

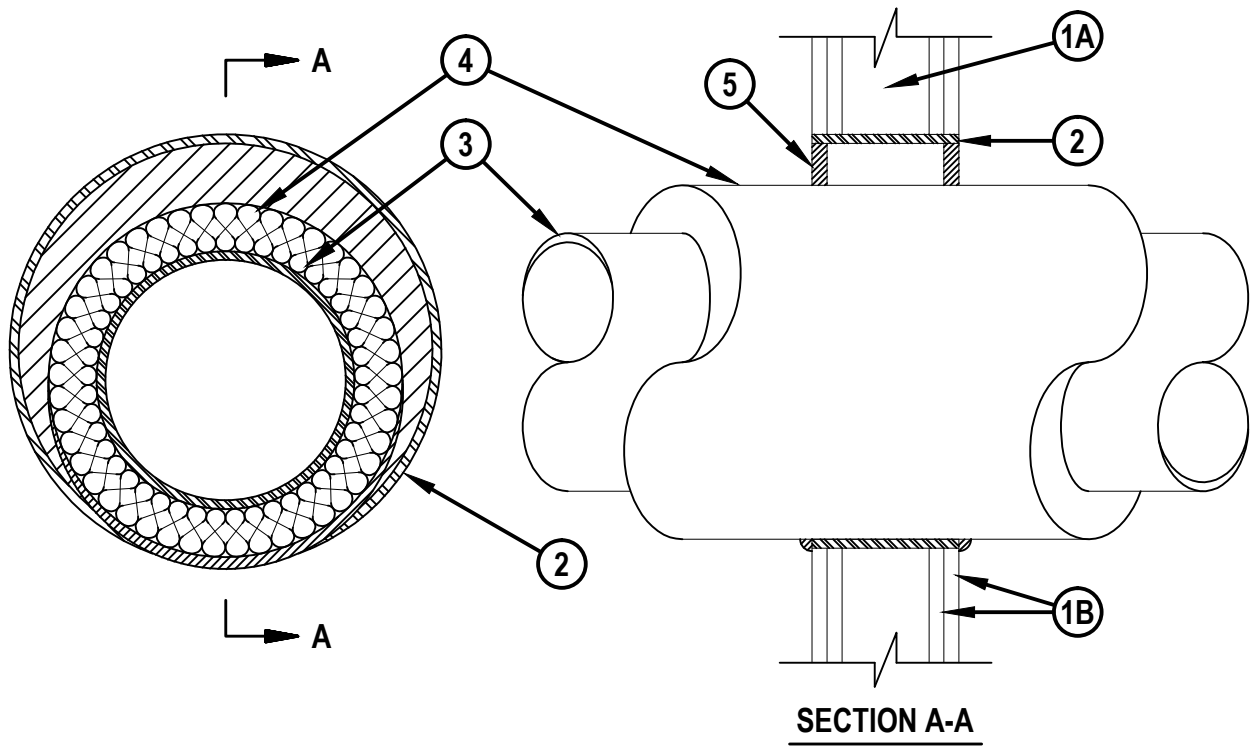


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. W-L-5096

WL 5096

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 - 0, 1/2 and 1 (See Items 3 and 4)	FT Ratings - 0, 1/2 and 1 (See Items 3 and 4)
	FH Ratings - 1 and 2 Hr (See Item 1)
	FTH Ratings - 0, 1/2 and 1 (See Items 3 and 4)



1. Wall Assembly — The 1 or 2 hr fire rated wallboard/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 shall consist of either wood studs or steel channel 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 min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
- B. Gypsum Board* — Nom 5/8 in. (16 mm) thick, 4 ft (1.2 m) 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 U300, U400, V400 or W400 Series Design in the Fire Resistance Directory. Max diam of openings is 14-1/2 in. (368 mm) for wood stud walls. Max diam of opening is 18-5/8 in. (473 mm) for steel studs walls or sized to the outside diam of steel sleeve (Item 2) when optional steel sleeve is used.

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. Steel Sleeve — (Optional) Max 18 in. (457 mm) diam Schedule 40 (or heavier) steel pipe sleeve inserted in opening core drilled through wall. Length of steel sleeve to be equal to thickness of wall.



Hilti Firestop Systems

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3. Through Penetrant — One metallic pipe or tubing installed concentrically or eccentrically within the firestop system. Pipe or tube to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tube may be used:
 - A. Steel Pipe — Nom 12 in. (305 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe. When steel pipe is used, T, FT and FTH Ratings are 1/2 hr and 1 hr when installed in 1 and 2 hr rated walls, respectively.
 - B. Copper Tube — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tube. When copper tube is used, T, FT and FTH Ratings are 1/2 hr and 1 hr when installed in 1 and 2 hr rated walls, respectively.
 - C. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe. When copper pipe is used, T, FT and FTH Ratings are 1/2 and 1 hr when installed in 1 and 2 hr rated walls respectively.
4. Pipe Covering* — Max. 2 in. (51 mm) thick hollow cylindrical heavy density (nom 3.5 pcf or 56 kg/m³) glass fiber units, jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied SSL tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. The annular space between insulated penetrant and periphery of opening shall be min 0 in. (point contact) to max 1-7/8 in. (48 mm).

When pipe covering thickness is less than 2 in. (51 mm), T, FT and FTH Ratings are 0 hr.

See Pipe and Equipment Covering-Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
5. Fill, Void or Cavity Material*-Sealant — Min 5/8 in. (16 mm) or thickness of fill material applied within annulus, flush with both surfaces of wall assembly for At point contact an additional 1/2 in. (13 mm) bead of sealant shall be applied to the insulated pipe/ wall interface.

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

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

