



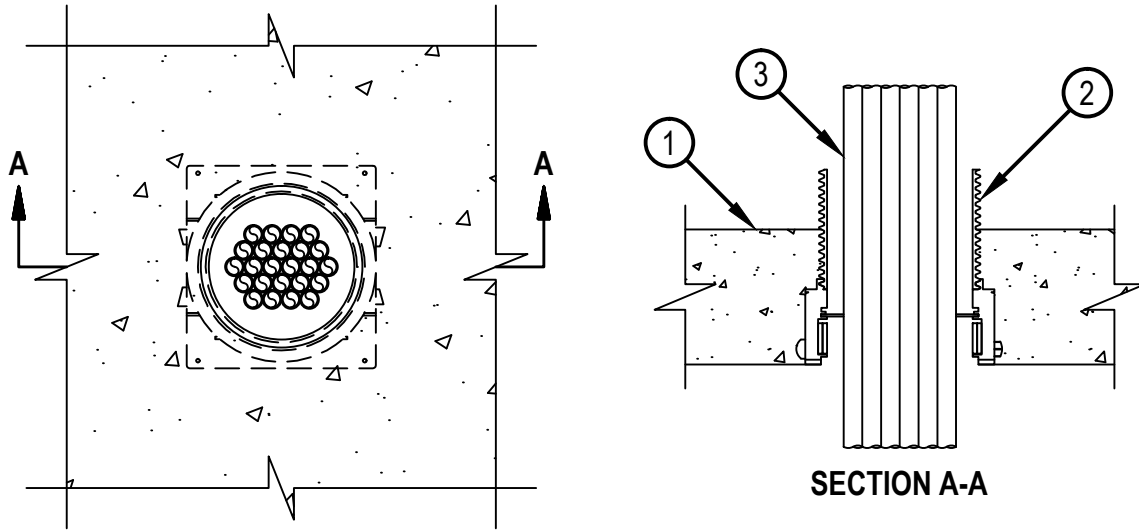
Classified by  
Underwriters Laboratories, Inc.  
to UL 1479

# System No. F-A-2142

F Rating — 2 Hr

T Ratings — 0 and 2 Hr (See Item 3)

FA 2142



- 1. Floor Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete.
- 1A. Floor Assembly — (Optional - Not Shown) — 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 Floor-Ceiling 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/m<sup>3</sup>) concrete topping as measured over top of steel floor units.
  - B. Steel Floor and Form Units\* — Composite or non-composite 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 permanently embedded during concrete placement or grouted in concrete assembly in accordance with accompanying installation instructions with a max 2 in. (51 mm) projection above the top surface of the concrete.
- HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 680-75/2.5"N, CP 680-110/4"N, CP 680-P 2", CP 680-P 3", CP 680-P 4", CP 680-PX 2", CP 680-PX 3"
- 3. 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)	CP 680-P 2" CP 680-PX 2"	2
2-1/2 in. (64 mm)	CP 680N-75/2.5"	2
3 in. (76 mm)	CP 680-P 3" CP 680-PX 3"	2
4 in. (102 mm)	CP 680N-110/4" CP 680-P 4"	2

\* - When bundle diameters smaller than those shown in the table are used, bundles shall be installed in conjunction with Item 4 and the T Ratings are 0 hr.

- 4. Packing Material — (Not Shown) When bundle sizes are less than those shown in the above table, min 4 pcf (64 kg/m<sup>3</sup>) mineral wool insulation shall be firmly packed to the fullest extent possible within the device 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.



**Hilti Firestop Systems**

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June 29, 2015