Balco Inc.
Design No. BA/EC 180-03
Wall Joint System
MetaFlex® Pro Shear Fire Barrier
UL 2079, ASTM E1966
Rating: 3 Hour
CAN/ULC-S115
FTH Rating: 3 Hour
ASTM E1399
Cycling – Class IV

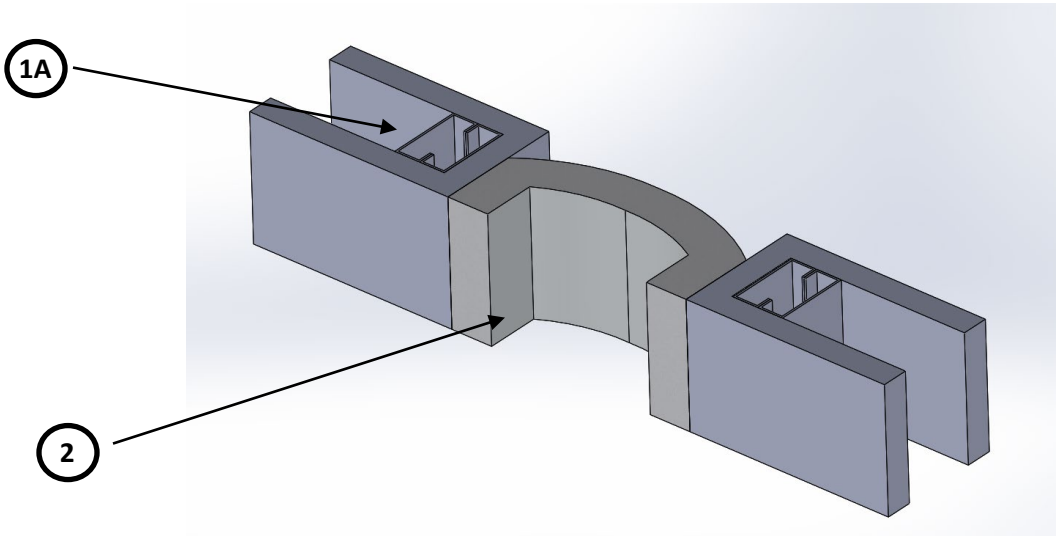


Figure 1. MetaFlex® Pro Shear Fire Barrier Wall Joint

1. **SUPPORTING WALL CONSTRUCTION:** Use min. 3-hr rated wall assemblies meeting the minimum requirements listed below:

   A. **STEEL FRAMING AND GYPSUM:** Use a steel framed, gypsum wall assembly made from minimum. three layers of 5/8 in. thick, Type X gypsum board, fastened to each side of min. 25 GA steel studs (with min. 3-5/8 in. web and 1-1/4 in. flange) in accordance with the listed fire rated design. Gypsum board must be present in the throat of the joint as shown in Figure 1. Refer to Figure 1 as well for stud placement with one pair of stud's face to face on each side of joint.

   B. **WOOD FRAMING AND GYPSUM (not shown):** Use min. 2×4 wood studs in accordance with the corresponding listed design with matching stud placement described in Item 1A. Use min. three layers of 5/8 in. thick, Type X gypsum board, fastened to each side in accordance with the corresponding listed design as well as gypsum board in the throat of the joint described in Item 1A.

   C. **CONCRETE WALL (not shown):** Min. 3-hr rated, solid reinforced concrete wall assembly made from either lightweight or normal weight concrete with a density of 100-150 pcf. Maintain a min. 7-1/2-in. buildup depth.

D. CMU WALL (not shown): Min. 3-hr rated, block CMU walls with min. 7-1/2-in. buildup depth.

2. WALL JOINT SYSTEM:

CERTIFIED MANUFACTURER: Balco Inc.

CERTIFIED PRODUCT: Wall Joint System

CERTIFIED MODEL: MetaFlex® Pro Shear Wall Fire Barrier, 3Hr 6 in., 8 in., 9 in., 10 in., 12 in., 14 in., 15 in., 16 in., and 18 in. max. widths

Joint system is comprised of a single package of multiple layers of blanket. When required, overlap male and female ends min. 6 in. to form a splice in the joint as specified in the manufacturer's installation instructions.

A. STEEL FRAMING AND GYPSUM INSTALLATION: Fasten to the wall on each side of the joint of the wall assembly using min. 4-in. long, #10 screws with 1-in. diameter washers. spaced nominally 10 in. on center (oc), driven through interior facing approximately 1 in. from edge min. and all layers to the stud. Additionally, screw heads shall have a flat bearing surface and a min. head diameter as appropriate to securely fasten with respective washers to supporting construction.

B. WOOD FRAMING AND GYPSUM INSTALLATION: Follow the same methods as Item 2A, except use similar sized wood screws.

C. CONCRETE WALL INSTALLATION: Follow the same methods as Item 2A, except use similar minimum 3/16-in. concrete screws.

D. CMU WALL INSTALLATION: Follow the same methods as Item 2A, except use minimum 3/16-in. masonry screws.

3. JOINT COVER: (Not Shown) Width of joint cover varies with joint width and shall overlap the full fire barrier including mounting flanges with a min. of 6 in. overlap onto the supporting wall construction (Item 1). Fasten one side of the joint cover to the supporting wall construction (right or left side) using min. 4-in. long, #10 screws with 1-in. diameter washers, spaced 10 in. oc through the supporting stud. Additionally, screw heads shall have a flat bearing surface and a min. head diameter as appropriate to securely fasten with respective washers to supporting construction. Two joint covers are required, one covering the inner joint face, and another covering the outer joint face on the opposite side of the wall. The manufacturer-supplied joint cover shall be constructed of min. 0.090-in. thick aluminum, galvanized steel, carbon steel, or stainless-steel plates. *If only one joint facing or side is covered, the fire resistance rating shall only apply to the uncovered facing or side of the assembly and shall be considered a unidirectional-rated system.

4. CHASE WALL CONDITION (Not Shown): In conditions where the linear opening is enclosed within a 3-hr. fire resistance rated chase wall, the joint cover (Item 3) is not required. Stud layout and wall end design with min. throat depth to be maintained (Item 1).

Consult the listing report on the Directory of Building Products (https://bpdirectory.intertek.com) for the edition of the standard(s) evaluated.

Compliance of the assembly described in this Design Listing with the referenced standard relies on verification that the assembly constructed in the field is consistent with that described herein. Intertek certified products may be verified by the approved Intertek label; other products must be verified by the Authority Having Jurisdiction as meeting the specifications stated herein.