System No. C-AJ-8254
XHEZ.C-AJ-8254
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

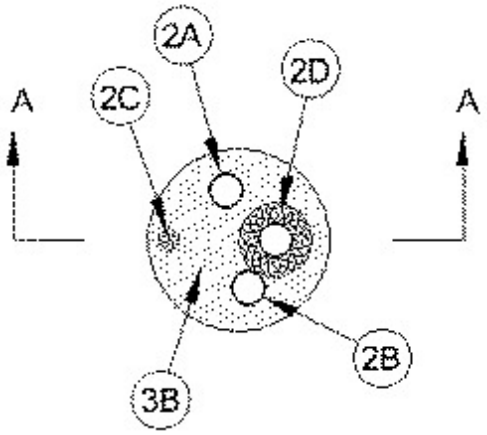
See General Information for Through-penetration Firestop Systems

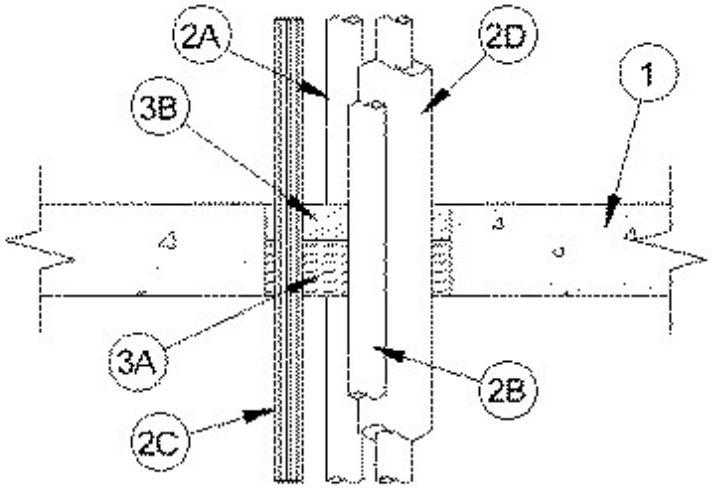
See General Information for Through-penetration Firestop Systems Certified for Canada

System No. C-AJ-8254

June 21, 2016

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating - 2 Hr	F Rating - 2 Hr
T Ratings - 0, 1/4 and 1/2 Hr (See Item 2)	FT Ratings - 0, 1/4 and 1/2 Hr (See Item 2)
L Rating At Ambient - 16 CFM/sq ft	FH Rating - 2 Hr
	FTH Ratings - 0, 1/4 and 1/2 Hr (See Item 2)
	L Rating At Ambient - 81.6 Lpm/m^2





Section A-A

System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

1. **Floor or Wall Assembly —** Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 5 in. (127 mm).

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

2. **Through Penetrants —** A maximum of four pipes, conduits, tubing or cable bundles to be installed within the opening. A min 1/4 in. (6 mm) annular space shall be maintained around uninsulated metallic pipes and cable bundle. The space between penetrants and periphery of opening shall be min 1/4 in. (6 mm) to max 1-1/2 in. (38 mm). The annular space between nonmetallic penetrant and insulated metallic penetrant shall be min 0 in. (point contact) to max 1-1/2 in. (38 mm). Penetrants to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of penetrants may be used:

A. **Metallic Pipes —** A max of two metallic penetrants may be used. The following types and sizes of metallic pipes, conduits or tubing may be used:

A1. **Steel Pipe —** Nom 1 in. (25 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

A2. **Conduit —** Nom 1 in. (25 mm) diam (or smaller) electrical metallic tubing or steel conduit.

A3. **Copper Tubing —** Nom 1 in. (25 mm) diam (or smaller) Type L (or heavier) copper tubing.

A4. **Copper Pipe —** Nom 1 in. (25 mm) diam (or smaller) Regular (or heavier) copper pipe.

When two metallic penetrants are used, one of them shall be provided with pipe covering (Item 3).

B. **Nonmetallic Pipes —** A max of one nonmetallic pipe or conduit may be used. The following types and sizes of nonmetallic pipes or conduits may be used:

B1. **Polyvinyl Chloride (PVC) Pipe —** Nom 1 in. (25 mm) diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

B2. **Chlorinated Polyvinyl Chloride (CPVC) Pipe —** Nom 1 in. (25 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

B3. **Rigid Nonmetallic Conduit++ —** Nom 1 in. (25 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA No. 70).

C. **Cables —** One max 3/4 in. (19 mm) diam tight bundle of cables may be used. The following types and sizes of cables may be used:

C1. Max 4 pair No. 24 AWG (or smaller) data cable with Mylar jacket and insulation.

C2. Max three conductor No. 12 AWG (or smaller) MC (BX) cable with polyvinyl chloride insulation and jacket materials.

C3. Max 3/C with ground No. 8 AWG (or smaller) copper conductor NM cable (Romex) with PVC insulation and jacket.

C4. Max 62.5/48 fiber optic cable with PVC insulation and jacketing.

C5. RG/U coaxial cable with fluorinated ethylene insulation and jacket.

D. **Pipe Covering —** The following type and size of pipe covering may be used with the metallic pipes (Items 2A1, 2A3 and 2A4):

D1. **Tube Insulation — Plastics+++ —** Nom 1/2 in. (13 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing.

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 UL94 Flammability Classification of 94-5VA may be used.

The T Rating is 0 hr for uninsulated metallic penetrants, 1/4 hr for cables (Item 2C), and 1/2 hr for insulated metallic penetrants.

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

A. **Packing Material —** Min 1-1/2 in. (38 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 recessed

from top surface of floor or both surfaces of wall 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 annulus, flush with top surface of floor or both surfaces of wall assembly. Additional fill material to be forced into interstices of cable bundle to max extent possible.

A/D FIRE PROTECTION SYSTEMS INC — A/D FIREBARRIER Intumescent Sealant or 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.**

Last Updated on 2016-06-21