

XHEZ.C-AJ-5435 - Through-penetration Firestop Systems

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

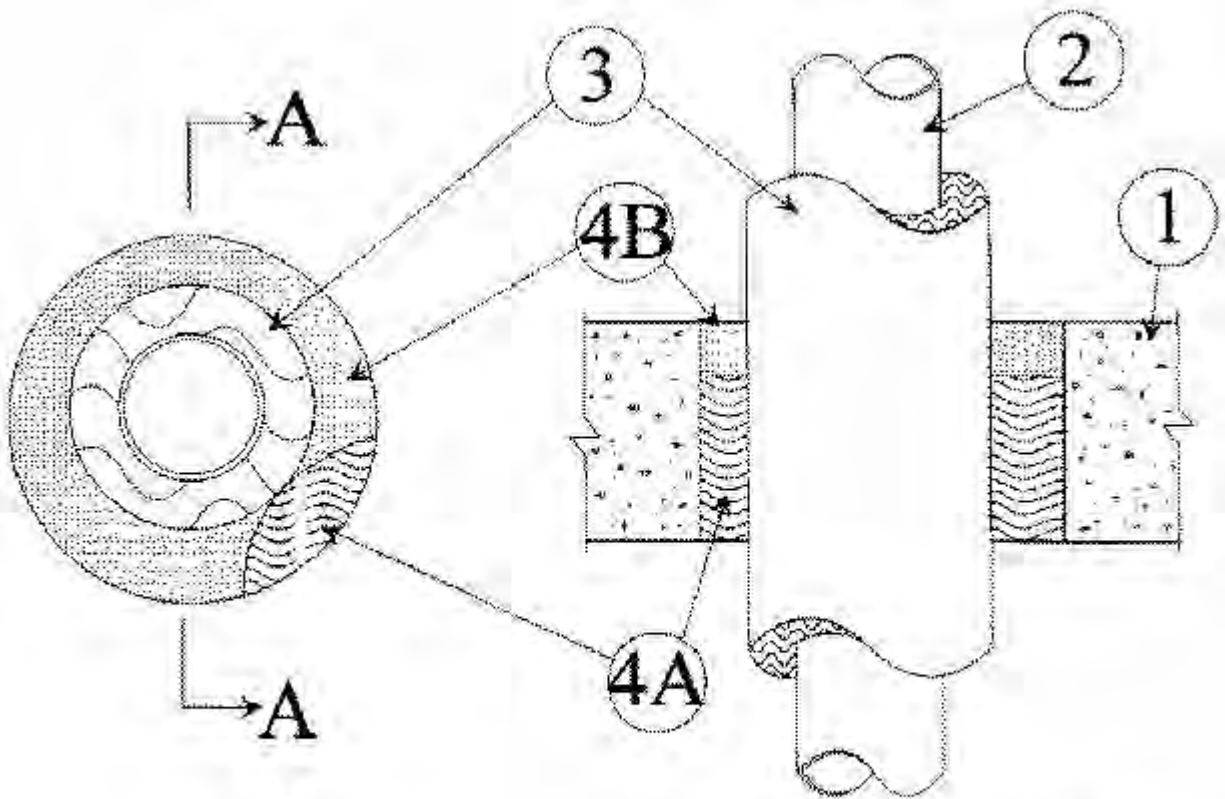
See General Information for Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems Certified for Canada

System No. C-AJ-5435

January 10, 2020

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



SECTION A-A

1. **Floor or Wall Assembly** — Min 3-1/2 in. (89 mm) thick reinforced lightweight or normal weight (100-150 pcf (1600-2400 kg/cu meter)) concrete floor or min 4 in. (102 mm) thick reinforced lightweight or normal weight concrete wall. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 12 in. (305 mm). See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Through Penetrants** — One metallic pipe or tubing to be installed either concentrically or eccentrically within the firestop system. Pipe or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes or tubing may be used:

A. **Steel Pipe** — Nom 8 in. (203 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.

B. **Iron Pipe** — Nom 8 in. (203 mm) diam (or smaller) cast or ductile iron pipe.

C. **Copper Tubing** — Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.

D. **Copper Pipe** — Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.

3. **Pipe Covering*** — Nom 1 in. (25 mm) thick hollow cylindrical heavy density (min 3.5 pcf (56 kg/cu meter)) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. The annular space is specified in the table below.

See **Pipe and Equipment Covering — Materials** (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

4. **Firestop System** — The F and T Ratings of the system are dependent upon the thickness of concrete, type of pipe, annular space, packing material type and thickness as shown in the table below:

Min Thk of Concrete Floor In. (mm)	Min Thk of Concrete Wall In. (mm)	Type of Pipe	Annular Space In. (mm)	Packing Mtl Type	Packing Mtl Thk In. (mm)	F Rating Hr	T Rating Hr
4-1/2 (114)	5 (127)	Steel Pipe	1/2 to 1(13 to 25)	Mineral Wool	4 (102)	2	1
4-1/2 (114)	5 (127)	Iron Pipe	1/2 to 1 (13 to 25)	Mineral Wool	4 (102)	2	1
4-1/2 (114)	5 (127)	Copper Tube	3/8 to 1-1/2 (9.5 to 38)	Mineral Wool	4 (102)	2	1/2
4-1/2 (114)	5 (127)	Copper Pipe	3/8 to 1-1/2 (9.5 to 38)	Mineral Wool	4 (102)	2	1/2
3-1/2 (89)	4 (102)	Steel Pipe	1/4 to 5/8 (6 to 16)	Ceramic Blanket	3 (76)	1-1/2	1/2
3-1/2 (89)	4 (102)	Iron Pipe	1/4 to 5/8 (6 to 16)	Ceramic Blanket	3 (76)	1-1/2	1/2
3-1/2 (89)	4 (102)	Copper Tube	1/4 to 5/8 (6 to 16)	Ceramic Blanket	3 (76)	1-1/2	1/2
3-1/2 (89)	4 (102)	Copper Pipe	1/4 to 5/8 (6 to 16)	Ceramic Blanket	3 (76)	1-1/2	1/2

A. **Packing Material** — Min 4 in. (102 mm) thickness of min 4.0 pcf (64 kg/cu meter) mineral wool batt insulation or min 3 in. (76 mm) thickness of min 6 pcf (96 kg/cu meter) ceramic fiber blanket insulation firmly packed into opening as a permanent form as specified in the table above. Packing material to be recessed from top surface of floor or from both surfaces of wall 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 top surface of floor or with both surfaces of wall.

RELIANCE WORLDWIDE CORPORATION DBA HOLDRITE HYDROFLAME — HydroFlame 300 CG

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2020-01-10

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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