



System No. F-C-5007 XHEZ.F-C-5007 Through-penetration Firestop Systems

[Page Bottom](#)

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

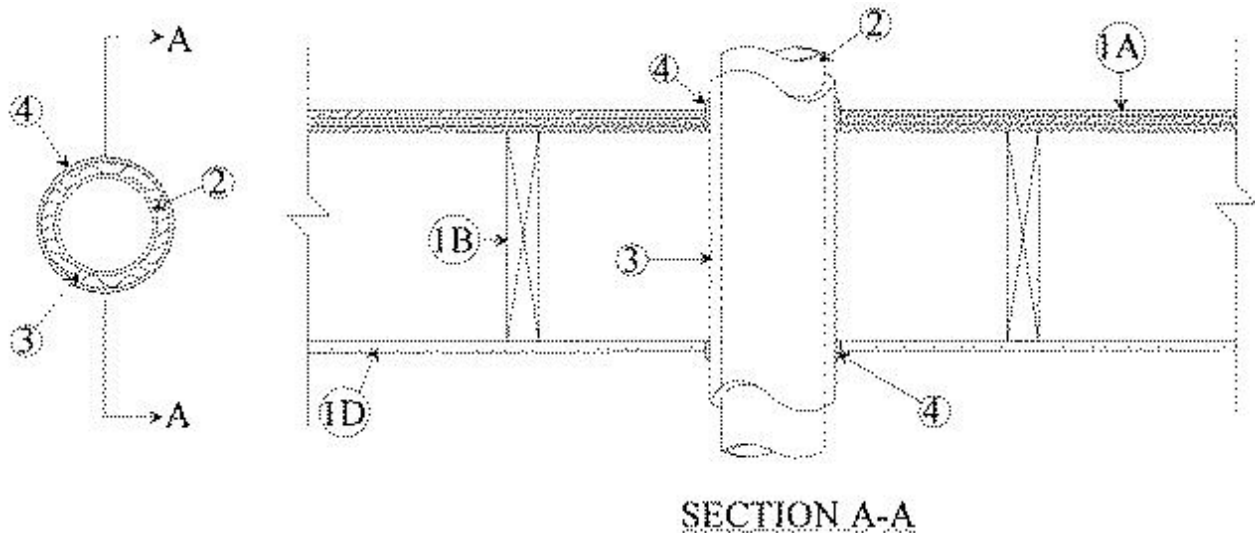
[See General Information for Through-penetration Firestop Systems](#)

System No. F-C-5007

December 10, 2001

F Rating — 1 Hr

T Ratings — 3/4 & 1 Hr



1. Floor-Ceiling Assembly — The fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in Design Nos. L512, L513 or L514 in the UL Fire Resistance Directory, and shall include the following construction features:

A. Flooring System — Lumber or min 1/2 in. plywood subfloor with lumber or min 3/4 in. plywood finish floor, or **Floor-Topping Mixture*** as specified in the individual Floor-Ceiling Design. Max diam of opening is 6 in.

B. Wood Joists — Nom 2 by 10 in. lumber joists spaced 16 in. OC with nom 1 by 3 in. lumber bridging and with ends firestopped.

C. Furring Channels — (Not Shown) — Resilient galv steel furring installed perpendicular to wood joists between wallboard (Item 1D) and wood joists and spaced max 24 in. OC.

D. Gypsum Board* — Nom 4 ft wide by 1/2 or 5/8 in. thick as specified in the individual Floor-Ceiling Design. Gypsum board attached to wood joists and furring channels as specified in the

individual Floor-Ceiling Design. Max diam of opening is 6 in.

2. Through Penetrants — One metallic pipe or tubing installed approximately midway between wood joist and centered within the firestop system. Diam of openings hole-sawed through flooring system and through gypsum board ceiling to be nom 1/4 in. larger than the outside diam of through penetrant. Pipe or tubing to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of metallic pipes or tubing may be used:

- A. **Steel Pipe** — Nom 4 in. diam (or smaller) Schedule 5 (or heavier) steel pipe.
- B. **Copper Pipe** — Nom 4 in. diam (or smaller) Regular (or heavier) copper pipe.
- C. **Copper Tubing** — Nom 4 in. diam (or smaller) Type L (or heavier) copper tubing.

The T Rating of the firestop system is dependent upon the type of penetrant used as tabulated below:

Penetrant Type	T Rating Hr
Steel Pipe	1
Copper Pipe	3/4
Copper Tubing	3/4

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. Diam of openings hole-sawed through flooring system and through gypsum board ceiling to be nom 1/4 in. larger than the outside diam of through-penetrant.

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. Diam of openings hole-sawed through flooring system and through gypsum board ceiling to be nom 1/4 in. larger than the outside diam of through-penetrant.

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 Material* — Caulk — On top of assembly, a min 1-1/8 in. depth of fill material applied within annulus on top surface of floor. On bottom of assembly, a min 1/2 in. depth of fill material applied within annulus on bottom surface of ceiling. Additional fill material to be installed such that a min 1/2 in. thick crown is formed around the through penetrant on both sides of floor-ceiling assembly.

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 2001-12-10

Questions?

Print this page

Terms of Use

Page Top

© 2017 UL LLC

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 Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Assemblies, Constructions, Designs, Systems, and/or Certifications (files) must be presented in their entirety and in a non-

misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from UL" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "© 2017 UL LLC".