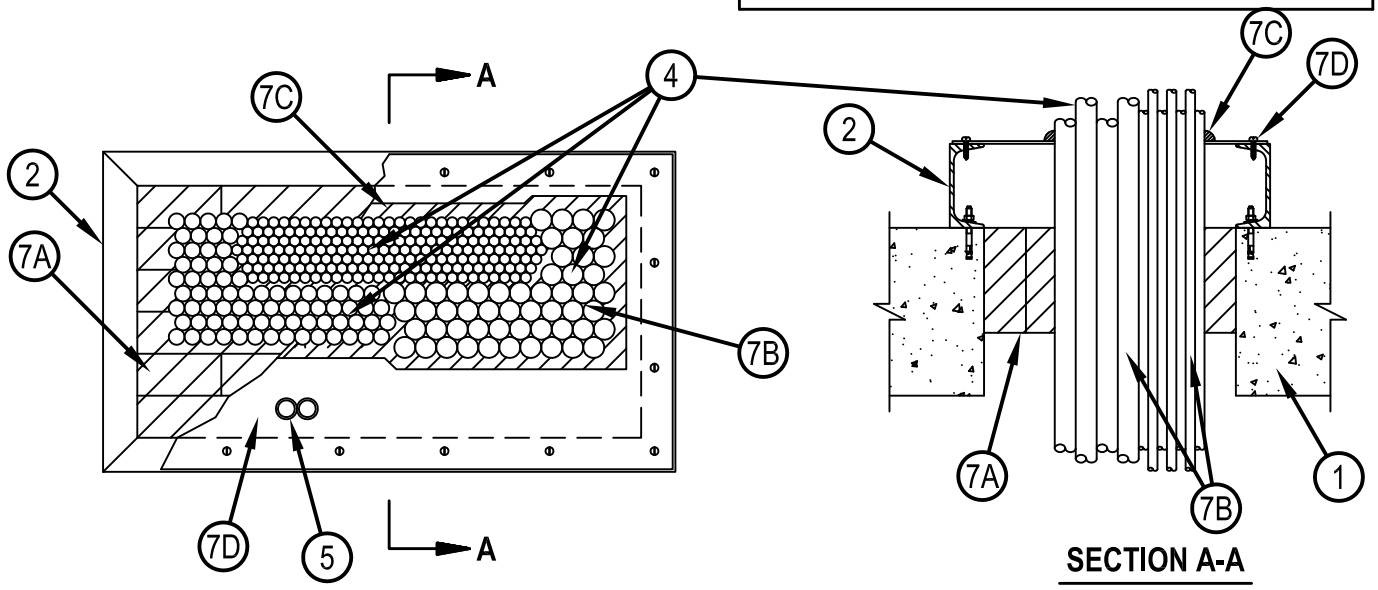
System No. C-BJ-8013

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

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Ratings — 0, 1 and 2 Hr (See Items 4B and 7D)	FT Rating — Ratings — 0, 1 and 2 Hr (See Items 4B and 7D)
	FH Rating — 2 Hr
	FTH Rating — Ratings — 0, 1 and 2 Hr (See Items 4B and 7D)



System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

1. Floor or Wall Assembly — Min 8 in. (203 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Max area of opening is 288 sq. in. (1858 cm²) with max dimension of 24 in. (610 mm).
2. Sheathing — Nom 1-1/2 in. (38 mm) by 4 in. (102 mm) by 3/16 in. (4.8 mm) thick steel channel shaped members secured to the concrete (Item 1) by means of 1/4 in. (6 mm) diam by 1-1/4 in. (32 mm) long concrete screw fasteners spaced 6 in. (152 mm) to 8 in. (203 mm) OC. The sheathing shall completely enclose the perimeter of the opening on top surface of floor assembly and one surface of wall assembly for asymmetrical systems and both surfaces of wall assembly for symmetrical systems.
3. Cable Rack — (Not Shown) — Max 20 in. (508 mm) wide cable rack, fabricated from min 1/4 in. (6 mm) thick by 1-1/2 in. (38 mm) wide steel bar side rails and 3/16 in. (4.8 mm) thick by 1 in. (25 mm) wide C-shaped rungs spaced 9 in. (229 mm) OC. Cable rack shall be welded or bolted to top surface of sheathing (Item 2).
4. Cables — Aggregate cross-sectional area of cables in opening to be max 34 percent of the cross-sectional area of the opening. The annular space between cables and the periphery of the opening shall be min 1 in. (25 mm). Cables to be rigidly supported on both sides of floor or wall assembly. The following type and size of cables may be used:
   A. Max 300 pair No. 24 AWG telephone cable with polyvinyl chloride (PVC) insulation and jacket.
   B. Max 750 kcmil power cable with cross-linked polyethylene (XLPE) insulation and polyvinyl chloride (PVC) jacket. When power cable is used, the T, FT and FTH Ratings are 1 Hr.
5. Conduit — (Optional) — Max two nom 1/2 in. (13 mm) diam electrical metallic conduit tubing (EMT). The annular space between cables and the conduit and the conduit and the periphery of the opening shall be 1-3/4 in. (44 mm) and 3/4 in. (19 mm), respectively.
6. Electric Nonmetallic Tubing+ — (Optional)(Not Shown)- Max two nom 2 in. (51 mm) diam (or smaller) corrugated wall electrical nonmetallic tubing (ENT), spaced min 0 in. (point contact) apart, constructed of polyvinyl chloride (PVC). The annular space between cables and the ENT and the ENT and the periphery of the opening shall be 2 in. (51 mm) and 5/8 in. (16 mm), respectively.

System No. C-BJ-8013

7. Firestop System — The firestop system shall be installed as an asymmetrical system in a floor and a symmetrical or asymmetrical system in a wall assembly. The firestop system shall consist of the following items:

A. Fill, Void or Cavity Materials*-Fire Blocks — Fire blocks installed with 5 in. (127 mm) dimension projecting through opening, flush with the top surface of floor or either wall surface. Blocks to be firmly packed and completely fill the entire length and width of the opening. Either one or a combination of the block types specified below may be used.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS 657 Fire Block or CFS-BL Firestop Block

B. Fill, Void or Cavity Materials*-Putty — Formed into pads 6 in. (152 mm) by 7 in. (178 mm) by 1/8 in. (3 mm) installed flush with bottom of blocks, between each row of cables and around periphery of cable bundle to fill all voids.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP619T Firestop Putty Roll, CP 618 Firestop Putty Stick, CP 617 Firestop Putty Pad.

C. Fill, Void or Cavity Materials*-Putty — When cover plate is used, min 1/2 in. (13 mm) thickness of fill material to be applied at cables/cover plate interface. Additional 3/8 in. (9.5 mm) bead of fill material applied at fill/cover plate interface, over lapping cover plate.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 618 Firestop Putty Stick

C1. Fill, Void or Cavity Materials*-Sealant (Optional, Not Shown) — When cover plate is used, min 1/2 in. (13 mm) thickness of fill material to be applied at cables/cover plate interface. Additional 3/8 in. (9.5 mm) bead of fill material applied at fill/cover plate interface, over lapping cover plate.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant.

D. Steel Cover Plate (Optional) — Min 0.020 in. (0.51 mm) thick (No. 22 MSG) steel plate shall be cut to fit the contour of the cable bundle. Steel cover plate secured to the sheathing with 1/4-20 bolts spaced max 12 in. (305 mm) OC. Annular space between cables and cover plate shall be min 0 in. (point contact) to max 1 in. (25 mm). Annular space between cables and sheathing shall be min 0 in. (point contact) to max 1 in. (25 mm). In order to achieve T, FT and FTH Ratings greater than 0 Hr, the annular spaces shall be treated as described in Items 5B and 5B1. When the cover plate is not used or annular spaces are not treated, the T, FT and FTH Ratings are 0 Hr.

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