



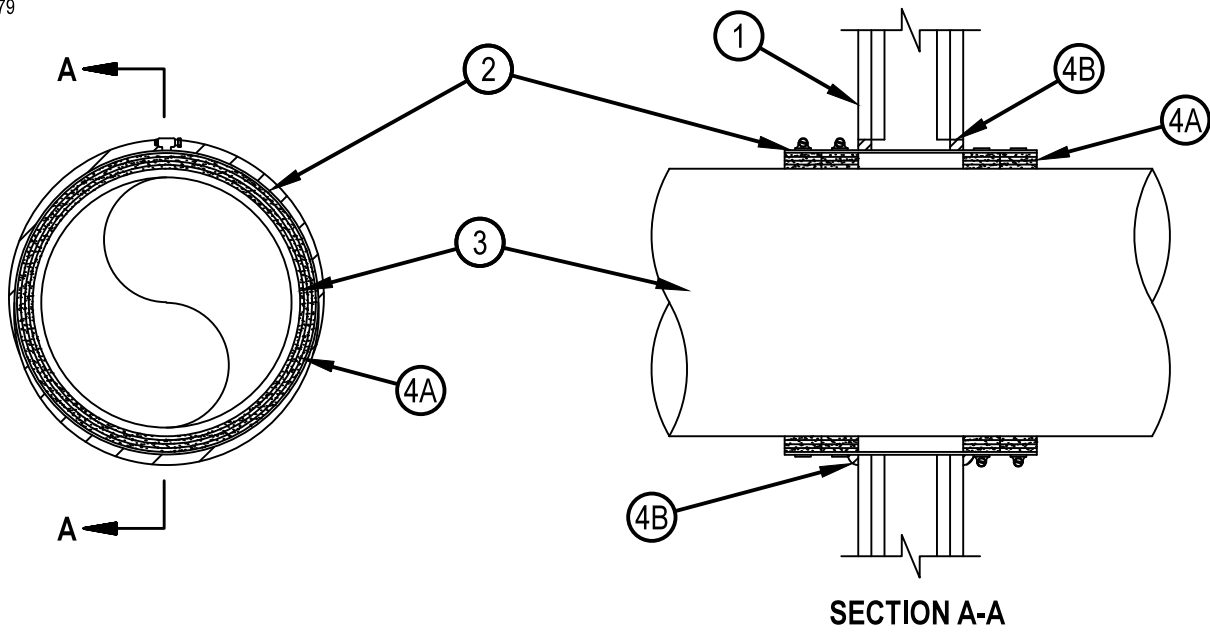
Classified by
Underwriters Laboratories, Inc.
to UL 1479

System No. W-L-2341

F Rating - 1 and 2 Hr (See Item 1)

T Rating - 1 and 2 Hr (See Item 1)

WL 2341



SECTION A-A

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 described in the individual U400, V400 or W400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
 - A. Studs — Wall framing shall consist of steel channel studs. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
 - B. Gypsum Board* — The gypsum board type, thickness number of layers, fastener type and sheet orientation shall be specified in the individual Wall and Partition Design in the UL Fire Resistance Directory. Max diam of opening is 15 in. (381 mm). The hourly F and T Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Steel Sleeve — Nom 14 1/2 in. (368 mm) diam cylindrical sleeve fabricated from 0.016 in. (0.4 mm) thick (No 28 gauge) galv sheet steel and having a min 1 in. (25 mm) lap along longitudinal seam. Sleeve to extend 3 1/2 in. (89 mm) beyond each surface of wall. The sleeve shall be compressed around the pipe (Item 3) and wrap strip (Item 4A) using 1/2 in. (13 mm) wide by 0.028 in. (0.7 mm) thick stainless steel band clamps fastened at the center of each wrap strip. The annular space between the sleeve and the periphery of the opening shall be a min 0 in. (point contact) to max 1/2 in. (13 mm).
3. Through-Penetrants — One nonmetallic pipe to be installed concentrically or eccentrically within the firestop system. Pipe to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes may be used:
 - A. Polyvinyl Chloride (PVC) Pipe — Nom 12 in (305 mm) diam (or smaller) Schedule 40 solid or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
 - B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 12 in. (305 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.
4. Firestop System — The firestop system shall consist of the following:
 - A. Fill, Void or Cavity Material - Wrap Strip — Nom 3/16 in. (5 mm) thick by 1-3/4 in. (44 mm) wide intumescent wrap strip. Four layers of wrap strip are continuously wrapped around the pipe and held in place with tape. Two sets of wrap strip are installed within the steel sleeve on each side of the wall, flush with surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP648-E W45/1-3/4 Wrap Strip
 - B. Fill, Void or Cavity Material - Sealant* — Min 5/8 in. (16 mm) thickness of fill material applied within annulus between gypsum board and steel sleeve, flush with surfaces of wall. At point contact, a min 1/2 in. (13 mm) bead of fill material shall be applied at the gypsum board/steel sleeve interface on both sides 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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