



## System No. C-AJ-2761 XHEZ.C-AJ-2761 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

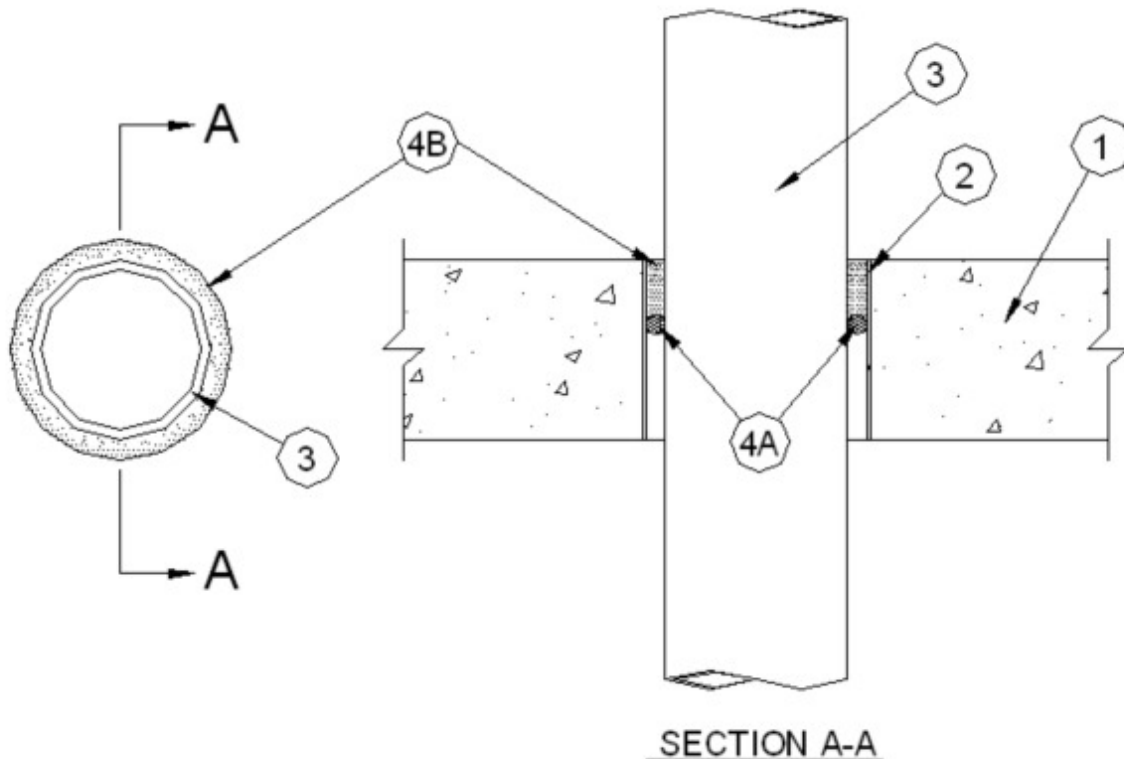
[See General Information for Through-penetration Firestop Systems](#)

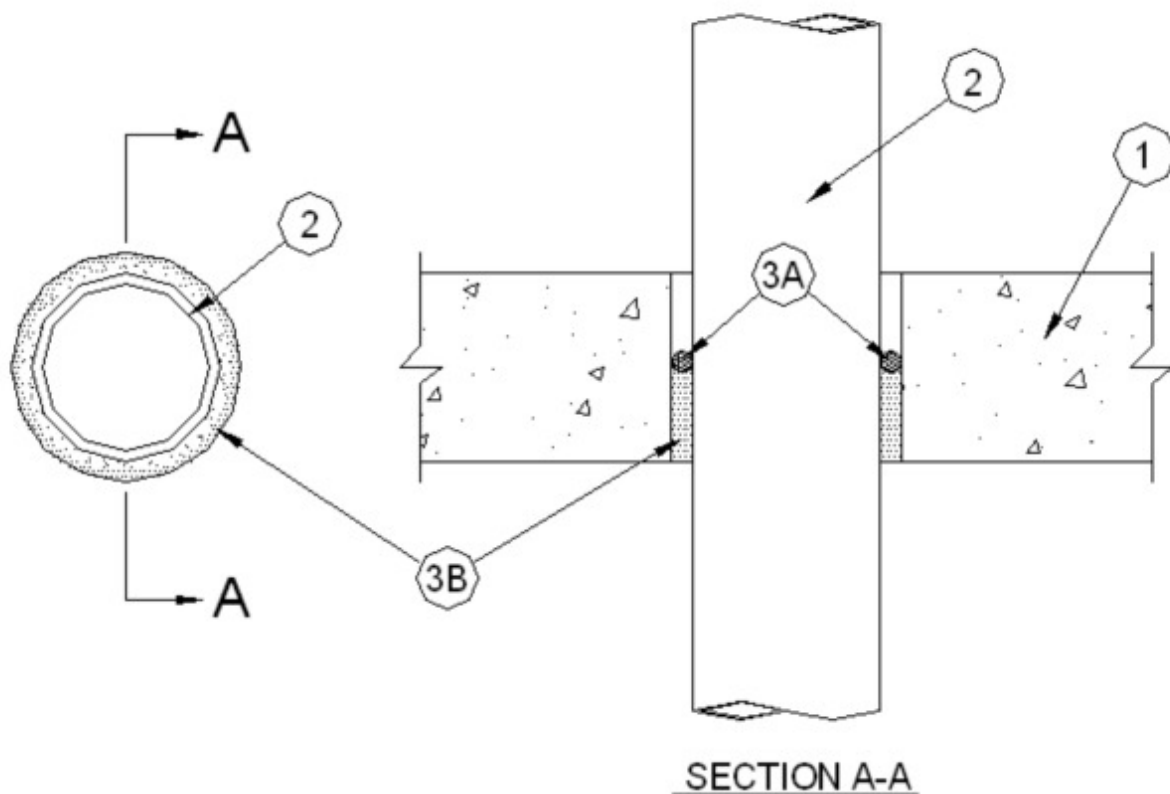
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April 22, 2016

**F Ratings — 2 and 3 Hr (See Item 4B)**

**T Ratings — 0, 1/4, 2, and 2-3/4 Hr (See Item 4B)**





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/m<sup>3</sup>) concrete floor or min 5 in. (127 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete wall. Wall may also be constructed of any UL Classified **Concrete Blocks\***. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow core **Precast Concrete Units**. Max diam of opening 5 in. (152 mm).

See **Concrete Blocks** (CAZT) and **Precast Concrete Units\*** (CFTV) categories in the Fire Resistance Directory for names of manufacturers.

2. **Steel Sleeve** — (Optional. See Table in Item 4B) — Nom 4 in. (102 mm) diam (or smaller) No. 30 GA (0.016 in. or 0.41 mm thick) galv sheet steel and having a min 2 in. (51 mm) lap along the longitudinal seam. Sleeve installed by coiling the sheet steel to a diam smaller than the through opening, inserting the coil through the opening and releasing the coil to let it uncoil against the circular cutouts in the floor or wall. Sleeve also may be constructed of nominal 5 in. diameter (or smaller) Schedule 10 (or heavier) steel pipe cast or grouted into floor or wall. Length of the sleeve to be equal to the thickness of the floor or wall. The ends of the steel sleeve shall be flush with each surface of the floor or wall.

3. **Through Penetrants** — One nonmetallic pipe to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe and sleeve (Item 2) or opening shall be in accordance with the requirements in the table below. Pipe to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of nonmetallic pipes may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 3 in. (76 mm) diam (or smaller) Schedule 40 solid-core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

B. **Polyvinyl Chloride (PVC) Pipe** — Nom. 3 in. (76 mm) diam (or smaller) Schedule 40 cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 3 in. (76 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.

D. **Rigid Nonmetallic Conduit+** — Nom 3 in. (76 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with National Electrical Code (NFPA 70).

E. **Acrylonitrile Butadiene Styrene (ABS) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid or cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

F. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 3 in. (76 mm) diam (or smaller) FLOWGUARD GOLD® SDR11 CPVC for use in closed (process or supply) piping systems.

G. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 3 in. (76 mm) diam (or smaller) BLAZEMASTER® SDR13.5 CPVC for use in closed (process or supply) piping systems.

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

**A. Packing Material** — (Optional) — Polyethylene backer rod firmly packed into annular space as a permanent form. Packing material to be recessed from top or bottom surface of floor or one or both sides of wall as needed to accommodate the fill material (Item 4B).

**B. Fill, Void or Cavity Material\* — Sealant** — Fill material applied within the annulus, flush with top or bottom surface of floor as specified in Table below. In hollow-core floors, fill material to be applied within annulus flush with top and bottom surface of floor at the thickness specified in the Table below. For wall assemblies, fill material may be applied flush with both sides of the wall or flush with either face of wall or anywhere within plane of wall at the min thickness specified in the Table below.

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

Through-Penetrant Type	Max Diam of Penetrant In (mm)	Max Diam Opng In. (mm)	Min/max Annular Space In (mm)	Steel Sleeve	Min. Fill Mt Thick (floor or both sides of wall) In (mm)	Min. Fill Mtl Thick (wall, applied to one side only) In (mm)	F Rating hr	T Rating hr
A, D	2 (51)	4 (102)	1/4 / 1-3/8 (6/35)	Optional	1-1/2 (38)	2 (51)	2	0+
B, C, F, G	2 (51)	4 (102)	1/4 / 1-3/8 (6/35)	No	1-1/2 (38)	2 (51)	2	2
B, C, F, G	2 (51)	4 (102)	1/4 / 1-3/8 (6/35)	Optional	1-1/2 (38)	2 (51)	2	0
A, D	2 (51)	4 (102)	1/4 / 1-3/8 (6/35)	No	1-1/2 (38)	2 (51)	3	0+
B, C, F, G	2 (51)	4 (102)	1/4 / 1-3/8 (6/35)	No	1-1/2 (38)	2 (51)	3	2-3/4
A, B, C, D, F, G	3 (76)	5 (152)	1/2 / 1 (13/25)	No	2-1/2 (64)	3-1/2 (89)	2	0
E	2 (51)	4 (102)	1/2 / 1 (13/25)	No	2 (51)	2 (51)	2	0

+ When sealant is applied flush with top of floor, the T Rating is 1/4 hour.

**\* 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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