



System No. C-AJ-7158
XHEZ.C-AJ-7158
Through-penetration Firestop Systems

[Page Bottom](#)

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](#)

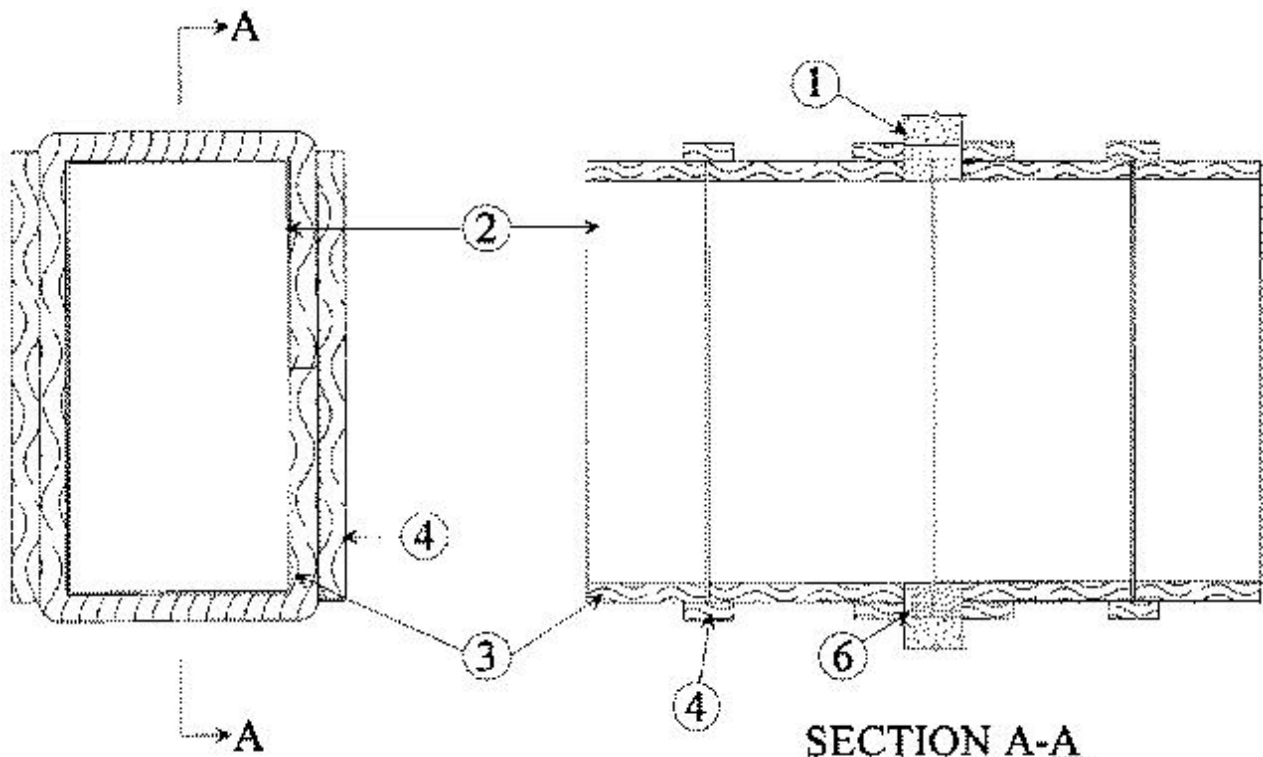
[See General Information for Through-penetration Firestop Systems Certified for Canada](#)

System No. C-AJ-7158

October 24, 2014

F Rating — 2 Hr

T Rating — 2 Hr



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/m³) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. For rectangular ducts, max area of opening shall be 1936 in². with max dimension of 44 in. (1118 mm). For round ducts, max diam of opening shall be 44 in. (1118 mm). For oval shaped ducts, max dimension of opening shall be 44 in. (1118 mm) by 14 in. (356 mm).

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Through-Penetrants — Coated Ducts*** — Rectangular, round or flat oval coated steel air duct. For rectangular ducts, max perimeter dimension shall be 160 in. (4064 mm) and a max individual dimension shall be 40 in. (1016 mm). For round ducts, max diam shall be 40 in. (1016 mm) and for oval shaped ducts, max size of oval shall be 40 in. (1016 mm) by 10 in. (254 mm). Duct supplied coated with BW11 coating material. One duct to be centered within the firestop system with an annular space of 2 in. (51 mm). Reinforcement stiffener or transverse joint with bolted flanges shall be located approximately at the mid depth of the annular space. Duct to be rigidly supported on both sides of the floor or wall assembly. Duct sections shall be assembled using bolted flanges or SMACNA approved Transverse Joint Reinforcements.

FSI LIMITED — FLAMEBAR BW11 FIRE RATED DUCTWORK

3. **Batts and Blankets*** — Nom 2 in. (51 mm) thick unfaced mineral wool batts having a min density of 6 pcf (96 kg/m³). Single layer of mineral wool batt material installed on duct with all joints sealed with a 4 in. (102 mm) wide pressure sensitive aluminum foil tape at each transverse joint, insulation material shall be cut to provide an overlapping (strip lapped) joint of 1 in. (25 mm).

See **Batts and Blankets** (BZJZ) category in the **Fire Resistance Directory** or **Batts and Blankets*** (BKNV) category in the **Building Materials Directory** for names of manufacturers.

4. **Insulation Collar** — Fabricated from the same mineral wool insulation material described in Item 3. Strips are 8 in. (203 mm) wide and are centered over each joint between adjacent ventilation duct sections, over each ventilation duct stiffener, and adjacent to each Firestop System.

5. **Steel Banding Straps** — (Not Shown) — Min 3/4 in. (19 mm) wide by 0.015 in. (0.38 mm) thick stainless steel banding strips used in conjunction with min 3/4 in. (19 mm) wide by 1 in. (25 mm) long stainless steel crimp clips. Banding strips spaced a max of 12 in. (305 mm) OC. Two banding strips used to secure each insulation collar (Item 4).

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

A. **Forms** — (Not Shown) — Used as a form to prevent leakage of fill material during installation. Forms to be a rigid sheet material, cut to fit the contour of the penetrating item and fastened to the underside of the floor or both sides of wall. Forms to be removed after fill material has cured.

B. **Fill, Void or Cavity Material* — Mortar** — Fill material applied within the annulus, flush with top and bottom surfaces of floor or with both surfaces of wall. Mortar is mixed with water by volume in accordance with the mortar manufacturer's installation instructions.

A/D FIRE PROTECTION SYSTEMS INC — A/D Firebarrier Mortar

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP637 Mortar

ISOLATEK INTERNATIONAL — Cafco TPS Mortar

EGS NELSON FIRESTOP — CMP Mortar

RECTORSEAL — Bio K10+ Mortar

HOBEN INTERNATIONAL LTD — Firecrete Mortar

FSI LIMITED — Silverseal Compound

SPECIFIED TECHNOLOGIES INC — SpecSeal Mortar

TREMCO INC — TREMstop M mortar

3M COMPANY — 3M Fire Barrier Motar

*** 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 2014-10-24

[Questions?](#)

[Print this page](#)

[Terms of Use](#)

[Page Top](#)

© 2017 UL LLC

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.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Assemblies, Constructions, Designs, Systems, and/or Certifications (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from UL" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "© 2017 UL LLC".