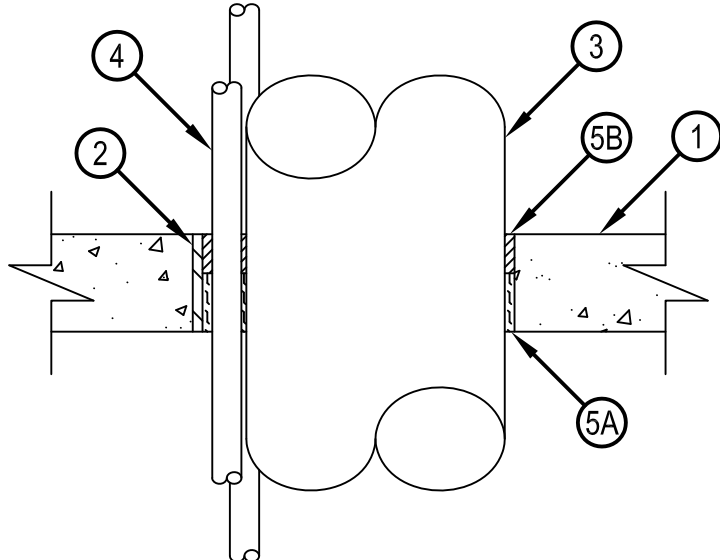
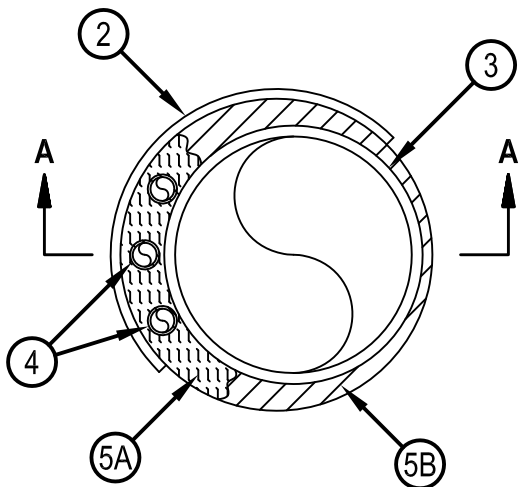


System No. C-AJ-8081



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

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 0 Hr	FT Rating — 0 Hr
	FH Rating — 2 Hr
	FTH Rating — 0 Hr



SECTION A-A



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1. Floor or Wall Assembly — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete floor or min 3-1/2 in. (89 mm) reinforced lightweight or normal weight concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diameter of opening is 8 in. (203 mm).

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

2. Metallic Sleeve — (Optional) Nom 8 in. (203 mm) diam (or smaller) Schedule 40 (or heavier) steel sleeve cast or grouted into floor or wall assembly, flush with floor or wall surfaces or extending a max of 3 in. (76 mm) above floor or beyond both surfaces of wall.

2A. Sheet Metal Sleeve — (Optional, Not Shown) - Max 6 in. (152 mm) diam, min No. 26 ga galv steel provided with a No. 26 ga galv steel square flange spot welded to the sleeve at approx mid-height, or flush with bottom of sleeve in floors, and sized to be a min of 2 in. (51 mm) larger than the sleeve diam. The sleeve is to be cast in place and may extend a max of 4 in. (102 mm) below the bottom of the floor and a max of 1 in. (25 mm) above the top surface of the concrete floor.

2B. Sheet Metal Sleeve — (Optional, Not Shown) - Max 8 in. (203 mm) diam, min No. 24 ga galv steel provided with a No. 24 ga galv steel square flange spot welded to the sleeve at approx mid-height, or flush with bottom of sleeve in floors, and sized to be a min of 2 in. (51 mm) larger than the sleeve diam. The sleeve is to be cast in place and may extend a max of 4 in. (102 mm) below the bottom of the floor and a max of 1 in. (25 mm) above the top surface of the concrete floor.

3. Steel Tube — Nom 6 in. (152 mm) diam (or smaller) No. 16 ga steel tube installed eccentrically within the opening. The annular space between the tube and the periphery of the opening shall be min 1/4 in. (6 mm) to max 1-3/4 in. (45 mm). Tube to be rigidly supported on both sides of floor or wall assembly.

4. Cables — Max four 3/8 in. (10 mm) diam two pair No. 22 AWG foil shielded plenum rated communication cables with polyvinyl chloride (PVC) insulation and jacket. Min separation between cables and periphery of opening shall be 1/4 in. (6 mm). Separation between cables and tube shall be min 0 in. (point contact) to max 1 in. (25 mm). Cables to be rigidly supported on both sides of floor or wall assembly.

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

A. Packing Material — Min 1-1/2 in. (38 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 top surface of floor or both surfaces of wall to accommodate the required thickness of fill material.

B. Fill, Void or Cavity Material* - Sealant — Min 1 in. (25 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall.

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

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

