



## XHEZ.F-A-8034 Through-penetration Firestop Systems

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### Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

### Through-penetration Firestop Systems

[See General Information for Through-penetration Firestop Systems](#)

#### System No. F-A-8034

August 19, 2009

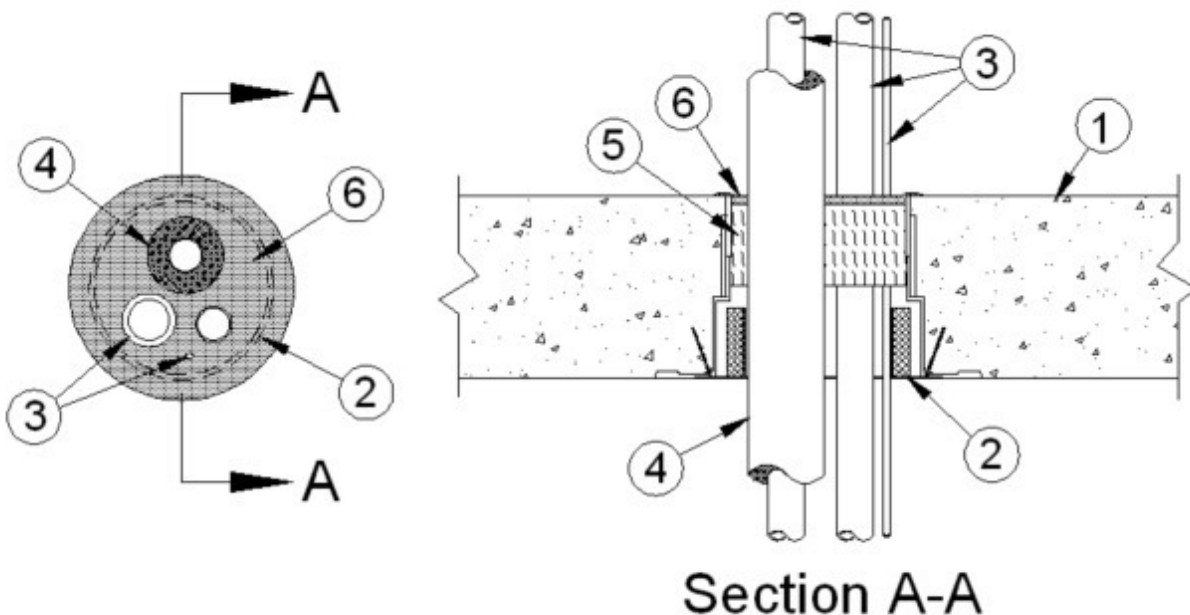
**F Rating — 3 Hr**

**T Rating — 1/4 Hr**

**L Rating at Ambient — Less Than 1 CFM/sq ft**

**L Rating at 400° F — Less Than 1 CFM/sq ft**

**W Rating — Class 1**



1. **Floor Assembly** — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete.
2. **Firestop Device\*** — Cast in place firestop device permanently embedded during concrete placement or grouted in concrete assembly in accordance with accompanying installation instructions.

**SECURUS INC, DBA HUBBARD ENTERPRISES** — HydroFlame PS-LS

3. **Through Penetrants** — Pipes, tubing or cable to be bundled within the opening. **The space between penetrants and the space between the penetrants and the inside of the firestop device (Item 2) at top of floor shall be min 1/4 in. (6 mm).** Penetrants to be rigidly supported on both sides of floor assembly. The following types and sizes of penetrants may be used:

A. **Metallic Pipes** — One or two of the following types and sizes of metallic pipe or tubing may be used:

1. **Copper Tubing** — Nom 3/4 in. (19 mm) diam (or smaller) Type L (or heavier) copper tubing.

2. **Copper Pipe** — Nom 3/4 in. (19 mm) diam (or smaller) Regular (or heavier) copper pipe.

**All metallic pipes or tubing larger than nom 1/2 in. (13 mm) diam shall be provided with pipe covering (Item 4).**

B. **Polyvinyl Chloride (PVC) Pipe** — A max of one nom 1 in. (25 mm) diam (or smaller) Schedule 40 solid core PVC drain, waste or vent pipe.

C. **Cable** — One max 8/C No. 18 AWG (or smaller) thermostat cable; XLPE or PVC insulation with XLPE or PVC jacket.

4. **Pipe Covering** — The following types and sizes of pipe coverings may be used with the metallic pipes:

A. **Pipe Covering** — Nom 1/2 in. (13 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 product.

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.

B. **PVC Jacket++** — An additional PVC jacket, supplied in sheet form, shall be tightly wrapped around the all service jacket on the pipe covering (Item 4A) with the longitudinal seam continuously sealed using the self-sealing lap tape or adhesive supplied with the jacket. The jacket is to be nom 48 in. (1.22 m) wide by nom 20 or 30 mil (0.5 or 0.8 mm) thick. The jacket shall extend downward into and/or through the opening from a point 36 to 40 in. (0.91 to 1.02 m) above the top surface of the floor assembly. **The PVC jacket must be used for the W Rating to apply.**

See **Plastics (QMFZ2)** category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component plastic material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

C. **Tube Insulation-Plastics+** — Nom 1/2 in. (13 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing.

See **Plastics (QMFZ2)** category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5A may be used.

5. **Packing Material** — Min 2 in. (51 mm) depth of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool batt insulation firmly packed into top of firestop device as a permanent form. Packing material to be recessed from top surface of floor as required to accommodate the required thickness of fill material.

6. **Fill, Void or Cavity Material\* — Sealant** — Min 1/4 in. (6 mm) thickness of sealant applied within the annulus, flush with the top surface of floor. Sealant to be forced into interstices of AC lineset to max extent possible. Sealant to lap min 1/2 in. (13 mm) onto top surface of concrete around perimeter of firestop device.

**3M COMPANY**

**3M FIRE PROTECTION PRODUCTS** — FB-1000 NS, FB-3000 WT or FB-1003 SL

\*Bearing the UL Classification Mark

++-Bearing the UL Recognized Component Mark

Last Updated on 2009-08-19

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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