Pre-Installation Notes

## Field Preparation

- The joint interface must be clean, sound, and durable (free of dirt, coatings, rust, grease, oil, and other contaminants).
- Newly placed concrete must be cured a minimum of 14 days.
- Aged concrete that is loose, contaminated, weak, appalled, deteriorated and/or delaminated must be removed to sound concrete and repaired prior to installation of Wabo® Flex SR.
- The blockout in the roadways, curbs, sidewalks, and barriers shall be constructed to the dimensions shown on the shop drawings.
- All air voids 1/4" and larger shall be pointed with an approved grout.
- The joint opening sounded for structural latencies and cleaned of any contaminants which may cause bonding problems. The joint opening should be blown clean using compressed air (>90psi).
- The bottom surface of the blockout shall be parallel with the plane of the roadway (true and flat).
- The anchor spacing, corresponding to the dimensions spanning the open joint (Refer to Blockout Data Dimension "B") , must be verified and adjusted for temperature prior to the installation of the anchors.

## Anchor Placement

- **Chemical Anchors** are to be installed into the blockout starting at the gutter-line and proceeding toward the "field-cut piece." Care is be taken to ensure that the anchors are set at right angles to the bottom of the blockout. Also refer shop drawings.
- For installation questions or concerns, contact WBA field service.

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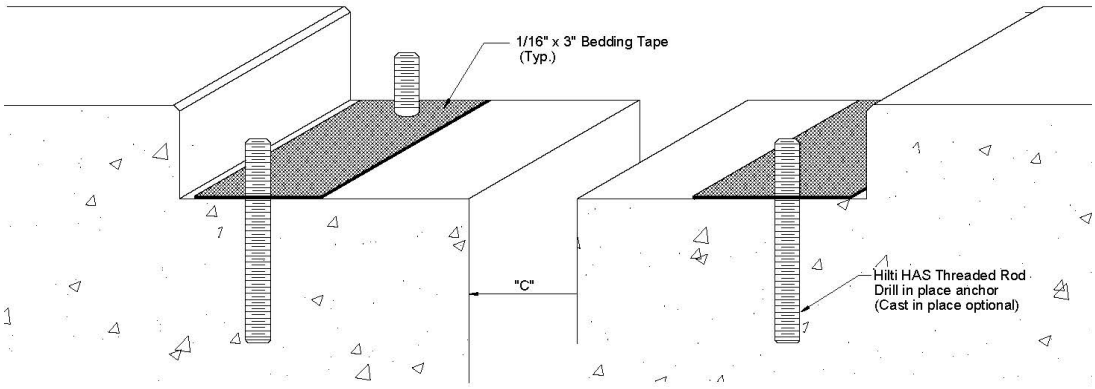
## BLOCKOUT DATA




### Blockout Data Table

| Model Number | "A" | | | | "B" | | | | "D" | | "E" | | "F" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Min | | Max | | Min | | Max | | | | | | | |
| | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm |
| SR 2A | 10.125 | 257 | 12.125 | 308 | 7.375 | 187 | 9.375 | 239 | 1.375 | 35 | 1.813 | 46 | 1.250 | 32 |
| SR 2.5A | 13.000 | 330 | 15.500 | 394 | 9.750 | 248 | 12.250 | 311 | 1.625 | 41 | 2.063 | 52 | 1.500 | 38 |
| SR 4A | 21.500 | 546 | 25.500 | 648 | 17.625 | 448 | 21.625 | 549 | 1.938 | 49 | 2.375 | 60 | 1.750 | 44 |
| SR 6.5A | 25.250 | 641 | 31.750 | 806 | 21.000 | 533 | 27.500 | 699 | 2.125 | 54 | 3.250 | 83 | 2.000 | 51 |
| SR 9 | 33.375 | 848 | 42.375 | 1076 | 29.000 | 737 | 38.000 | 965 | 2.188 | 56 | 4.000 | 102 | 2.250 | 57 |
| SR 13 | 49.000 | 1245 | 62.000 | 1575 | 43.500 | 1105 | 56.500 | 1435 | 2.750 | 70 | 5.250 | 133 | 2.750 | 70 |

### Anchor Data Table

| SYSTEM | ANCHOR SIZE | EMBED DEPTH | EXPOSED HEIGHT | TORUE FT-LBS |
|---|---|---|---|---|
| SR 2A | 1/2" X 6 1/2" | 5 1/4" | 1 1/4" | 40 |
| SR 2.5 | 5/8" X 8" | 6 1/2" | 1 1/2" | 65 |
| SR 4A | 3/4" X 10" | 8 1/4" | 1 3/4" | 85 |
| SR 6.5 | 7/8" X 10" | 8" | 2" | 100 |
| SR 9 | 7/8" X 10" | 7 3/4" | 2 1/4" | 100 |
| SR 13 | 1 1/8" X 12" | 9 1/4" | 2 3/4" | 150 |

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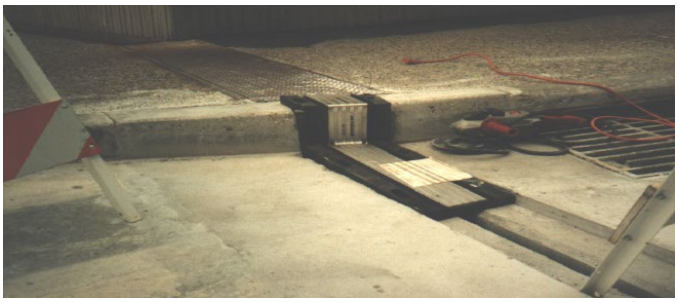
# Installation

1. When using fabricated curb sections, start at the curb.
2. Apply the bedding tape as shown on the shop drawings.
3. Set fabricated panel on top of bedding sealant.
4. Using bolt holes in panel as guide, drill holes to required depth for anchors.
5. Clean out holes following Hilti guidelines on product packaging.
6. Install Anchors using supplied epoxy. Allow to cure referring to Hilti guidelines.
7. After epoxy cures, bolt down panel to deck to the specified torque indicated on the Shop Drawings or Anchor Data Table.
8. Apply Sikaflex®-1A to the tongue or groove ends of the fabricated curb.
9. Connect panels securely together at all tongue-and -groove connections. Sikaflex 1a should squeeze from topside connection to ensure engagement.
10. Continue this procedure (Steps 2 thru 9) with the standard sections until reaching the field-cut panel.
11. After field measuring, cut the panel to the required length. When butting two cut ends at a field splice apply Sikaflex®-1A (or equiv.) or 3 layers of bedding tape to the cut ends.
12. Approximately one hour after initial placement, all nuts or bolts shall be tightened to required torque.
13. After all sections have been installed according to the above directions, fill the bolt cavity with URA Sealant.
14. Seal void between Wabo®Flex sections and vertical face of blockout using backer rod and Sikaflex 1a (or equiv.) sealant.

# Installation – Wabo®Flex

**1** Place the curb section into the blockout, and then the rest of the system. (This is considered a dry run installation)



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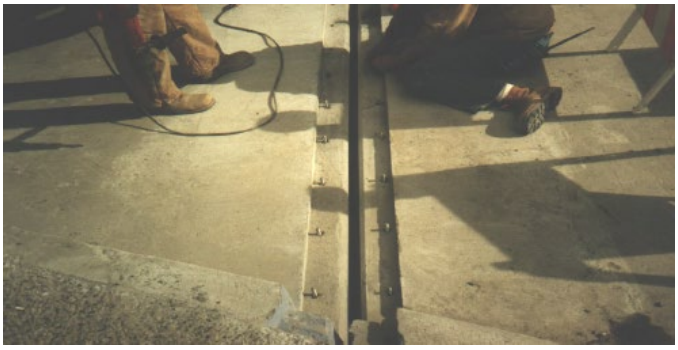
**2** Drill anchor holes utilizing the sections installed in the blockout as your template.

**3** Remove the sections of the SR from the blockout and then install your anchors. (Note: There are cases when an epoxy anchor is utilized or the anchors are grouted in place.)



**4** Position the bedding tape as shown on the shop drawings. Place curb section back into the blockout and install the anchoring hardware.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**5** Using a jack, apply force from the end to insure a tight fit at the curb location. Tighten the nuts to the specified torque as specified on the drawings.

**6** Apply sealant to the tongue or groove, and utilizing the jacking process, apply force to create a water tight fit between both pieces. Repeat this process for entire joint system.


**7** Re-torque all nuts after an hour. Then fill both the edge void and bolt holes with sealant. The Installation of the product is complete.


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## Field Service Assistance

- Please contact Watson Bowman Acme for Field Service Assistance to address project specific recommendations, proper installation procedures of our products.

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