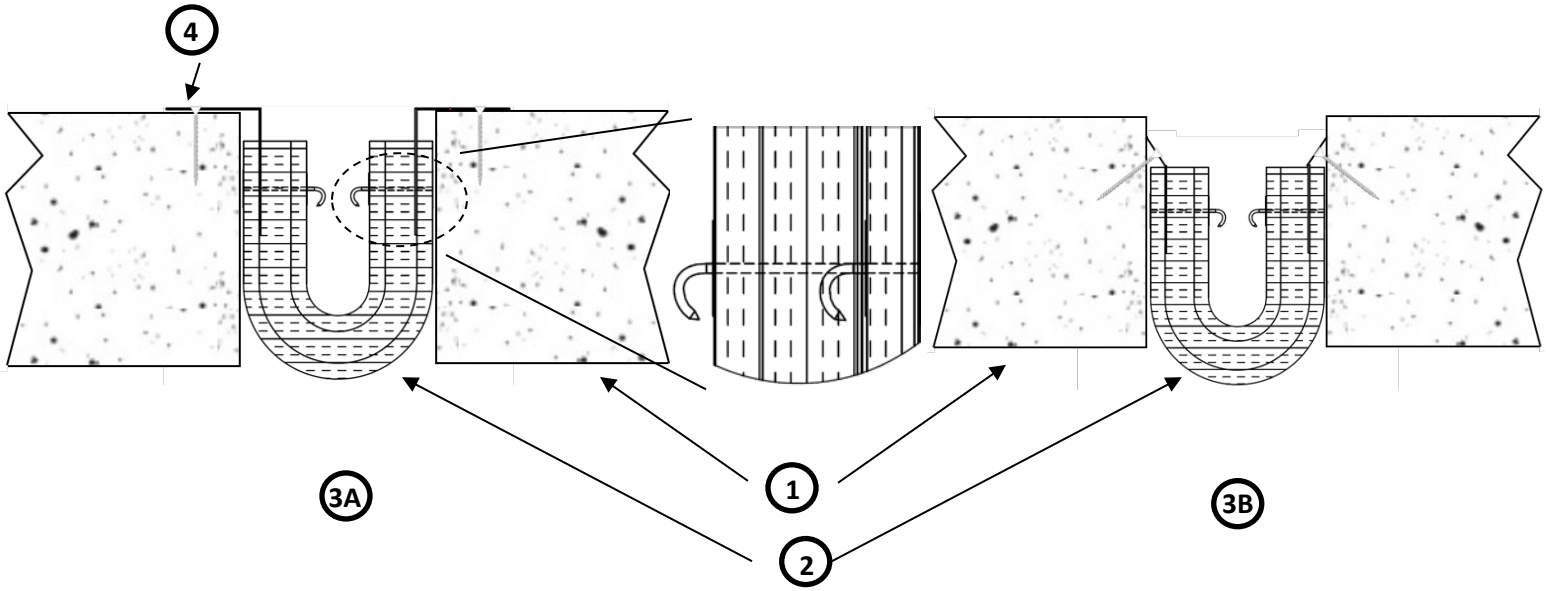
InPro Corporation
Design No. INC/EJCA 180-02
Floor Joint System
Fireline F520
UL 2079, CAN/ULC S115-11
Rating: 3 Hour
ASTM E1399
Cycling – Class IV



1. **SUPPORTING CONSTRUCTION:** Min. 3-hour fire 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 5-3/4 in. at the joint face under the cover (Item 2B). Overall slab thickness may increase to accommodate various block out depths (longitudinal recesses) formed in the concrete, to house the cover (Item 2B). The block out width may also vary without restriction.

2. **Floor Joint Assemblies:** A nominal 6.67 in. or 20 in. joint width (see Table), pre-fabricated system composed of a rigid metallic architectural joint system and a flexible U-shaped fire barrier. Attach mechanical components to the concrete floor assembly (Item 1). Max. joint opening ranges are 12 in. and 36 in., respectively, per Table.

A. **CERTIFIED MANUFACTURER:** InPro Corporation

CERTIFIED PRODUCT: Fireline F520 Top and Inside Mount Floor Joint System Series

CERTIFIED MODEL (See Table):

- Example: FL80-3TM-6FL

F520 Part Number Example/Explanation:

FL80 or FL (Brand/Product Name);
3 (Hourly Rating);
TM or IM (Flange Type – Top Mount or Inside Mount);
6 or 20 (Nominal Joint Width);
FL (Condition – Floor to Floor)

The top mount floor joint system is attached to the concrete top surface on each side of the joint of the floor assembly using mechanical fasteners (Item 4). The inside mount floor joint system is attached to the inside vertical concrete faces on each side of the joint of the floor joint opening using mechanical fasteners (Item 4). When required, overlap male and female ends to form a splice in the joint with a 12 in. overlap as specified in the manufacturer's installation instructions.

B. **COVER PLATE – (NOT SHOWN):** Width of cover plate varies with joint width and shall overlap the full joint system including mounting flanges by a minimum 3 in. Thickness of cover plate shall be not less than 1/8 in. thick for carbon steel or stainless steel; not less than 1/4 in. thick for aluminum alloy; not less than 3/16 in. thick for bronze; and, fastened on one side of the joint opening, 12 in. oc with mechanical fasteners (Item 4) and washers.

C. **CHASE WALL CONDITION – (NOT SHOWN):** In conditions where the linear opening is enclosed within a 3-hr fire resistance rated chase wall, as an alternate to the cover plate (Item 2B), use a joint cover consisting of 2 mil stainless steel foil secured to the supporting construction (Item 1) on both sides of the joint with min. nominal 3/8 in. diameter, min. 2-1/4 in. long, concrete anchoring screws and flat washers spaced nominally 12 in. oc.

3. MOUNTING: Fasten the joints to the concrete using the integral 5 in. × 3 in. 16 GA galvanized or non-galvanized steel expanded metal flanges. Use mechanical fasteners (Item 4) spaced 12 in. oc.

A. Top Mount
B. Inside Mount

4. FASTENERS: Use nominal 1/4 in. diameter, min. 1-3/4 in. long, concrete anchoring screws spaced nominally 12 in. oc. Screw through the top flange of the Top Mount and through the inside flange of the Inside Mount to attach the different systems to the concrete.

ASTM E1399 Cycling:
Class IV Cycling (4-in. min. to 12-in. max. and 8-in. min. to 36-in. max., respectively)

Model Number	Blanket Layers	Nominal Joint Size	Joint Width Cycling Range
FL80-3TM-6FL FL80-3IM-6FL	3×1-in.; 1×1/2-in. (Shown)	6 in.	4 in. – 12 in.
FL-3TM-6FL FL-3IM-6FL			
FL80-3TM-8FL FL80-3IM-8FL	4×1-in.; 1×1/2-in.	8 in.	8 in. – 14.4 in.
FL-3TM-8FL FL-3IM-8FL	3×1-in.; 1×1/2-in. (Shown)	8 in.	4 in. – 12 in.
FL80-3TM-10FL FL80-3IM-10FL	4×1-in.; 1×1/2-in.	10 in.	8 in. – 18 in.
FL-3TM-10FL FL-3IM-10FL	4×1-in.; 1×1/2-in.	10 in.	8 in. – 15 in.
FL80-3TM-12FL FL80-3IM-12FL	4×1-in.; 1×1/2-in.	12 in.	8 in. – 21.6 in.
FL-3TM-12FL FL-3IM-12FL	4×1-in.; 1×1/2-in.	12 in.	8 in. – 18 in.
FL80-3TM-14FL FL80-3IM-14FL	4×1-in.; 1×1/2-in.	14 in.	8 in. – 25.2 in.
FL-3TM-14FL FL-3IM-14FL	4×1-in.; 1×1/2-in.	14 in.	8 in. – 21 in.
FL80-3TM-16FL FL80-3IM-16FL	4×1-in.; 1×1/2-in.	16 in.	8 in. – 29 in.
FL-3TM-16FL FL-3IM-16FL	4×1-in.; 1×1/2-in.	16 in.	8 in. – 24 in.
FL80-3TM-18FL FL80-3IM-18FL	4×1-in.; 1×1/2-in.	18 in.	8 in. – 32.4 in.
FL-3TM-18FL FL-3IM-18FL	4×1-in.; 1×1/2-in.	18 in.	8 in. – 27 in.
FL80-3TM-20FL FL80-3IM-20FL	4×1-in.; 1×1/2-in.	20 in.	8 in. – 36 in.
FL-3TM-20FL FL-3IM-20FL	4×1-in.; 1×1/2-in.	20 in.	8 in. – 30 in.
FL-3TM-22FL FL-3IM-22FL	4×1-in.; 1×1/2-in.	22 in.	8 in. – 33 in.
FL-3TM-24FL FL-3IM-24FL	4×1-in.; 1×1/2-in.	24 in.	8 in. – 36 in.