System No. C-AJ-8183
XHEZ.C-AJ-8183
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

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

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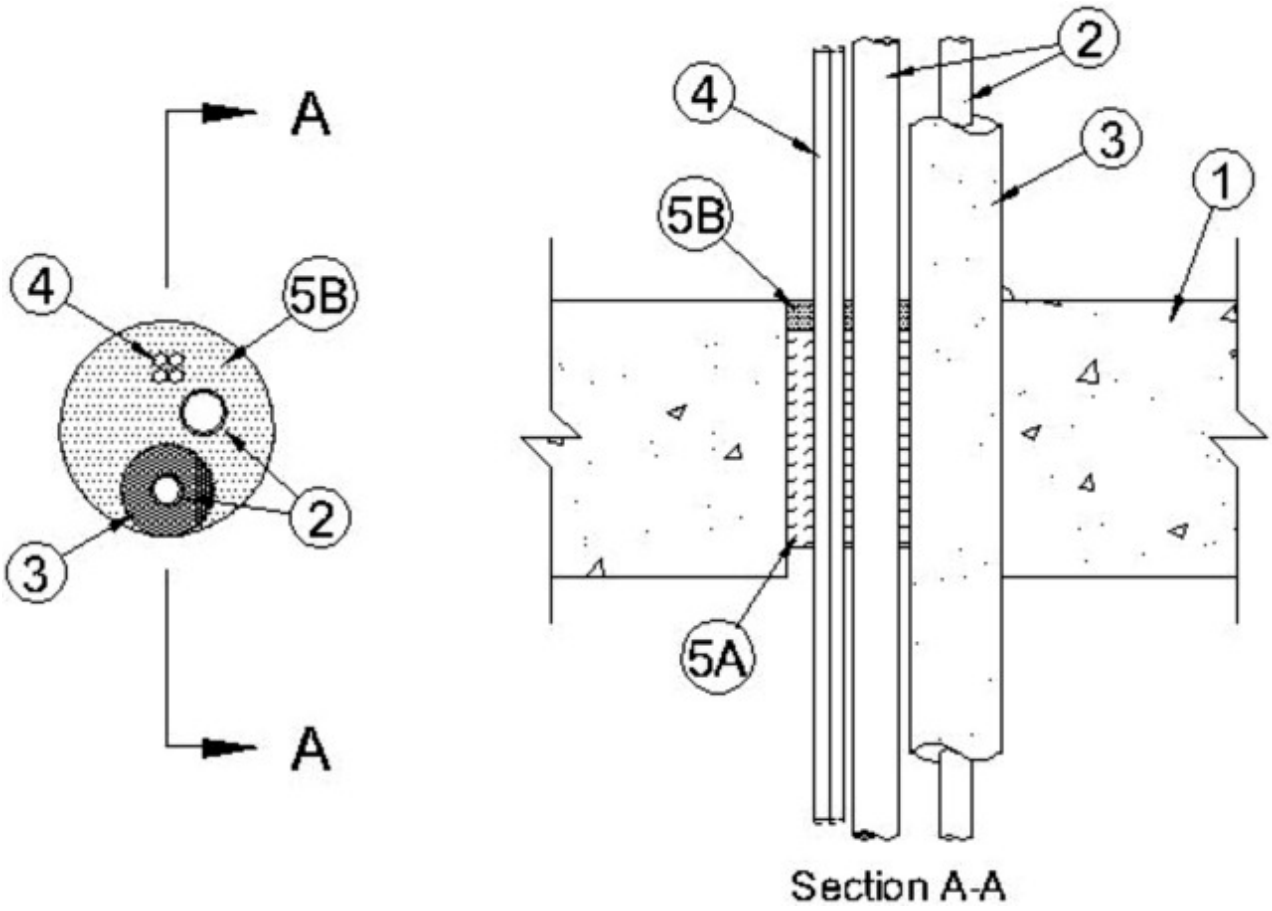
ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating - 2 Hr	F Rating - 2 Hr
T Rating - 0 Hr	FT Rating - 0 Hr
	FH Rating - 2 Hr
	FTH Rating - 0 Hr



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^3) concrete floor or min 5-1/2 in. (140 mm) thick reinforced lightweight or normal weight concrete wall. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core **Precast Concrete Units***. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 3-1-/2 in. (89 mm).

See **Concrete Block** (CAZT) and **Precast Concrete Units** (CFTV) categories in the Fire Resistance Directory for names of manufacturers.

2. **Through-Penetrants —** A max of two pipes, conduits or tubing to be installed within the opening. Of the two pipes, conduits or tubing, only one of the pipes, conduit or tubing shall have a nom diam greater than 1/2 in. (13 mm). The annular space between pipes, conduits or tubing and the periphery of the opening shall be min 1/4 in. (6 mm) to max 1-1/2 in. (38 mm). Pipes, conduits or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. **Steel Pipe —** Nom 3/4 in. (19 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe —** Nom 3/4 in. (19 mm) diam (or smaller) cast or ductile iron pipe.

C. **Conduit —** Nom 3/4 in. (19 mm) diam (or smaller) steel electrical metallic tubing or nom 3/4 in. diam (or smaller) steel conduit.

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

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

3. **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 tube insulation may be installed on a max of one pipe or tubing. The annular space between insulated penetrating item and periphery of opening shall be min 1/2 in. (13 mm) to max 1 in. (25 mm). The annular space between pipes or tubing shall be a min 0 in. (point contact) to a max 1/2 in. (13 mm).

See **Plastics+** (QMFZ2) category in the 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.

4. **Cables —** Max four, 4 pair No. 18 AWG (or smaller) thermostat cable with polyvinyl chloride (PVC) insulation and jacket materials. Cables to be spaced a min 0 in. (point contact) to max 1/2 in. (13 mm) from the other penetrants. The annular space between the cable and the periphery of the opening shall be a min 1/2 in. (13 mm) to max 1 in. (25 mm). Cables to be rigidly supported on both sides of wall assembly.

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

A. **Packing Material —** Min 3-1/2 in. (89 mm) thickness of min 4 pcf (64 kg/m^3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be forced into interstices of through penetrants to max extent possible. Packing material to be recessed from top surface of concrete floor or from both surfaces of wall as required to accommodate the

required thickness of fill material. When floor is constructed of hollow-core precast concrete unit, packing material to be recessed from both surfaces of floor to accommodate the required thickness of fill material.

B. **Fill, Void or Cavity Material* — Sealant —** Min 1 in. (25 mm) thickness of fill material applied within the annulus, flush with top surface of concrete floor or with both surfaces of wall assembly. Fill material to be forced into interstices of through penetrants to max extent possible. When floor is constructed of hollow-core precast concrete unit, fill material to be installed symmetrically on both sides of floor, flush with floor surfaces. When thickness of packing material (Item 5A) increased to 4-1/4 in. (108 mm), min fill material thickness is 1/4 in. (6 mm).

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

+Bearing the UL Recognized Component Mark

*** 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 2016-06-17