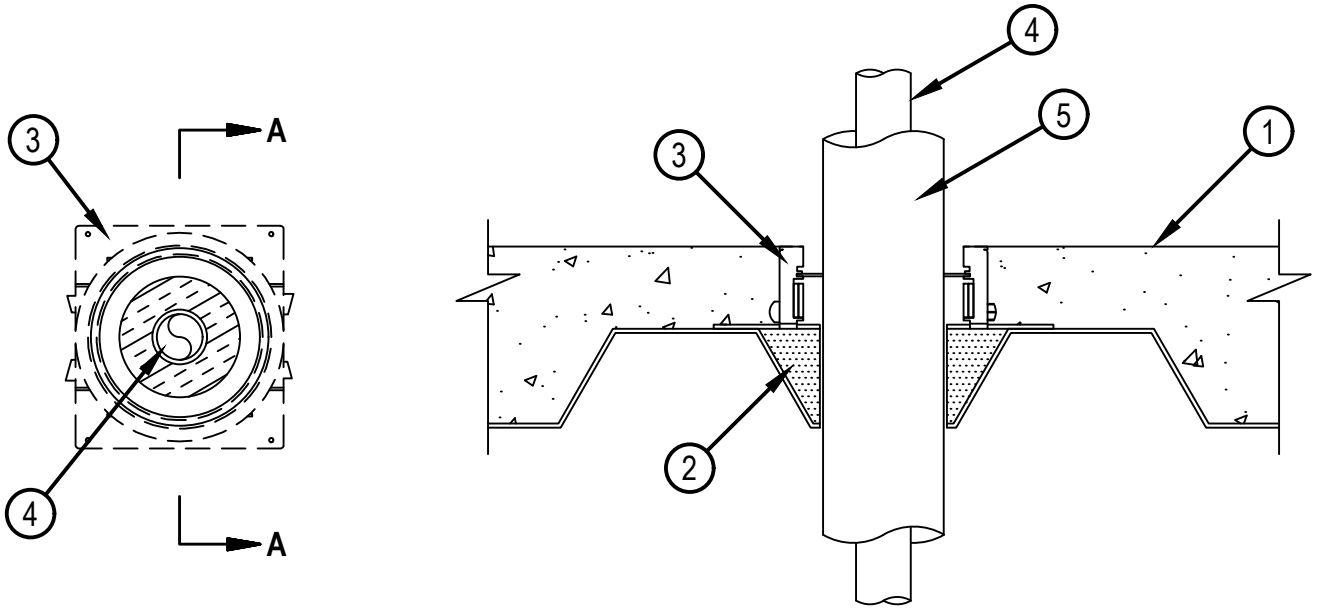
System No. F-A-5070

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

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 2 and 3 Hr (See Item 1)	F Ratings — 2 and 3 H (See Item 1)
T Ratings — 3/4, 1, 1-3/4, 2-1/2 and 3 Hr (See Item 4 Table)	FT Ratings — 3/4, 1, 1-3/4, 2-1/2 and 3 Hr (See Item 4 Table)
L Rating at Ambient – See Item 3	FH Ratings — 2 and 3 Hr (See Item 1)
L Rating at 400°F – See Item 3	FTH Ratings — 3/4, 1, 1-3/4, 2-1/2 and 3 Hr (See Item 4 Table)
	L Rating at Ambient – See Item 3
	L Rating at 204°C – See Item 3



SECTION A-A

1. Floor Assembly — The fire rated unprotected concrete and steel floor assembly shall be constructed of the materials and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
   A. Concrete — Min 2-1/2 in. (64 mm) thick for 2 hr F and FH Ratings, or min 4-1/2 in. (114 mm) thick for 3 hr F and FH Ratings, reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete.
   B. Steel Floor and Form Units* — Max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
2. Firestop Device* — Cast in place firestop device platform installed prior to concrete placement in floor assembly. The CFS-CID MD PLT firestop device platform is screwed to the fluted deck with one fastener at each corner in accordance with manufacturer installation instructions. The firestop device platform is sized for nominal 2 and 3 in. (51 and 76 mm) deep fluted decks.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-CID MD PLT W2" and W3"

2a. As an alternative to item 2, for CFS-CID MD M and CFS-CID MD P only, HILTI Metal Deck Adapter may be installed in accordance with the manufacturer's instructions. When Metal Deck Adapter is used CFS-CID MD PLT is not to be installed.

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3. Firestop Device* — Cast in place firestop device installed over firestop device platform or installed with Metal Deck Adapter (Item 2a)prior to concrete placement in floor assembly. When installed on device platform (Item 2) the CFS-CID MD Firestop Device is set onto and screwed to the device platform in accordance with manufacturer installation instructions. When installed with Metal Deck Adapter (Item 2a) install in accordance with manufacturer installation instructions. The firestop device is sized for the OD of the through penetrant and for the height of the concrete topping over the fluted deck. The 2.5" height devices are intended for a 2.5 in. (64 mm) concrete topping and the 4" height devices for concrete toppings greater than 2.5 in. (64 mm) thick. The firestop device may extend a max of 2 in. (51 mm) above the top surface of the concrete.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-CID MD M 2"/2.5", 3"/2.5" and 4"/2.5"; CFS-CID MD P 2"/2.5", 3"/2.5" and 4"/2.5"; CFS-CID MD M 2"/4", 3"/4" and 4"/4"; and CFS-CID MD P 2"/4", 3"/4" and 4"/4", CFS-CID MD PX 2"/2.5", 3"/2.5" and 4"/2.5" and CFS-CID MD PX 2"/4", 3"/4" and 4"/4"

4. Through Penetrants — One metallic pipe or tubing to be installed within the firestop device. Pipe or tubing to be rigidly supported on both sides of floor assembly. The following types of pipe or tubing may be used:
   A. Steel Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Copper Tubing — Nom 2 in. (51 mm) diam (or smaller) Type L (or heavier) copper tubing.
   C. Copper Pipe — Nom 2 in. (51 mm) diam (or smaller) Regular (or heavier) copper pipe.

The hourly Ratings, firestop device, metallic penetrant and pipe covering shall comply with the following :

			T, FT and FTH Ratings, Hr			
Nom Pipe Diam. in. (mm)	Nom Pipe Covering Thickness, in. (mm)	Nom Pipe Covering Thickness, in. (mm)	Min 2-1/2 in. (64 mm) Concrete Floor Topping (Item 1A)	Min 4-1/2 in. (114 mm) Concrete Floor Topping (Item 1A) See Footnote ++	L Rating at Ambient CFM/sq ft (L/s/m2)	L Rating at 400°F (204°C) CFM/sq ft (L/s/m2)
1/2 (13)	1 (25)	CFS-CID MD M 2", CFS-CID MD P(X) 2"	3/4	2-1/2	3 (15.2)	1.5 (7.6)
1 (25)	1 (25)	CFS-CID MD M 3", CFS-CID MD P(X) 3"	3/4	1-3/4	3 (15.2)	1.5 (7.6)
1 (25) (See Item 6)	1-1/2 (38)	CFS-CID MD M 4", CFS-CID MD P(X) 4"	3/4	3	N/A	N/A
2 (51)	1 (25)	CFS-CID MD M 4"	1	1-3/4	3 (15.2)	1.5 (7.6)
2 (51)	1 (25)	CFS-CID MD P(X) 4"	1	2-3/4	3 (15.2)	1.5 (7.6)

++When pipe sizes are less than those shown in the table are used, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m3) mineral wool insulation shall be firmly packed to the fullest extent possible within the device above device gasket flush with top surface of device.

5. Pipe Covering* — Nom 1 and 1-1/2 in. (25 and 38 mm) thick hollow cylindrical heavy density (min 3.5 pcf or 56 kg/m3) glass fiber units, jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied SSL tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product.

See Pipe and Equipment Covering-Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

6. Packing Material — When using a 1 in. (25 mm) diam pipe with 1-1/2 in. (38 mm) thick glass fiber pipe insulation in a 4 in. (102 mm) device, a min 2 in. (51 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation shall be firmly packed into top of device above the smoke seal gasket, flush with the top of the device.

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