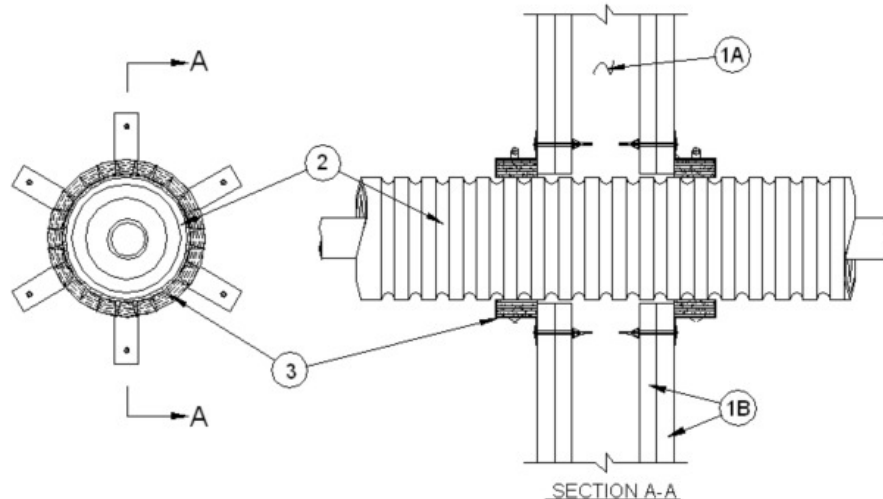


F Rating —1 or 2 Hr (See Item 1)
T Rating —0 or 2 Hr (see Item 1)
L Rating at Ambient - less than 1 CFM/ft² (See Item 3C)
L Rating At 400° F - Less than 1 CFM/ft² (See Item 3C)



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 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing shall consist of either wood 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 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.

B. Gypsum Board* — Min 5/8 in. (16 mm) thick. The gypsum board type, thickness, number of layers and orientation shall be as specified in the individual U300, U400 or V400 Wall and Partition Design. Max diam of opening is 7-1/2 in. (191 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 hourly T rating is 0 or 2 for 1 or 2 hour rated constructions, respectively.

2. Nonmetallic Pipe — Nom 2 in. (51 mm) diam (or smaller) UPONOR - ECOFLEX pre insulated cross-linked polyethylene (PEX) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. Pipe insulation is multi layered polyolefin foam. One pipe to be installed concentrically or eccentrically within the firestop system with an annular space of min 0 in. (point contact) to max 5/8 in. (16 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 — Two layers of nom 1/4 in. thick by 2 in. wide intumescent wrap strip individually wrapped around the outer circumference of the penetrant. Butted ends in successive layers shall be offset. Wrap strip butted tightly against both surfaces of wall. Wrap strip secured with tape or tie wire.

RECTORSEAL — [Metacaulk Wrap Strip](#)

B. Steel Collar — Collar fabricated from coils of precut min 0.016 in. thick (No. 28 gauge) galv steel available from fill material manufacturer. Collar shall be nom 2 in. deep with 1 in. wide by 1-1/2 in. long anchor tabs on 4 in. centers. In addition, collar contains retainer tabs, 1/2 in. wide by 3/4 in. long, located opposite the anchor tabs. Collar shall be wrapped over the wrap strip, overlapping min 1 in. The retainer tabs are folded 90 deg towards the pipe to maintain the annular space around the pipe and to retain the wrap strip. Collar secured to both surfaces of wall at each anchor tab by means of 1-1/2 in. long steel laminate screws or 1/8 in. diam by 2 in. long steel hollow wall anchors in conjunction with 1/4 in. by 5/8 in. diam washers.

C. Fill void Cavity material* -Sealant — (Optional — Not Shown) Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall.

RECTORSEAL — [Metacaulk 1000](#), [Metacaulk 150+](#) or [Metacaulk 1200](#)

The L Rating only applies when Item 3C is used.

*,+ 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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