



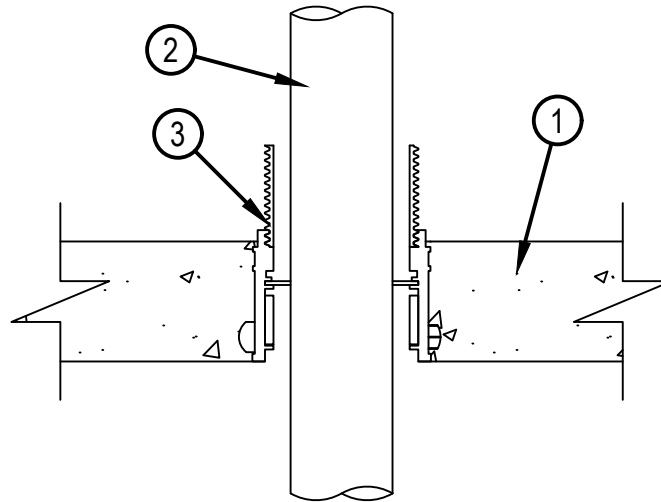
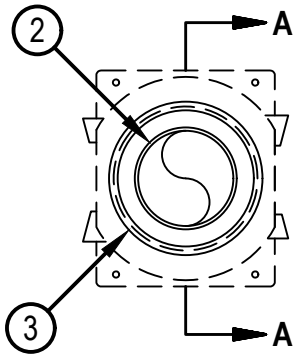
Classified by
Underwriters Laboratories, Inc.
to CAN/ULC-S115

System No. F-A-2013

F Ratings — 2 and 3 Hr (See Item 3)
FT Ratings — 0, 1 and 2 Hr (See Item 3)
FH Ratings — 0 and 2 Hr (See Item 3)
FTH Ratings — 0 and 1 Hr (See Item 3)



FA 2013



SECTION A-A

System tested with a pressure differential of 50 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side

1. Floor Assembly — Min 64 or 114 mm (2-1/2 or 4-1/2 in.) thick normal weight concrete (2400 kg/m³ or 150 pcf). See table in Item 3.
- 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 designs in the UL Fire Resistance Directory and as summarized below.
 - A. Concrete — Min 64 or 114 mm (2-1/2 or 4-1/2 in.) thick normal weight concrete (2400 kg/m³ or 150 pcf). See table in Item 3.
 - B. Steel Floor and Form Units — Composite or non-composite, max 76 mm (3 in.) deep galv steel fluted units as specified in the individual floor-ceiling design.
2. Through Penetrant — One nonmetallic tube to be centered within the firestop system. Tube to be rigidly supported on both sides of floor-ceiling assembly. The following type and size of tubing may be used:
 - A. Cross Linked Polyethylene (PEX) Tubing — Nom 51 mm (2 in.) diam (or smaller) SDR9 PEX tubing for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
3. 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 51 mm (2 in.) projection above the top surface of the concrete.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 680-75/2.5"N, CP 680-P 2", CP 680-PX 2"



Hilti Firestop Systems

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June 29, 2015

System No. F-A-2013



FA 2013

The ratings of the firestop systems are dependent on the diam of penetrant, size of device and thickness of the concrete assembly as indicated in the table below.

Min Concrete Thickness, mm (in.)	Firestop Device	Penetrant Diam, mm (in.)	Packing Material (Item 4) Required	Ratings, h			
				F	FT	FH	FTH
64 (2-1/2)	CP680 - 75/2.5"N CP 680-P 2" CP 680-PX 2"	51 (2)	No	2	0 and 1 #	2	1
114 (4-1/2)	CP680 - 75/2.5"N CP 680-P 2" CP 680-PX 2"	51 (2)	No	3	0 and 2 #	0	0
114 (4-1/2)	CP680 - 75/2.5"N CP 680-P 2" CP 680-PX 2"	Less Than 51 (2)	Yes	3	0	0	0

T Rating only applies to closed piping systems.

4. Packing Material — (Not Shown) Where indicated in Table above, min 102 mm (4 in.) thickness of 64 kg/m³ (4 pcf) mineral wool insulation shall be firmly packed to the fullest extent possible within annulus of device above the smoke seal gasket, between penetrant and device. Packing material to be installed 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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