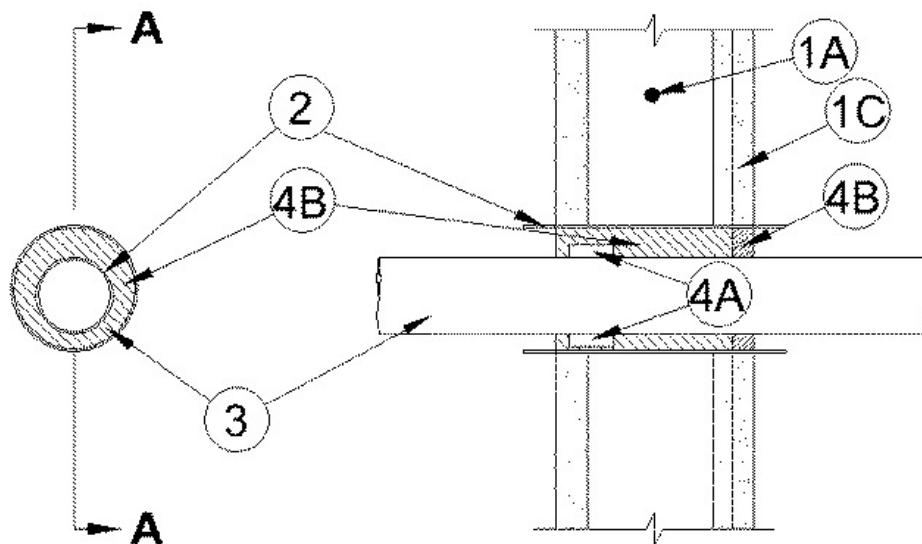


F Ratings — 1 and 2 Hr (See Item 1)

T Ratings — 0 and 1 Hr (See Item 1)



Section A-A

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud shaft wall assembly shall be constructed of the materials and in the manner specified in the individual U400 and V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall incorporate the following construction features:

A. Steel Studs — "C-H" shaped studs, min 2-1/2 in. (64 mm) wide by 1-1/2 in. (38 mm) deep, fabricated from min No. 25 gauge galv steel, spaced max 24 in. (610 mm) OC.

B. Gypsum Board* — 1 in. (25 mm) thick, 24 in. (610 mm) wide gypsum liner panels installed vertically. Max diam of opening is 3 in. (76 mm).

C. Gypsum Board* — One or two layers of nom 1/2 or 5/8 in. (13 or 16 mm) thick gypsum board as specified in the individual Wall and Partition Design. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 3 in. (76 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 Ratings are 0 and 1 hr when installed in 1 and 2 hr rated walls, respectively.

2. Steel Sleeve — Cylindrical sleeve fabricated from min 0.019 in. (0.49 mm) thick (28 gauge) galv sheet steel and having a min 1 in. (25 mm) lap along the longitudinal seam. Steel sleeve to be 2 in. (51 mm) longer than the thickness of wall such that, when installed, the ends of the sleeve will project 1 in. (25 mm) beyond each surface of the wall. Sleeve installed by coiling the sheet steel to a diam smaller than the opening, inserting the coil through the opening and releasing the coil.

3. Through Penetrants — One nonmetallic pipe, tubing or conduit installed concentrically or eccentrically within the firestop system. Annular space between penetrant and edge of opening shall be min 1/4 in. (6.4 mm) to max 3/8 in. (10 mm). Penetrant to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes or conduits may be used:

A. Polyvinyl Chloride (PVC) Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid core 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 2 in. (51 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.

C. Crosslinked Polyethylene (PEX) Tubing — Nom 2 in. (51 mm) diam (or smaller) SDR 9 tube used for closed (process or supply) piping systems.

D. Rigid Nonmetallic Conduit+ — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA No. 70).

4. Firestop System — The firestop system shall consist of the following:

A. Fill, Void or Cavity Materials* - Wrap Strip — Nom 1/4 in. thick intumescent material supplied in 1 in. wide strips. Min 1

layer of wrap strip wrapped tightly around the nonmetallic penetrant, held in position with tape and recessed 1/2 in (13 mm) from the face of the gypsum board liner.

RECTORSEAL — [Metacaulk Wrap Strip](#)

B. Packing Material — Nom 4 pcf mineral wool batt insulation tightly packed into the sleeve flush with the gypsum liner panels and recessed 5/8 in. (16 mm) from the finished surface of gypsum board to accommodate the required thickness of fill.

C. Fill, Void or Cavity Material* — Caulk — Min 5/8 in. (16 mm) thickness of caulk applied within annulus, flush with finished surface of wall assembly.

RECTORSEAL — Biostop 500+

+ Bearing the UL Listing Mark

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

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