

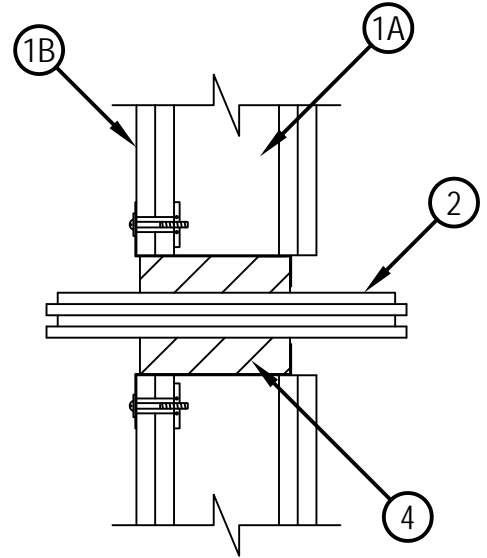
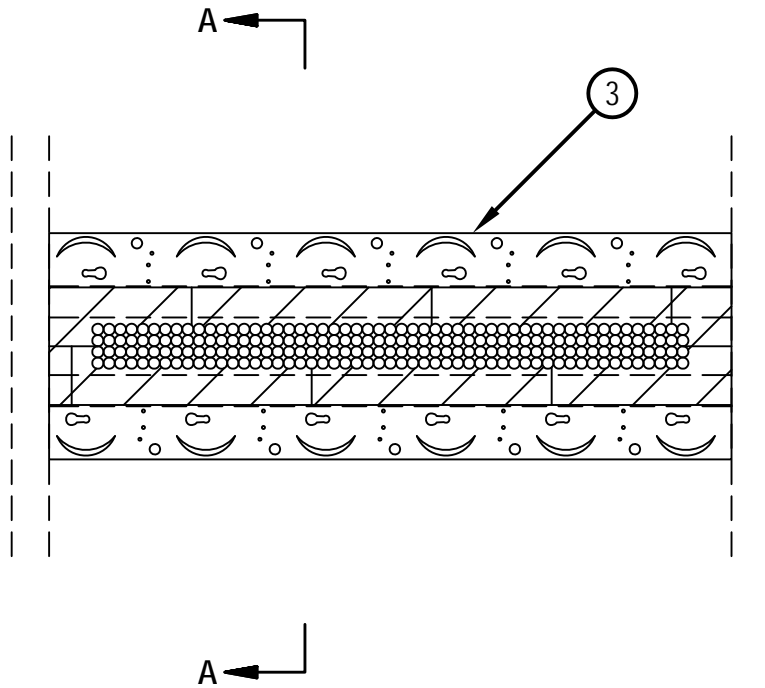


Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

# System No. W-L-3296

WL 3296

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 1/2 and 3/4 Hr (See Item 2)	FT Ratings — 1/2 and 3/4 Hr (See Item 2)
	FH Ratings — 1 and 2 Hr (See Item 1)
	FTH Ratings — 1/2 and 3/4 Hr (See Item 2)



SECTION A-A



**Hilti Firestop Systems**

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. December 13, 2011



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

# System No. W-L-3296

WL 3296

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 1/2 and 3/4 Hr (See Item 2)	FT Ratings — 1/2 and 3/4 Hr (See Item 2)
	FH Ratings — 1 and 2 Hr (See Item 1)
	FTH Ratings — 1/2 and 3/4 Hr (See Item 2)

1. Wall Assembly — The 1 and 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

- A. Studs — Wall framing may consist of either wood studs or channel shaped steel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be nom 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC. Vertical framing members required at both sides of opening.
- B. Gypsum Board\* — 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. For wood stud walls, max area of opening is 59 sq in. (381 cm<sup>2</sup>) with max dimension of 14.75 in. (375 mm) wide. For steel stud walls, max area of opening is 91 sq in. (587 cm<sup>2</sup>) with max dimension of 22.75 in. (578 mm) wide.

The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.

2. Cables — The size of cable bundle permitted in the opening is min 0 in. (completely empty) to max 20 by 2 in. (508 by 51 mm). Cables are tightly bundled and rigidly supported on both surfaces of wall. The annular space between the cables and periphery of the opening shall be min 1 in. (25 mm). Any combination of the following types and sizes of cables may be used:

- A. Max 200 pair No. 24 AWG telephone cable with PVC jacket.
- B. Max 25 pair No. 24 AWG telephone cable with PVC jacket.
- C. Type R GU/59 coaxial cable with PVC jacket.
- D. Max 3/C No. 8 AWG (or smaller) metal-clad cable.
- E. Max 3/C (+ ground) No. 8 AWG (or smaller) copper conductor cable (romex).
- F. Max 1/2 in. (13 mm) diam fiber-optic cable.

The hourly T, FT and FTH Ratings of the firestop system are 3/4 hr except that the T, FT and FTH Ratings are 1/2 hr when any of the cables in above Items 2A, 2B or 2E are used.

3. Firestop Device\* — Z Frame — Min. 5 in. (127 mm) deep. Z-frame cut to length for the top and bottom of the opening. Each Z-frame fastened to the wall with two toggler bolts spaced max 12 in. (305 mm) on center, or fastened to the wall framing members with two 3/16 in. (5 mm) diam by 2-5/8 in. (67 mm) long Type S self-drilling steel screws, one at each end of frame. For blank openings with no cables, Z -frame must be fastened to wall framing members.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP675T-Z Firestop Frame

4. Fill, Void or Cavity Material\* — Fire Block — Min 5 in. (127 mm) depth to fill area between cables, wall framing and Z-frame. Blocks installed firmly packed with 5 in. (127 mm) dimension projecting through openings flush with back lip of Z-Frame (Item 3). Either one or a combination of the block types specified below may be used.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS657 Fire Blocks or CFS-BL Firestop Block

\*Bearing the UL Classification Mark



**Hilti Firestop Systems**

Reproduced by HILTI, Inc. Courtesy of  
Underwriters Laboratories, Inc.  
December 13, 2011