



# XHEZ.C-AJ-5442 - Through-penetration Firestop Systems

## 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. C-AJ-5442

July 09, 2020

#### ANSI/UL1479 (ASTM E814)

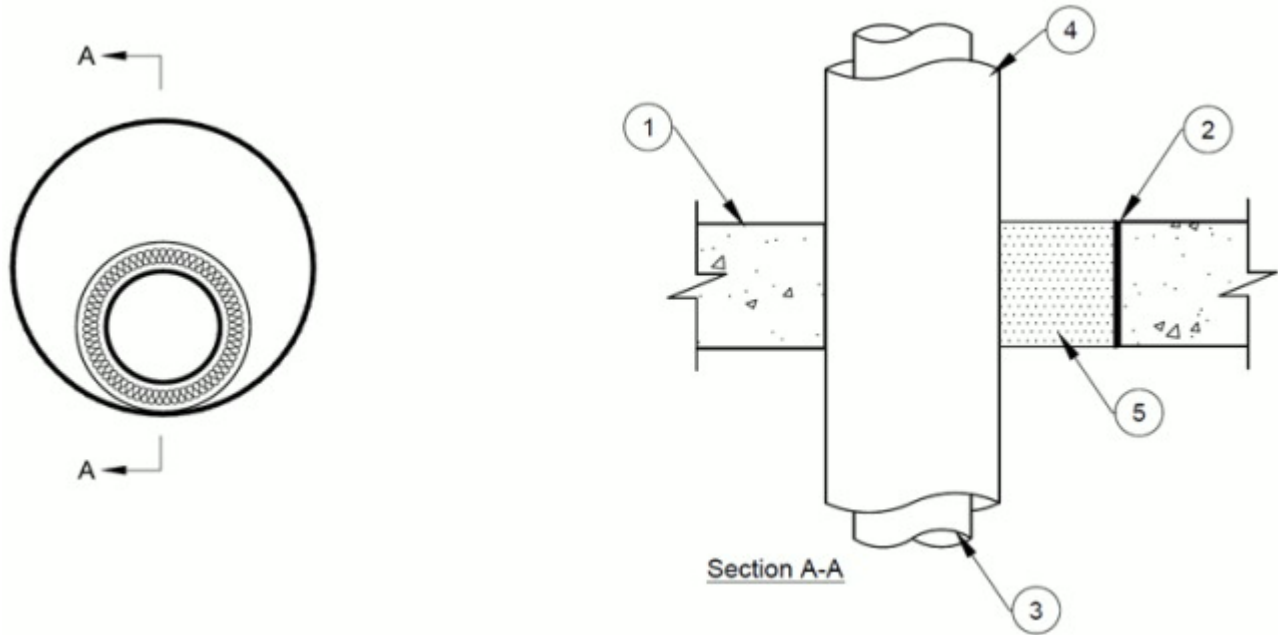
F Rating — 2 Hr
T Rating — 2 Hr (See Item 4)

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1. **Floor or Wall 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. Wall may also be constructed of any UL Classified **Concrete Blocks\***. Max diam of opening is 12 in. (305 mm).

See **Concrete Blocks** (CAZT) in the Fire Resistance Directory for names of manufacturers.

2. **Metallic Sleeve (Optional)** — Max 8 in (203 mm) diameter Schedule 5 (or heavier) steel pipe cast or grouted into floor or wall flush with floor or wall surfaces.

3. **Through-Penetrant** — One metallic pipe, tubing or conduit installed concentrically or eccentrically within the firestop system. The annular space between the pipe, tubing or conduit and the periphery of the opening shall be min 0 in. (point contact) to max 4 in. (102 mm). Pipe, tubing or conduit to be rigidly supported on each side of the floor assembly. The following types and sizes of metallic pipes, tubing or conduit may be used:

A. **Steel Pipe** — Nom 8 in. (203 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe** — Nom 8 in. (203 mm) diam (or smaller) Schedule 10 (or heavier) cast or ductile pipe.

C. **Conduit** — Nom 8 in. (203 mm) diam (or smaller) rigid steel conduit.

D. **Conduit** — Nom 8 in. (203 mm) diam (or smaller) steel electrical metallic conduit.

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

F. **Copper Tubing** — Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.

4. **Pipe Insulation** — The following types of pipe insulation may be used:

A. **Pipe Covering\*** — Nom 1 in. (25 mm) or thinner 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 lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. **The hourly T Ratings shall not exceed 2 hr with this pipe covering.**

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 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. **Fill, Void or Cavity Material\*** — Min 4-1/2 in. (114 mm) thickness of material to fill within the annulus.

**TENMAT INC** — Fire Protection Foam FF360

**\* 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 2020-07-09

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