

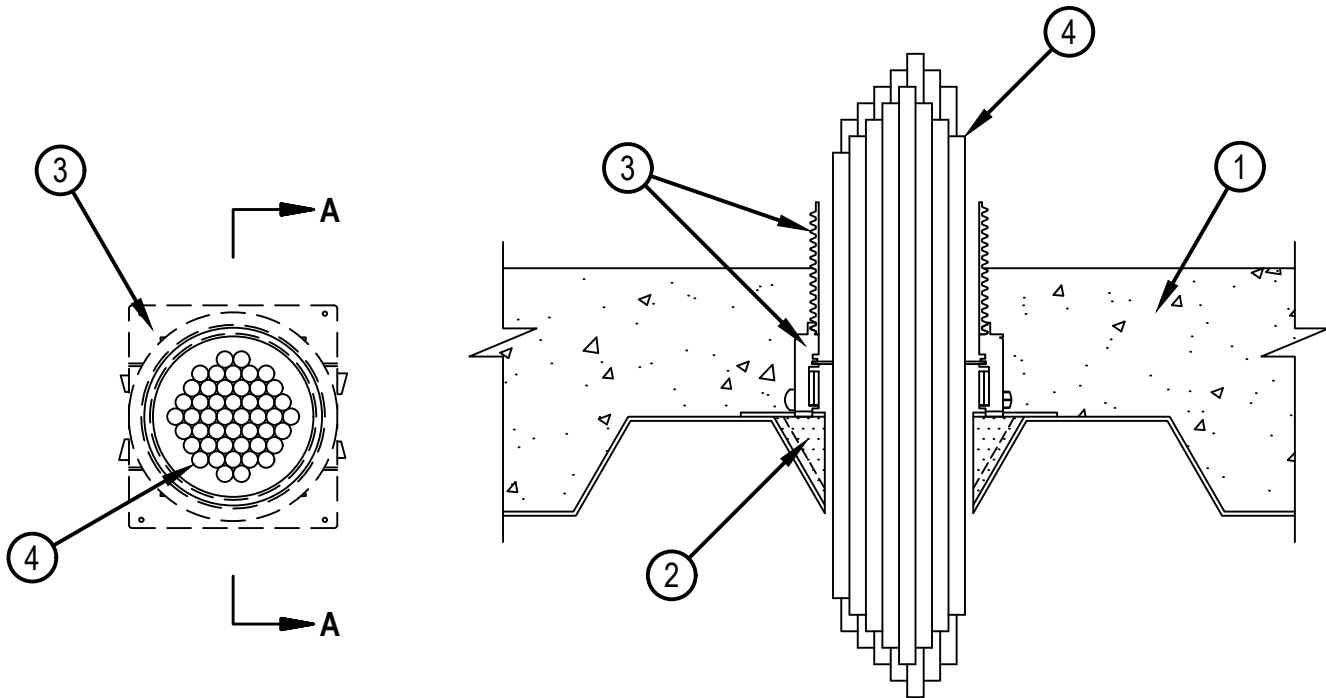


Classified by  
Underwriters Laboratories, Inc.  
to UL 1479 and CAN/ULC-S115

## System No. F-A-2316

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 2 Hr	F Rating — 2 Hr
T Ratings — 0 and 2 Hr (See Item 4)	FT Ratings — 0 and 2 Hr (See Item 4)
	FH Rating — 2 Hr
	FTH Ratings — 0 and 2 Hr (See Item 4)

FA2316



**SECTION A-A**

System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

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 4-1/2 in. (114 mm) thick 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 device shall be used with Hilti provided extension to accommodate the installation. 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 P 2"/2.5", 3"/2.5" and 4"/2.5"; 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 nom 4 in. (102 mm) diam (or smaller) tight bundle of nom 1/2 in. (13 mm) diam (or smaller) SDR 9 crosslinked polyethylene (PEX) tubes for use in closed (process or supply) or vented (drain, waste or vent) piping systems. Tubes to be rigidly supported on both sides of floor assembly.

The firestop device and penetrant shall be sized as follows:

Nom Bundle Diameter *	Firestop Device	T Rating-Hr
2 in. (51 mm)	CFS-CID MD P(X) 2"	2
3 in. (76 mm)	CFS-CID MD P(X) 3"	2
4 in. (102 mm)	CFS-CID MD P(X) 4"	2

\* - When bundle diameters smaller than those shown in the table are used, bundles shall be installed in conjunction with Item 5 and the T Ratings are 0 hr.

5. Packing Material — (Not Shown) When bundle sizes are less than those shown in the above table, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool insulation shall be firmly packed to the fullest extent possible within the device above the smoke seal gasket, flush with top surface of device.

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



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