

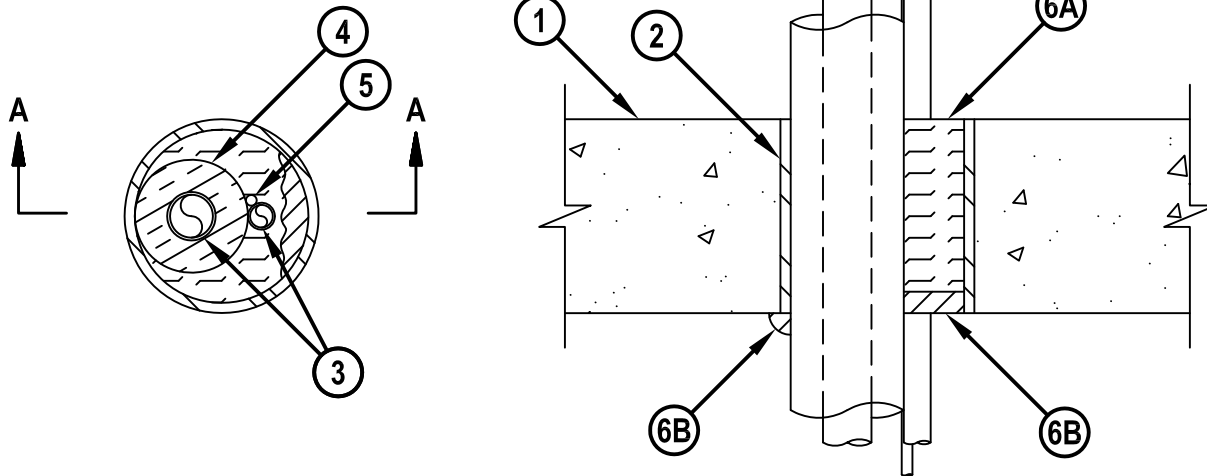


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. C-AJ-8166

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 3 Hr	F Rating — 3 Hr
T Rating — 0 Hr	FT Rating — 0 Hr
	FH Rating — 3 Hr
	FTH Rating — 0 Hr

CAJ 8166



SECTION A-A

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 floor or min 5 in. (127 mm) thick reinforced lightweight or normal weight concrete wall. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 4 in. (102 mm).

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

2. Metallic Sleeve — (Optional) — Nom 4 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel sleeve cast or grouted into floor or wall assembly, flush with floor or wall surfaces.

3. Through Penetrant — A max of two pipes, conduits or tubing to be installed concentrically or eccentrically within the opening. Of the two pipes, conduits or tubing, only one of the pipes, conduit or tubing shall have a nom diam greater than 1/2 in. (13 mm). The annular space between the through penetrant and the periphery of opening shall be min 0 in. (point contact) to max 1 in. (25 mm). The separation between the metallic penetrant and other penetrants shall be min 0 in. (point contact) to max 1-1/2 in. (38 mm). Through penetrant to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of through penetrants may be used:

A. Steel Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe — Nom 2 in. (51 mm) diam (or smaller) cast or ductile iron pipe.

C. Copper Tubing — Nom 2 in. (51 mm) diam (or smaller) Type L (or heavier) copper tube.

D. Copper Pipe — Nom 2 in. (51 mm) diam (or smaller) Regular (or heavier) copper pipe.

E. Conduit — Nom 2 in. (51 mm) diam (or smaller) steel electrical metallic tubing or rigid steel conduit.



Hilti Firestop Systems

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System No. C-AJ-8166

4. Tube Insulation-Plastics+ — Nom 1/2 to 3/4 in. (13 to 19 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The tube insulation may be installed on a max of one pipe or tubing. The annular space between the insulated through penetrant and the periphery of opening shall be min 0 in. (point contact) to 1 in. (25 mm). The separation between the insulated penetrants and the other penetrants shall be min 0 in. (point contact) to max 1-1/2 in. (38 mm).

See Plastics+ (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

5. Cable — One 4 pair No. 18 AWG (or smaller) thermostat cable with polyvinyl chloride (PVC) insulation and jacket materials. Cable to be installed concentrically or eccentrically within the opening and rigidly supported on both surfaces of floor or wall. The annular space between the cable and the periphery of the opening shall be min 0 in. (point contact) to max 1 in. (25 mm). The separation between the cable and the other penetrants shall be min 0 in. (point contact) to max 1-1/2 in. (38 mm).

6. Firestop System — The details of the firestop system shall be as follows:

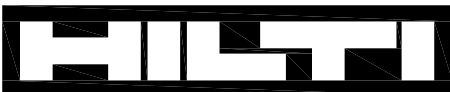
A. Packing Material — Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from bottom surface of floor or from both surfaces of wall to accommodate the required thickness of fill material.

B. Fill, Void or Cavity Materials* - Sealant — Min 1/2 in. (13 mm) thickness of fill material within the annulus, flush with bottom surface of floor or with both surfaces of wall. Min 1/2 in. (13 mm) bead of fill material applied at the concrete/through penetrant interface on bottom surface of floor or both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant.

+Bearing the UL Recognized Component Mark

* 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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