

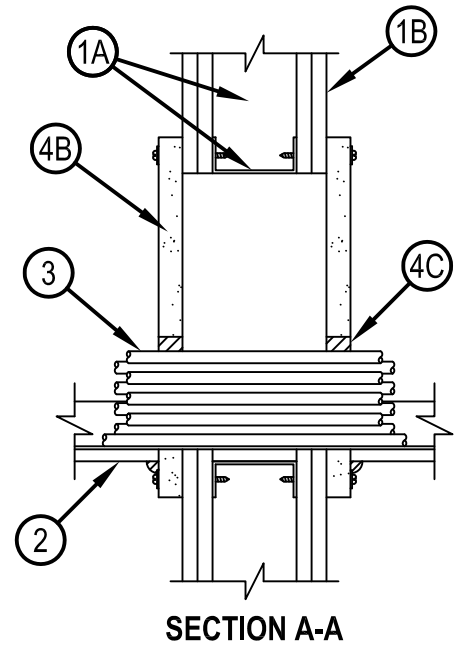
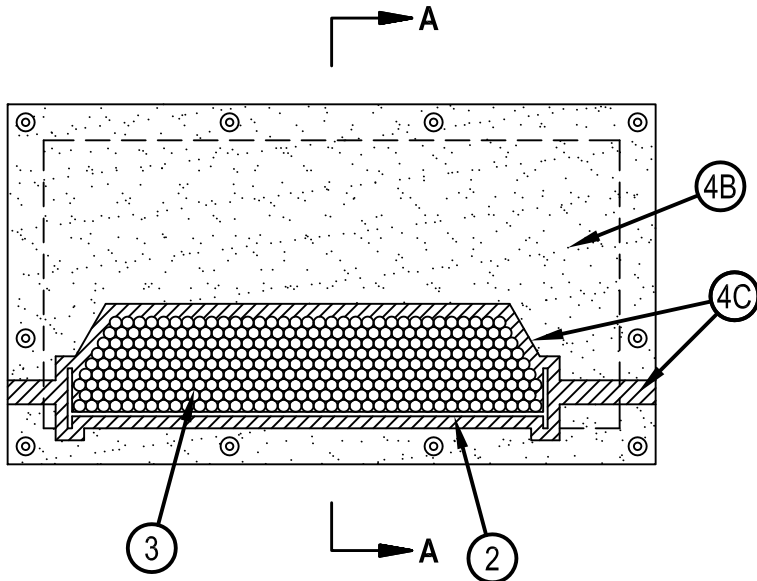


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. W-L-4048

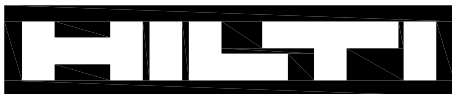
WL 4048

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 1 or 2 Hr (See Item 1)	F Rating — 1 or 2 Hr (See Item 1)
T Rating — 1/4 Hr	FT Rating — 1/4 Hr
	FH Rating — 1 or 2 Hr (See Item 1)
	FTH Rating — 1/4 Hr



- Wall Assembly — The 1 or 2 hr fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400, V400 or W400 Series Wall and Partition Designs in the Fire Resistance Directory and shall include the following construction features:
 - Studs — Wall framing shall consist of channel shaped steel studs. Steel studs to be min 3-1/2 in. (89 mm) wide, fabricated from min 25 MSG galvanized steel, spaced max 24 in. (610 mm) OC. Additional studs to be used to completely frame around opening.
 - Gypsum Board* — Min 5/8 in. (16 mm) thick with square or tapered edges. The gypsum board type, number of layers and sheet orientation shall be as specified in the individual Wall and Partition Design Max area of opening is 5.7 sq ft (0.5 m²) with max dimension of 36 in. (914 mm).

The hourly F, FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
- Cable Rack — Max 20 in. (508 mm) wide open-ladder steel cable rack with nom 2 in. (51 mm) by 3/8 in. (10 mm) solid steel side rails. Cable rack to be rigidly supported on both sides of wall assembly. The spacing between the cable rack and the periphery of the opening shall be min 0 in. (0 mm, point contact) to max 34 in. (864 mm).



Hilti Firestop Systems

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January 23, 2015

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WL 4048

3. Cables — Max 4 in. (102 mm) cable loading depth on the cable rack. Any combination of the following types and sizes of copper conductor cables may be used:

- A. Max 750 kcmil RHW/RHH type power cable or with polyvinyl chloride (PVC) jacket.
- B. Max 3/C No. 12 AWG metal-clad cable.
- C. Max 300 pair No. 24 AWG telephone cable with PVC jacket.
- D. Max 24 fiber, fiber-optic cable with PVC jacket.
- E. Max 7/C No. 12 AWG cable with PVC jacket.
- F. Max 3/C No. 2/0 AWG (or smaller) copper conductor PVC jacketed aluminum clad or steel clad TECK 90 cable.
- G. Through Penetrating Product* — Any cables, Armored Cable+ or Metal Clad Cable+ currently Classified under the Through Penetrating Product category.

See Through Penetrating Product (XHLY) category in the Fire Resistance Directory for names of manufacturers.

4. Firestop System — The firestop system shall consist of the following:

- A. Fill, Void or Cavity Material* — Sealant — (Not Shown) — Min 1/4 in. (6 mm) bead of sealant applied to gypsum board around perimeter of opening prior to attaching board (Item 4B) to wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant
- B. Firestop Device* — Board — Board cut in two pieces (top and bottom). Bottom piece cut to tightly follow the contours of cable rack with a min 0 in. (0 mm) to max 1 in. (25 mm) space between board and cable rack on each side of wall. Top piece cut to tightly-follow the contours of cable rack and cable fill on each side of wall with a min 1/8 in. (3 mm) to max 1 in. (25 mm) space between board and cable rack and a min 1/4 in. (6 mm) to max 1 in. (25 mm) space between board and cables. Boards cut to lap a min of 1 in. (25 mm) onto the gypsum board around the perimeter of the opening on both sides of wall. Boards to be secured to steel framing, through gypsum board layers, with min 2-5/8 in. (67 mm) long self-drilling Type S steel screws with 1-1/4 in. (32 mm) OD steel fender washers at each corner and spaced maximum 8 in. (203 mm) OC around perimeter of opening. Additional fasteners to be located on each side of butted seams of top and bottom pieces.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 675T Firestop Board
- C. Fill, Void or Cavity Material* — Putty — As an alternate to Item 4A, a min 1/8 in. (3 mm) thick by 1 in. (25 mm) wide strip of putty applied to gypsum board around perimeter of opening prior to attaching board to wall. Min 1 in. depth of putty applied in annular space between cables and board and between the cable rack and the board. Min 1 in. (25 mm) depth of putty to be applied in seam between top and bottom pieces of board. Min 1/2 in. crown of putty shall be applied where annular space between the board and the cable rack is less than 1/4 in. (6 mm).
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 619T Firestop Putty Roll or CP 618 Firestop Putty Stick or CP 617 Firestop Putty Pad

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

+Bearing the UL Listing Mark



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Page: 2 of 2