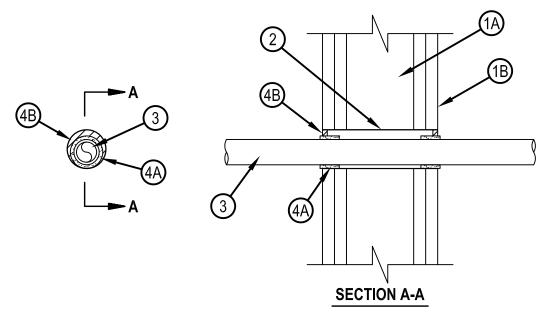


System No. W-L-2602

F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 0 and 1-3/4 Hr (See Item 1)
L Rating At Ambient - 1.2 CFM/sq ft
L Rating At 400 F - Less Than 1 CFM/sq ft



- 1. Wall Assembly The 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 UL fire Resistance Directory and shall include the construction features noted below:
 - A. Studs Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
 - B. Gypsum Board* Nom 5/8 in. (16 mm) thick gypsum board, as specified in the individual Wall and Partition Design. Diam of opening shall be 3/4 in. (19 mm) larger than the OD of the penetrant.
 - 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 hourly T Rating of the firestop system is 0 hr for 1 hr rated walls and 1-3/4 hr for 2 hr rated walls.
- 2. Metallic Sleeve Cylindrical sleeve fabricated from min No. 30 gauge (0.016 in. or 0.41 mm) thick galv sheet steel and having a min 1 in. (25 mm) lap along the longitudinal seam. Length of sleeve to be same as 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 opening and releasing the coil to let it uncoil against the circular cutout in the gypsum board layers flush with both sides of wall.
- 3. Through Penetrants One nonmetallic pipe to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe and the sleeve shall be min 3/16 in. (5 mm) to a max 1/2 in. (13 mm). The following types and sizes of nonmetallic pipes may be used:
 - A. Polypropylene (PP) Pipe Nom 1 in. (25 mm) diam (or smaller) Schedule 80 pipe for use in closed (process or supply) piping systems.
- 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 in. (25 mm) wide intumescent wrap strip. One layer of wrap strip to be continuously wrapped around the pipe with ends butted and held in place with tape. Wrap strip is to be installed at each side of wall opening and protrude 1/8 in. (3 mm) beyond each face of wall.
 - HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC Hilti CP 648E Wrap Strip
 - B. Fill, Void or Cavity Material* Min 1/4 in. (6 mm) thickness of fill material applied within annulus between wrap strip and sleeve, flush with both surfaces of wall. For L Rating, sealant to extend to periphery of wall to cover the interface of sleeve to 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.

