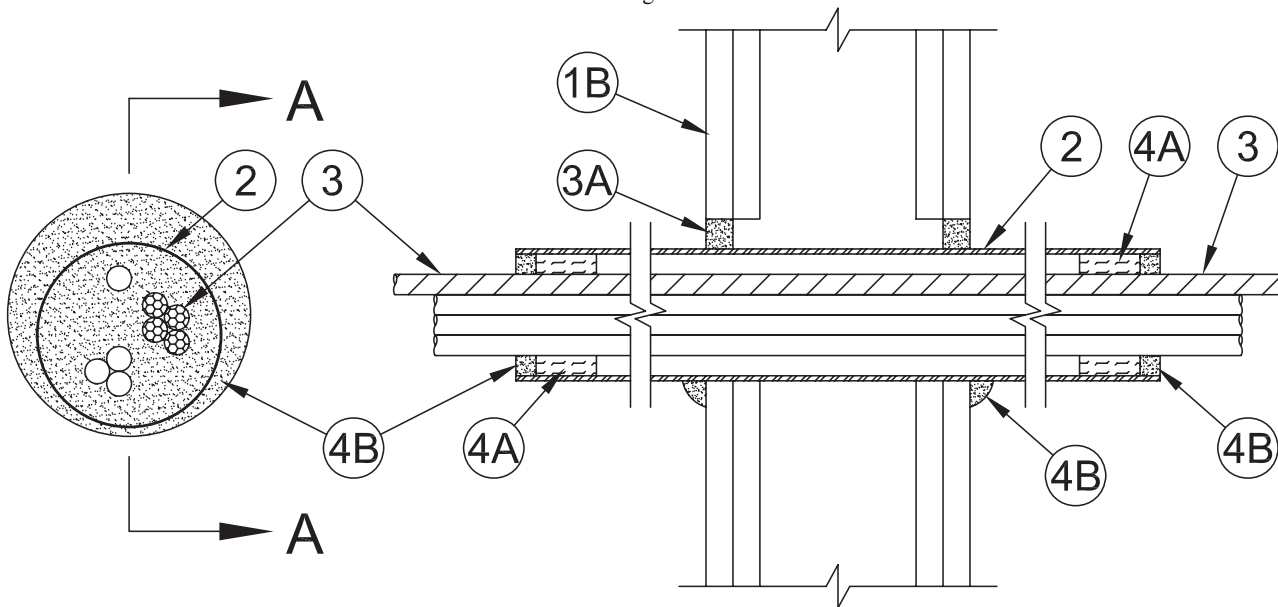


**System No. W-L-3347**  
 September 30, 2013  
 F Ratings – 1 and 2 Hr (See Item 1)  
 T Rating – 0 Hr



**SECTION A-A**

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 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. (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\*** – 5/8 in. (16 mm) thick, The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 6-1/2 in. (165 mm)

**The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.**

2. **Steel Sleeve** – Nom 6 in. (152 mm) diam (or smaller) steel electrical metallic tubing (EMT) or Schedule 5 steel pipe. The annular space between steel sleeve and periphery of opening shall be min 0 in. (point contact) to max 1/2 in. (13mm) Sleeve may extend up to 18 in. (457 mm) beyond each surface of the wall.

3. **Cables** – Aggregate cross-sectional area of cables in steel sleeve to be max 50 percent of the aggregate cross-sectional area of the sleeve. Cables to be rigidly supported on both sides of wall assembly. The annular space between cables and periphery of sleeve shall be min 0 in. (point contact) to max 1/2 in. (13mm) The annular space between cables shall be min 0 in. (point contact) to max 1 in. (25mm). Any combination of the following types and sizes of cables may be used:

- A. Max 300 pair No. 24 AWG (or smaller) copper conductor with polyvinyl chloride (PVC) insulation and jacket.
- B. Max 1-10/125 Fiber Optic (F.O.) cable, PVC insulation and jacket.
- C. Max 3/C No. 2/0 AWG (or smaller) aluminum or copper conductor cable with XLPE insulation and PVC jacket.
- D. Max 7/C No. 12 AWG (or smaller) copper conductor cable with PVC insulation and jacket.
- E. Max No. 18 AWG RG 6/U coaxial cable with PVC insulation and jacket.
- F. Max 4 Pair No 22 AWG (or smaller) Cat 6 copper conductor with PVC insulation and jacket
- G. Max 3/C No. 2/0 aluminum or copper SE cable with PVC insulation and jacket.
- H. Max four aluminum conductor No. 10 AWG (or smaller) aluminum or steel, Armored cable# or Metal-Clad Cable+.

**AFC CABLE SYSTEMS INC – MC Lite**

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

- A. **Packing Material** – Min 2 in. (51 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool batt insulation firmly packed into each end of sleeve as a permanent form. Packing material to be recessed from each end of sleeve to accommodate the required thickness of fill material.
- B. **Fill, Void or Cavity Material\* – Sealant or Putty** – Sealant or Putty – Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both sides of wall. At point contact, a min 1/2 in. (13mm) bead of fill material shall be applied at sleeve/wall interface on both sides of wall when sleeve extends beyond surface of wall. Min 1/2 in. (13 mm) thickness of fill material applied within the sleeve, flush with both ends. Min 1/2 in. (13 mm) thickness of fill material applied within the interstices of the cable bundles.

**3M COMPANY**

**3M FIRE PROTECTION PRODUCTS – IC 15WB+, CP 25WB+ or FB-3000 WT**

## System No. W-L-3347 *continued*

- C. **Fill, Void or Cavity Material\*** – (Not Shown) - As an alternate to Item 4B above, min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both sides of the wall. At point contact, a min. 1/2 in. (13 mm) bead of fill material at sleeve/wall interface on both sides of both sides of wall when sleeve extends beyond surface of the wall. Min. 2-1/2 in. (63 mm) thickness of fill material applied within the sleeve, flush with both ends. Foam to be injected into the interstices between all cables. When this fill material is used, item 4A is not required.

**3M COMPANY** – Fire Barrier rated Foam, FIP 1 - Step

\*Bearing the UL Classification Mark

+Bearing the UL Listing Mark

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Through Penetrations

Cables

3000 Series

Gypsum

W-L