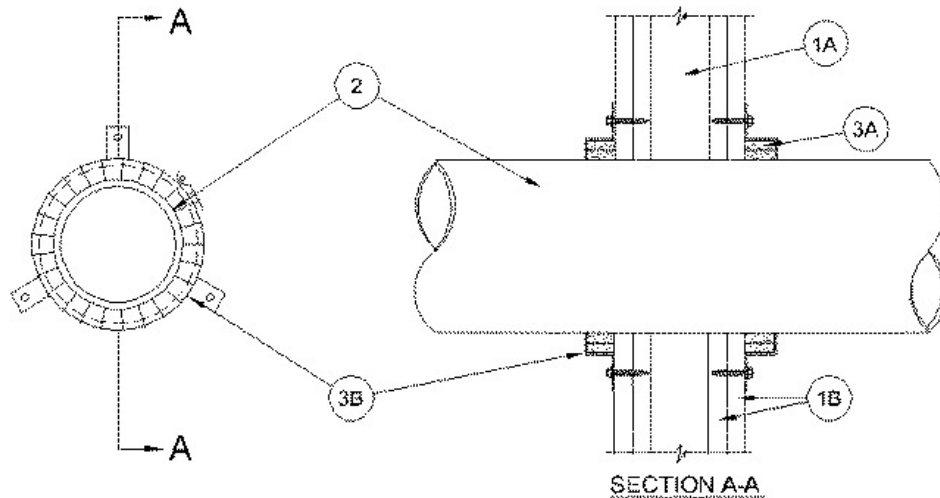


F Rating — 1 and 2 Hr (See Item 1)
T Rating — 1 and 2 Hr (See Item 1)



1. Wall Assembly — The 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, 4 ft (1.22 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers and orientation shall be as specified in the individual U400 Wall and Partition Design. Max diam of opening is 5 in. (127 mm).

The hourly F and T Ratings of the firestop system re equal to the hourly rating of the wall in which it is installed.

2. Through Penetrants — One nonmetallic pipe to be installed concentrically within the firestop system. A max annular space of 1/4 in. (6 mm) is required within the firestop system. Pipe to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes may be used:

A. Polyvinyl Chloride (PVC) Pipe — Nom 4 in. (6 mm) diam (or smaller) Schedule 40 solid 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 4 in. (6 mm) diam (or smaller) SDR 13.5 or Schedule 40 CPVC pipe for use in closed (process or supply) piping systems. Schedule 40 CPVC pipe for use in vented (drain, waste or vent) piping systems.

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. (6 mm) thick by 2 in. (51 mm) 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. (51 mm) deep with 1 in. (25 mm) wide by 1-1/2 in. (38 mm) long anchor tabs on 4 in. (102 mm) centers for secure to both surfaces of wall. In addition, collar contains retainer tabs, 1/2 in. wide by 3/4 in. (19 mm) long, located opposite the anchor tabs. Collar shall be wrapped over the wrap strip, overlapping min 1 in. (25 mm) 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. (38 mm) long steel laminate screws or 1/8 in. (3 mm) diam by 2 in. (51 mm) long steel hollow wall anchors in conjunction with 1/4 in. (6 mm) by 5/8 in. (16 mm) diam washers.

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