



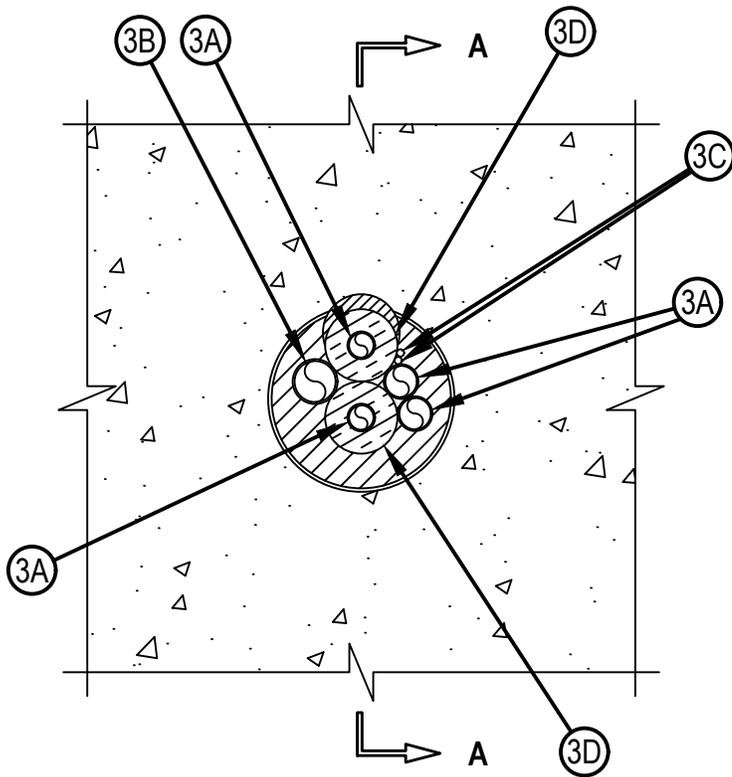
Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. C-AJ-8363

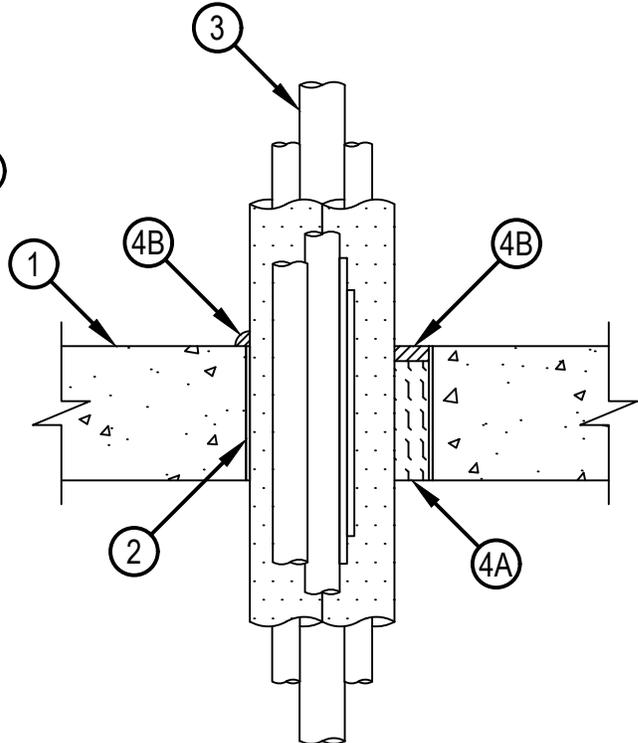
CAJ 8363

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

TOP VIEW



SECTION A-A



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March 10, 2026

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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 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 5 in (127 mm).

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

2. Metallic Sleeve — (Optional) — Nom 5 in. (127 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-Penetrants — Pipes, conduits, tubing or cables to be bundled within opening such that the aggregate cross-sectional area of penetrants in opening to be max 66 percent of the cross-sectional area of the opening in floor or wall. The space between the penetrants and between the penetrants and the periphery of the opening shall be min 0 in. (0 mm, point contact) to max 1-1/2 in. (38 mm). Penetrants to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of penetrants may be used:
 - A. Metallic Penetrants — The following types and sizes of metallic pipes, conduits or tubing may be used:
 - I. Steel Pipe — Nom 3/4 in. (19 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe
 - II. Iron Pipe — Nom 3/4 in. (19 mm) diam (or smaller) cast or ductile iron pipe.
 - III. Conduit — Nom 3/4 in. (19 mm) diam (or smaller) steel electrical metallic tubing or nom 1 in. diam (or smaller) steel conduit.
 - IV. Copper Tubing — Nom 3/4 in. (19 mm) diam (or smaller) Type L (or heavier) copper tubing.
 - V. Copper Pipe — Nom 3/4 in. (19 mm) diam (or smaller) Regular (or heavier) copper pipe.
 - B. Nonmetallic Penetrants — The following types and sizes of nonmetallic pipes, conduits, or tubing may be used:
 - I. Polyvinyl Chloride (PVC) Pipe — Nom 1-1/4 in. (32 mm) diam (or smaller) Schedule 40 solid or cellular core PVC pipe for use in vented (drain, waste or vent) or closed (process or supply) piping systems.
 - II. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 1-1/4 in. (32 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.
 - III. Rigid Nonmetallic Conduit+ — Nom 1-1/4 in. (32 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA 70).
 - C. Cables — Max 4 pair No. 18 AWG (or smaller) copper conductor thermostat cable with PVC jacket and insulation.
 - D. Tube Insulation++ — Nom 3/4 in. (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 two metallic penetrants.
See Plastics (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.
4. 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 forced into interstices of through penetrants to max extent possible. Packing material to be recessed from top surface of concrete floor or from both surfaces of wall to accommodate the required thickness of fill material. When the floor is constructed of hollow-core precast concrete units, packing material shall be installed flush with bottom surface of floor and recessed from top surface of floor to accommodate the required thickness of fill material.
 - B. Fill, Void or Cavity Material* — Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of concrete floor or with both surfaces of wall assembly. Fill material to be forced into interstices of through penetrants to max extent possible.
Min 1/2 in. (13 mm) thick bead of fill material to be installed around pipe at interface of sleeve or opening for point contact installations.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE MAX Intumescent Sealant.

+ Bearing the UL Listing Mark

++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.



Hilti Firestop Systems

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