



System No. W-J-3164 XHEZ.W-J-3164 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

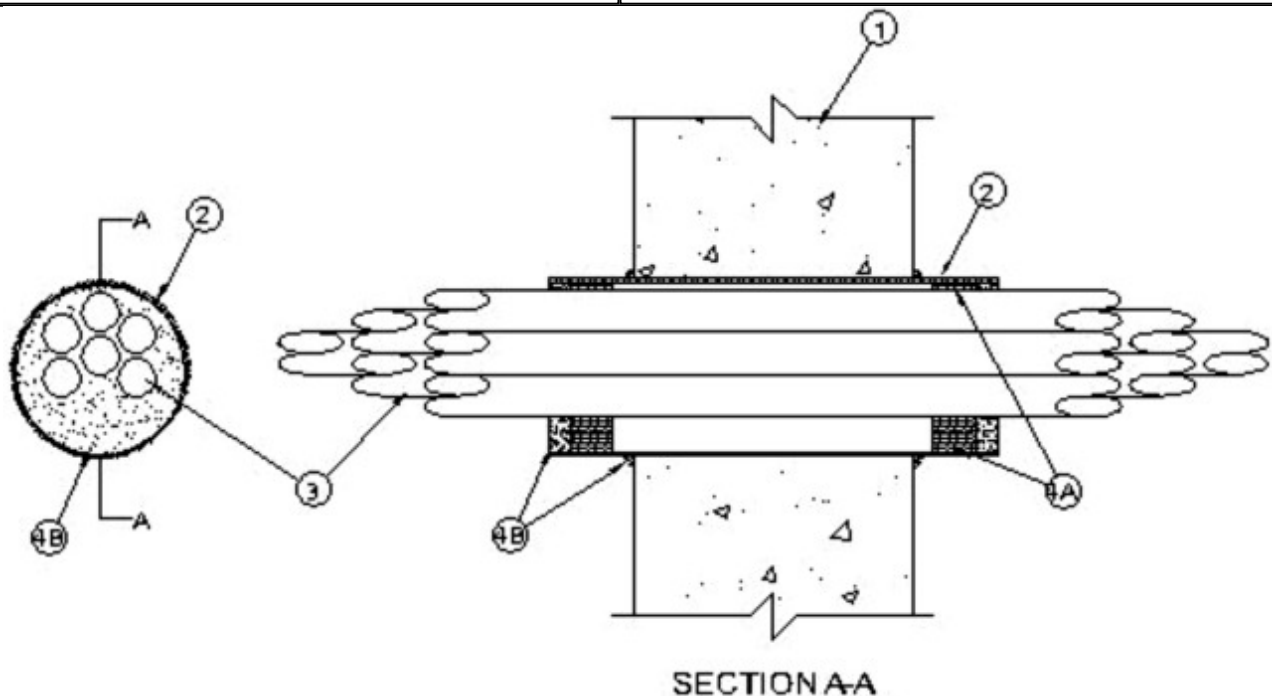
[See General Information for Through-penetration Firestop Systems](#)

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

System No. W-J-3164

June 15, 2016

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 0 and 3/4 Hr (See Item 1)	FT Ratings — 0 and 3/4 Hr (See Item 1)
	FH Ratings — 1 and 2 Hr (See Item 1)
	FTH Ratings — 0 and 3/4 Hr (See Item 1)



1. **Wall Assembly** — Min 5 in. (127 mm) or 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf (1600-2400 kg/m³)) concrete for 1 hr or 2 hr F Rating respectively. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 4-1/2 in. (114 mm).

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

The hourly T Rating of the firestop system is 0 and 3/4 hr when installed in min 5 in. (127 mm) and 6 in. (152 mm) thick walls, respectively.

2. **Steel Sleeve** — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or Schedule 5 (or heavier) steel pipe friction-fit into wall assembly. Sleeve installed such that the ends project 1-1/2 to 2 in. (38 to 51 mm) beyond each side of the wall.

3. **Cables** — Aggregate cross-sectional area of cables in sleeve to be max 56 percent of the cross-sectional area of the sleeve. Tight bundle of cables to be concentrically or eccentrically within the steel sleeve. The diam of the opening shall be 1-3/4 in. (44 mm) larger than the penetrant. The annular space within the firestop system shall be a min of 1/4 in. (6 mm) to a max of 1-1/2 in. (38 mm). Cables to be rigidly supported on both sides of the wall. Any combination of the following types and sizes of cables may be used:

- A. Max 200 pair No. 24 AWG (or smaller) copper conductor with polyvinyl chloride (PVC) insulation and jacketing material.
- B. Max 1/C No. 350 kcmil (or smaller) copper conductor cable with cross-linked polyethylene (XLPE) jacket.
- C. Max 7/C No. 12 AWG (or smaller) copper conductor power and control cables with XLPE or PVC insulation with XLPE or PVC jacket.
- D. Max 3/C No. 3/0 AWG (or smaller) copper or aluminum conductor SER cables with PVC insulation and jacket.
- E. Max 3/C No. 2/0 AWG (or smaller) copper conductor PVC jacketed aluminum clad or steel clad TEK cable.
- F. Max 110/125 fiber optic (F.O.) cable with PVC insulation and jacket.
- G. Max 3/C with ground No. 8 AWG (or smaller) copper conductor NM cable (Romex) with PVC insulation and jacket.
- H. Max RG/U coaxial cable with fluorinated ethylene insulation and jacket.
- I. Max 4 pair No. 24 AWG (or smaller) copper conductor data cable with Mylar jacket and insulation.

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

A. **Packing Material** — Min 1 in. (25 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation tightly packed into opening as a permanent form. Packing material recessed from each end of sleeve as required to accommodate the required thickness of fill material.

B. **Fill, Void or Cavity Material* - Caulk** — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with each end of sleeve. Caulk to be forced into interstices of cable group to max extent possible. A min 1/4 in. (6 mm) diam bead of caulk shall be applied at the concrete/steel sleeve interface on both sides of the wall.

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

*** 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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