

Through-penetration Firestop Systems

System No. W-L-3342

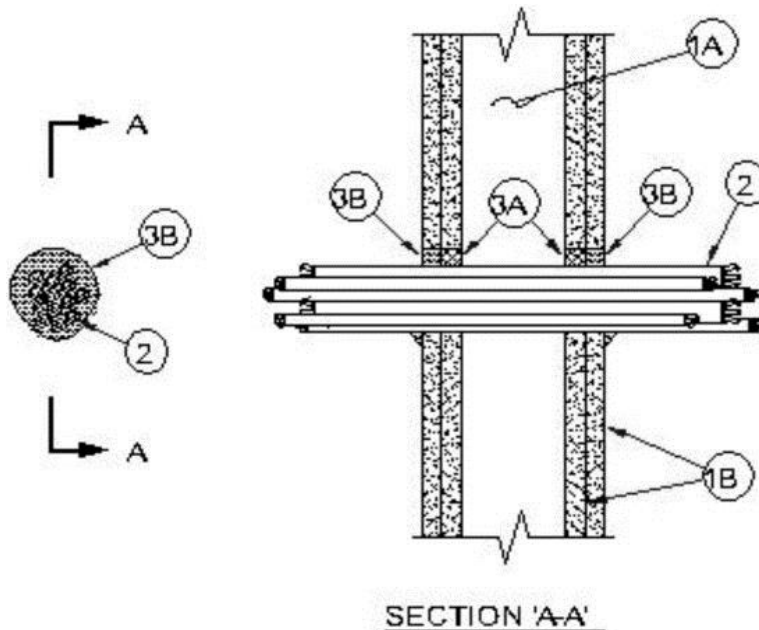
April 11, 2008

F Ratings — 1 and 2 Hr (See Item 1)

T Ratings — 1/2 and 1 Hr (See Item 1)

L Rating at Ambient — Less than 1 CFM/sq ft (See Item 3)

L Rating at 400° F — Less than 1 CFM/sq ft (See Item 3)



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 may consist of either wood studs 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*** — One or two layers of nom 5/8 in. (16 mm) thick gypsum board as specified in the individual Wall and Partition Design. Max diam of opening is 5 in. (127 mm).

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly. The hourly T Rating is 1/2 and 1 Hr for 1 and 2 Hr rated assemblies, respectively.

2. **Cables** — Aggregate cross-sectional area of cables to be max 64 percent of the cross-sectional area of the opening. Cables to be tightly bundled and rigidly supported on both sides of wall assembly. The annular space between the cables and the periphery of opening shall be min 0 in. (point contact) to max 1-1/4 in. (32 mm). Any combination of following types and sizes of copper conductor cables may be used:

- A. Max 3/C with ground, No. 12 AWG (or smaller) nonmetallic sheathed (Romex) cable with copper conductors, PVC insulation and jacket.
 - B. Max 1/C No. 350 kcmil (or smaller) copper conductor cable with cross-linked polyethylene (XLPE) jacket.
 - C. Max 7/C No. 12 AWG (or smaller) copper conductor power and control cables with XLPE or PVC insulation with XLPE or PVC jacket.
 - D. Max 400 pair No. 24 AWG copper telephone cables, with Polyvinyl Chloride (PVC) insulation and jacket.
 - E. Max 4/C No. 2/0 (or smaller) aluminum or copper conductor, aluminum or steel jacketed metal-clad or armored-clad cable.
 - F. Max RG/6 No. 18 AWG Type CATV copper conductor coaxial cable with Polyvinyl Chloride (PVC) insulation and jacket.
 - G. Max 3/C No. 2/0 AWG (or smaller) copper or aluminum conductor SER cables with PVC insulation and jacket.
 - H. Max RG59/U (or smaller) television coaxial cable with fluorinated ethylene insulation and jacketing.
 - I. Max 62.5/125 micron fiber optic cables with PVC insulation and jacket.
3. **Firestop System** — The firestop system shall consist of the following:
- A. **Packing Material** — (Optional) — Mineral wool or fiberglass insulation or foam backer rod compressed and firmly packed into annular space from each end of opening and recessed 5/8 in. (16 mm) from each wall surface.
 - B. **Fill, Void or Cavity Material* - Sealant** — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At point contact location, 1/2 in. (13 mm) diam bead of sealant applied at interface of cables and periphery of opening on both surfaces of wall. The fill material to be applied within the interstices of the cables to max extent possible for the L Ratings to apply.

ACCUMETRIC L L C — Boss 816

*Bearing the UL Classification Mark