

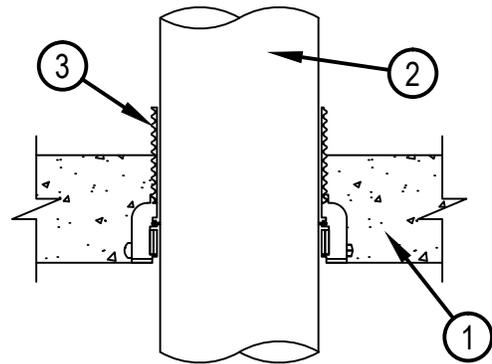
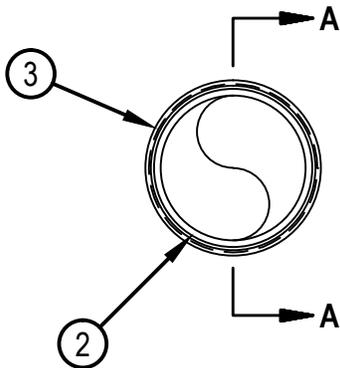


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. F-A-1091

FA 1091

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 4 Hr	F Rating — 4 Hr
T Rating — 1/2 Hr	FT Rating — 1/2 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft (See Item 2)	FH Rating — 4 Hr
L Rating At 400 F — Less Than 1 CFM/sq ft (See Item 2)	FTH Rating — 1/2 Hr
W Rating — Class 1 (See Item 4)	L Rating At Ambient — Less Than 1 CFM/sq ft (See Item 2)
	L Rating At 400 F — Less Than 1 CFM/sq ft (See Item 2)



SECTION A-A

1. Floor Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight 100-150 pcf (1600-2400 kg/m³) 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 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 (1600-2400 kg/m³) concrete.
 - 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. 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 6 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Iron Pipe — Nom 6 in. (152 mm) diam (or smaller) cast or ductile iron pipe.
 - C. Conduit — Nom 6 in. (152 mm) diam (or smaller) rigid steel conduit.
 - D. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic conduit.
 - E. Copper Tubing — Nom 2 in. (51 mm) diam (or smaller) Type L (or heavier) copper tubing.
 - F. Copper Pipe — Nom 2 in. (51 mm) diam (or smaller) Regular (or heavier) copper pipe.



Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of
Underwriters Laboratories, Inc.
June 29, 2015

System No. F-A-1091

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

Nom Pipe Diameter	Firestop Device
2 in. (51 mm)	CP 680N-75/2.5"
	CP 680-P 2", CP 680-PX 2"
3 in. (76 mm)	CP 680-P 3", CP 680-PX 3"
3 to 4 in. (76 to 102 mm)	CP 680N-110/4"
	CP 680-P 4"
Greater than 4 to 6 in. (102 to 152 mm)	CP 680N-160/6"
	CP 680-P 6"

++ L Rating applies only to CP 680-P(X) device and only when the nom diam of pipe equals size of device (2 in. diam pipe in 2" device etc.)
 L Rating does not apply to CP 680N devices.

3. Firestop Device* — Cast in place firestop device permanently embedded during concrete placement or grouted in concrete floor assembly in accordance with accompanying installation instructions. The devices may extend a max of 2 in. (51 mm) above the top surface of the concrete.
 HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 680N-75/2.5", CP 680N-110/4", CP 680N-160/6", CP 680-P 2", CP 680-P 3", CP 680-P 4", CP 680-P 6", CP 680-PX 2", CP 680-PX 3"

4. Firestop Device* - Water Barrier Module — (Optional, Not Shown) - Nom 2", 3", 4" and 6" water barrier modules used in combination with the CP 680-P(X) 2", CP 680-P(X) 3", CP 680-P 4" and CP 680-P 6" devices, respectively, and supplied by device manufacturer. Module is threaded onto top of device. For W Rating with Water Barrier Module, pipe shall be installed from bottom of device.
 HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — Water Barrier Module

4A. Firestop Device* - Top Seal Plug — (Optional, Not Shown) - Alternate to Water Barrier Module (Item 4). Top seal plug for use with CP 680-P(X) 2" device and nom pipe, conduit or tubing size of 2 in. (51 mm) diam. Plug is friction fit into top of firestop device (Item 3) in accordance with the manufacturer's instructions. W Rating applies only to nom 2 in. (51 mm) diam copper pipe/tube in conjunction with 2" CPS Top Seal and CP 680-P(X) 2" device.
 HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CPS Top Seal Plug

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

