XHEZ.C-AJ-5434 - 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

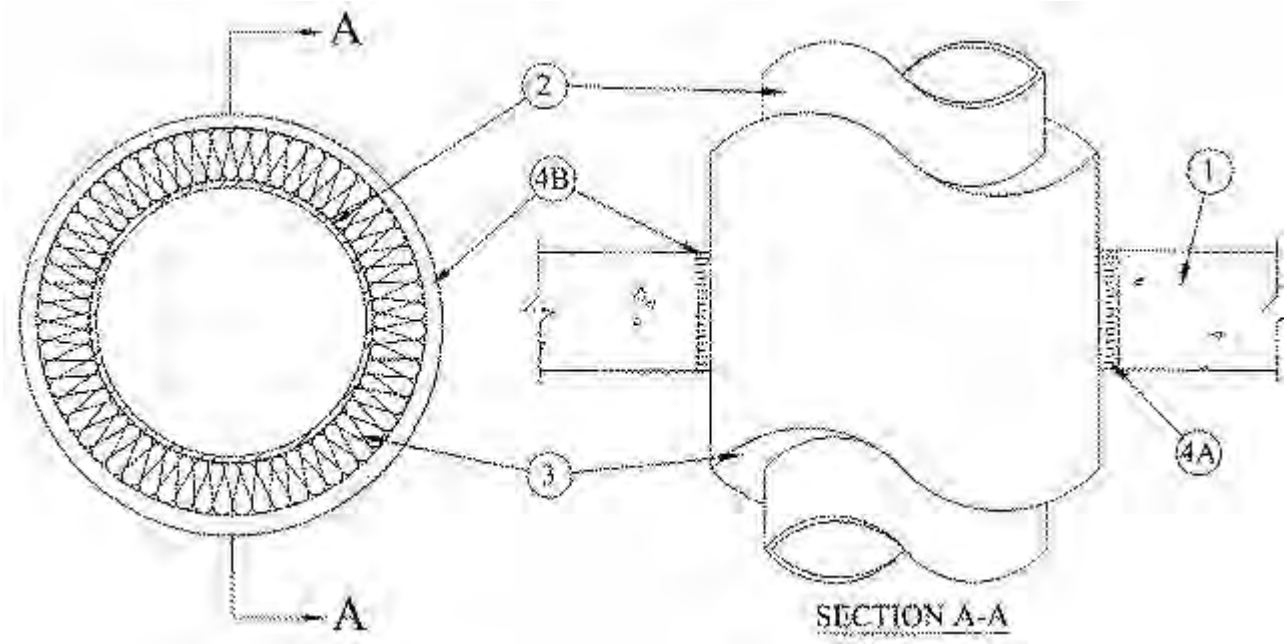
See General Information for Through-penetration Firestop Systems

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

System No. C-AJ-5434

January 10, 2020

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



1. **Floor or Wall Assembly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf) (1600-2400 kg/m^3) concrete floor or min 4-3/4 in. (121 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 16 in. (406 mm)
See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

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

A. **Steel Pipe —** Nom 10 in. (254 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

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

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

3. **Pipe Covering* —** Hollow cylindrical heavy density (min 3.5 pcf)) (56 kg/m3) 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 and thickness are 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 is dependent upon the pipe type, pipe diam, thickness of pipe covering, annular space, packing material thickness, and fill material thickness as shown in the table below:

Type of Pipe	Max Pipe Diam In.	Thkns of Pipe Covering In.	Annular Space In.	Min Packing Mtl Thkns In.	Min Fill Mtl Thkns In.	F Rating Hr	T Rating Hr
SP, CT,	3 (76)	1 (25)	1/4 to 1-3/8 (6 to 35)	3-1/2 (89)	1/2 (13)	1-1/2 (38)	1/2 (13)
CP							
SP, CT,	3 (76)	1 (25)	1/4 to 5/8 (6 to 16)	3-1/2 (89)	1/4 (6)	1-1/2 (38)	1/2 (13)
CP							

SP, CT,	4 (102)	1/2 (13)	1/4 to 5/8 (6 to 16)	4-1/4 (114)	1/4 (6)	2 (51)	1/2 (13)
CP							
SP	10 (254)	1 (25)	1/2 to 1 (13 to 25)	4-1/4 (114)	1/4 (6)	2 (51)	1 (25)
SP	10 (254)	2 (51)	1/2 to 3/4 (13 to 19)	4-1/4 (114)	1/4 (6)	1-1/2 (38)	1-1/2 (38)

SP = Steel Pipe, CT = Copper Tube, CP = Copper Pipe.

A. **Packing Material —** Mineral wool batt insulation having a min density of 4.0 pcf (64 kg/m^3) firmly packed into opening as a permanent form at the min thickness specified in the above table (Item 4). 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 thickness of fill material as specified in the above table (Item 4) applied within the annulus, flush with top surface of floor or with both surfaces of the wall.
RELIANCE WORLDWIDE CORPORATION DBA HOLDRITE HYDROFLAME — HydroFlame 300 CG (floors or walls), HydroFlame 300 SL (floors only)

* 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