

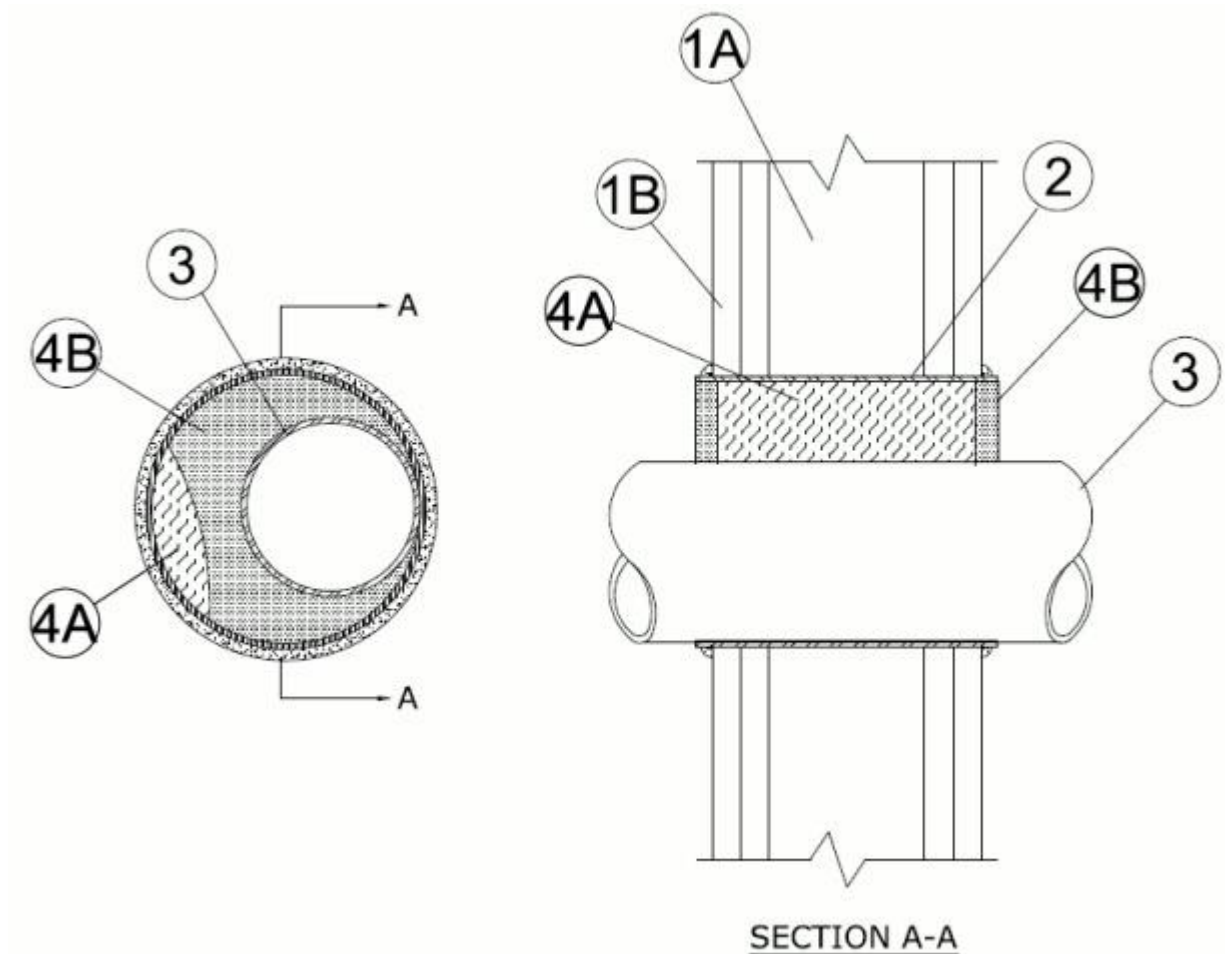
Through-penetration Firestop Systems

System No. W-L-1484

November 13, 2013

F Rating – 2 Hr

T Rating – 1/4 Hr



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 3-5/8 in. (92 mm) wide and spaced max 24 in. (610 mm) OC.

B. **Gypsum Board*** — Min 5/8 in. (16 mm) thick gypsum board. The gypsum board type, number of layers and orientation shall be as specified in the individual Wall and Partition Design. Max diam of opening is 10-3/4 in. (273 mm). The L Ratings apply when the opening diam does not exceed 3 in. (76 mm).

2. **Metallic Sleeve** — Max 10-3/4 in. (273 mm) diam cylindrical sleeve fabricated from min 28 gauge galv sheet steel and having a min 1 in. (25 mm) lap along the longitudinal seam. Length of steel sleeve to be equal to the thickness of the wall plus a min 1/2 in. (13 mm), such that when installed, the ends of the steel sleeve extend a min 1/4 in. (6 mm) to a max 1/2 in. (13 mm) beyond each surface of the wall. Sleeve installed by coiling the sheet steel to a diam smaller than the through opening, inserting the coil through the opening and releasing the coil to let it uncoil against the circular cutouts in the gypsum board layers.

3. **Through Penetrant** — One metallic pipe, tubing or conduit to be installed concentrically or eccentrically within opening. The annular space between the through penetrant and the sleeve shall be min 0 in. (point contact) to max 1-3/4 in. (44 mm). Through penetrant to be rigidly supported on both sides of wall assembly. The following types and sizes of through penetrants may be used:

A. **Steel Pipe** — Nom 8 in. (203 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.

B. **Iron Pipe** — Nom 8 in. (203 mm) diam (or smaller) cast or ductile iron pipe.

C. **Copper Tubing** — Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tube.

D. **Copper Pipe** — Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.

E. **Conduit** — Nom 4 in. (102 mm) diam (or smaller) electric metallic tubing (EMT) or nom 6 in. (152 mm) diam (or smaller) rigid steel conduit.

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

A. **Fill, Void or Cavity Materials*** — **Foam** — Fill material applied to fill the annulus between penetrant and sleeve. Foam to be recessed from both ends of sleeve to accommodate the required thickness of caulk fill material (Item 4B).

ACCUMETRIC L L C — Boss 813 FR Expanding Foam

B. **Fill, Void or Cavity Material*** — **Caulk** — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with both ends of sleeve. Min 3/8 in. (9.5 mm) diam bead of fill material applied at the steel sleeve/gypsum board interface on both sides of wall.

ACCUMETRIC L L C — Boss 814 Sealant or Boss 816 Sealant

*Bearing the UL Classification Mark