



## **System No. F-E-5011 XHEZ.F-E-5011 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**

#### **XHEZ7 - Through-penetration Firestop Systems Certified for Canada**

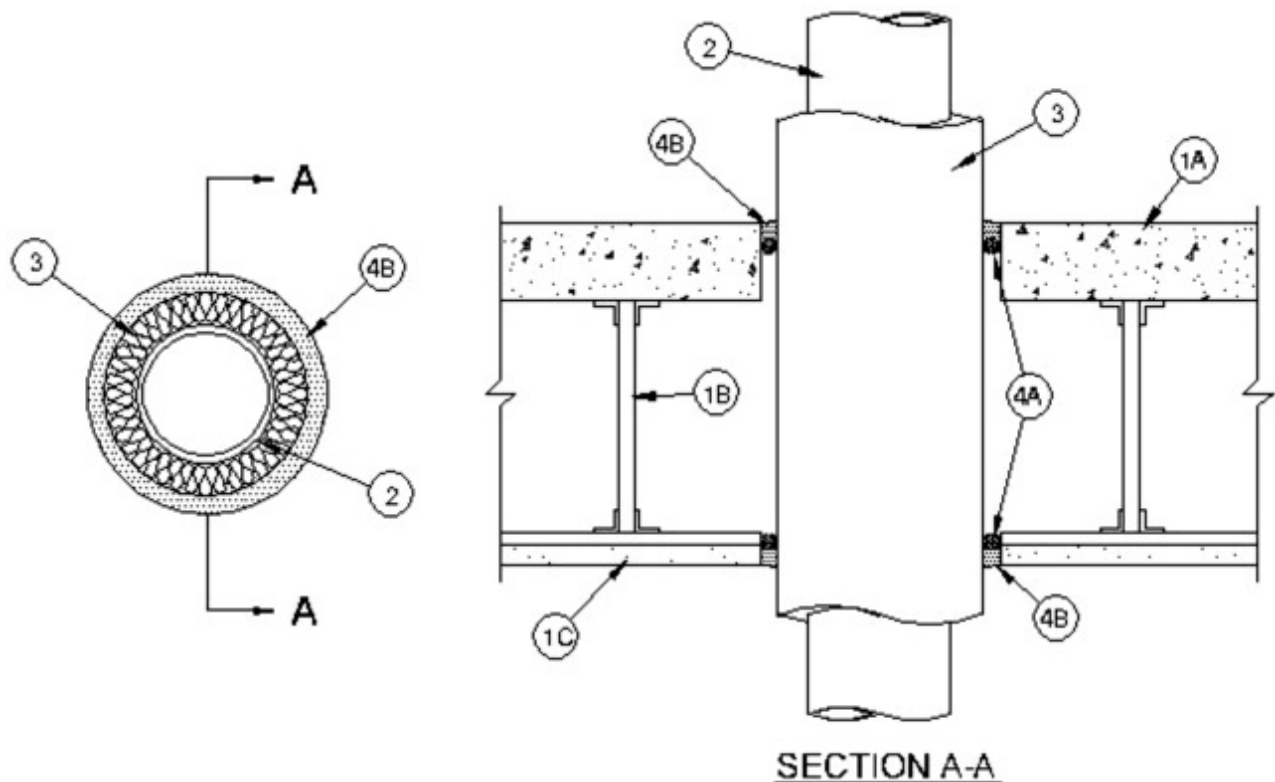
[See General Information for Through-penetration Firestop Systems](#)

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

### **System No. F-E-5011**

June 14, 2016

<b>ANSI/UL1479 (ASTM E814)</b>	<b>CAN/ULC S115</b>
F Rating — 1 Hr	F Rating — 1 Hr
T Ratings — 3/4 and 1 Hr (See Item 3)	FT Ratings —3/4 and 1 Hr (See Item 3)
	FH Rating — 1 Hr
	FTH Ratings —3/4 and 1 Hr (See Item 3)



**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 (1601-2402 kg/m<sup>3</sup>)) concrete over metal lath or steel deck as specified in the individual G500 Series Design. Max diam of floor opening is 7-5/8 in (194 mm).

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

**C. Gypsum Board\*** — Min 5/8 in (16 mm). thick, screw-attached to furring channels as specified in the individual G500 Series Design. Max diam of ceiling opening is 7-5/8 in (194 mm).

**2. Through Penetrants** — One metallic pipe or tubing to be installed either concentrically or eccentrically within the firestop system. The space between pipes or tubing and periphery of opening shall be min 0 in. (point contact) to max 7/8 in (22 mm). Pipe or tubing to be rigidly supported on both sides of floor assembly. The following types and sizes of metallic pipes or tubing may be used:

**A. Steel Pipe** — Nom 4 in (102 mm). diam (or smaller) Schedule 40 (or heavier) steel pipe.

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

**C. Copper Tubing** — Nom 2 in (51 mm). diam (or smaller) Type L (or heavier) copper tubing.

**D. Copper Pipe** — Nom 2 in (51 mm). diam (or smaller) Regular (or heavier) copper pipe.

**3. Pipe Coverings\*** — One of the following pipe coverings should be used:

**A. Pipe Covering\*** — Nom 1 in (25 mm). thick hollow cylindrical heavy density (min 3.5 pcf (56 kg/m<sup>3</sup>)) 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. An annular space of min 1/2 in. (13 mm) to a max 5/8 in. (16 mm) 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. Tube Insulation-Plastics** — + — Nom 1/2 in. (13 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The annular space shall be 5/16 in (8mm).

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 94-5VA may be used.

**The T Ratings are 3/4 and 1 hr when installed with Items A and B, respectively.**

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

A. **Packing Material** — (Optional) - Foam backer rod firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor and bottom surface of the ceiling as required to accommodate the required thickness of fill material.

B. **Fill, Void or Cavity Material\* - (Caulk)** — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of the floor and bottom surface of the ceiling. Additional fill material to be installed such that a min 1/16 in. (2 mm ) crown is formed around the penetrating item and lapping 1/2 in. (13 mm) beyond the periphery of the opening.

**A/D FIRE PROTECTION SYSTEMS INC** — A/D FIREBARRIER Intumescent Sealant, A/D FIREBARRIER Intumescent Sealant II

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

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[Page Top](#)

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