

System No. C-AJ-3329 XHEZ.C-AJ-3329 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

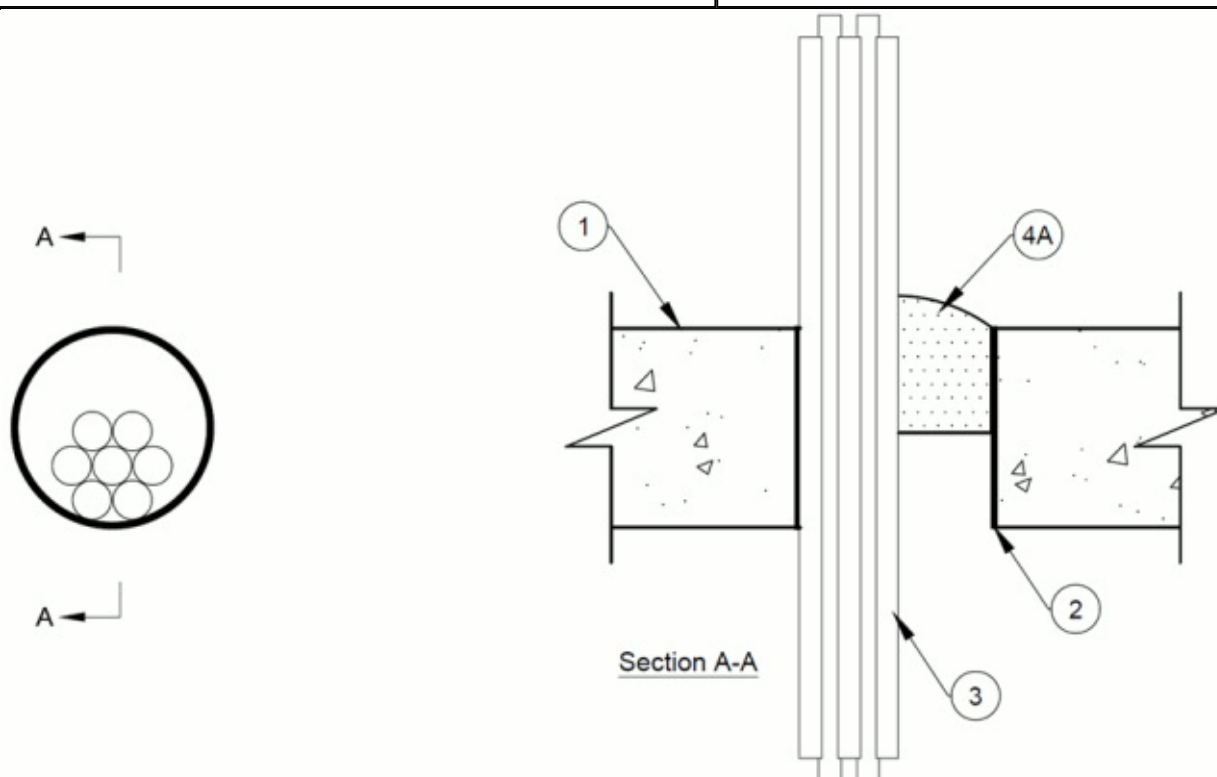
[See General Information for Through-penetration Firestop Systems](#)

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

System No. C-AJ-3329

November 23, 2015

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 1/2 Hr	FT Rating — 1/2 Hr
	FH Rating — 2 Hr
	FTH Rating — 1/2 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/m³) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diameter of opening is nom 5 in. (127 mm).

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

2. **Metallic Sleeve** — (Optional) — Nom 2, 2-1/2, 3, 4, 4-1/2 or 5 in. (51, 64, 76, 102, 114 or 127 mm) diameter Schedule 5 (or heavier) steel sleeve or rigid steel conduit or electrical metallic tubing cast or grouted into floor or wall flush with floor or wall surfaces.

3. **Cables** — Aggregate cross-sectional area of bundled cables in opening to be max 60 percent of the cross-sectional area of the opening. Cables to be tightly bundled together and rigidly supported on both sides of the floor or wall assembly. 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 750 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. (13mm).
- F. Max 3/C copper conductor No. 10 AWG (or smaller) with bare aluminum ground, PVC insulated steel or aluminum Metal-Clad cable.

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

A. **Fill, Void or Cavity Material*** — Plug sized for the steel sleeve or opening per Table below friction-fitted within the sleeve or opening such that the outer circumference of the dome-shaped plug is flush from the top surface of the floor or from both surfaces of the wall.

Max. Sleeve/Opening Diam in. (mm)	Nom Plug Size, in. (mm) ZZ 160 series
2 (51)	2.5 (65) **
3 (76)	3 (78) **
4 (102)	4 (107)**
4.5 (114)	4.5 (122)**
5 (127)	5 (134)**
** Cut wedge from plug to fit sleeve/opening size. See Zapp Zimmermann Installation Instructions for specific size of wedge cuts required.	

ZAPP-ZIMMERMANN GMBH — Fire Protection Plug ZZ 160

B. **Fill, Void or Cavity Material*** — (Not Shown) — Fill material forced into interstices of cables to max extent possible.

ZAPP-ZIMMERMANN GMBH — Fire Protection Sealant ZZ 365

*** 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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