

Balco Inc.
Design No. BA/EC 180-02
Floor Joint System
MetaFlex® Pro Shear MAX Fire Barrier
UL 2079, ASTM E1966
Rating: 3 Hour
CAN/ULC-S115
FT Rating: 3 Hour
UL 2079, CAN/ULC-S115
L-Rating: < 4 SCFM/LF, < 6.2 L/s/m
ASTM E1399
Cycling – Class IV

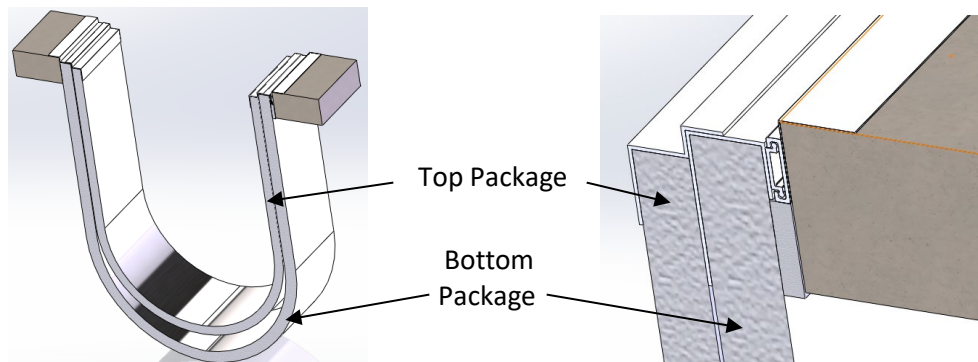


Figure 1. MetaFlex® Pro Shear MAX

Minimum Joint Width	Maximum Joint Width	Minimum Joint Width	Maximum Joint Width
6 in.	21 in.	6 in.	48 in.
6 in.	24 in.	6 in.	51 in.
6 in.	27 in.	6 in.	54 in.
6 in.	30 in.	6 in.	57 in.
6 in.	33 in.	6 in.	60 in.
6 in.	36 in.	6 in.	63 in.
6 in.	39 in.	6 in.	66 in.
6 in.	42 in.	6 in.	69 in.
6 in.	45 in.	6 in.	72 in.

Table 1. Joint Sizes



1. **SUPPORTING CONSTRUCTION:** 3 hour rated, solid, reinforced, concrete floor assembly made from either lightweight or normal weight concrete with a density of 100-150 pcf, with a min. thickness of 4-1/2 in. at the joint face under the cover plate (Item 3). Overall slab thickness may increase to accommodate various block out depths (longitudinal recesses) formed in the concrete, to house the cover plate (Item 3). The block out width may also vary without restriction.

2. **FLOOR JOINT SYSTEM:**

CERTIFIED PRODUCT: Balco Inc., Floor Joint System, MetaFlex® Pro Shear MAX 3Hr

The top mount floor joint system is attached to the concrete top surface on each side of the joint of the floor assembly using nominal 3/16 in. diameter, min. 1-3/4 in. long concrete screws spaced nominally 10 in. on center (oc) through the steel mounting flanges. Ensure the supplied tadpole insulation strip is installed under the aluminum profiles in accordance with the manufacturer's installation instructions.

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. Apply Metacaulk® MC150+ sealant between layers at the splice; min. 3/8 in. bead of sealant at each layer step on the female side. Install 12 in. wide blanket insert on bottom package per manufacturer's installation instructions.

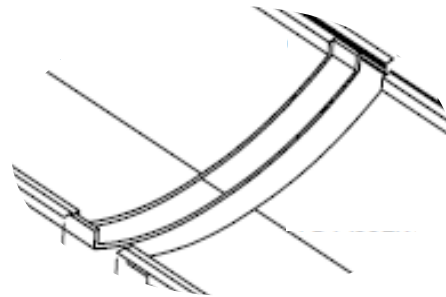


Figure 2. Splice

Install an 8 in. wide, 2 mil stainless steel splice patch (not shown) by spreading Metacaulk® MC150+ on one face of the patch, and adhering the patch centered over the seam between the two barriers from the top side of the top package.

3. **COVER PLATE (Not Shown):** Width of cover plate varies with joint width and shall overlap the full fire barrier including mounting flanges. The cover plate shall be constructed of min. 3/16 in. aluminum alloy, 1/8 in. stainless steel, or 1/8 in. galvanized steel. Secure the cover plate to one side of the supporting construction (Item 1) with min. 3/16 in. nominal diameter, min. 1-3/4 in. long concrete screws spaced nominally 20 in. oc.
4. **CHASE WALL CONDITION (Not Shown):** In conditions where the linear opening is enclosed within a 3 hour fire resistance rated chase wall, as an alternate to the cover plate (Item 3), use a Balco-provided joint cover, consisting of 2 mil stainless steel foil or min. 0.014 in. thick fiberglass fabric coated with silicone or min. 0.026 in. thick fiberglass fabric laminated with aluminum, secured to the supporting construction (Item 1) on both sides of the joint with min. 1-1/2 in. wide, min. 20 GA galvanized steel straps and min. 3/16 in. nominal diameter concrete screws spaced max. 20 in.



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.