



RECTORSEAL

# Through-penetration Firestop Systems

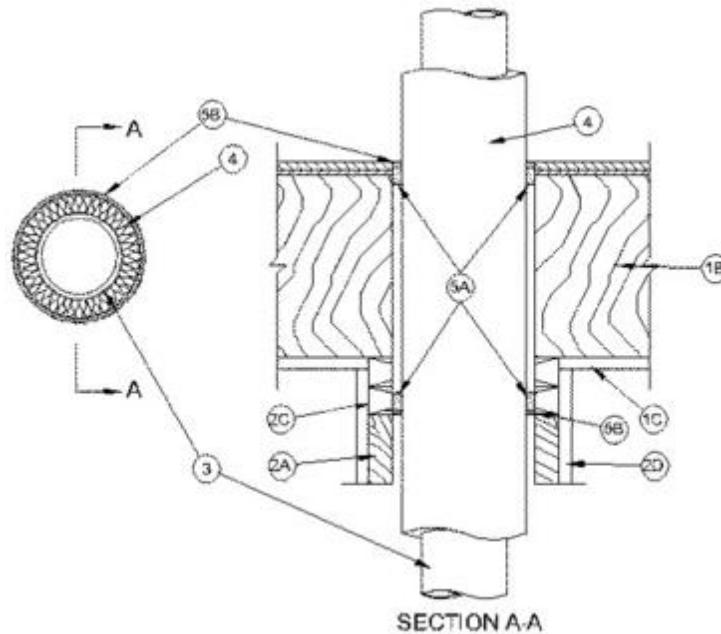
See General Information for Through-penetration Firestop Systems

## System No. F-C-5077

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 of lumber, plywood or **Floor Topping Mixture\*** as specified in the individual Floor-Ceiling Design. Max diam of floor opening is 7 in. (178 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 penetrant (Item 3) shall be routed through a 1 hr fire-rated single, double or staggered wood stud/gypsum wallboard 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 10 in. (51 by 254 mm) lumber or double nom 2 by 6 in. (51 by 152 mm) lumber studs.

B. **Sole Plate** Nom 2 by 10 in. (51 by 254 mm) lumber or parallel 2 by 6 in. (51 by 152 mm) lumber plates, tightly butted.

C. **Top Plate** The double top plate shall consist of two nom 2 by 10 in. (51 by 254 mm) lumber plates or two sets of parallel 2 by 6 in. (51 by 152 mm) lumber plates, tightly butted. Max diam of opening is 7 in. (178 mm).

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

3. **Through Penetrant** One metallic pipe or tubing to be centered within the firestop system. Pipe or tubing to be rigidly supported on both sides of floor assembly. The following types and sizes of metallic pipe or conduit may be used:

A. **Steel Pipe** Nom 4 in. (102 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.

B. **Iron Pipe** Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe.

C. **Copper Tube** Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.

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

4. **Pipe Covering\*** Nom 1 in. (25 mm) thick hollow cylindrical heavy density glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. The annular space between insulated pipe and periphery of opening shall be min 1/4 in. (6 mm) to max 3/8 in. (10 mm).

See **Pipe and Equipment Covering Materials** (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

5. **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 as required 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 annulus, flush with top surface of subfloor and min 3/4 in. (19 mm) thickness of fill material applied within the annulus, flush with bottom surface of lower top plate. **RECTORSEAL** Biostop 350i

B1. **Fill, Void or Cavity Material\*- Wrap Strip** (Not Shown) As an alternate to installing backer rod (Item 5A) and caulk (Item 5B) within the lower top plate, one wrap of nom 1/4 in. (6 mm) thick by 1 in. (25 mm) wide intumescent wrap strip may be used. Wrap strip wrapped around insulated pipe and secured with masking tape. Wrap strip shall position with lower edge flush with lower edge of lower top plate. **RECTORSEAL** Biostop Wrap Strip

\*Bearing the UL Classification Mark

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