INSTALLATION INSTRUCTIONS
FOR BALCO, INC. METAFLEx 2000
FIRE BARRIER SYSTEMS FOR WALL JOINTS
INSTALLED FROM ONE SIDE OF WALL
INSTALLATION INSTRUCTIONS
FOR SINGLE SIDE INSTALLATION OF BALCO, INC.
METAFLEx™ 2000 FIRE BARRIER
FOR WALL JOINTS

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

STORAGE & HANDLING
Store this product in the horizontal position in a clean, dry location. This is a finished product. Store this product in a protected area.

METAFLEx™ 2000 PARTS LIST
A. Fire Barrier Packages (front package and back package)
B. Galvanized Strip or Retainer¹
C. 1/4” X 2” Tapcons²
D. Metacaulk 990

¹ Not typical. Galvanized Strip or Retainers are optional. However, they must be installed, if they are provided. Please note that back packages have retainers that are spot-welded to the fire barrier package at the factory.
² Fasteners provided may differ from those listed, depending upon construction conditions.

TOOLS REQUIRED
This is a list of tools and materials recommended for use in the installation of these joint cover systems. These tools and materials are not provided by Balco, Inc.
A. Drill Bits for drilling anchor holes in Base Members
B. Electric Drill
C. Sockets for Fasteners and Anchors
D. Phillips and Slotted Screw Drivers
E. Awl
F. Rubber Mallet
G. Duct Tape
H. Wooden 2” X 4” (2 minimum, 10 feet in length)
I. C-Clamps
J. Level
K. Tape Measure
L. Markers (for metal and for concrete)
M. Caulk Gun

METAFLEx™ 2000 FIRE BARRIER INSTALLATION
These installation instructions are for use in the installation of MetaflEx™ 2000 Fire Barrier types 2HWFB-2 through 2HWFB-36 which are installed from one side of a wall. MetaflEx™ 2000 Fire Barrier Systems fabricated for installation of the packages onto both faces of a wall may not be installed from one side of the wall. After the concrete, masonry, or steel stud and gypsum wallboard walls are in place, the MetaflEx™ 2000 Fire Barrier System may be installed (see Figure 1). For steel stud and wallboard walls, gypsum wallboard may be installed onto the interface
walls of the joint and may be required, depending upon the joint cover system configuration. The fire barrier packages must interface with gypsum wallboard when installed into steel stud and gypsum wallboard walls. Review Balco, Inc. approved shop drawings for types and locations. Metaflex™ 2000 Fire Barrier has sharp edges. Balco, Inc. recommends that installers wear work gloves, safety glasses, long sleeve work shirts and long work pants when working with or installing Metaflex™ 2000 Fire Barrier. Please note that wall joints with a maximum open width greater than a nominal 18” require a wall thickness of 12” at the joint (see Figure 2). In addition, the installer must ensure that the joint area is sufficient to accommodate the material. This is especially critical with nominal 6” and nominal 9” joints. Metaflex™ 2000 Fire Barrier Systems have been tested in accordance with ASTM E1966 and have successfully met the criteria for a 2-hour fire-rating in a coverless condition or with a joint cover system, metallic, elastomeric, etc. Metaflex™ 2000 Fire Barrier Systems are two package, membrane-type fire barrier systems. Metaflex™ 2000 Fire Barrier for single side installation into wall joints shall be installed as follows:

**STEP 1.** Select a section of the fire barrier back package. The back package is wider than the front fire barrier package. The retainers may be configured so that they are attached to the wall along with joint interface wall or the retainers may be configured so that they attach to the surface of the wall. If the back package fire barrier retainer is to be attached to the surface of the wall under the front fire barrier package flange or retainer, select a section of the fire barrier front package. Select the 2x4s and the C-Clamps. If the Metaflex™ 2000 fire barrier is being installed in conjunction with a joint cover system, select the joint cover system base members. Place the fire barrier back package galvanized retainers onto the 2x4s. If the front fire barrier package is provided with detached retainers or galvanized strips, place them on top of the front package’s flanges. Ensure that all the flanges and retainers are properly aligned with one another. If the fire barrier is being installed in conjunction with a joint cover system, place the joint cover system base members over the fire barrier galvanized retainers (see Figure 3 and Figure 4). Ensure that
the fire barrier retainers and the base members are properly aligned with one another. Using the C-Clamps, clamp the fire barrier flanges, galvanized retainers and the joint cover base members, as applicable, to the 2x4s.

**STEP 2.** Using the joint cover base members as templates, mark the locations for the anchor holes on the Metaflex™ 2000 fire barrier flanges and galvanized retainers (see Figure 5). If the fire barrier is not being installed in conjunction with a joint cover system, mark the locations for the anchor holes onto the fire barrier flanges and galvanized retainers. Anchor holes are spaced 12” o.c. with an anchor hole a maximum of 3” from each end of each galvanized retainer. Drill the anchor holes into the flanges and retainers at the marked locations (see Figure 6). Unclamp the Metaflex™ 2000 fire barrier package(s) and the base members from the 2x4s. If the front and back fire barrier packages are installed with the same anchors, proceed directly to Step 6.

**STEP 3.** If the back fire barrier package and the front fire barrier package are to be attached to the wall independently, select a section of the front fire barrier package. Select the galvanized strips or retainers, if they are provided and if they are not attached to the fire barrier flanges. Select the 2x4s and the C-Clamps. If the Metaflex™ 2000 fire barrier is being installed in conjunction with a joint cover system, select the joint cover system base members. Place the fire barrier flanges, or the attached galvanized retainers, if the fire barrier is provided with attached galvanized retainers, onto the 2x4s. If the fire barrier is provided with detached galvanized strips or retainers, place them into their properly aligned position on top of the fire barrier’s flanges. If the fire barrier is being installed in conjunction with a joint cover system, place the joint cover system base members over the fire barrier flanges or the galvanized retainers (see Figure 7). Ensure that the fire barrier flanges, retainers and the base members are properly aligned with one another. Using the C-Clamps, clamp the fire barrier flanges or galvanized retainers and the joint cover base members, as applicable, to the 2x4s.
STEP 4. Using the joint cover base members as templates, mark the locations for the anchor holes on the Metaflex™ 2000 fire barrier front package flanges or galvanized retainers (see Figure 8). If the fire barrier is not being installed in conjunction with a joint cover system, mark the locations for the anchor holes onto the fire barrier flanges or galvanized retainers. Anchor holes are spaced 12” o.c. with an anchor hole a maximum of 3” from each end of each flange or galvanized retainer.

STEP 5. For Metaflex™ 2000 front fire barrier packages with flexible flanges, use an awl and a rubber mallet to punch the anchor holes into the flanges at the marked locations (see Figure 9). If the fire barrier is provided with galvanized strips or retainers, drill the anchor holes into the retainers and the fire barrier flanges at the marked locations (see Figure 10). Unclamp the Metaflex™ 2000 fire barrier front package and the base members from the 2x4s.

STEP 6. If the wall is concrete or masonry, select the fire barrier back package. With the foil layer of the Metaflex™ 2000 fire barrier back package facing away from the installer, fold the fire barrier package and insert it into the joint. Place the fire barrier into its installed position. Place the fire barrier’s galvanized retainers against the surface of the wall. Ensure that the fire barrier package is snugly pressed against the interface walls of the joint. Using the fire barrier retainers as a template, mark the locations for the anchor holes on the concrete or masonry (see Figure 11). Remove the fire barrier package from its installed position, and drill the anchor holes into the concrete or masonry at the marked locations. Clean away all dust, dirt and debris from the wall after drilling the anchor holes into it.

NOTE: OBSERVE NORMAL SAFETY PRECAUTIONS WHEN DRILLING TO AVOID ALL UTILITIES AND RE-BAR.
STEP 7. Measure the thickness of the fire barrier back package. Select the Metacaulk 990 sealant. Place a continuous bead of Metacaulk 990 on the stainless steel foil side of the package. The bead is placed the package thickness dimension from the fire barrier package edge below the blanket material. Place a corresponding continuous bead along the opposite edge of the fire barrier package. Ensure that the sealant beads are placed on the stainless steel foil side of the package (see Figure 12).

STEP 8. With the foil layer of the Metaflex™ 2000 fire barrier back package facing away from the installer, fold the fire barrier package and insert it into the joint. Place the fire barrier into its installed position. Place the fire barrier’s galvanized retainers against the surface of the wall (see Figure 13). Ensure that the fire barrier package is snugly pressed against the interface walls of the joint.

STEP 9. If both fire barrier packages are being installed at the same time proceed directly to Step 11. If the packages are being attached independently of one another, using the anchors provided by the factory, attach the back fire barrier package to the wall (see Figure 14).

STEP 10. If the wall is concrete or masonry, and if the fire barrier packages are being installed independently of one another, select the front fire barrier package. Place the front fire barrier package, into its installed position against the wall. Ensure that the foil layer of the front fire barrier package is facing out toward the installer. Ensure that each edge of the fire barrier package is snugly pressed against the interface walls of the joint. Using the fire barrier flanges or retainer, if attached, as a template, mark the locations for the anchor holes on the concrete or masonry (see Figure 15). Remove the front fire barrier package from its installed position and drill the anchor holes into the concrete or masonry at the marked locations. Clean away all dust, dirt and debris after drilling the anchor holes.
NOTE: OBSERVE NORMAL SAFETY PRECAUTIONS WHEN DRILLING TO AVOID ALL UTILITIES AND RE-BAR.

STEP 11. Select the front fire barrier package and the Metacaulk 990. Measure the thickness of the fire barrier front package. Place a continuous bead of Metacaulk 990 on each interface wall of the joint at the same depth as the measured thickness of the fire barrier package (see Figure 16).

STEP 12. Place the front fire barrier package, including galvanized strips or retainers (if provided), into its installed position against the wall. Ensure that the foil layer of the front fire barrier package is facing out toward the installer. Ensure that the anchor holes in the front fire barrier package’s flanges or retainers are aligned with the anchor holes in the back fire barrier package’s retainers, if both packages are installed with the same anchors. If the fire barrier is being installed in conjunction with a joint cover system, select the joint cover base members, and place them into their installed positions over the fire barrier flanges and retainers (see Figure 17). Using the anchors provided by the factory, attach the fire barrier, and joint cover base member (if applicable) to the wall retainers.

STEP 13. Complete the installation of the joint cover system in accordance with the system’s installation instructions. Repeat the procedures given in these instructions for each section of the fire barrier.

NOTE: TO SPLICE SECTIONS OF FIRE BARRIER TOGETHER, COMPRESS THE ENDS OF THE FIRE BARRIER SECTIONS TOGETHER. SPLICES MUST BE TIGHT ENOUGH SO THAT IT IS DIFFICULT FOR THE INSTALLER TO WORK A FINGER INTO THE INTERFACE BETWEEN THE SECTIONS.
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"
"METAFLAX" "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