

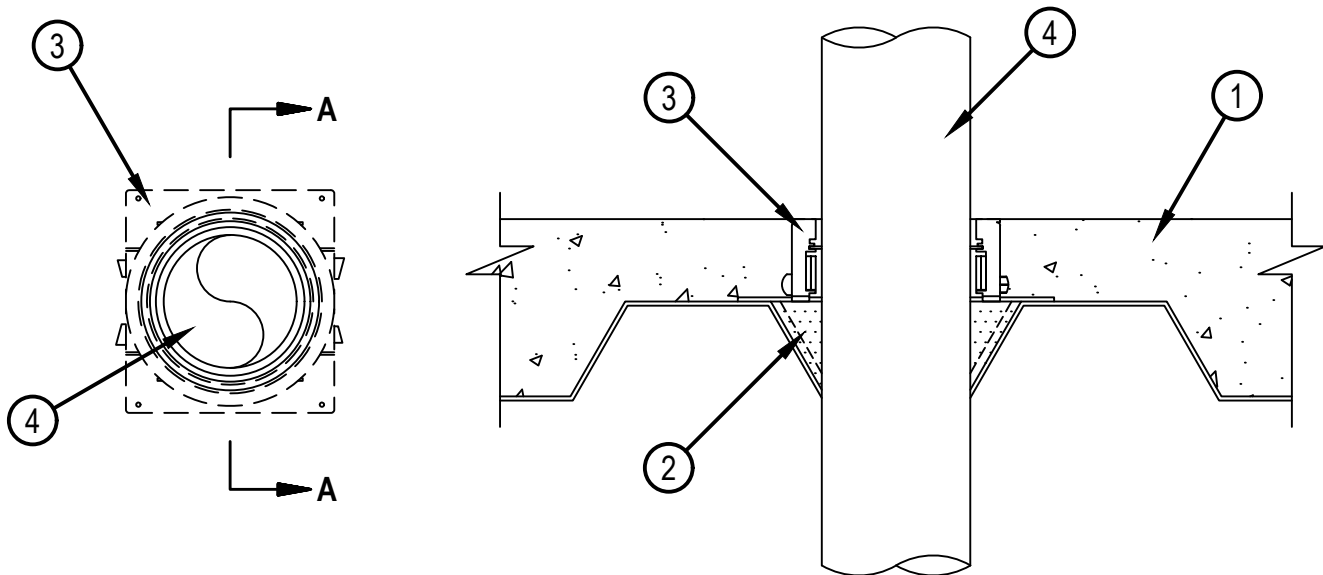


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. F-A-1192

FA1192

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 2 and 3 Hr (See Item 1)	F Ratings — 2 and 3 Hr (See Item 1)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/ft ² (See Item 4)	FH Ratings — 2 and 3 Hr (See Item 1)
L Rating At 400°F — Less Than 1 CFM/ft ² (See Item 4)	FTH Rating — 0 Hr
W Rating — Class 1 (See Items 5B and 5B1)	L Rating At Ambient — Less Than 5.2 L/s/m ² (See Item 4)
	L Rating At 400 F — Less Than 5.2 L/s/m ² (See Item 4)



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"
- 3. Firestop Device*** — Cast in place firestop device installed over firestop device platform (Item 2) prior to concrete placement in floor assembly. The CFS-CID MD Firestop Device is set onto and screwed to the device platform in accordance with manufacturer installation instructions. The firestop device is sized for the diameter 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"



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4. Through Penetrants — One metallic pipe, conduit or tubing to be installed within the firestop device. Pipe, conduit or tubing to be rigidly supported on both sides of floor assembly. The following types of pipe, conduit or tubing may be used:
- A. Steel Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Iron Pipe — Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe.
 - C. Conduit — Nom 4 in. (102 mm) diam (or smaller) rigid steel conduit.
 - D. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing.
 - E. Copper Tubing — Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) or Regular (or heavier) copper tubing.
 - F. Copper Pipe — Nom 4 in. (102 mm) diam (or smaller) Regular or heavier copper pipe.

The firestop device and metallic penetrant shall be sized as follows:

Nom Pipe Diam +, ++	Firestop Device
1-1/2 to 2 in. (38 to 51 mm) - Other than copper pipe or tubing	CFS-CID MD-M 2", CFS-CID MD-P 2"
2 to 2-1/2 in. (51 to 64 mm) - Copper pipe or tubing	CFS-CID MD-M 2", CFS-CID MD-P 2"
2-1/2 to 3 in. (64 to 76 mm)	CFS-CID MD-M 3", CFS-CID MD-P 3"
>3 to 4 in. (76 to 102 mm) (Copper pipe or tubing)	CFS-CID MD-P4"
>3 to 4 in. (76 to 102 mm) (Other than copper pipe or tubing)	CFS-CID MD-M 4", CFS-CID MD-P 4"
4 in. (76 to 102 mm) (Copper pipe or tubing)	CFS-CID MD-M 4"

+ When metallic pipes of diameters smaller than those shown above are installed within the device, CP618 Firestop Putty Stick (Item 5) or mineral wool insulation (Item 5A) shall be installed within the device. The 2.5" height device shall be used with the Hilti provided extension which screws into top of device to accommodate the installation of fill material (item 5).

++ L Rating applies only when the nom diam of pipe equals size of device (2 in. diam pipe in 2" device etc.).

5. Fill, Void or Cavity Material* - Putty (Not Shown) — Min 1 in. (25 mm) thickness of fill material applied within annulus flush with top surface of device as specified in Item 4 Table footnote.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 618 Firestop Putty Stick

5A. Packing Material (Not Shown) — As an alternate to Item 5, for 4" height devices, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m³) mineral wool insulation firmly packed to the fullest extent possible within annulus above smoke seal gasket flush with top surface of device as specified in Item 4 Table footnote.

5B. Firestop Device* - Top Seal Plug — (Optional. Not Shown) - Top seal plug for use with CFS-CID MD-M 2"/4h and CFS-CID MD-P 2"/4h devices and nom pipe, conduit or tubing sizes of 1/2 in. (13 mm) to 2 in. (51 mm) diam. Plug is friction fit into top of firestop device (Item 3) in accordance with the manufacturer's instructions. When top seal plug is used, no putty (Item 5) or packing material (Item 5A) is required. W Rating applies only to nom 1, 1-1/4, 1-1/2 and 2 in. (25, 32, 38 and 51 mm) diam copper pipe/tube in conjunction with CPS Top Seal and CFS-CID MD-M/P 2" devices, and when device extensions if used are cast-in.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CPS Top Seal Plug

5B1. Firestop Device* - Water Barrier Module — (Optional, Not Shown) - Used as an alternate to the top seal plug (Item 5B) and in combination with the CFS-CID MD-M and CFS-CID MD-P, 4" height devices to achieve a W Rating. Module is threaded onto top of device after the hole in fluted deck for the penetrant is made. See Table below for sizes of device/module and penetrants covered. When water barrier module is used, a W Rating applies to the water barrier module, device and penetrant sizes specified in Table below. For W Rating with Water Barrier Module, pipe shall be installed from bottom of device and device extensions if used shall be cast-in.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — Water Barrier Module



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Penetrant Type (See Item 4 above)	Nom Penetrant Diam	Size of Device/Module
A, B, C, D	2"	2"
	2-1/2"	3"
	3"	3"
	4"	4"
E, F	2"	2"
	3"	3"
	4"	4"

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