

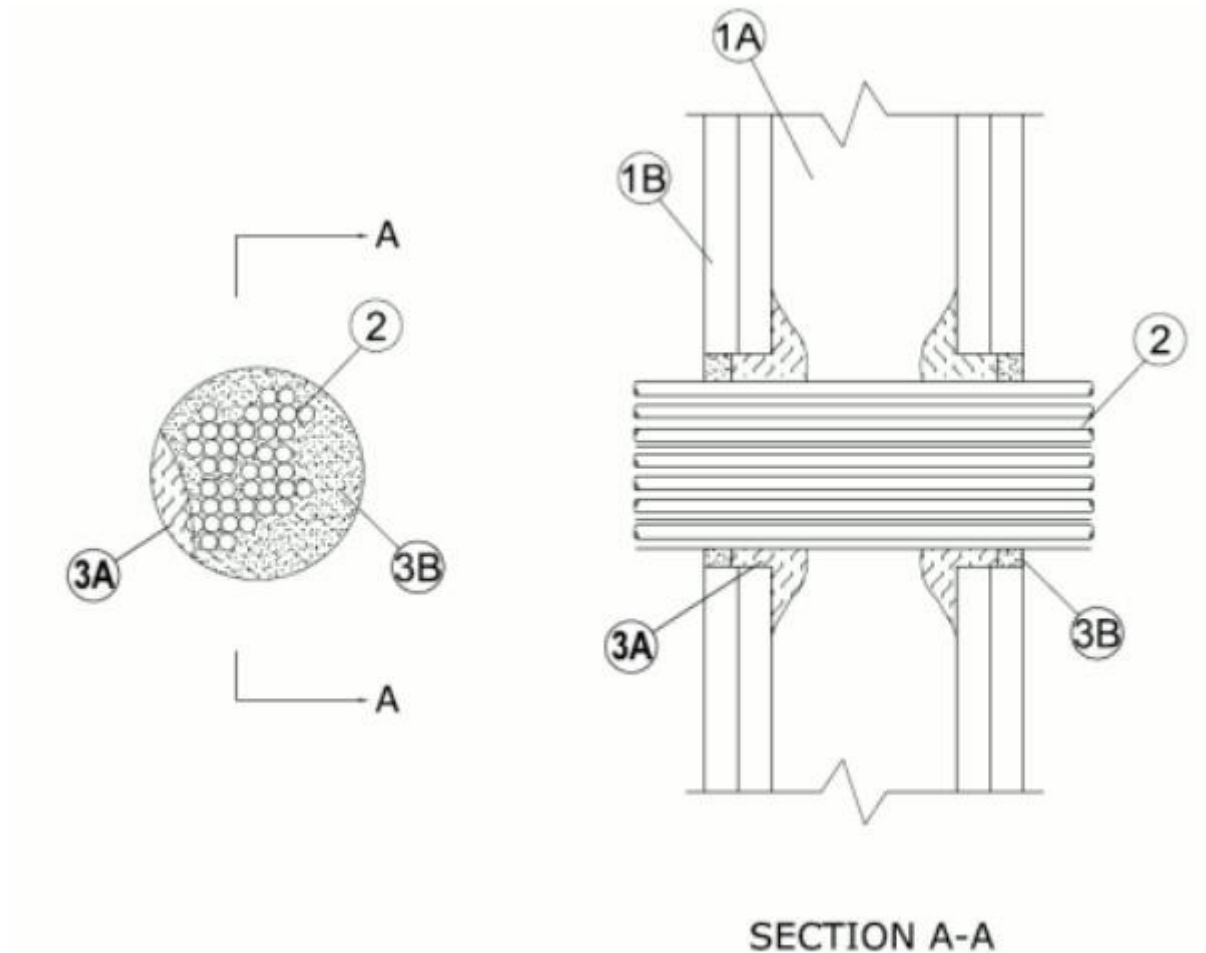
Through-penetration Firestop Systems

System No. W-L-3399

November 13, 2013

F Rating – 2 Hr

T Rating – 1/2 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 4 in. (102 mm).

2. **Cables** — Cables installed in a tight bundle having a max bundle diam of 2-1/2 in. (64 mm). The aggregate cross-sectional area of cables in opening to be max 40 percent of the cross-sectional

area of the opening. The annular space between cable bundle and the periphery of the opening shall be min 1/2 in. (13 mm) to max 1 in. (25 mm). Cables to be rigidly supported on both sides of wall assembly. Any combination of the following types and sizes of cables may be used:

- A. Max 2/C No. 18 AWG copper conductor thermostat cable with polyvinyl chloride (PVC) insulation and jacket materials.
- B. Max 4 pair No. 24 AWG Cat5e or No. 22 AWG Cat 3 and Cat 6e copper conductor telephone cable with PVC insulation and jacket materials.
- C. Max RG/U (or smaller) coaxial cable with high density polyethylene insulation and jacket materials.
- D. Max 3/C (with ground) No. 14 AWG (or smaller) nonmetallic sheathed (Romex) cable with PVC insulation and jacket materials.
- E. Max 60 pair No. 22 AWG copper conductor telephone cable with PVC insulation and jacket.
- F. Max 30 pair No. 24 copper conductor shielded switchboard cable with PVC insulation and jacket materials.
- G. Max RG/6 (or smaller) coaxial cable with fluorinated ethylene (FE) or PVC insulation and jacket materials.
- H. Max 1/C, No. 14 AWG (or smaller) Type MTW or THHN or THWN or gas & oil res II 600V (UL) or AWM VW-1 power cable.

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

- A. **Fill, Void or Cavity Materials* — Foam** — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus between gypsum board and cable bundle and recessed from both surfaces of wall to accommodate the required thickness of caulk fill material (Item 3B). During installation, foam will mushroom into wall cavity.

ACCUMETRIC L L C — Boss 813 FR Expanding Foam

A1. **Packing Material** — As an alternate to Item 3A, min 5/8 in. (16 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from both surfaces of wall to accommodate the required thickness of fill material (Item 3B).

- B. **Fill, Void or Cavity Material* — Caulk** — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall.

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

*Bearing the UL Classification Mark