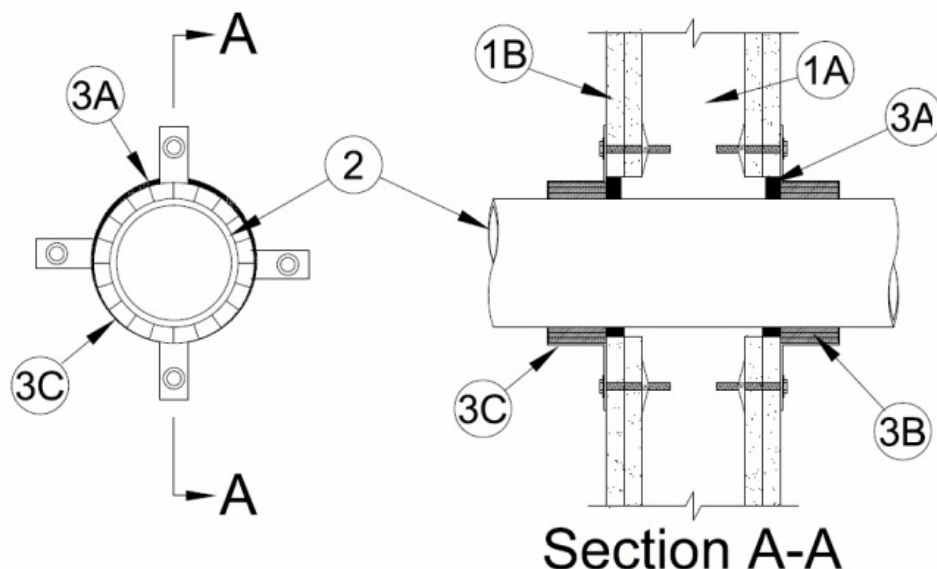


F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 1 and 2 Hr (See Item 1)



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 described in the individual U300, 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 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 16 in. (406 mm) OC. Steel studs to be min 3-5/8 in. (92 mm) wide and spaced max 24 in. (610 mm) OC.

B. Gypsum Board* — 5/8 in. (16 mm) thick 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 U300, U400, V400 or W400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 5 in. (127 mm).

The hourly F and T Rating of the firestop system is dependent on the hourly fire rating of the wall assembly in which it is installed.

2. Through Penetrant — One nonmetallic tube to be installed eccentrically or concentrically within the firestop system. Annular space to be min 1/4 in. (6 mm) to max 5/8 in. (16 mm). Tube to be rigidly supported on both sides of the wall assembly. The following types and sizes of nonmetallic tubes may be used:

A. Crosslinked polyethylene (PEX) Tubing — Nom 3 in. (76 mm) diam (or smaller) UPONOR - WIRSBO PEX-a SDR 9 tube for use in closed (process or supply) piping systems.

B. Crosslinked polyethylene (PEX) Tubing — Nom 4 in. (102 mm) diam (or smaller) UPONOR - WIRSBO hePEX crosslinked polyethylene (PEX) pipe for use in closed (process or supply) piping systems.

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

A. Fill, Void or Cavity Materials* - Caulk — Min 1/2 in. (13 mm) thickness of caulk applied within annulus, flush with both surfaces of wall assembly.

RECTORSEAL — [Metacaulk 1000](#), [Metacaulk 150+](#), Biostop 500+, Biostop [150+](#), FlameSafe 1900

B. Fill, Void or Cavity Material* - Wrap Strip — Three layers of nom 1/4 in. (6 mm) thick by 2 in. (51 mm) wide intumescent wrap strip wrapped around the outer circumference of the pipe on each side of the wall. Wrap strip installed with butted seam and such that edge of wrap strip is flush with the surface of wall. Wrap strip temporarily secured with tape or tie wire.

RECTORSEAL — [Metacaulk Wrap Strip](#), Biostop Wrap Strip or Flamesafe Wrap Strip

C. Steel Collar — A collar fabricated from coils of precut min 0.016 in. thick (0.41 mm) galv steel available from fill material manufacturer shall be installed to restrain wrap strip. Collar shall be nom 2 in. (51 mm) deep with 1 in. (25 mm) wide by 1-1/2

in. (38 mm) long anchor tabs located 4 in. (102 mm) on center for attachment to wall. In addition, collar provided with 1/2 in. (13 mm) wide by 3/4 in. (19 mm) long retainer tabs opposite the anchor tabs. Collar shall be wrapped over the wrap strip, overlapping min 1 in. (25 mm) and secured with two steel screws or stainless steel hose clamp. The retainer tabs are folded 90 deg towards the pipe to maintain the annular space around the pipe and to retain the wrap strip. Collars secured to wall at every anchor tab with 1-1/2 in. (38 mm) long steel laminating screws or 3/16 in. (5 mm) diam steel hollow wall anchors in conjunction with 1/4 by 5/8 in. (6 by 16 mm) diam steel washers.

*,+ 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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