



System No. W-L-4071 XHEZ.W-L-4071 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

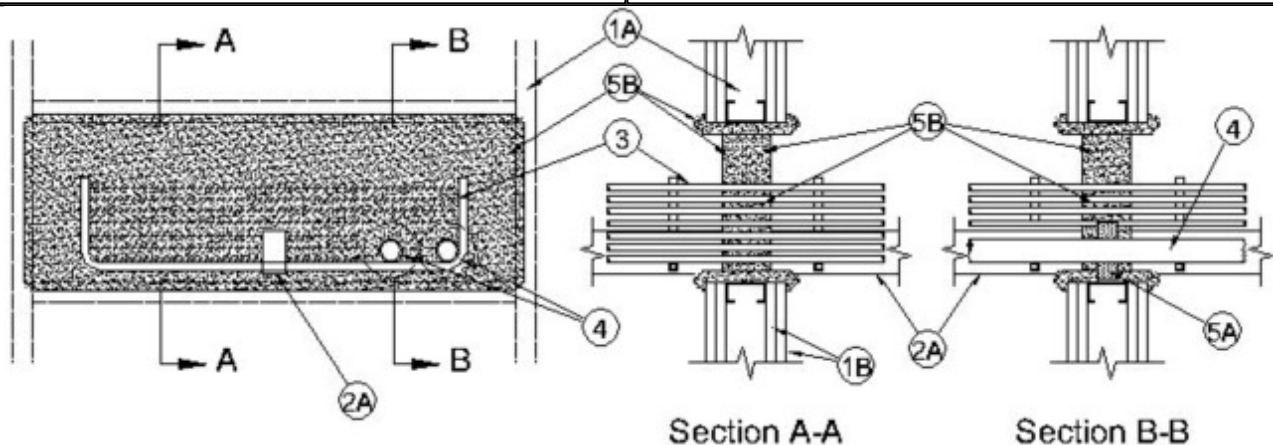
[See General Information for Through-penetration Firestop Systems](#)

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

System No. W-L-4071

June 08, 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 1/2 (See Items 1 and 2)	FT Ratings —0 and 1/2 (See Items 1 and 2)
L Rating at Ambient — 16 CFM/sq ft	FH Ratings — 1 and 2 Hr (See Item 1)
	FTH Ratings —0 and 1/2 (See Items 1 and 2)
	L Rating at Ambient — 16 CFM/sq ft



1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400, V400 or W400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.

B. **Gypsum Board*** — 5/8 in. (16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Design in the UL Fire Resistance Directory. Max size of opening is 300 sq in. (1935 sq cm) with max dimension of 30 in. (762 mm).

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed. The T rating is 0 hr for 1 hr rated walls and 1/2 hr for 2 hr rated walls.

2. **Through-Penetrants** — One cable tray to be installed within the firestop system. Cable tray to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of cable tray may be used:

A. **Cable Tray*** — Max 24 in. (610 mm) wide by max 6 in. (152 mm) deep center spline cable tray with max 2-3/4 by 1-1/2 in. (70 by 38 mm) center tube and nom 1/2 by 1/2 in. (13 by 13 mm) tube-shaped rungs spaced 9 in. (229 mm) OC, both formed of min 0.062 in. (1.6 mm) thick aluminum or min 0.040 in. (1 mm) thick (No. 20 MSG) galvanized steel. The annular space between the ends of the cable tray and the periphery of the opening shall be a nom 3 in. (76 mm). The annular space between the long sides of the cable tray and the periphery of the opening shall be a min of 1/2 in. (13 mm) and a max of 3-1/2 in. (89 mm). **The T rating is 0 hr for steel cable trays.**

3. **Cables** — Aggregate cross-sectional area of cables in cable tray to be max 31 percent of the cross-sectional area of the cable tray based on a max 6 in. (152 mm) cable loading depth within the cable tray. The annular space between the cables and the periphery of the opening shall be a min of 1/2 in. (13 mm) to a max of 3-1/2 in. (89 mm). Any combination of the following types and sizes of copper conductor cables may be used:

- A. Max 24-62.5/125 micron fiber optic (F.O.) cable with PVC insulation and jacket.
- B. RG59/U (or smaller) coaxial cable with fluorinated ethylene (FE) or PVC insulation and jacket.
- C. Max 4 pair No. 24 AWG (or smaller) copper conductor data cable with Hylar jacket and insulation.
- D. Max 3/C with ground No. 10 AWG (or smaller) copper conductor NM cable with PVC insulation and jacket materials.
- E. **Through Penetrating Product*** — Max 4/C plus grd No. 14 AWG (or smaller) Metal-Clad Cable+.

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F. **Through Penetrating Product*** — Max 4/C plus grd No. 12 AWG (or smaller) copper conductor Metal-Clad Cable+ with aluminum armor.

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4. **Optical Fiber Raceway+** — One or more max 1-1/2 in. (38 mm) diam (or smaller) optical fiber raceways (innerduct) formed from polyvinyl chloride (PVC) or polyvinylidene fluoride (PVDF) with fiber optic cable fill. Raceways installed in accordance with Article 770 of the National Electrical Code (NFPA No. 70). Raceways may be used in addition to the cable types listed in Item 3.

See **Optical Fiber Raceway** (QAZM) category in the Electrical Construction Equipment Directory for names of manufacturers.

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

A. **Fill, Void or Cavity Material*** — Ring of sealant to be applied around the outer diameter of each optical fiber raceway (Item 4) at center of wall thickness. Sealant to be min 1 in. (25 mm) thick by min 1-1/4 in. (32 mm) depth. To aid in installation of sealant, a sheet steel or equivalent form may be used. Form to be removed after sealant sets.

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

B. **Fill, Void or Cavity Material*** — Putty — Min 3/4 in. (19 mm) thick fill material to be tightly packed against all four sides of opening for the entire thickness of wall and lapping nom 1/2 in. (13 mm) around periphery of opening onto both faces of wall. Min 3/4 in. (19 mm) thickness by min 3 in. (76 mm) depth of fill material firmly packed in opening between each layer of cables. Fill material to be centered in thickness of wall and packed to the max extent possible between and around the cables and between cables and center tube of center spline cable tray. Min 3 in. (76 mm) depth of fill material centered in the wall thickness and tightly packed between cables/cable tray and periphery of opening to fill remaining annular space.

A/D FIRE PROTECTION SYSTEMS INC — A/D FIREBARRIER Putty II

+ Bearing UL Listing Mark

*** 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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