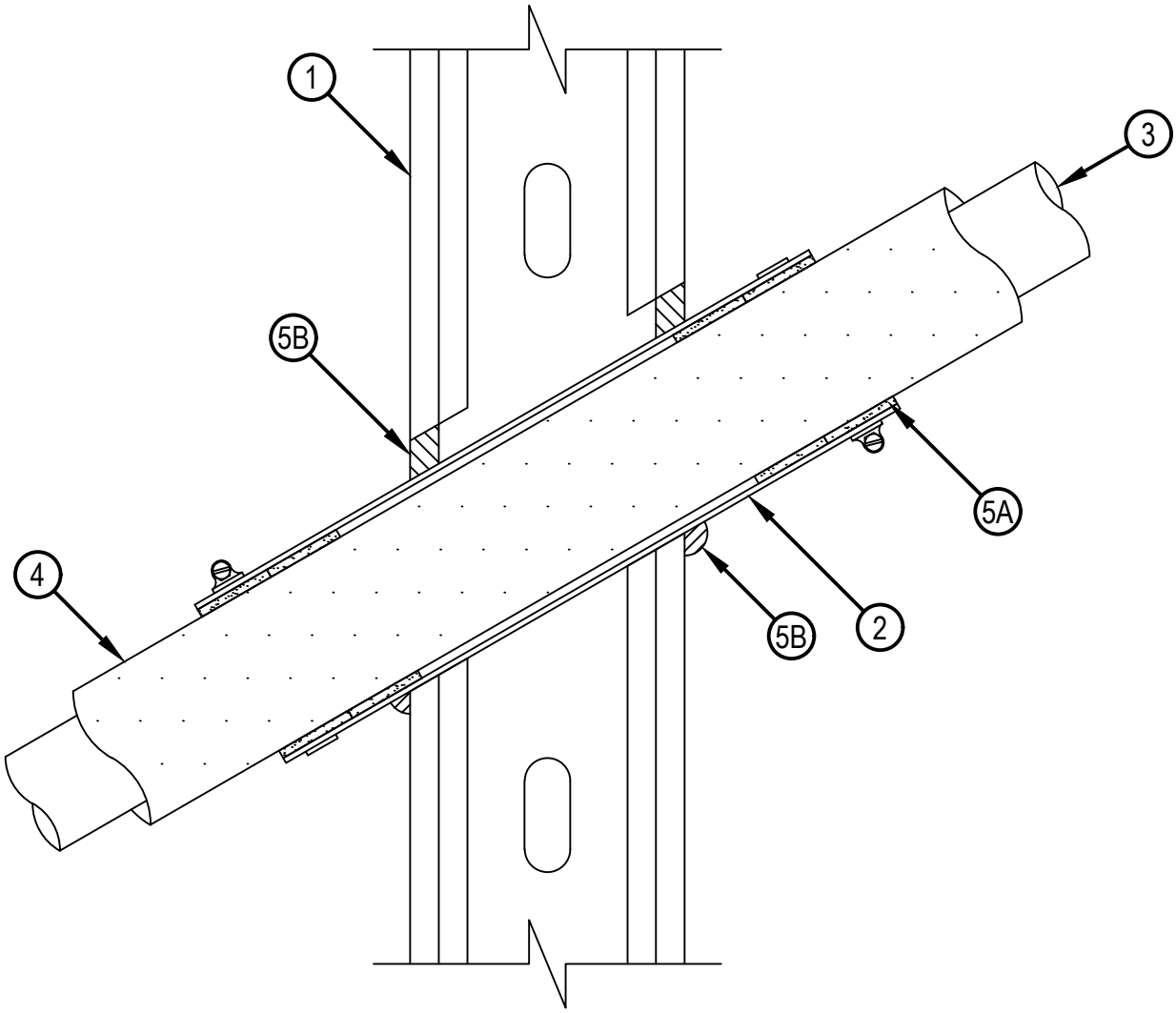
Classified by
Underwriters Laboratories, Inc.
to UL 1479

System No. W-L-2892

F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 1 and 2 Hr (See Item 1)



Hilti Firestop Systems

System No. W-L-2892

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 and 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 3-5/8 in. (92 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 dimensions of oval opening are 5-1/4 in. (133 mm) wide and 8-1/4 in. (210 mm) tall. The F Rating of the firestop system is dependent upon the fire rating of the wall assembly in which is installed. The T Rating of the firestop system is 0 and 1 hr when installed in 1 and 2 hr fire rated walls, respectively.
2. Steel Sleeve — After the installation of the through penetrant (Item 3), pipe covering (Item 4), and wrap strip (Item 5A), install a cylindrical sleeve fabricated from No 28 gauge thick galv sheet steel and with a diameter sized to have a min 1 in. (25 mm) lap along longitudinal seam after compressing the sleeve around the pipe (item 3) and wrap strip (Item 5A). Sleeve to extend 2 in. (51 mm) beyond each surface of wall. The sleeve shall be compressed around the pipe (Item 3) and wrap strip (Item 5A) using 1/2 in. (13 mm) wide stainless steel hose clamps fastened at the center of each wrap strip. The annular space between the sleeve the periphery of the opening shall be a min 0 in. (point contact) to max 1-3/4 in. (44 mm).
3. Through-Penetrants — One nonmetallic pipe to be installed concentrically or eccentrically within the firestop system. Pipe may be installed at an angle not greater than 45 degrees from perpendicular. Pipe to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes may be used:
   A. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 2 in. (102 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.
   B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 2 in. (102 mm) diam (or smaller) Schedule 40 or Schedule 80 CPVC pipe for use in closed (process or supply) piping systems only.
   C. Polyvinyl Chloride (PVC) Pipe — Nom 2 in. (102 mm) diam (or smaller) Schedule 80 solid core PVC pipe for use in closed (process or supply) piping systems only.
4. Pipe Covering* — Nom 1/2 in. (13 mm) thick hollow cylindrical heavy density (min 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 self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. A nom annular space of min 0 in. (point contact) to max 1-1/2 in. (38 mm) is required within the firestop system.

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. Firestop System — The firestop system shall consist of the following:
   A. Fill, Void or Cavity Material - Wrap Strip — Nom 3/16 in. (4.8 mm) thick by 1-3/4 in. (44 mm) wide intumescent wrap strip installed in a single-layer stack with ends butted together on each side of the wall. Wrap strips are installed around the pipe such that the ends of the wrap strip is located 2 in. (51 mm) from the wall surface on each side.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 648-E Wrap Strip W45 1-3/4”
   B. Fill, Void or Cavity Material - Sealant* — Min 5/8 in. (16mm) thickness of fill material applied within annulus between periphery of the opening and the steel sleeve, flush with each surface of wall. A min 1/2 in. (13 mm) bead of fill material shall be applied at the gypsum board and steel sleeve interface on the exterior of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — 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.