MICHAEL RIZZA COMPANY™
PREMIUM SILICONE SYSTEMS
A Division of BALCO INC

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INSTALLATION INSTRUCTIONS FOR BALCO, INC. CE SERIES COMPRESSION SEALS IN WALL JOINTS

12/11/13
Document Control No. EJCI3064

INSTALLATION INSTRUCTIONS FOR MICHAEL RIZZA™ CE SERIES SILICONE COMPRESSION SEAL 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 systems are shipped unassembled. Upon receipt, these products should be stored in the horizontal position in a clean, dry location. Store these products in a protected area. Do not allow these products to freeze. Store these products at a temperature range of 60-80°F.

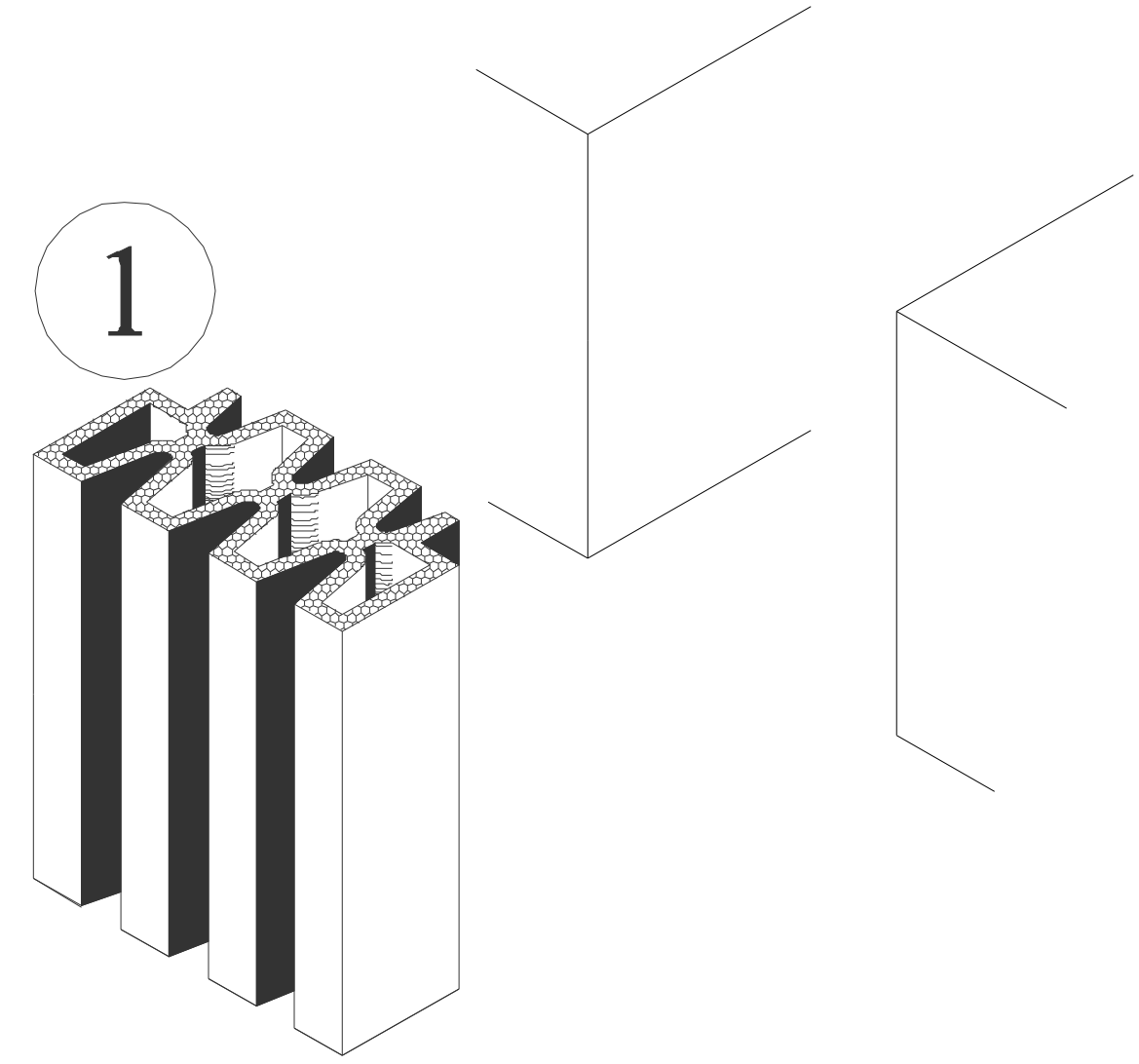

Figure 1

CE SERIES SILICONE SEAL SYSTEMS PARTS LIST

1. Silicone Compression Seal

TOOLS REQUIRED

This is a list of tools and materials recommended for use in the installation of these joint systems. Tools and materials in this list are not provided by Balco, Inc. Tools and materials marked with an asterisk (*) must be pre-approved by Balco, Inc.

A. Tape Measure
B. Level
C. Concrete Patching Material*
D. Markers for marking Concrete and Seal
E. Utility Knife
F. Silicone Sealant (Dow Corning 795 or 790)[1]
G. Isopropyl Alcohol
H. Caulk Gun
I. Clean White Rags
J. Hammer
K. Putty Knives
L. Margin Trowel
M. Miter Box
N. Hack Saw

[1] Clear Silicone Sealant may be used for the seal installation and splicing provided the sealant is not significantly exposed. Use color matched sealant for significantly exposed applications.

PRELIMINARY REQUIREMENTS

1. Scope of Preliminary Requirements

The expansion joint opening must be formed to a uniform width for the entire length of the joint. To select the proper seal size, the following should be considered:

A. The size of the joint opening measured at a 70°F temperature should be verified and recorded by the Engineer of record (see Figure 2). Please note that the joint size provided in Figure 2 is representative, and the actual required joint size may vary from that indicated in Figure 2.

B. The Engineer shall determine the movement required at the joint location.

C. Regional temperature history will determine the increment of movement per degree of temperature.

D. Other movement requirements, such as longitudinal rack, deflection, etc. should be considered and accounted for.

2. Jobsite Conditions and Survey

The conditions of the joint opening must be surveyed prior to beginning installation work. The following

points should be considered and action implemented where required:

A. Interface walls of the joint opening must run parallel, straight and plumb.

B. Access to the bonding surface of the interface walls must be free and clear. Any obstructions must be accounted for in the installation process.

C. Spalls in the concrete are to be repaired with an approved patching material. Consult the Engineer for a list of acceptable patching products.

D. After patching, or reworking, the concrete or steel joint walls should be 'sound'.

E. Concrete adjacent to the expansion joint system must be sound. Confirm this by tapping these areas with a hammer (see Figure 3). If a hollow sound is heard or the concrete cracks, crumbles or loosens, the unsound concrete must be removed and repaired with a structural repair mortar.

F. Repaired areas must also be sound. Confirm that they are by tapping these areas with a hammer. If a hollow sound is heard or the repaired area cracks, crumbles or loosens, the unsound repair must be completely removed and repaired again with a structural repair mortar. Access to the bonding surface of the interface walls must be free and clear. Any obstructions must be accounted for in the installation process.

G. Measure the joint opening and correlate with the deck temperature. Verify that the opening width is synchronized with the values in the Temperature-Adjustment Table supplied by the Engineer.

H. Review all directional change locations; advise Balco, Inc. of the details.

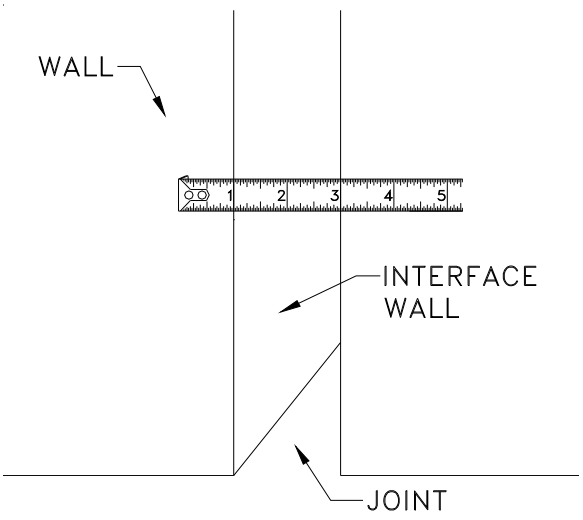

Figure 2

3. Concrete Joint Opening Preparation

A. The joint opening of the expansion joint must be constructed straight, parallel and plumb. Concrete saws and diamond grinding disks should be used to correct any deviations.

B. Spalls in the concrete must be repaired by using a pre-approved patching material.

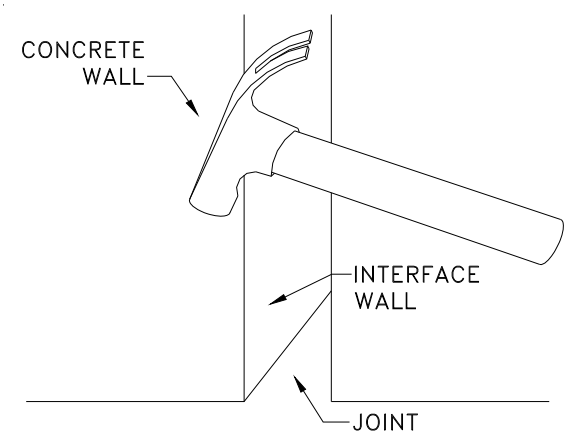

Figure 3

C. A tooled edge on the corners of the concrete is desired. The radiused edge reduces the effects of impact loading from vehicles and lessens the chance of edge erosion, cracking or spalling.

D. Prior to progressing with the installation of the seal, clean the interface walls of the concrete using a 50/50 miture of water and Isopropyl Alcohol to remove oil, grease, dirt, debris and other contaminants. Ensure the water/alcohol is completely dried from the cleaned surface prior to installation of the seal.

4. Steel Joint Opening Preparation

A. Clean the substrate using a 50/50 mixture of water and Isopropyl Alcohol. Allow the surface to dry completely prior to installation of the seal and sealant.

B. Joints in steel, aluminum or other non-pourous surfaces should be primed in preparation for the sealant installation.

5. Pourous Substrates

A. Provide a sound, clean, dry surface for sealant application.

B. Clean the substrate, where necessary, by grinding, sand or water blasting or mechanically abrading prior to seal installation.

6. Stud and Gypsum Wallboard Joint Opening Construction for Fire Resistant CE Series

A. For fire resistant CE Series Joint Covers having a maximum opening width greater than 1 3/8" (thermal), use Cement Board at the joint interface. Balco, Inc. recommends 3/8" Hardiebacker by James Hardie or PermaBase Cement Board by National Gypsum Company in lieu of 5/8" Type X Gypsum at the joint face (depicted in solid gray in Figure 4).

B. The cement board must line the entire joint interface to ensure that the CE Seal is bonded to the cement board and not to the gypsum wallboard.

6. Seal Preparation

A. Cut the seal to the lengths required for the application. Lengths should be accurate in order that the seal is not stretched during the installation process.

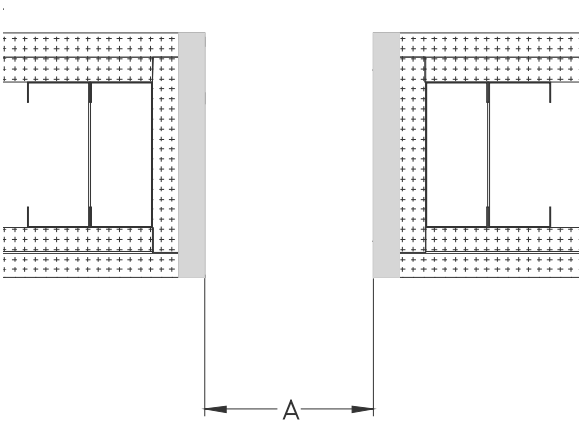

Figure 4

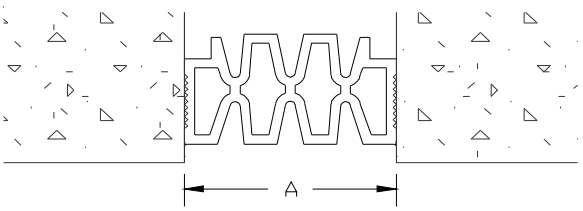

Figure 5

B. Wash the sidewalls of the seal, using clean white rags soaked in Isopropyl Alcohol. Do this for the entire length of the seal. Ensure that the alcohol is completely dried from the seal surface prior to installation.

7. Personnel Safety

A. As with the use of any chemical, care shall be taken to protect the users. Insulated gloves, Neoprene or other appropriate material, and safety glasses shall be worn at all times. Users should also wear long sleeve shirts and long pants.

B. The work area shall be well ventilated. All users should familiarize themselves with the MSDS information prior to the work.

INSTALLATION

These installation instructions are for use in the installation of the CE Series - Silicone Compression Seal Systems Types CE-100SX, CE-150SX, CE-200SX, CE-300SX, CE-400SX, and CE-500. The System is illustrated in Figure 1. The system shall be installed as follows:

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

STEP 2. Ensure that the joint has been properly prepared for the installation of the seal, and ensure the substrate have been properly prepared for the seal installation in accordance with the appropriate section of these instructions.

STEP 3. Select the Silicone Compression Seal and the Silicone Sealant. Ensure that the seal has been prepared for installation in accordance with the section of these installation instructions entitled "Seal Preparation".

STEP 4. Compress the seal, and insert it into the joint, see Figure 5. Ensure that the seal is straight and at the proper depth in the joint.

STEP 5. Insert the tip of the Silicone Sealant tube between the Silicone Compression Seal and the Substrate about to the midpoint of the seal thickness, see Figure 6. Apply a continuous bead of Silicone Sealant along the Seal. A mark can be placed on the nozzle of the tube to help maintain a constant depth. Repeat this procedure along the opposite side of the Seal, see Figure 7. Ensure that the Seal remains straight, properly aligned, and at the proper depth within the joint.

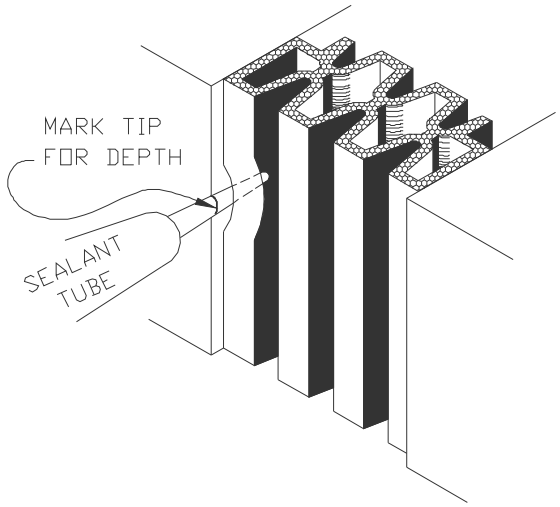

Figure 6

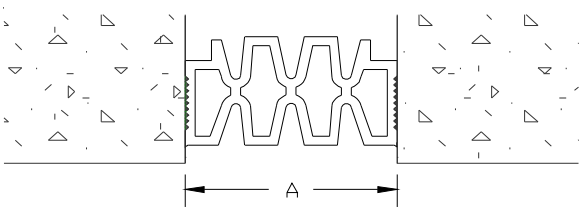

Figure 7

STEP 6. Clean the installation area. Ensure that any reaining Sealant tubes or Sealant is properly stored away or is disposed of properly. Ensure that all trash and refuse are disposed of properly.

SPLICES AND TRANSITIONS

Silicone Compression Seal splices and transitions are field fabricated using appropriately sized backer rods and the recommended Silicone Sealant, or equivalent, as supplied by the others.

STEP 1. Cut the mating sections of the seal profile to length using a Hack Saw. For transitions, miter the
mating ends of the mating sections of the seal profile as appropriate so that they fit snugly together.

STEP 2. Select or prepare a miter box having a recess the same width as the gap into which the seals will be installed. Place the first seal into the miter box, and using a hack saw, miter the seal as appropriate for the transition.

STEP 3. Miter the mating seal in a similar manner so that the seals will mate together as snugly as possible.

STEP 4. Select the backer rods for alignment of the mating seal sections. Note that it may be necessary to miter the backer rods for 90° transitions.

STEP 5. Clean the mating seal profile ends with Isopropyl Alcohol.

STEP 6. Insert the alignment backer rods into the seal chambers so that half of the rod is inserted into its respective seal chamber, see Figure A.

STEP 7. Apply Silicone Sealant to the end of one of the mating seal profile sections.

STEP 8. Join the mating seal profile sections ends, holding them in place until the Silicone Sealant is sufficiently cured to maintain the bond, see Figure B. Ensure that the alignment backer rods are inserted into the corresponding chamber of the mating seal section.

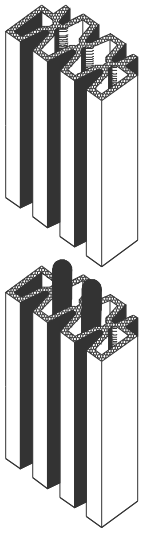

Figure A

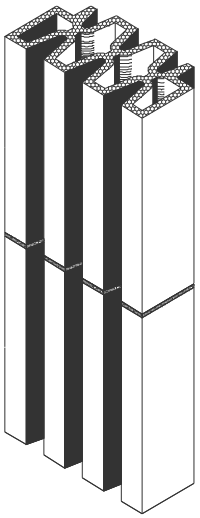

Figure B

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" "METABLOCK"
"MICHAEL RIZZA COMPANY"

BALCO, INC. PATENT NUMBERS:
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; 7,946,784;
8,079,190; 8,245,471; 8,464,485;
8,607,519; 8,601,760; 8,646,235;
Fire Resistant Joint Covers Patents Pending