System No. F-E-5008
XHEZ.F-E-5008
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 Certified 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 Certified.

XHEZ - Through-penetration Firestop Systems

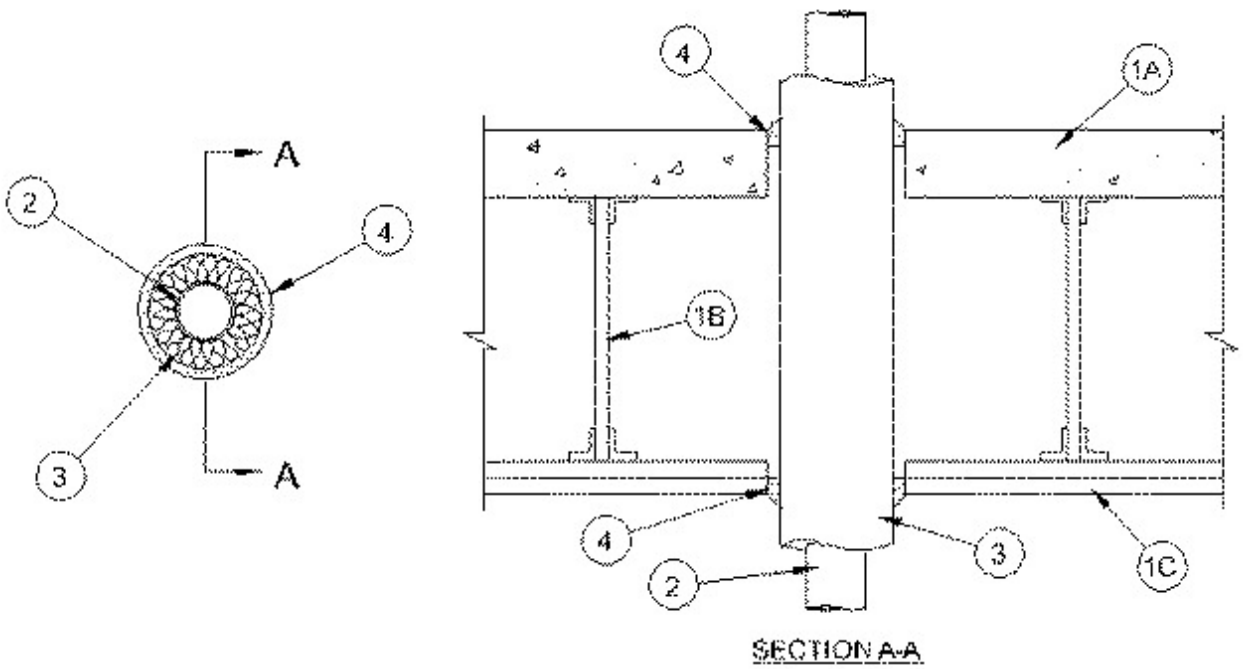
See General Information for Through-penetration Firestop Systems

System No. F-E-5008

June 08, 2006

F Rating — 1 Hr

T Rating — 1 Hr



SECTION A-A

1. **Floor-Ceiling Assembly —** The 1 hr fire-rated concrete and steel joist Floor-Ceiling assembly shall be constructed of the materials and in the manner described in the individual G500 Series Design in the UL Fire Resistance Directory, as summarized below:

A. **Concrete Floor —** Normal weight or lightweight (100-150 pcf) concrete over metal lath or steel deck as specified in the individual G500 Series Design. Max diam of floor opening is 6 in.

B. **Joists —** Steel joists or **Structural Steel Members*** as specified in the individual G500 Series Design.

C. **Gypsum Board* —** Min 5/8 in. thick, screw-attached to furring channels as specified in the individual G500 Series Design. Max diam of ceiling is 6 in.

2. **Through Penetrant —** One metallic pipe or tubing to be centered within the opening. Penetrant to be located approx midway between joists and rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of metallic pipe, conduit or tubing may be used:

A. **Steel Pipe —** Nom 4 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

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

C. **Copper Tubing —** Nom 4 in. diam (or smaller) Type L (or heavier) copper tubing.

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

3. **Pipe Covering* —** The following types of pipe coverings may be used:

A. **Pipe and Equipment Covering — Materials* —** Nom 1/2 in. thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. A nom annular space of 1/4 in. is required within the firestop system.

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. **Pipe Covering Materials* —** Nom 1/2 in. thick unfaced mineral fiber pipe insulation sized to the outside diam of pipe or tube. Pipe insulation secured with min 8 AWG steel wire spaced max 12 in. OC. A nom annular space of 1/4 in. is required within the firestop system.

INDUSTRIAL INSULATION GROUP L L C — High Temperature Pipe Insulation 1200, High Temperature Pipe Insulation BWT or High Temperature Pipe Insulation Thermaloc

C. **Sheathing Material* —** (Not Shown) — Used in conjunction with Item 3B. Foil-scrim-kraft or all service jacket material shall be wrapped around the outer circumference of the pipe insulation (Item 3B) with the kraft side exposed. Longitudinal joints and transverse joints sealed with metal fasteners or with butt tape.

See **Sheathing Materials** (BVDV) category in the Building Materials Directory for names of manufacturers. Any sheathing 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.

4. **Fill, Void or Cavity Materials* — Sealant —** Fill material applied within the annulus, flush with top surface of floor. The thickness of fill material within the top surface of the floor is dependent upon the type of fill material as shown below. Min 5/8 in. thickness of fill material applied within the annulus, flush with bottom surface of ceiling. Additional fill material shall be installed such that a min 1/2 in. thick crown of fill material applied around the through penetrant on both the top and bottom surfaces of the assembly.

Type of Fill Material	Thickness of Fill Material Within Top Surface of Floor, In
A/D FIREBARRIER Silicone	1-1/8

A/D FIRE PROTECTION SYSTEMS INC — A/D FIREBARRIER Silicone

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2006-06-08