

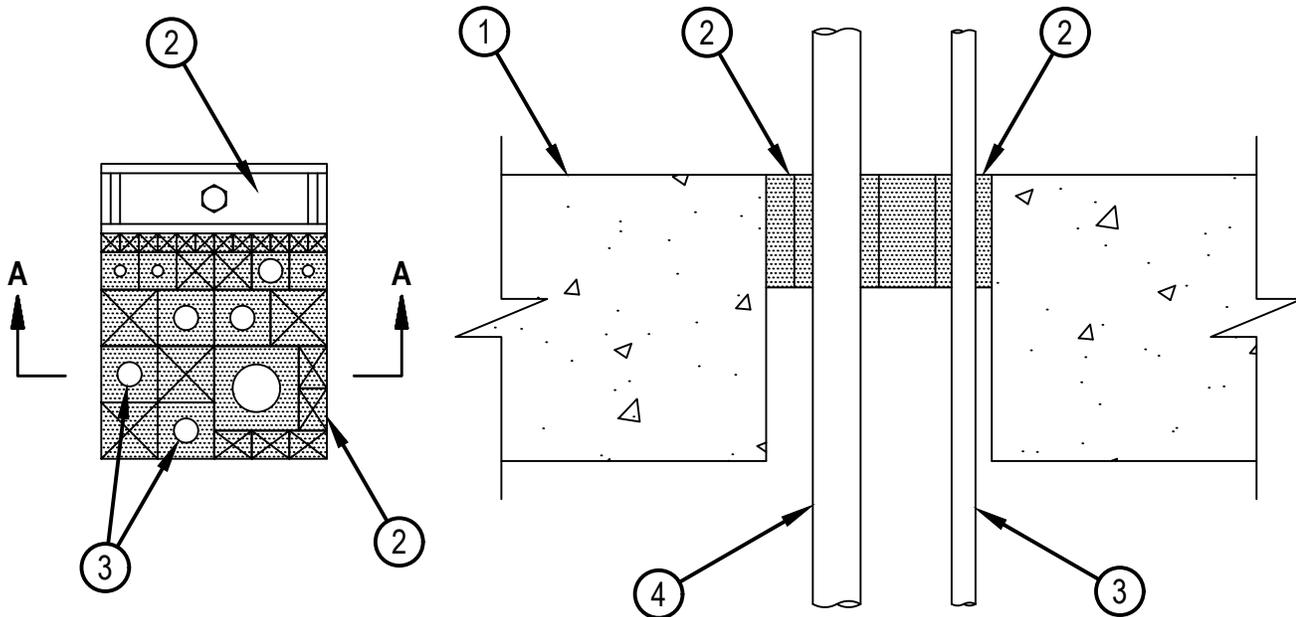


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. C-BJ-8037

CBJ 8037

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Ratings - 1/2, 3/4 or 1 Hr (See Items 3 and 4)	FT Ratings - 1/2, 3/4 or 1 Hr (See Items 3 and 4)
L Rating At Ambient — Less Than 1 CFM/Device	FH Rating — 2 Hr
L Ratings At 400 F — Less Than 1 CFM/Device	FTH Ratings -1/2, 3/4 or 1 Hr (See Items 3 and 4)
	L Rating At Ambient — Less Than 5.1 L/s/Device
	L Ratings At 204 C — Less Than 5.1 L/s/Device



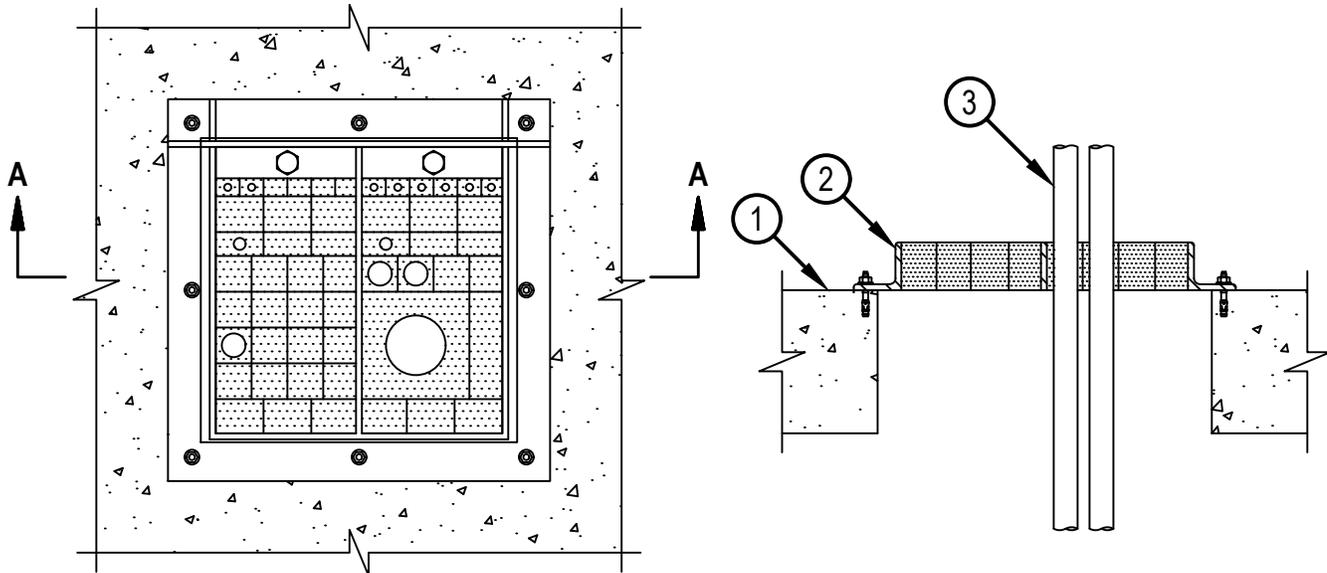
SECTION A-A

CONFIGURATION A



Hilti Firestop Systems

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SECTION A-A

CONFIGURATION B

Configuration B

1. Floor or Wall Assembly — Min 6 in. (150 mm) thick reinforced concrete floor or wall of normal weight (150 pcf or 2400 kg/m³) concrete. Max area of opening is 126 in² (813 cm²) for multiple opening firestop device frame, or 66 in² (426 cm²) for single opening firestop device frame, with max dimension of 12 in. (305 mm), sized in accordance with manufacturer's installation instruction
2. Firestop Device* — The firestop device consists of a frame, elastomeric cable and filler modules, anchor plates, lubricant and wedge seal(s) compression unit. The device shall be installed in accordance with the manufacturer's installation instructions and include the components as described below.
 - A. CFS-T SB (or SBO or SBF) GS MSP or GS Transit Frame — Transit frames in galvanized steel (GS) or primed steel (MSP) and in frame sizes of 8 x 2 or smaller (i.e., 6 x 2, 4 x 2 etc.) for single row multiple frames and 8 x 1 or smaller (i.e., 6 x 1, 4 x 1 etc.) for single frames. The steel frame of the firestop device shall be cast in place at one side of the concrete floor or wall (Configuration A) with the outer edge of the frame flush with the top surface of the floor or either surface of the wall. Alternately, the steel frame of the firestop device shall be installed over the Fill, Void or Cavity Material (Item 5) and secured to the top surface of the floor or both surfaces of wall (Configuration B) with one fastener in each corner and an additional fastener centered along each frame flange on the sides of the opening exceeding 10-1/2 in. (267 mm). For SBO frames, the two piece frame shall be secured together with one bolt/nut (3/8 in. (9.5 mm) dia x 1-1/4 in. (32 mm) or M10 x 30 mm) at each corner; and an additional fastener shall be used to secure the top SBO frame piece to the floor or wall assembly. The following fasteners may be used to secure the frame to floor or wall: min 1/4 in. (6 mm) diam by min 1-1/4 in. (32 mm) long steel expansion bolts or min 0.145 in. (3.7 mm) diam by 1-1/4 in. (32 mm) long powder actuated fasteners utilizing a 1-7/16 in. (37 mm) diam by 1/16 in. (1.6 mm) thick steel washer or Hilti 1/4 in. (6 mm) diam by 1-1/4 in. (32 mm) long KWIK-CON II+ concrete screw anchors or Hilti 1/4 in. (6 mm) diam by 1-3/4 in. (45 mm) long KWIK-BOLT 3 steel expansion anchors or Hilti X-DNI 27 P8 S15 powder actuated floor pins with integral nom 9/16 in. (15 mm) diam washer.

L Ratings apply to Configuration A only.

- B. CFS-T Cable Modules — The annular space within the firestop device frame is filled with elastomeric cable modules, one specifically sized for the outer diameter of each cable penetrant. In areas within the opening with no penetrants, solid cable modules (solid cylindrical core of the unpenetrated module left in place) or filler modules can be used. The cable modules are installed in uniform rows within the frame with anchor plates (Item 2D) used to separate each row to retain the modules within the frame. A fixing anchor plate (Item 2D) and a wedge compression kit (Item 2E) are then installed to completely fill the opening and compress the modules in place to form an effective seal around the cables and elastomeric insert blocks. The total number of modules required within the device is specified by Hilti based on the frame size.
- C. CFS-T LUB — This lubricant is applied to each cable module (Item 2B) prior to installation within the device frame.
- D. CFS-T AP GS Anchor Plates and CFS-T FAP GS Fixing Anchor Plate — The steel anchor plates are installed between each layer of cable modules (Item 2B) and the fixing anchor plate is installed below the final layer to hold the modules in place. The Hilti Module Squeezer tool is then used to compress the layers of cable modules / anchor plates to allow room for installation of the wedge seal (Item 2E). Once compression is attained, the integral fasteners on the anchor fixing plate are engaged to hold the layers in compressed position and the wedge seal is then installed.
- E. CFS-T WD120 GS Wedge Seal — Installed as the final component within the firestop device frame to close off the unused opening above the fixing anchor plate.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-T Cable Transit System

- 3. Cables — Cables to be rigidly supported on both sides of floor or wall assembly. Any combination of the following types and sizes of copper conductor (unless otherwise noted) cables may be used, except that the total number of cables of types E, F and G below shall not exceed eight (8). Within each firestop device, cables can be used for a total visual cable fill of min 0 percent to max 100 percent (one cable in each cable module within the device).
 - A. Max RG 6/U coaxial cable with fluorinated ethylene insulation and jacketing.
 - B. Max 7/C No. 12 AWG copper conductor control cable with PVC or XLPE jacket and insulation.
 - C. Max 24 fiber optic cable with polyvinyl chloride (PVC) or polyethylene (PE) jacket and insulation having a max diam of 1/2 in. (13 mm).
 - D. Max 3/C with ground No. 8 AWG (or smaller) copper conductor NM cable (Romex) with PVC insulation and jacket.
 - E. Max 4/0 AWG 600V aluminum Type XHHW-2 ground cable with XLPE jacket and insulation.
 - F. Max 150 pair No. 24 AWG (or smaller) copper conductor telecommunication cable with polyvinyl chloride (PVC) jacketing and insulation.
 - G. Max 7/C with ground, 600 V, No. 10 AWG (or smaller) copper conductor, aluminum armor TECK 90 cable with XLPE insulation and PVC inner/outer jacket.T, FT and FTH Ratings are 1 hr when cables A through D are used and 3/4 hr when cables E through G are used, except that the T, FT and FTH Ratings are 1/2 hr for Configuration B.
- 4. Steel Conduits — Nom 1 in. (25 mm) diam (or smaller) Schedule 5 (or heavier) rigid steel conduit or EMT.
 - T, FT and FTH Ratings are 3/4 hr when steel conduits are used, except that the T, FT and FTH Ratings are 1/2 hr for Configuration B.
- 5. Fill, Void or Cavity Material* — (Not Shown) — For surface mounted firestop frames, prior to the installation of the firestop device frames (Item 2A), a min 1/8 in. (3 mm) thick by 1 in. (25 mm) wide strip of putty or a min 1/2 in. (13 mm) diam bead of sealant is installed on the top surface of the floor, or both surfaces of wall, around the periphery of the opening to seal the frame flanges to the floor or wall
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 619T Putty Roll or FS-ONE MAX Intumescent Sealant.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

