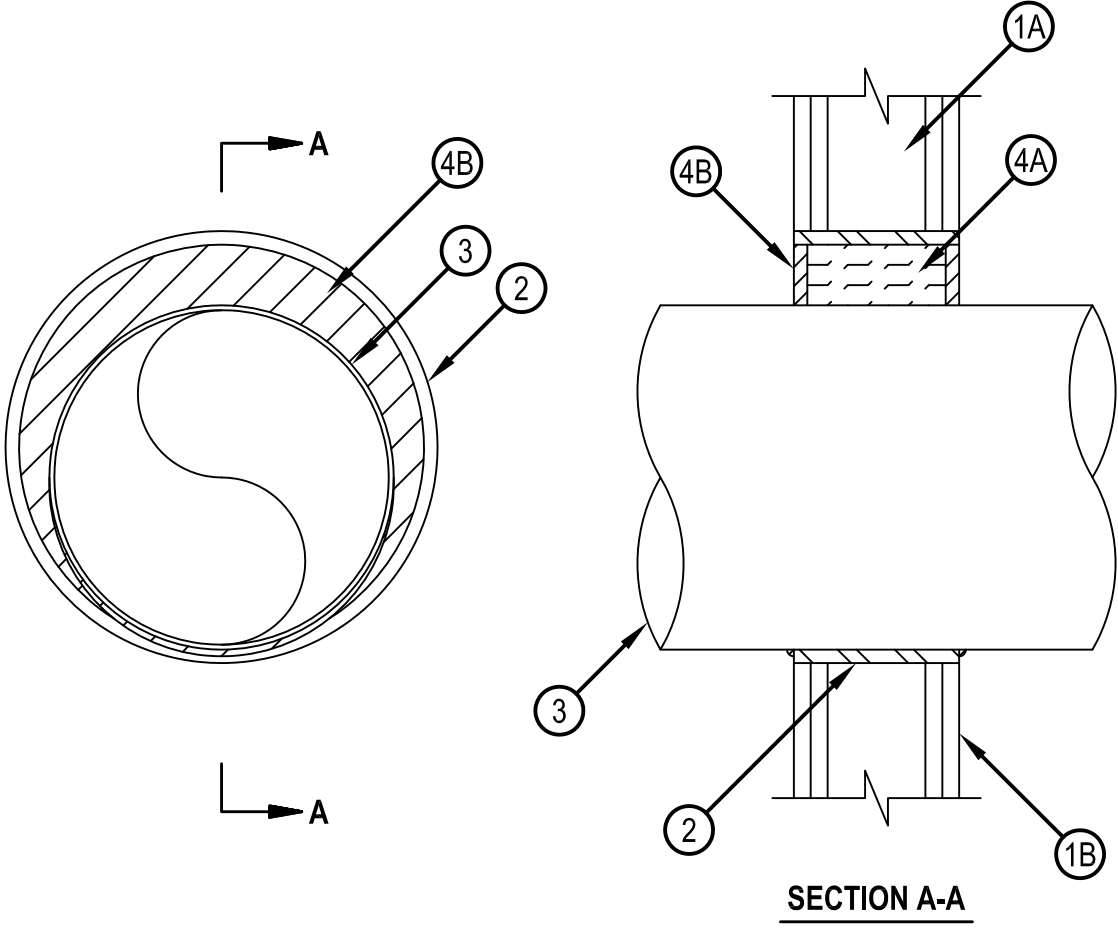


System No. W-L-1392



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to UL 1479 and CAN/ULC-S115

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 Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient - Less Than 1 CFM/sq ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating At 400 F - 4 CFM/sq ft	FTH Rating — 0 Hr
	L Rating At Ambient - Less Than 1 CFM/sq ft
	L Rating At 400 F - 4 CFM/sq ft



- Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
 - Studs — Wall framing shall consist of min 3-5/8 in. (92 mm) wide steel studs spaced max 24 in. (610 mm) OC.
 - Gypsum Board* — Min 5/8 in. (16 mm), gypsum board. Max diam of opening shall is 16 in. (406 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.
- Steel Sleeve — Nom 16 in. (406 mm) diam (or smaller) Schedule 40 (or lighter) steel sleeve friction fitted into opening. Length of steel sleeve to be equal to the thickness of wall.



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WL 1392

3. Through Penetrants — One metallic pipe, tubing or conduit to be installed concentrically or eccentrically within opening. The annular space between the pipes and conduits and the edges of the opening shall be min 0 in. (0 mm, point contact) to max 3-7/8 in. (98 mm). Through penetrant to be rigidly supported on both sides of wall assembly. The following types and sizes of through penetrants may be used:
- A. Steel Pipe — Nom 12 in. (305 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Iron Pipe — Nom 12 in. (305 mm) diam (or smaller) cast or ductile iron pipe.
 - C. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tube.
 - D. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
 - E. Conduit — Nom 6 in. (152 mm) diam (or smaller) electrical metallic tubing (EMT) or rigid steel conduit.
4. Firestop System — The firestop system shall consist of the following:
- A. Packing Material — In 2 hr rated wall assemblies, min 5-1/8 in. (130 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. In 1 hr rated wall assemblies, min 3-7/8 in. (130 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from both surfaces of wall to accommodate the required thickness of fill material.
 - B. Fill Void or Cavity Materials* — Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of fill material applied to the through penetrant/steel sleeve interface at the point contact locations on both sides of the wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant, 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.



Hilti Firestop Systems

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