

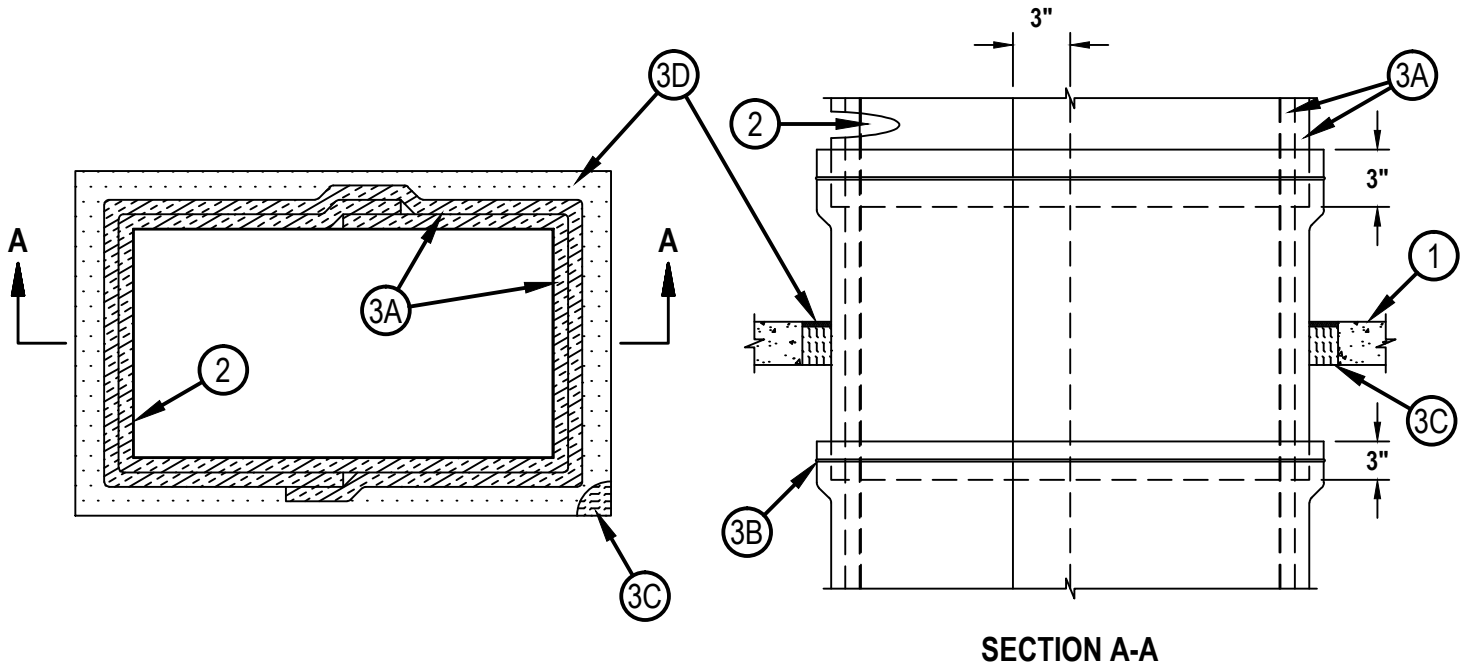


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. C-AJ-7151

CAJ 7151

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 3 Hr	F Rating — 3 Hr
T Rating — 3 Hr	FT Rating — 3 Hr
	FH Rating — 3 Hr
	FTH Rating — 3 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 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 area of opening is 24 sq ft (2.23 m²) with a max dimension of 8 ft (2.4 m).
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Through-Penetrant — One steel duct to be installed within the firestop system. Duct to be rigidly supported on both sides of floor or wall assembly. The following types of through-penetrants may be used:
 - A. Steel Air Duct — Min 26 gauge (0.021 in. or 0.53 mm thick) carbon steel duct having a max perimeter dimension of 216 in. (5.5 m) and a max individual dimension of 84 in. (2.12 m). Ducts with any dimension greater than 39 in. (0.99 m), shall be provided with intermediate reinforcement in accordance with SMACNA HVAC Duct Construction Standards. Reinforcement to consist of min 1-1/2 in. (38 mm) by 1-1/2 in. (38 mm) by 1/8 in. (3 mm) thick transverse stiffening angles, approximately 2 in. (51 mm) less in length than the max dimension, screw attached to the duct 8 in. (203 mm) OC. The stiffening angle is to be located 3 in. (76 mm) beyond the top surface of the floor and both surfaces of the wall.
 - B. Steel Grease Duct — Min 16 gauge (0.059 in. or 1.5 mm thick) carbon steel duct having max perimeter dimension 96 in. (2.4 m) and a max individual dimension of 36 in. (0.91 m).



Hilti Firestop Systems

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

- A. Duct Wrap Materials* — Nom 1-1/2 in. (38 mm) thick, 6 pcf (96 kg/m³) ceramic blanket unfaced or totally encapsulated within foil-scrim facers. The steel duct shall be wrapped with two layers of duct wrap installed in accordance with the manufacturer's installation instructions, maintaining min 3 in. (76 mm) transverse and longitudinal overlaps. All cut edges and ends shall be sealed with 3 in. (76 mm) wide pressure sensitive aluminum foil tape. A nom annular space of 3 in. (76 mm) is required between the insulated duct and the periphery of the opening. THERMAL CERAMICS INC — FireMaster FastWrap+, FireMaster FastWrap XL, or Pyroscat Duct Wrap XL.
- B. Steel Banding Straps — Min 1/2 in. (13 mm) wide by 0.015 in. (0.38 mm) thick stainless steel banding straps used in conjunction with min 1 in. (25 mm) long stainless steel crimp clips. Banding straps spaced max 12 in. (305 mm) OC and 1-1/2 in. (38 mm) from transverse joints of duct wrap.
- C. Packing Material — Min 4 in. (102 mm) thickness of unfaced scrap duct wrap material or min 3 pcf (48 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from the top surface of the floor or both surfaces of wall as required to accommodate the required thickness of fill material.
- D. Fill, Void or Cavity Material* — Sealant or Putty — Min 1/2 in. (13 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 — CFS-S SIL GG or CFS-S SIL SL (for floor assemblies only)

*Bearing the UL Classification Mark



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