Balco Inc.
Design No. BA/EC 120-02
Floor Joint System
MetaFlex® Pro Undermount Fire Barrier
UL 2079, ASTM E1966
Rating: 2 Hour
CAN/ULC-S115
FT Rating: 2 Hour
UL 2079, CAN/ULC-S115
L-Rating: < 2 SCFM/LF, < 3.1 L/s/m
ASTM E1399
Cycling – Class IV

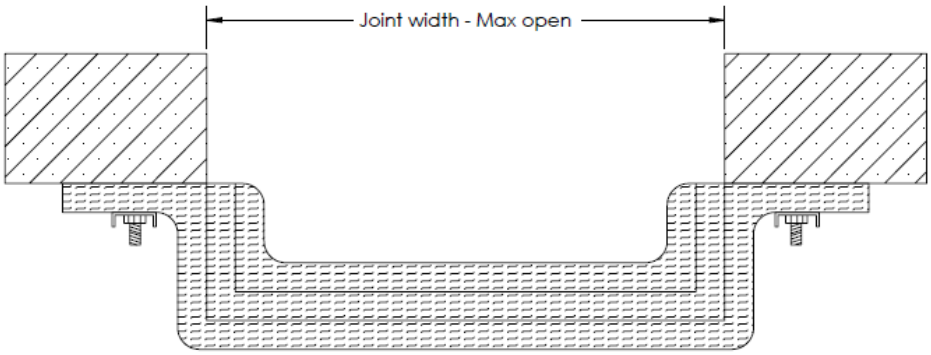

Figure 1. MetaFlex® Pro Undermount

Min. Joint Width	Max. Joint Width
3-1/2 in.	8 in.
3-1/2 in.	9 in.
4 in.	10 in.
4 in.	12 in.
4 in.	14 in.
4 in.	15 in.
5 in.	16 in.

Min. Joint Width	Max. Joint Width
5 in.	18 in.
5 in.	21 in.
5 in.	24 in.
5 in.	27 in.
5 in.	30 in.
5 in.	33 in.
5 in.	36 in.

Table 1. Joint Sizes

1. **SUPPORTING CONSTRUCTION:** 2 hour rated solid 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 Undermount 2Hr

The MetaFlex® Pro Undermount floor joint system is attached to the bottom of the supporting construction (Item 1) on each side of the joint by fastening the 4 in. wide flanges to the underside of the concrete using 14 GA, 1-5/8 in. x 13/16 in. galvanized steel channels and 1/4-20, 3 in. long zinc plated steel, concrete anchors spaced nominally 10 in. on center (oc).

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.

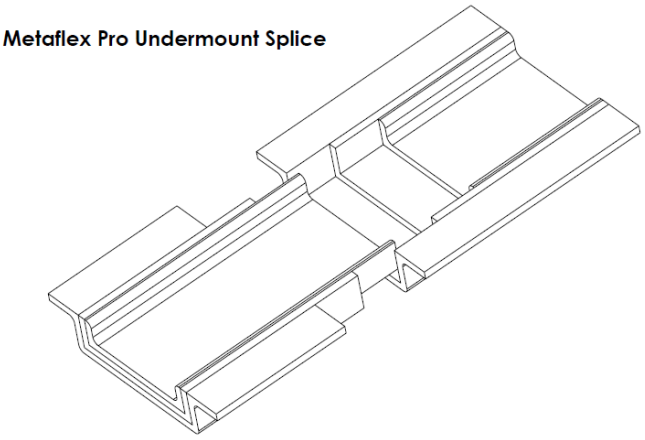

Figure 2. Splice Detail

Install an 8 in. wide, 2 mil stainless steel splice patch (not shown) by spreading Metacaulk® MC150+ between the two rows of tape, peeling the tape line, and adhering the patch centered over the seam between the two barriers from the bottom side.

3. COVER PLATE (Not Shown): The cover plate shall overlap the concrete a min. of 1 in. at max. joint width. The cover plate shall be constructed of min. 3/16 in. aluminum alloy, bronze, stainless steel, or 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 2-hour fire resistance rated chase wall, the cover plate (Item 3) is only required on the side of the joint not enclosed within the 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.