

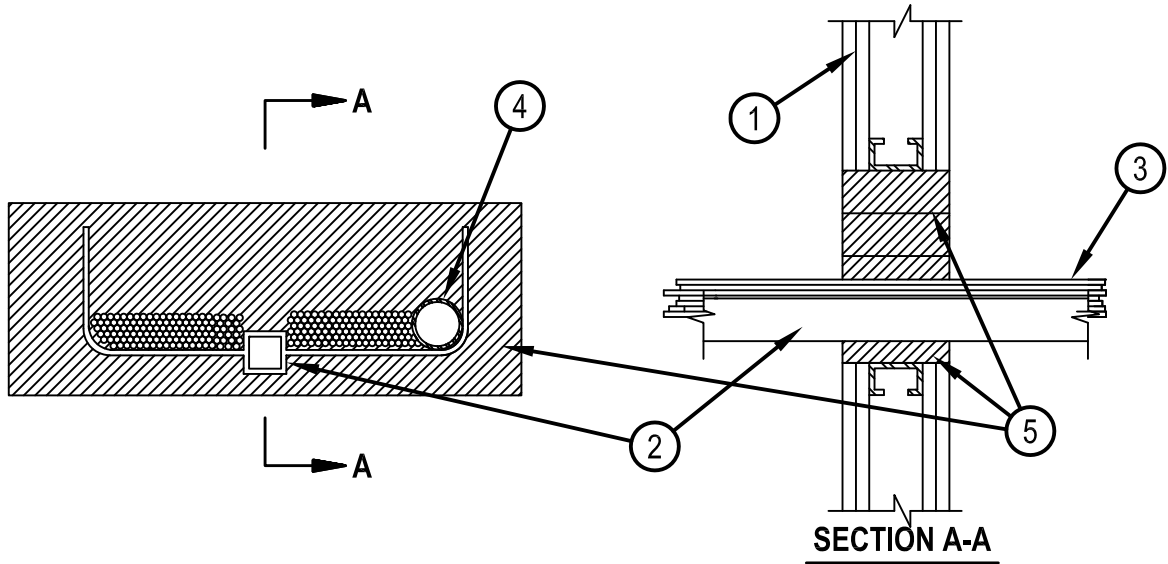


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. W-L-4019

ANSI/UL 1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Rating — 0 Hr	FT Rating — 0 Hr
	FH Ratings — 1 and 2 Hr (See Item 1)
	FTH Rating — 0 Hr

WL 4019



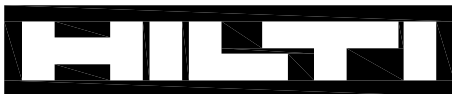
1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing shall consist of either wood studs or channel shaped steel studs. Wood studs to consist of 2 in. (51 mm) by 4 in. (102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide, fabricated from min 25 MSG galvanized steel, spaced max 24 in. (610 mm) OC.

B. Gypsum Board* — Nom 5/8 in. (16 mm) thick, 4 ft. (1219 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 or partition design in the UL Fire Resistance Directory. Max area of opening is 216 in² (1394 cm²) with max dimension of 24 in. (610 mm).

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. Cable Tray+ — Max 18 in. wide by 6 in. (152 mm) deep "spine" cable tray. The 1-1/2 in. (38 mm) wide by 2-3/4 in. (70 mm) deep tubular spine formed of 0.121 in. (3 mm) thick aluminum. The 6 in. (152 mm) deep "U" shaped rungs spaced 6 in. (152 mm) OC formed from 1/2 in. (13 mm) by 1/2 in. (13 mm) extruded aluminum tube. One cable tray to be installed in opening. The max annular space between the periphery of the opening shall be min 1 in. (25 mm) to 2-5/8 in. (67 mm) max. Cable tray to be rigidly supported on both sides of wall assembly.



Hilti Firestop Systems

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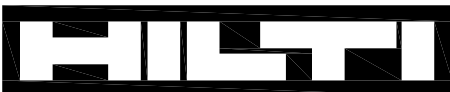
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3. Cables — Aggregate cross-sectional area of cables in cable tray to be max 22 percent of the cross-sectional area of the cable tray based on a max 6 in. (152 mm) cable loading depth within the cable tray. Any combination of the following types and sizes of cables may be used:
 - A. 6 pair — No. 24 AWG telephone cable with polyvinyl chloride (PVC) insulation and PVC jacket.
 - B. 24 fiber optic cable with polyvinyl chloride (PVC) outer and subunit jacket.
 - C. 3 pair No. 24 AWG CMP computer cable with polyvinyl chloride (PVC) insulation and jacket.
 - D. Type RGU/59 coaxial cable with polyethylene (PE) insulation and polyvinyl (PVC) jacket.
 - E. The 2/C No. 10 AWG cable with ground with polyvinyl (PVC) insulation and jacket.
 - F. 3/C No. 12 AWG MC cable with polyvinyl chloride (PVC) insulation in a nominal 1/2 in. (13 mm) flexible metal conduit.
4. Electrical Nonmetallic Tubing (ENT) — One nom 2 in. (51 mm) diam (or smaller) corrugated wall ENT constructed of polyvinyl chloride. See Electrical Nonmetallic Tubing (FKHU) category in the Electrical Construction Materials Directory for names of manufacturers.
5. Firestop System — The firestop system shall consist of the following:
 - A. Fill, Void or Cavity Material* — Fire blocks installed min. 5 in. (127 mm) dimension passing through the opening. Blocks to be firmly packed and completely fill the entire 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 Material* — Fill material to be forced into interstices of cables, between cables and cable tray and in obvious openings between blocks and between blocks and the periphery of the opening to the max extent possible on both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant, FS-ONE MAX Intumescent Sealant or CP 618 Firestop Putty Stick

*Bearing the UL Classification Marking

+Bearing the UL Listing Mark



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