

System No. C-AJ-4104 XHEZ.C-AJ-4104 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

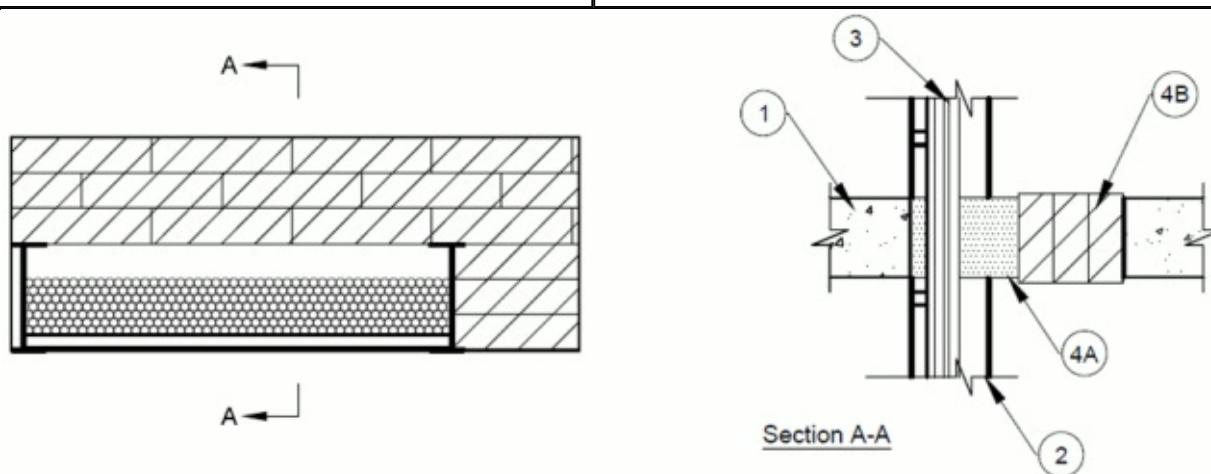
[See General Information for Through-penetration Firestop Systems](#)

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System No. C-AJ-4104

December 01, 2015

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 0 or 1 Hr (See Item 2)	FT Rating — 0 or 1 Hr (See Item 2)
	FH Rating — 2 Hr
	FTH Rating — 0 or 1 Hr (See Item 2)



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/m³) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max area of opening is 384 in.² (2477 cm²) with a max dimension of 32 in. (813 mm).

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

2. **Cable Tray*** — Max 24 in. (610 mm) wide by max 6 in. (152 mm) deep open ladder cable tray with channel-shaped side rails formed of min 0.070 in. (1.8 mm) thick (15 gauge) aluminum or 0.07 in. thick galv steel. Max one cable tray per opening. Cable tray to be rigidly supported on both sides of floor or wall assembly.

The hourly T, FT and FTH Ratings shall 0 hr when a steel cable tray is used.

3. **Cables** — Aggregate cross-sectional area of cables in cable tray not to exceed 50 percent of the cross-sectional area of the cable tray based on a max 5 in. (127 mm) cable loading depth within the tray. Any combination of the following types and sizes of cables may be used:

- A. Max 300 pair No. 24 AWG (or smaller) copper conductor telecommunication cables with polyvinyl chloride (PVC) insulation and jacket.
- B. Max 1/C 500 kcmil (or smaller) copper conductor cable with cross-linked polyethylene (XLPE) insulation and jacket.
- C. Max 3/C No. 2 AWG copper or aluminum conductor cables with PVC insulation and jacket.
- D. Max 7/C No. 12 AWG copper conductor power and control cables with PVC or cross-linked polyethylene (XLPE) insulation and jacket and PVC jacket.
- E. Multiple fiber optic communication cables jacketed with PVC and having a max outside diameter of 1/2 in. (13 mm).
- F. Max No. 18 AWG Type RG/6 coaxial cable with polyvinyl chloride insulation.

4. 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 fill material to be forced into interstices of cables, between cables and cable tray, and around the periphery of the cables/cable tray. Max area of fill 224 in² (1445 cm²) with a maximum dimension of 32 in. (813 mm). The max vertical annular space to the periphery of the opening or block/foam interface shall be 3-1/2 in (89 mm) and horizontal respectively 8 in. (203 mm). After installation of blocks (Item 4B), fill material to be forced between blocks and periphery of opening to max extent possible from top surface of floor or both surfaces of wall assembly.

ZAPP-ZIMMERMANN GMBH — Fire Protection Foam ZZ 360

B. **Fill, Void or Cavity Material*** — Blocks tightly-packed into the opening to fill annular space between cable tray or foam and periphery of opening. Blocks installed with 5 in. (127 mm) dimension projecting through floor or wall and centered within the opening.

ZAPP-ZIMMERMANN GMBH — Fire Protection Block ZZ 260

*** 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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