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***INSTALLATION INSTRUCTIONS  
FOR BALCO, INC.  
TYPE SAA  
EXPANSION JOINT COVERS***



# INSTALLATION INSTRUCTIONS FOR BALCO, INC. SAA SERIES EXPANSION JOINT COVERS

The following installation instructions are very important. Read them carefully, and be sure you understand them completely before you begin any work.

## STORAGE & HANDLING

The expansion joint covers are shipped unassembled. Store this product in the horizontal position in a clean, dry location. This is a finished product. Store this product in a protected area.

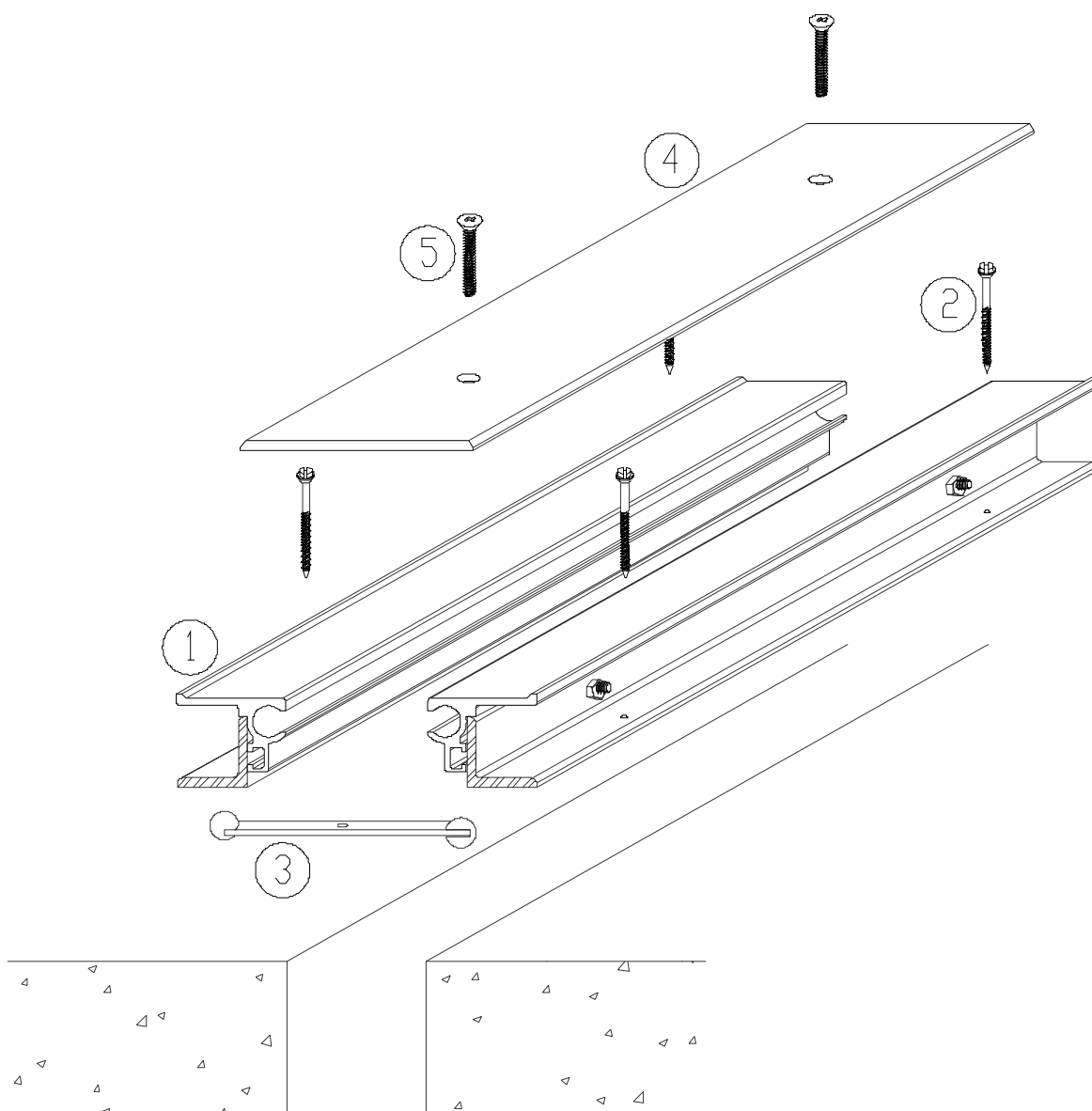


Figure 1

### Parts:

1. Base Member Assembly
2. Base Member Assembly Anchors
3. Centering Bars
4. Center Plate
5. Centering Bar Bolts

### Tools Required:

The following tools and materials are recommended for use in the installation of the grid. Balco, Inc. does not provide these tools and materials:

- A. Drill Bit for Concrete
- B. Drill Bit for Metal
- C. Electric Drill
- D. Marking Pens
- E. Tape Measure
- F. Sockets
- G. Phillips, Slotted and Hex Screw Driver Bits
- H. Grout
- I. Clean Rags

## INSTALLATION

These installation instructions are for use in the installation of expansion joint cover types SAA-1, SAA-2, SAA-3, and wider. The joint cover system is illustrated in Figure 1. The joint cover system shall be installed as follows:

**STEP 1.** Review Balco, Inc. approved shop drawings for types and locations.

NOTE: BASE MEMBER EXTRUSIONS ARE ATTACHED TO CONTINUOUS STEEL ANGLES AT THE FACTORY. ANGLES ARE CARBON STEEL UNLESS STAINLESS STEEL ANGLES ARE SPECIFIED. THE BASE MEMBERS AND THE CONTINUOUS STEEL ANGLES MAKE UP THE BASE MEMBER ASSEMBLY.

**STEP 2.** Prepare the slab for installation of the Balco, Inc. expansion joint covers. Ensure that the slab is flat, level, and clear of all debris. If blockouts are required, they may be formed at the time of the initial concrete pour or at a later time by removing material from the slab. To ensure a good installation, use level and true blockout materials. Inspect the blockouts to ensure that they are flat, level, and clear of all debris. Prepare and clean the blockouts as needed.

**STEP 3.** Select a base member assembly. If the anchor holes have not been pre-drilled in the base member assembly at the factory, mark the locations for the anchor holes on the steel angle (see Figure 2). Standard anchor spacing is 20" O.C. with an anchor at a nominal 3" from each end of the base member assembly. If necessary, drill the anchor holes into the

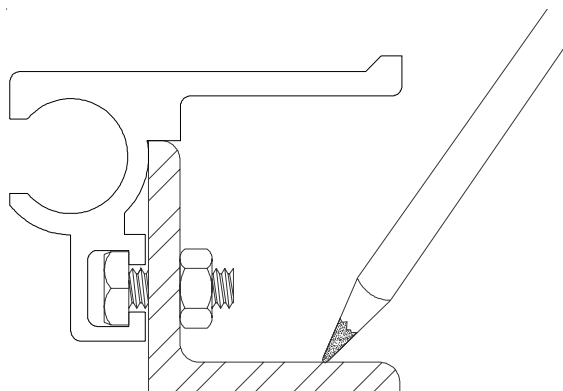


Figure 2

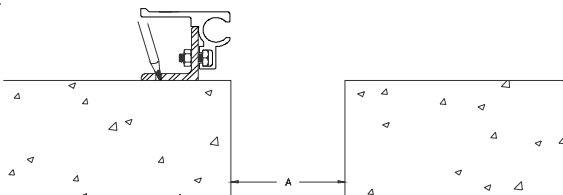


Figure 3

base member assembly at the marked locations. Repeat this procedure for each section of the base member assembly.

**STEP 4.** If fire barrier is specified, install it at this time. Refer to the installation instructions appropriate for the type of fire barrier provided for the recommended procedures to use in the installation of the fire barrier.

**STEP 5.** If water barrier is specified, install it at this time. Refer to the installation instructions entitled, "INSTALLATION INSTRUCTIONS FOR BALCO, INC. .045 EPDM WATER BARRIER SYSTEMS" for the recommended procedures for the installation of the water barrier.

NOTE: THE OPTIONAL WATER BARRIER MAY BE EITHER EPDM OR HYPALON. THE BASIC INSTALLATION OF THE WATER BARRIER IS THE SAME REGARDLESS OF WHICH OF THESE MATERIALS IS PROVIDED BY THE FACTORY. RECOMMENDED SPlicing METHODS VARY DEPENDING UPON WHICH MATERIAL IS PROVIDED

**STEP 6.** Select a base member assembly, and place it into the installed position. Ensure that the base member assembly is level, properly aligned, and plumb with the edge of the joint. Using the base member assembly as a template, mark the locations for the anchors on the concrete (see Figure 3). Remove the base member assembly from its position, and drill the anchor holes into the concrete at the locations marked in Step 14. Drill the anchor holes 1/4" deeper than the length of the anchors. Repeat this procedure for the opposite base member assembly. Clean away all dust and debris from the blockout.

NOTE: OBSERVE NORMAL SAFETY PRECAUTIONS WHEN DRILLING TO AVOID ALL UTILITIES AND RE-BAR.

**STEP 7.** Select the base member assemblies and the centering bars. Place the base member assemblies into their installed position. Select one of the centering bars and insert one of its nylon spheres into the channel in one of the base member assemblies. Insert the opposite nylon sphere into the channel in the opposite base member assembly on the other side of the joint (see Figure 4). The centering bars are spaced 20" O.C.

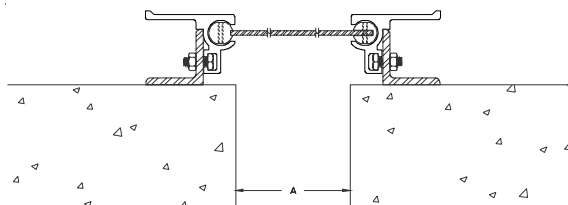


Figure 4

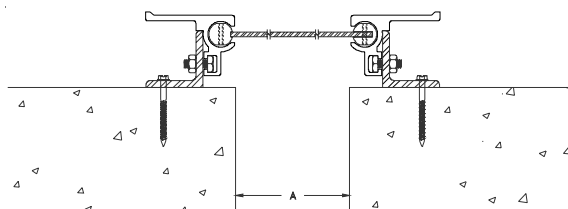


Figure 5

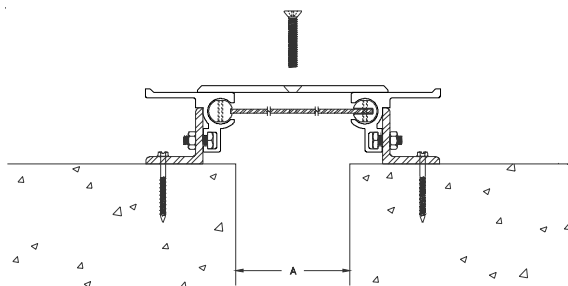


Figure 6

**STEP 8.** Select the base member assembly anchors provided by the factory, and using the provided anchors to attach the base member assemblies to the concrete. Repeat this procedure for the opposite base member (see Figure 5) and for each subsequent base member pair to be installed.

NOTE: THE CENTERING BAR INSTALLATION MUST BE UNIFORM. WHEN CORRECTLY INSTALLED, CENTERING BARS WILL TRAVERSE THE JOINT DIAGONALLY, AND ALL CENTERING BARS WILL BE PARALLEL TO ONE ANOTHER.

**STEP 9.** Select the center plate and the centering bar bolts. Lay the center plate beside the installed base member assemblies. Ensure that the center plate is properly aligned with the base member assemblies. Slide the centering bars into position so that the anchor hole in the center of each centering bar is aligned with the corresponding anchor hole in the center plate.

**STEP 10.** Place the center plate into the installed position over the joint (see Figure 6). Ensure that it is level and properly aligned. Insert a centering bar screw through each anchor hole in the cover plate and into a centering bar. Ensure that the cover plate is properly centered over the void.

**STEP 11.** Hand tighten the centering bar screws until the cover plate is held firmly in position (see Figure 7). Do Not Overtighten The Centering Bar Screws. Repeat Step 8 through Step 11 for each subsequent section of the center plate.

**STEP 12.** Pour the topping slab or install the pavers in accordance with the manufacturer's instructions and good industry practice (see Figure 8).

**STEP 13.** Grout continuously between the base member assemblies and the pavers (see Figure 9).

**STEP 14.** Remove any excess grout from the exposed surfaces of the expansion joint cover system before the grout cures.

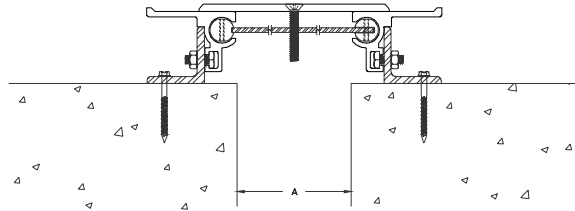


Figure 7

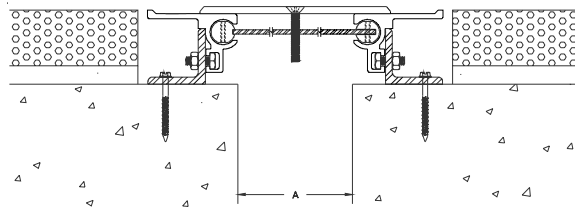


Figure 8

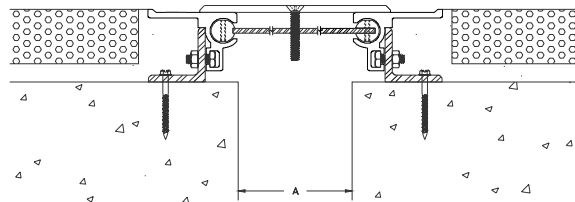


Figure 9

## **WARRANTY POLICY**

Balco, Inc. warrants to its purchasers that all products sold by it will be free from manufacturing and material defects. Any defective product will be replaced or repaired free of any charge, provided a claim is brought to our attention, in writing, within the established warranty period following the date of shipment by us and provided our examination shows the product has failed under the terms of this warranty. The established warranty period for exterior joint systems (Duraflex™) is five years provided the systems are installed by a Balco Certified Installer. The established warranty period for grids and mats is two (2) years. The established warranty period for all other Balco, Inc. products is one (1) year. Balco, Inc. will not be responsible for installation costs involved in such repair or replacement. Balco, Inc. shall have no obligation under this warranty if owner subjects materials to improper conditions (refer to Balco's installation instructions). This is in lieu of all other warranties, expressed or implied, and is the sole warranty extended by Balco, Inc. Our liability under this warranty is limited to repair or replacement and does not include any responsibility for consequential or other damage of any nature. It is further agreed and understood that the price stated for the seller's products is consideration for the limitation of seller's liability hereunder.

### **REGISTERED TRADEMARKS**

**"VINYLINES" "SAF-T-GLO"**  
**"METAFLEX" "SAF-TEN BEVEL"**  
**"SENTRY" "DURAFLEX"**  
**"ILLUMI-TREAD"**

### **BALCO, INC. PATENT NUMBERS**

**5,357,727; 5,782,044; 5,829,216;**  
**5,832,678; 5,852,902; 6,014,848;**  
**6,115,980; 6,581,347; 6,942,419;**  
**6,955,017; 6,962,026; 7,104,717;**  
**Patents Pending**