

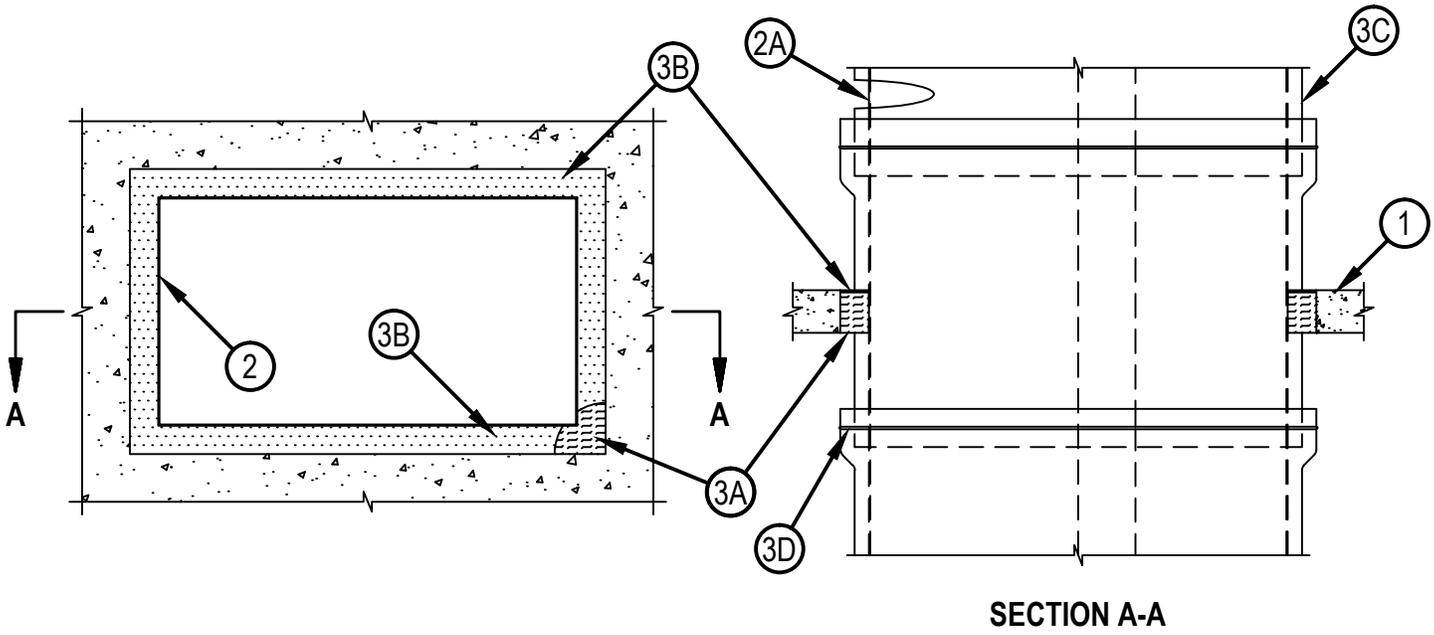


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. C-AJ-7152

CAJ 7152

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings - 1 and 2 Hr (See Item 3C)	F Ratings - 1 and 2 Hr (See Item 3C)
T Ratings - 1 and 2 Hr (See Item 3C)	FT Ratings - 1 and 2 Hr (See Item 3C)
	FH Ratings - 1 and 2 Hr (See Item 3C)
	FTH Ratings - 1 and 2 Hr (See Item 3C)



1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced normal weight (140-150 pcf or 2240-2400 kg/m³) concrete floor or min 4-3/4 in. (121 mm) thick reinforced normal weight concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Max area of opening is 18.75 ft² (1.74 m²) with a max dimension of 90 in. (2.3 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 with an annular space of 3 in. (76 mm). 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. (2.13 m). Ducts with any dimension greater than 39 in. (0.99 in.), 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 8 in. (203 mm) OC to the duct 3 in. (76 mm) beyond the top surface of the floor and both surfaces of the wall.



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

A. 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 between the bare steel duct and the periphery of the opening. 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.

B. Fill, Void or Cavity Material* — Sealant — Min 1/4 in. (6 mm) thickness of fill material applied within the annulus, flush with top surface of floor or both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-S SIL GG or CFS-S SIL SL (for floor assemblies only)

C. Duct Wrap Materials* — Nom 1-1/2 in. (38 mm) thick, 6 pcf (96 kg/m³) ceramic blanket totally encapsulated within foil-scrim facers. The steel duct shall be wrapped with one layer of duct wrap installed in accordance with the manufacturer's installation instructions, maintaining min 3 in. (76 mm) transverse and longitudinal overlaps. The duct wrap shall be tightly butted to the floor or wall on both sides of the assembly. All cut edges and ends shall be sealed with 3 in. (76 mm) wide pressure sensitive aluminum foil tape. For 2 hr F, T, FT, FH and FTH ratings with ducts having any dimension greater than 39 in. (991 mm), a second layer of duct wrap shall abut the firestop and extend min 12 in. (305 mm) above and below floor slab or both surfaces of wall.

THERMAL CERAMICS INC — FireMaster FastWrap+, Pyroscat Duct Wrap XL or FireMaster FastWrap XL

D. Steel Banding Straps — Min 1/2 in. (13 mm) wide by 0.015 in. (0.38 mm) thick carbon steel banding straps used in conjunction with min 1 in. (25 mm) long stainless steel crimp clips. Banding straps spaced a max 12 in. (305 mm) OC and 1-1/2 in. (38 mm) from transverse joints of duct wrap.

*Bearing the UL Classification Mark



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