



RECTORSEAL

# Through-penetration Firestop Systems

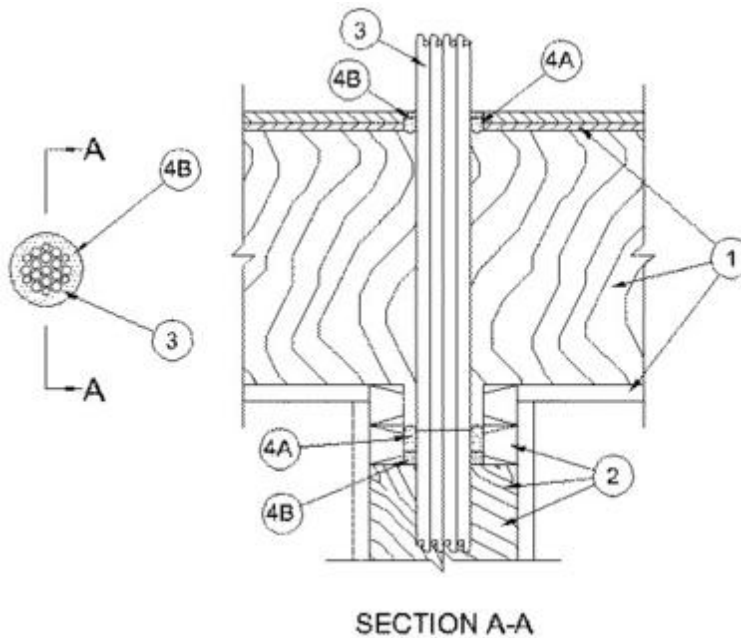
See General Information for Through-penetration Firestop Systems

## System No. F-C-3093

September 27, 2005

F Rating 1 Hr

T Rating 1 Hr



1. **Floor-Ceiling Assembly** The 1 hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Designs in the UL Fire Resistance Directory, as summarized below:

A. **Flooring System** Lumber or plywood subfloor with finish floor of lumber, plywood or **Floor Topping Mixture\*** as specified in the individual Floor-Ceiling Design. Max diam of opening is 3 in. (76 mm).

B. **Wood Joists** Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members\* with bridging as required and with ends firestopped.

C. **Gypsum Board\*** Nom 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design.

2. **Chase Wall** The through penetrants (Item 3) shall be routed through a 1 hr fire-rated single, double or staggered wood stud/gypsum board chase wall constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** Nom 2 by 6 in. (51 by 152 mm) lumber or double nom 2 by 4 in. (51 by 102 mm) lumber studs.

B. **Sole Plate** Nom 2 by 6 in. (51 by 152 mm) lumber or parallel 2 by 4 in. lumber plates. Max diam of opening is 3 in..

C. **Top Plate** The double top plate shall consist of two nom 2 by 6 in. (51 by 152 mm) lumber plates or two sets of parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening is 3 in. (76 mm).

D. **Gypsum Board\*** Thickness, type, number of layers and fasteners shall be as specified in the individual Wall and Partition Design.

3. **Cables** Aggregate cross-sectional area of cables in opening to be min 10 to max 46 percent of the cross-sectional area of the opening. Cables to be bundled with bundle centered in openings. Cables to be rigidly supported on both sides of floor assembly. Any combination of the following types and sizes of copper conductor cables may be used:

A. Max 25 pr No. 24 AWG telephone cables with polyvinyl chloride (PVC) insulation and jacket.

B. Max 4 pr No. 24 AWG telephone cables with PVC insulation and jacket.

C. Max 2/C with ground No. 12 AWG Type NM nonmetallic sheathed (Romex) cable with PVC insulation and jacket.

3A. **Through Penetrating Product\*** (Not Shown) As an alternate Item 3), one or more through-penetrating product to be installed within the opening. Aggregate cross-sectional area of through-penetrating products to be min 10 to max 46 percent of the cross-sectional area of the opening. Through-penetrating product to be bundled and bundled to be centered in opening. Through penetrating product rigidly supported on both sides of floor or wall assembly. Any combination of the following types of through-penetrating products may be used:

A. Max two copper conductor with ground No. 12 AWG (or smaller) aluminum or steel **Armored Cable# or Metal-Clad Cable+.** **AFC CABLE SYSTEMS INC**

B. Max two twisted copper conductors No. 10 AWG (or smaller) **Power Limited Fire Alarm Cable+** with or without a jacket under a metal armor. **AFC CABLE SYSTEMS INC**

C. Max two twisted copper conductors No. 12 AWG (or smaller) **Non Power Limited Fire Alarm Cable+** with or without a jacket under a metal armor. **AFC CABLE SYSTEMS INC**

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

A. **Packing Material** Foam backer rod firmly packed into opening as a permanent form. Packing material to be recessed from top surface of subfloor and bottom surface of the lower top plate to accommodate the required thickness of fill material.

B. **Fill, Void or Cavity Material\* - Caulk** Min 1/4 in. (6 mm) thickness of fill material applied within the annulus, flush with top surface of subfloor and min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with bottom surface of lower top plate. **RECTORSEAL** Biostop 350i

\*Bearing the UL Classification Mark

Last Updated on 2005-09-27