



BALCO INC

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***INSTALLATION INSTRUCTIONS
FOR BALCO, INC.
NBRL SERIES
EXPANSION JOINT COVER SYSTEMS***



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.

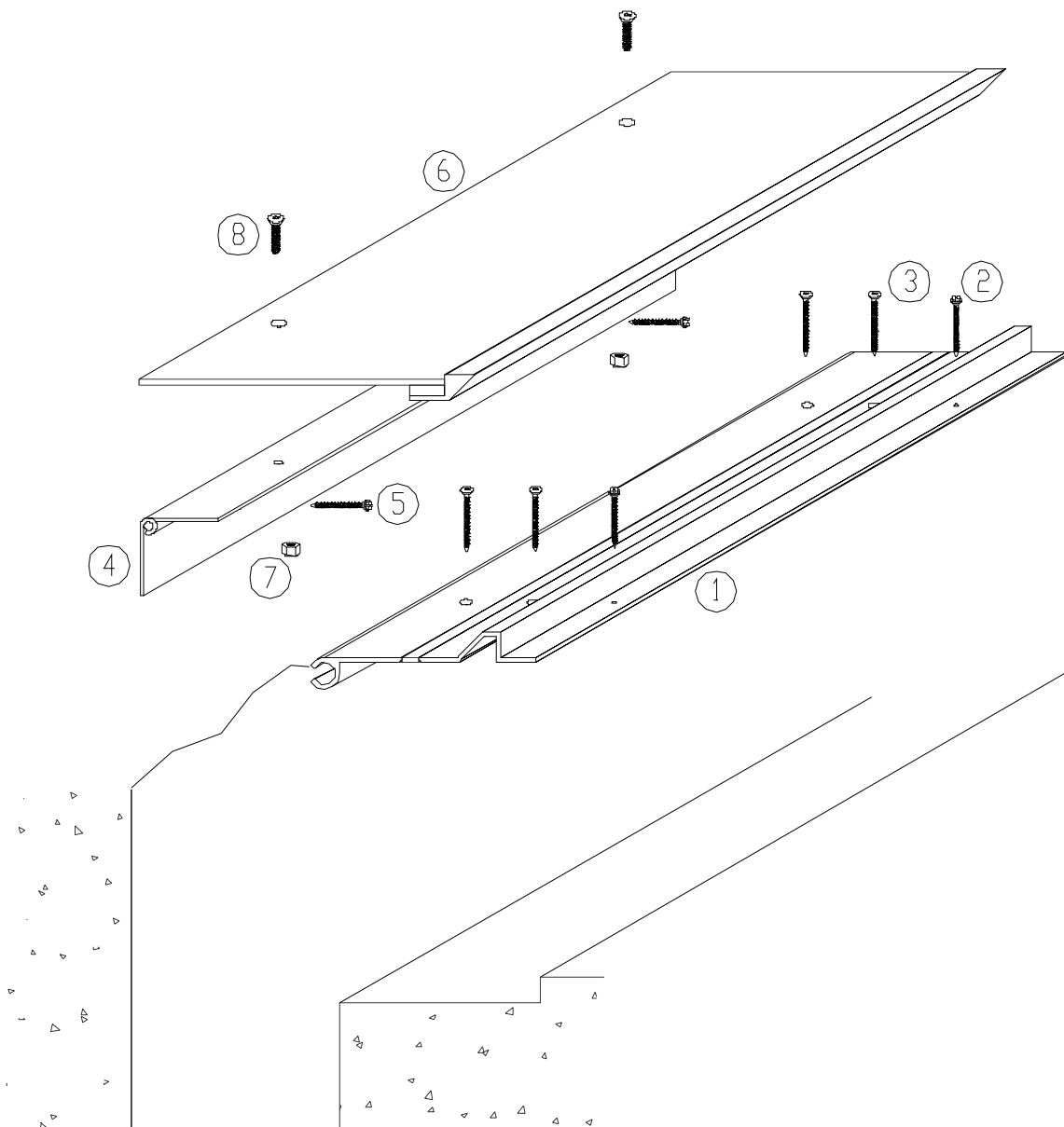


Figure 1

PARTS:

1. Base Member
2. Base Member Hex Head Fastener
3. Base Member Flat Head Fastener
4. Hinge
5. Hinge Fastener
6. Cover Plate
7. Cover Plate/Hinge Bolt
8. Cover Plate/Hinge Nut

Tools Required:

The following tools are recommended for use in the installation of the joint cover system. However, Balco, Inc. does not provide these tools:

- A. Drill Bits (for Concrete; Carbide, 3/8").
- B. Electric Drill
- C. Phillips, Slotted and Hex Screw Drivers
- D. Wrench and Socket for Nuts
- E. Tape Measure
- F. Markers

INSTALLATION

These installation instructions are for use in the installation of expansion joint cover types NBRL-3-6x18 through NBRL-12x38. The Joint Cover System is illustrated in Figure 1. Install the joint cover system as follows:

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

STEP 2. Provide blockouts for Balco, Inc. expansion joint covers in accordance with the approved shop drawings. Blockouts 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 see that they are the proper dimensions, flat, level, and clear of all debris. Prepare and clean the blockouts as needed.

STEP 3. Select a section of the base member and the corresponding section of the hinge. If the anchor holes have not been predrilled in the base members and hinges at the factory, mark the locations for the anchor holes on the selected base member and hinge (see Figure 2). Standard anchor spacing is 20" O.C. with an anchor at a nominal 3" from each end of the base member. Drill the anchor holes for the hex head anchors and for the flat head anchors into the base members at the marked locations (see Figure 3). The

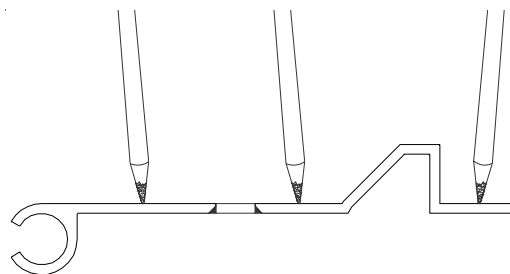


Figure 2

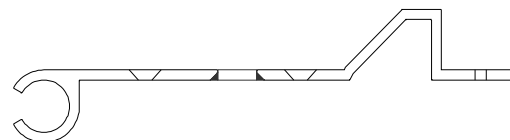


Figure 3

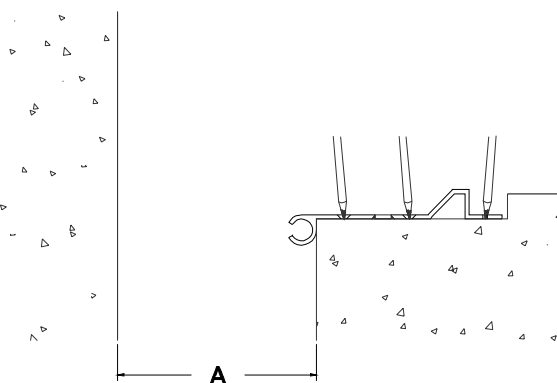


Figure 4

anchor holes for the flat head anchors must be countersunk.

NOTE: IF THE HINGE IS ATTACHED TO THE COVER PLATE, DETACH THE HINGE FROM THE COVER PLATE. ENSURE THAT ALL THE SCREWS AND NUTS ARE RETAINED. ENSURE THAT THE COVER PLATE IS REATTACHED TO THE SAME HINGE WHEN THE COVER PLATE IS INSTALLED.

STEP 4. If fire barrier is to be installed in conjunction with the joint cover system, install the fire barrier in accordance with the instructions for the fire barrier provided.

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 5. If water barrier is to be installed in conjunction with the joint cover system, install the water barrier 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: OBSERVE NORMAL SAFETY PRECAUTIONS WHEN DRILLING TO AVOID ALL UTILITIES AND RE-BAR.

STEP 6. Select a base member and the corresponding hinge. Place the base member into the blockout in its installed position. Ensure that the base member is level, flush with the finished floor, and plumb with the edge of the joint. Using the base member as a template, mark the locations for the anchors on the concrete (see Figure 4). Remove the base member from its installed position, and drill the anchor holes for the base member anchors into the concrete at the marked locations. Drill the anchor holes 1/4" deeper than the length of the anchors. Clean away all dust and debris from the blockout.

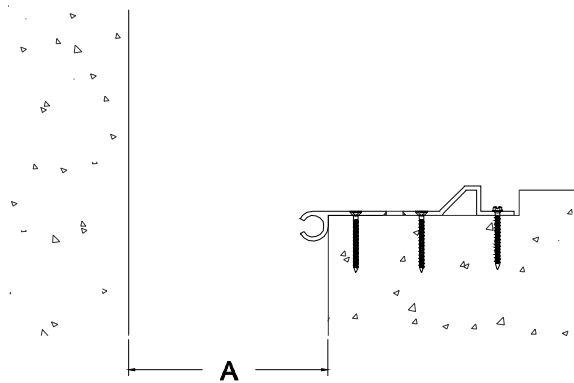


Figure 5

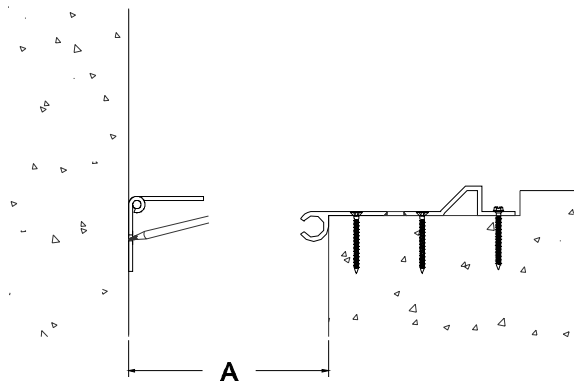


Figure 6

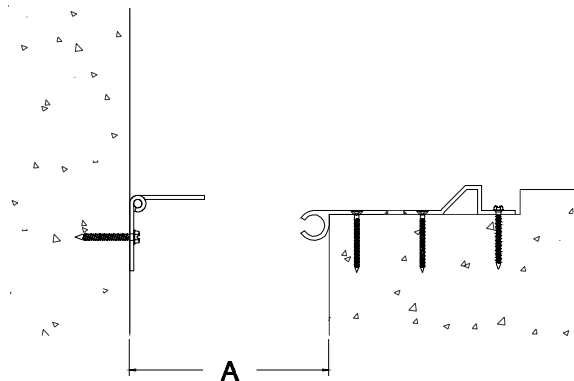


Figure 7

STEP 7. Place the base member back into its installed position, aligning the anchor holes in the base member with the anchor holes in the fire barrier retainers, if applicable, and in the concrete. Ensure that the base member is level, plumb, properly aligned, and flush with the finished floor. Using the anchors provided by the factory, attach the base members to the concrete (see Figure 5).

STEP 8. Place the hinge into its proper installed position. Ensure that the hinge is at the correct elevation and that it is level, straight, and plumb. Using the hinge as a template, mark the locations for the anchors on the wall (see Figure 6). Remove the hinge from its installed position, and drill the anchor holes for the hinge anchors into the concrete at the marked locations. Drill the anchor holes $1/4$ " deeper than the length of the anchors. Clean away all dust and debris from the joint.

STEP 9. Place the hinge back into its installed position, aligning the anchor holes in the base members with the anchor holes in the fire barrier retainers, if applicable, and in the wall. Ensure that the hinge is level, plumb, and properly aligned. Using the anchors provided by the factory, attach the hinge to the wall (see Figure 7).

STEP 10. Place grout (by others) continuously between the base member and the blockout (see Figure 8). Install the grout in accordance with the grout manufacturer's written instructions. Ensure that the grout is level with the surface of the concrete. Remove all excess grout from the exposed surfaces of the aluminum base members before the grout sets up.

STEP 11. After the grout has cured, select the cover plate, the cover plate/hinge bolts and the cover plate/hinge nuts. Attach the cover plate to the hinge using the fasteners provided, bolts and nut, (see Figure 9).

STEP 12. Install finish floor material at this time (see Figure 10). Install finish floor material in accordance with the instructions provided by the finish floor material manufacturer. Place sealant (by others) in the small opening between the edge of the cover plate and the wall. Silicone sealant is recommended. Install the sealant in accordance with the sealant manufacturer's instructions.

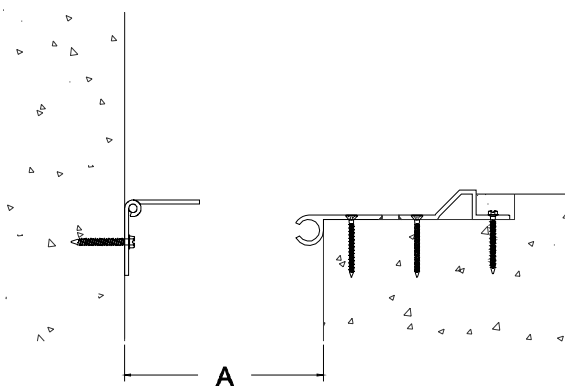


Figure 8

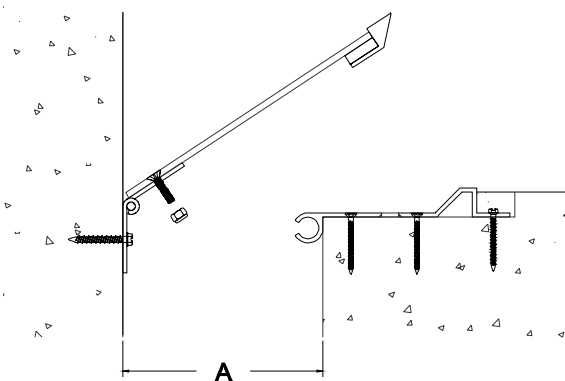


Figure 9

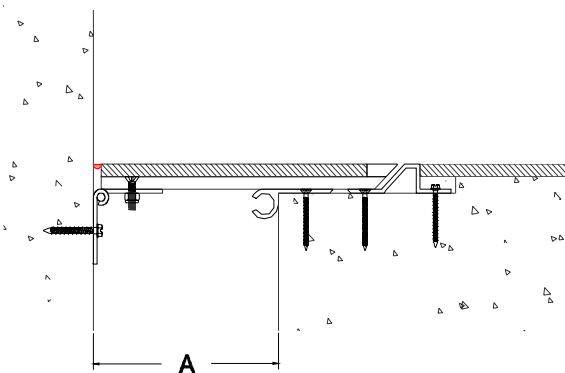


Figure 10

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 cover systems (Duraflex™) is five (5) 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; 6,014,848; 6,115,980;
6,581,347; 6,942,419; 6,955,017;
6,962,026; 7,104,717; 7,856,781
SAF-T-GLO patent pending