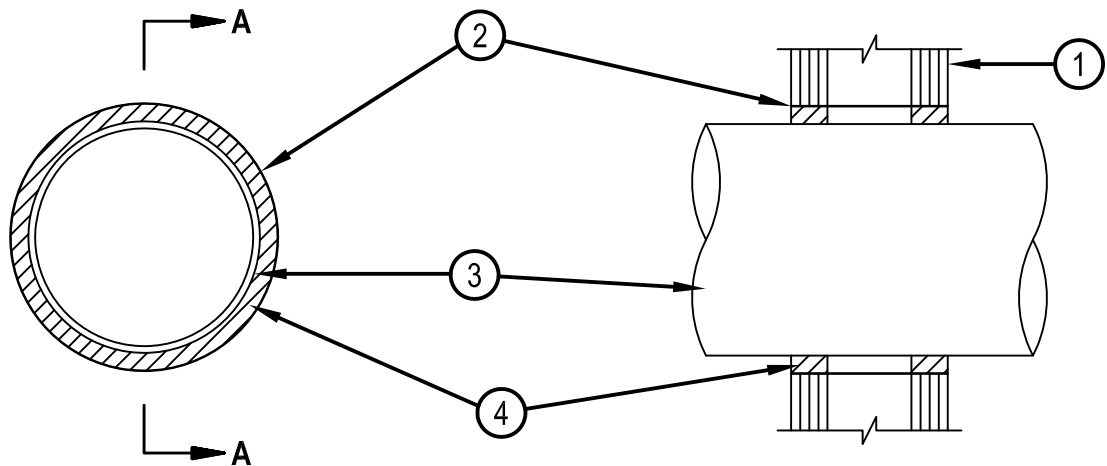


# System No. W-L-1110



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

ANSI/UL 1479 (ASTM E814)	CAN/ULC S115
F Rating — 4 Hr	F Rating — 4 Hr
T Rating — 0 Hr	FT Rating — 0 Hr
	FH Rating — 4 Hr
	FTH Rating — 0 Hr



**SECTION A-A**

1. Wall Assembly — The fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in Design No. U435 in the Fire Resistance Directory and shall include the following construction features:
  - A. Studs — Wall framing shall consist of channel shaped steel studs, min 3-5/8 in. (92 mm) wide, fabricated from min 25 MSG galv steel, spaced max 24 in. (610 mm) OC.
  - B. Gypsum Board\* — Four layers of nom 1/2 in. (13 mm) thick gypsum wallboard as specified in Design No. U435. Max diam of opening is 14-5/8 in. (371 mm).
2. Steel Sleeve — Cylindrical sleeve fabricated from min 0.030 in. (0.8 mm) thick (No. 22 gauge) galv steel sheet and having a min 2 in. (52 mm) lap along the longitudinal seam. Length of sleeve to be equal to thickness of wall. Sleeve to be installed by coiling the sheet metal to a diam smaller than the through opening, inserting the coil through the openings and releasing the coil to let it uncoil against the circular cutouts in the gypsum wallboard layers.
3. Through Penetrants — One metallic pipe, conduit or tubing to be installed concentrically within the firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of the wall assembly. The annular space between pipe, conduit or tubing and the periphery of the opening shall be min 7/8 in. to 1 in. (22 mm to 25 mm) max. The following types and sizes of metallic pipes, conduits or tubing 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. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electric metallic tubing or 6 in. (152 mm) diam steel conduit.
  - D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
  - E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
4. Fill, Void or Cavity Material\* — Sealant — Min 2 in. (51 mm) thickness applied within steel sleeve, flush with both surfaces of wall.  
 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.



**Hilti Firestop Systems**

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