



**System No. W-L-3207**  
**XHEZ.W-L-3207**  
**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.
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**XHEZ - Through-penetration Firestop Systems**

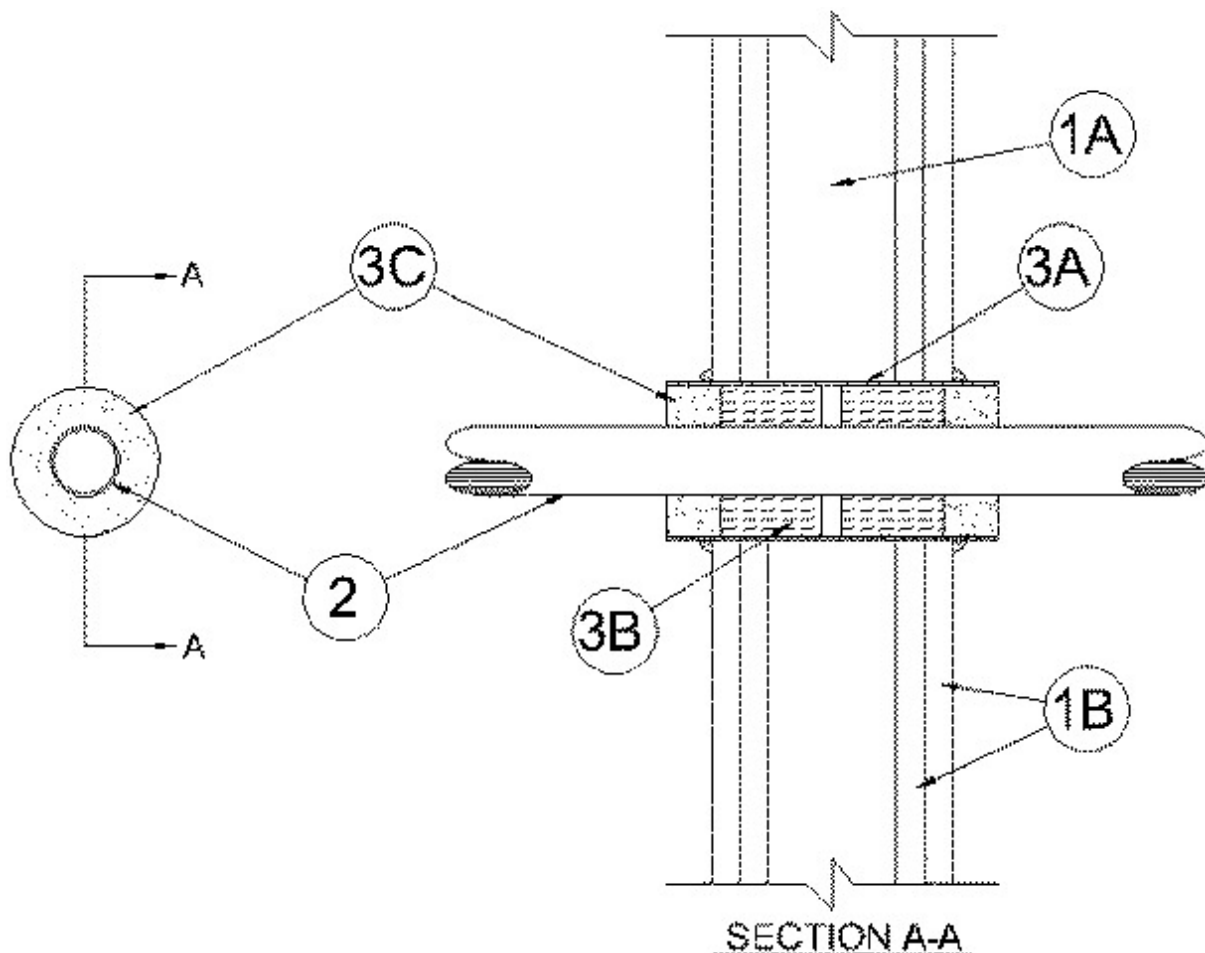
See General Information for Through-penetration Firestop Systems

**System No. W-L-3207**

November 11, 2002

**F Ratings — 1 and 2 Hr (See Item 1)**

**T Ratings — 0, 1 and 2 Hr (See Item 2)**



**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 specified in the individual U300 or U400 Series Wall and Partition Designs on 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. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC.

**B. Gypsum Board\*** — 1/2 in. thick, 4 ft 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 U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 2 in.

**The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.**

**2. Cables** — One cable to be centered within the firestop system. A nom annular space of 1/4 in. is required within the firestop system. Cable to be rigidly supported on both sides of wall assembly. The following types and sizes of copper conductor cables may be used:

- A. 1/C-500 kcmil (or smaller) cable with cross-linked polyethylene insulation and jacket.
- B. 100 pair No. 24 AWG (or smaller) cable with polyvinyl chloride (PVC) insulation and jacket.
- C. Type RG/U coaxial cable with fluorinated ethylene propylene insulation and jacket.
- D. Max 2/C - No. 12 AWG (or smaller) cable with (PVC) insulation and jacket.

**2A. Cables - (Not Shown)** — As an alternate to Item 2, a max of seven cables bundle together and centered within the firestop system. A nom annular space of 1/4 in. is required within the firestop system. Cables to be rigidly supported on both sides of wall assembly. The following types and sizes of copper conductor cables may be used:

- A. Max 4 pair No. 24 AWG cable (or smaller) with polyvinyl chloride (PVC) insulation and jacket.
- B. Type RG/U coaxial cable with fluorinated ethylene propylene insulation and jacket.
- E. Max 3/C with ground - No. 10 AWG (or smaller) Type NM nonmetallic sheathed cable.

The T Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly and type of cable used as tabulated below:

Fire Rating of Wall Assembly Hr	Cable Type	T Rating Hr
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1	1/C-500 kcmil	0
1	100 pair No. 24 AWG	0
1	4 pair No. 24 AWG	0
1	RG/U	1
1	3/C No. 10 AWG	0
1	2/C No. 12 AWG	0
2	1/C-500 kcmil	0
2	100 Pair No. 24 AWG	0
2	RG/U	2
2	3/C No. 10 AWG	0
2	2/C No. 12 AWG	0
2	4pair No. 24 AWG	0

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

A. **Steel Sleeve** — Cylindrical sleeve fabricated from 0.022 in. (No. 26 gauge) galv sheet steel and having a min 2 in. lap along the longitudinal seam. Length of steel sleeve to be equal to the thickness of the wall plus 1 in., such that when installed, the ends of the steel sleeve extend 1/2 in. beyond each surface of the wall. Sleeve installed by coiling the sheet steel to a diam smaller than the through opening, inserting the coil through the openings and releasing the coil to let it uncoil against the circular cutouts in the gypsum board layers.

B. **Packing Material** — Min 2 in. thickness of 4 pcf mineral wool batt insulation firmly packed into opening as a permanent form on each side of wall. Packing material to be recessed from each surface of wall to accommodate the required thickness of fill material.

C. **Fill, Void or Cavity Material\* - Sealant** — Min 3/4 in. thickness of fill material applied within annulus, flush with both ends of steel sleeve. Fill material or to be forced into interstices of cable bundle to max extent possible on both sides of wall assembly. A min 1/2 in. bead of fill material shall be applied at the steel sleeve/gypsum board interface on both surfaces of wall.

**A/D FIRE PROTECTION SYSTEMS INC** — A/D FireBarrier Silicone

**\* 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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