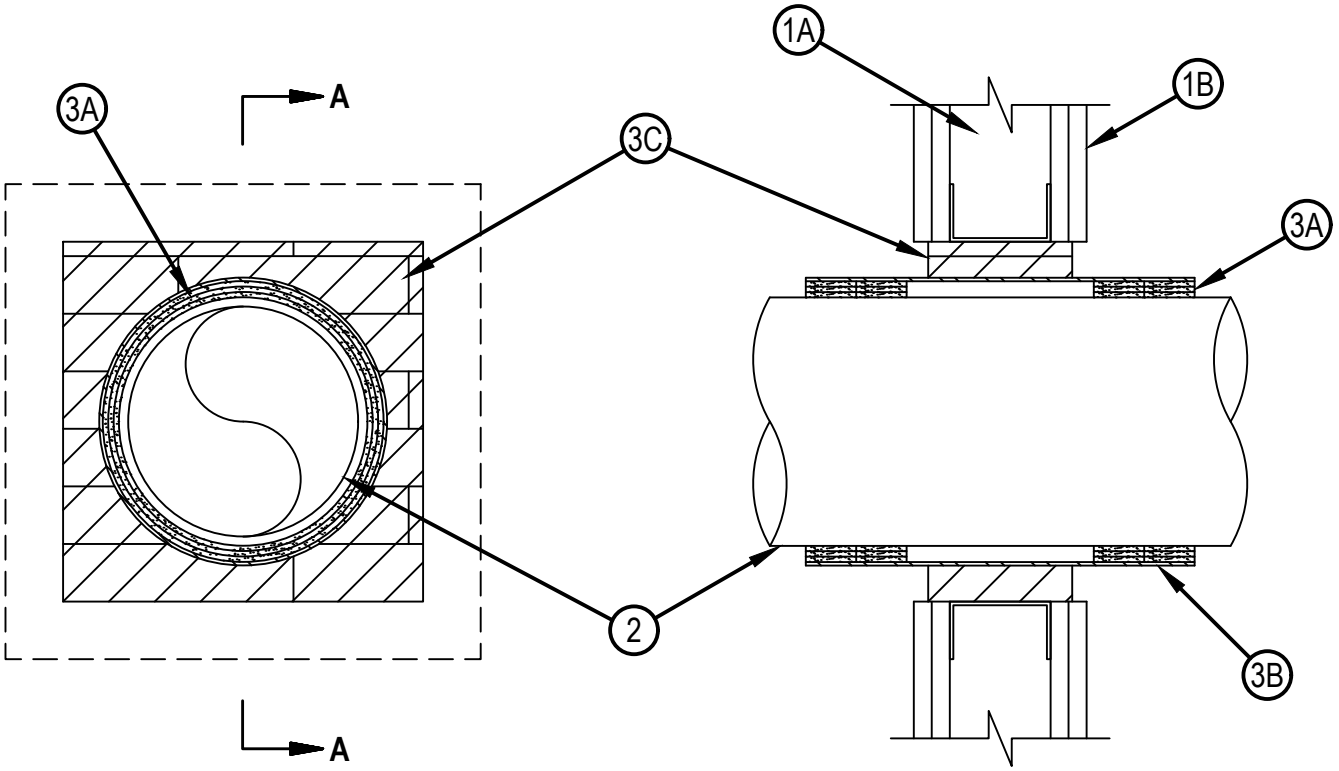
Classified by
Underwriters Laboratories, Inc.
to UL 1479

System No. W-L-2584

F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 0 and 1-1/2 Hr (See Item 1)



SECTION A-A

System No. W-L-2584

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/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 Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing shall consist of either wood studs or channel shaped steel studs. Wood studs to consist of 2 in. (51 mm) by 4 in. (102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide, spaced max 24 in. (610 mm) OC. Additional framing members shall be used to completely frame the opening.
   B. Gypsum Board* — Nom 5/8 in. (16 mm) thick, 4 ft. (1219 cm) 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 wall or partition design in the UL Fire Resistance Directory. Max area of opening is 144 in2 (929 cm2) with max dimension of 12 in. (305 mm).
   The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed. The T Rating of the firestop system is 0 hr for installation in 1 hr rated walls and 1-1/2 hr for installation in 2 hr rated walls.
2. High Density Polyethylene (HDPE) Pipe — Nom 8 in. (203 mm) diam (or smaller) SDR11 HDPE pipe for use in closed (process or supply) piping systems. One pipe to be installed either concentrically or eccentrically within the firestop system. The annular space between penetrant and periphery of opening shall be min 1-1/4 in. (32 mm). Pipe to be rigidly supported on both sides of wall assembly.
3. 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. (45 mm) wide intumescent wrap strip. Three layers of wrap strip are continuously wrapped around the pipe and held in place with tape. Wrap strip is to be double-stacked and installed at each side of wall opening, flush with both ends of steel sleeve (Item 3B).
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — Hilti CP 648E/1-3/4 Wrap Strip
   B. Steel Sleeve — Cylindrical sleeve fabricated from min 30 ga 0.016 in. (0.41 mm) thick galv sheet steel and having a min 2 in. (51 mm) lap along the longitudinal seam. Sleeve to extend 3-1/4 to 3-3/4 in. (82 to 95 mm) beyond each surface of wall. The sleeve shall be compressed around the pipe (Item 2) and wrap strip (Item 3A) and secured together with 4 No 8 sheet metal screws on each end of sleeve.
   C. Fill, Void or Cavity Material* — Fire blocks installed with min. 5 in. (127 mm) dimension passing through and centered within the opening. Blocks to be firmly packed and completely fill the entire opening between the sleeve and periphery of opening.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-BL Firestop Block
   D. Fill, Void or Cavity Material* — (Not Shown) Fill material to be forced into any voids/openings between blocks, around penetrants, and between blocks and periphery of opening to the maximum extent possible on both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant, CP618 Firestop Putty Stick, CP 660 Firestop Foam or CP 620 Fire Foam

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