

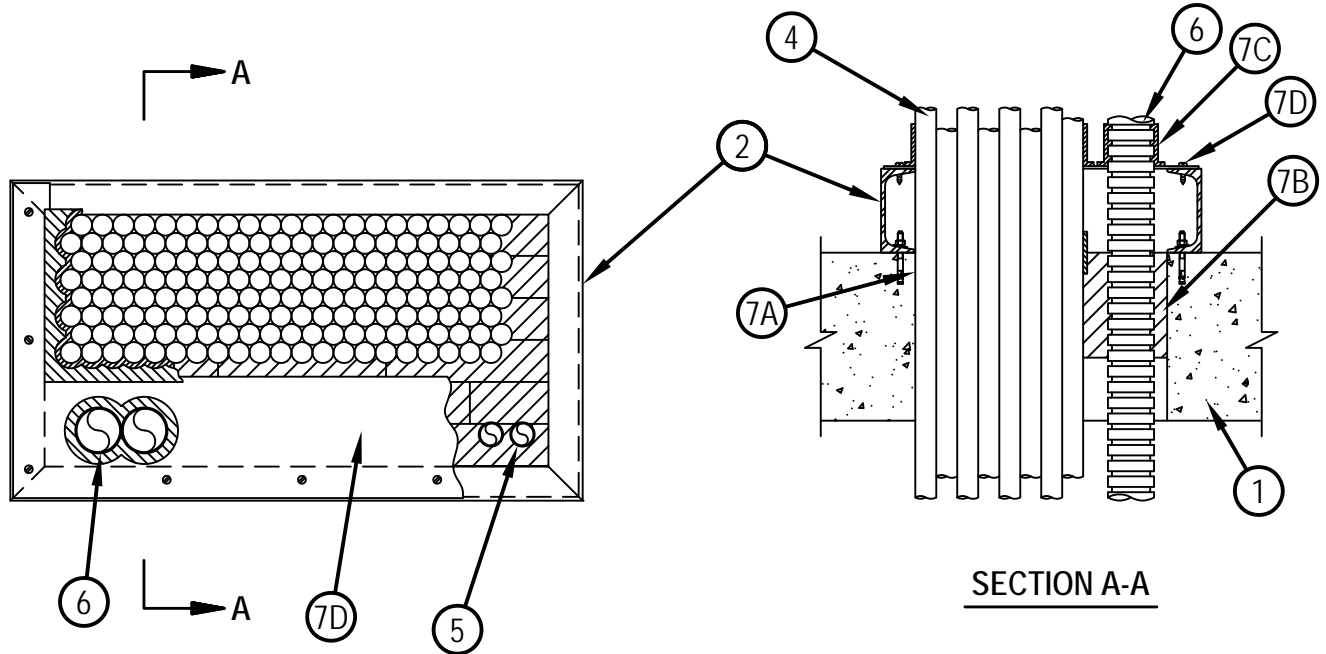


Classified by  
Underwriters Laboratories, Inc.  
to UL 1479 and CAN/ULC-S115

# System No. C-BJ-8014

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

CBJ 8014



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) concrete. Max area of opening is 288 sq. in. (1858 cm<sup>2</sup>) 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 the top surface of the floor assembly and or on one surface of wall assembly for asymmetrical systems and on 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 steel 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 min annular space between cables and the periphery of the opening shall be 0 in. (point contact). 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. When telephone cable is used, the T, FT and FTH Ratings are 2 hr.
  - B. Max 750 kcmil power cable with cross-linked polyethylene (XLPE) insulation and PVC jacket. When power cable is used, the T, FT and FTH Ratings are 1 hr.
5. Conduit — (Optional)—Max two nom 1 in. (25 mm) diam (or smaller) steel electrical metallic conduit tubing (EMT) spaced min 1/2 in (13 mm) apart. 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).



**Hilti Firestop Systems**

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January 13, 2012



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6. Electric Nonmetallic Tubing+ — (Optional)—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.

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\* - Putty — Formed into pads 6 in. (152 mm) by 4 in. (102 mm) by 1/4 in. (6 mm) installed around the accessible sides of cable bundle extending 2 in. (51 mm) above and below the top surface of floor, or 2 in. (51 mm) beyond both edges of the blocks in walls. Additional fill material to be forced into interstices of cables and in all obvious openings between blocks and between blocks and the periphery of the opening to the max extent possible on top surface of floor and both surfaces of wall.

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HILTI INC — CP 618 Firestop Putty Stick

B. Fill, Void or Cavity Materials\* - Putty — (Optional, Not Shown)-Formed into pads 6 in. (152 mm) by 7 in. (178 mm) by 1/8 in. (3 mm) for floors and 6 in. (152 mm) by 9 in. (229 mm) by 1/8 in. (3.18 mm) for walls, installed within annular space between each row of cables and around periphery of cable bundle flush with bottom of blocks in floors and projecting 2 in. (51 mm) on either side of blocks for walls and 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\* - Fire Blocks — Fire blocks installed with 5 in. (127 mm) dimension projecting through opening, flush with the top surface of concrete floor. In walls, blocks to be installed flush with surface containing putty (Item 2A) in asymmetrical applications and with putty extending 2 in. (51 mm) from blocks in symmetrical applications. 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

D. Fill, Void or Cavity Materials\* - Putty — When cover plate is used, putty formed into pads 1/4 in. (6 mm) thick, installed around periphery of cable bundle, EMT and ENT, extending min 2 in. (51 mm) onto penetrant and overlapping cover plate by min 1/2 in. (13 mm).

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HILTI INC — CP 618 Firestop Putty Stick

E. Steel Cover Plate — (Optional)-Min 0.026 in. (0.66 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 or screws spaced max 12 in. (305 mm) OC. As an alternate fastener, Southco® Medium Bail Style Quarter-turn steel stud/receptacle fasteners may be used. Annular space between cables, conduit or ENT and cover plate to be 0 in. (point contact) to max 1 in. (25 mm). Cover plate is not required when distance between cable bundle and sheathing (Item 2) is 1 in. (25 mm) or less. T, FT and FTH Ratings are 0 Hr when cover plate is not used.

\*Bearing the UL Classification Mark

+Bearing the UL Listing Marking



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