System No. F-C-3014
XHEZ.F-C-3014
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

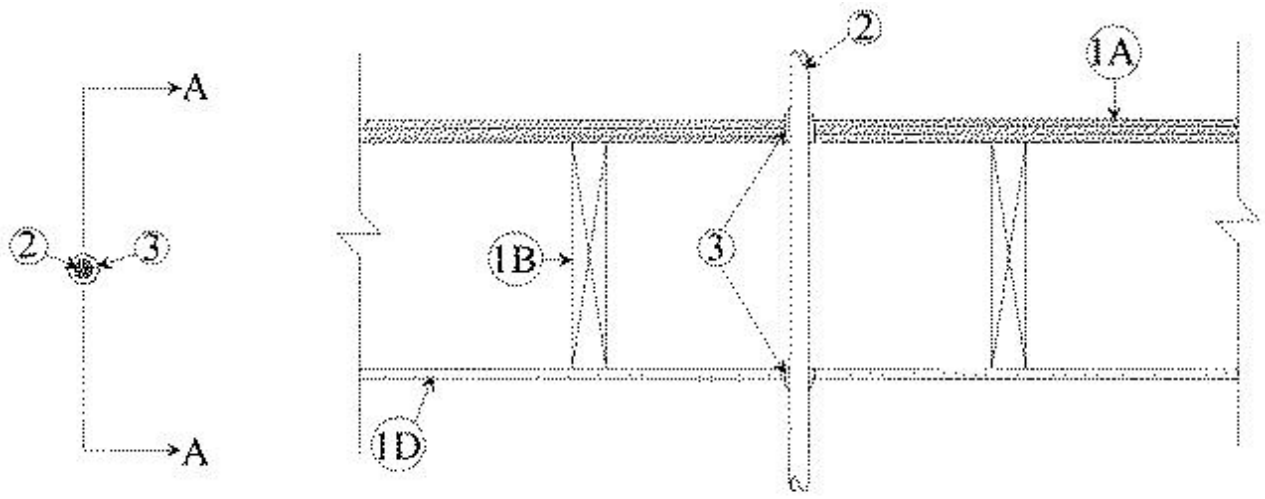
See General Information for Through-penetration Firestop Systems

System No. F-C-3014

November 11, 2002

F Rating — 1 Hr

T Rating — 1 Hr



SECTION A-A

1. **Floor-Ceiling Assembly —** The fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in Design Nos. L512, L513 or L514 in the UL Fire Resistance Directory, and shall include the following construction features:

A. **Flooring System —** Lumber or min 1/2 in. plywood subfloor with lumber or min 3/4 in. plywood finish floor, or **Floor-Topping Mixture*** as specified in the individual Floor-Ceiling Design. Max diam of opening is 2 in.

B. **Wood Joists —** Nom 2 by 10 in. lumber joists spaced 16 in. OC with nom 1 by 3 in. lumber bridging and with ends firestopped. As an alternate to lumber joists, nom 10 in. deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or **Structural Wood Members*** with bridging as required with ends firestopped.

C. **Furring Channels —** (Not Shown) — Resilient galv steel furring installed perpendicular to wood joists between Gypsum board (Item 1D) and wood joists and spaced max 24 in. OC.

D. **Gypsum Board* —** Nom 4 ft wide by 1/2 or 5/8 in. thick as specified in the individual Floor-Ceiling Design. Gypsum board attached to wood joists and furring channels as specified in the individual Floor-Ceiling Design. Max diam of opening is 2 in.

2. **Cables —** One cable to be installed approximately midway between wood joist and centered within the firestop system. Diam of openings hole-sawed through flooring system and through gypsum wallboard ceiling to be nom 1/4 in. larger than the outside diam of through penetrant. Cable to be rigidly supported on both sides of floor-ceiling 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. Max 100 pair No. 24 AWG cable (or smaller) 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.

E. Max 3/C with ground — No. 10 AWG (or smaller) Type NM nonmetallic sheathed cable.

F. Max 3/C — No. 4/0 AWG (or smaller) aluminum conductor service entrance cable with PVC insulation and jacket.

2A. **Cables (Not Shown) —** As an alternate to Item 2, a max of seven cables bundled together and centered within the firestop system. Diam of openings hole-sawed through flooring system and through gypsum board ceiling to be nom 1/4 in. larger than the outside diam of cable bundle. Cables to be rigidly supported on both sides of floor-ceiling 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.

3. **Fill, Void or Cavity Material* — Caulk —** On top of assembly, a min 1-1/8 in. depth of fill material applied within annulus on top surface of floor. On bottom of assembly, a min 1/2 in. depth of fill material applied within annulus on bottom surface of ceiling. Fill material to be forced into interstices of cable bundle to max extent possible on both sides Additional fill material to be installed such that a min 1/2 in. thick crown is formed around the through penetrant on both sides of floor-ceiling assembly.

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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