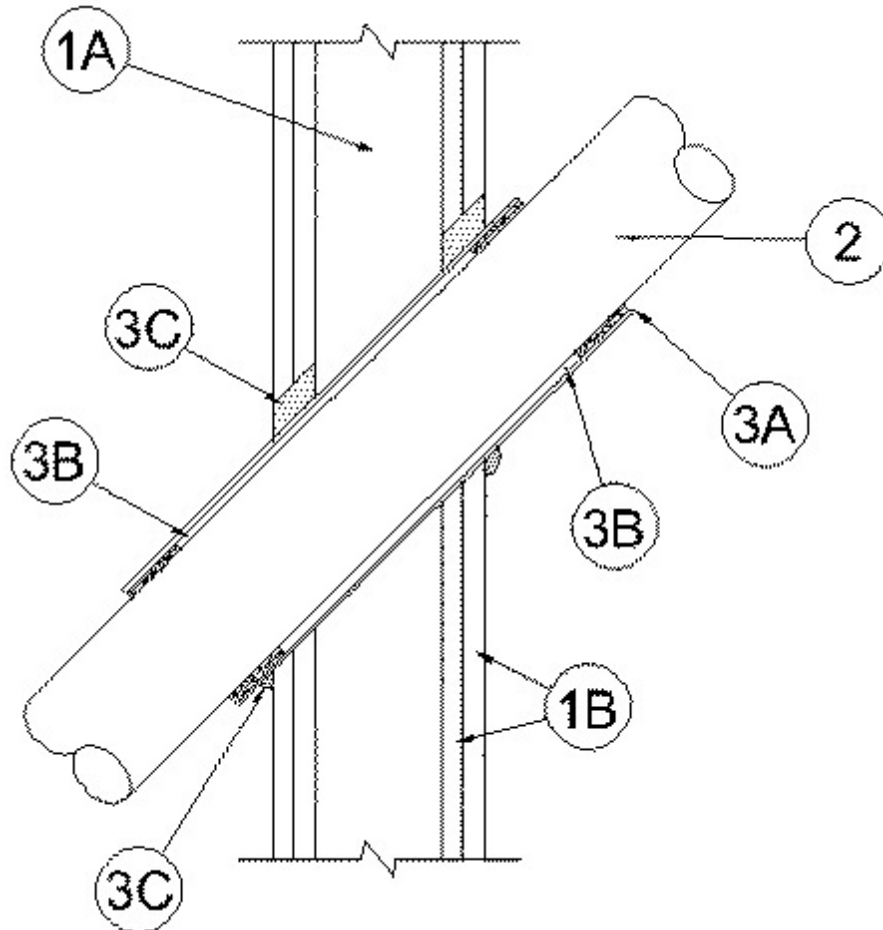


## System No. W-L-2376

December 03, 2003

F Ratings — 1 and 2 Hr (See Item 1)

T Rating — 1/2 Hr



**1. Wall Assembly** — The 1 and 2 Hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs 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. lumber spaced 16 in. OC. Steel studs to be min 3-1/2 in. wide and spaced max 24 in. OC.

**B. Gypsum Board\*** — Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. Diam of opening is max 6 in.

**2. Through Penetrants** — One nonmetallic pipe or conduit to be installed concentrically within the firestop system. The annular space between penetrant and sleeve (See item 3A) shall be 1/2 in. The penetrant may be installed at an angle not greater than 45 degrees from perpendicular. 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 4 in. diam (or smaller) Schedule 40 cellular core or solid 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. diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.

C. **Rigid Non Metallic Conduit+** — Nom 4 in. diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA No. 70).

D. **Acrylonitrile Butadiene Styrene (ABS) Pipe** — Nom 4 in. diam (or smaller) Schedule 40 solid or cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

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

A. **Metallic Sleeve** — Cylindrical sleeve fabricated from min 0.016 in. thick (28 gauge) galv sheet steel and having a min 1 in. lap along the longitudinal seam. Sleeve to extend a min of 1-1/2 in. to a max 2 in. beyond both sides of the wall. The inside diam of the sleeve shall be 1 in. larger than outside diam of nonmetallic pipe or conduit such that an annular space will be present between the steel sleeve and the pipe around the entire circumference of the pipe to accommodate the layers of wrap strips (Item 3B). The annular space between the outside of the wrap strip layer(s) and the inside of the sleeve shall be 1/2 in. The annular space between the outside of the sleeve and the periphery of the opening shall be min 0 in. (point contact) to max 1/2 in.

B. **Fill, Void or Cavity Materials\* - Wrap Strip** — Nom 1/4 in. thick by 1 in. wide intumescent strips. Two layers of wrap strips are individually wrapped tightly around penetrant with the ends butted and held in place with duct tape. Butted ends in successive layers shall be offset. Layers of wrap strip to be recessed into sleeve on both sides of wall such that the outer edges of wrap strips are flush with the outer edges of the sleeve. A min 1/2 in. wide stainless steel hose clamp shall be secured around the outside of the sleeve over the center of the wrap strips on both ends of the sleeve.

**RECTORSEAL** — Biostop Wrap Strip

C. **Fill, Void or Cavity Materials\* - Caulk** — Min 5/8 and 1-1/4 in. thickness of caulk applied within annulus between metallic sleeve and periphery of the opening, flush with both surfaces of wall assembly for 1 and 2 Hr rated assemblies, respectively. Min 1/2 in. diam bead of caulk shall be applied at the sleeve/gypsum board interface at the point contact location on both surfaces of wall assembly.

**RECTORSEAL** — Biostop 500+

\*Bearing the UL Classification Mark