



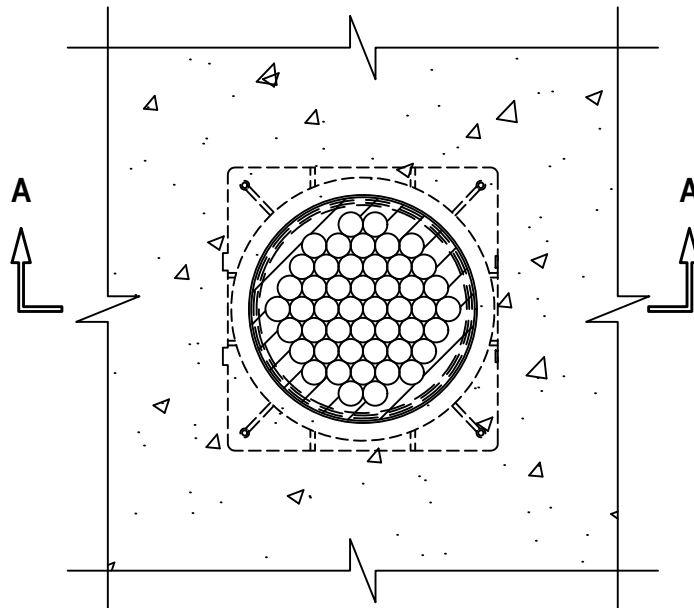
Classified by  
Underwriters Laboratories, Inc.  
to UL 1479 and CAN/ULC-S115

## System No. F-A-3091

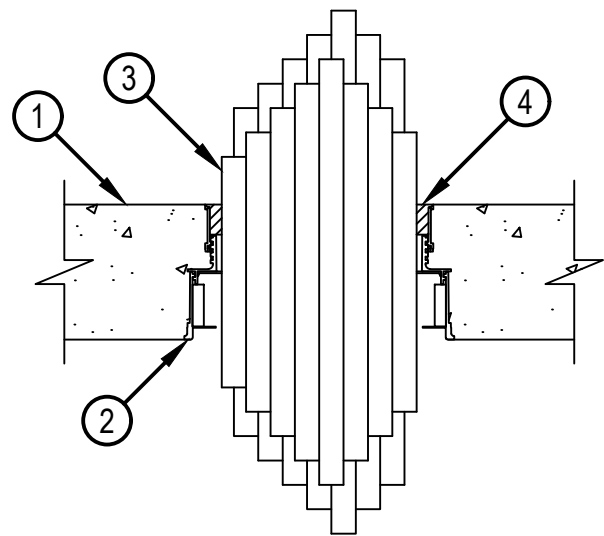
FA 3091

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 3 Hr	F Rating — 3 Hr
T Rating — 0, 1/4, 1/2 Hr (See Items 3 and 4)	FT Rating — 0, 1/4, 1/2 Hr (See Items 3 and 4)
	FH Rating — 3 Hr
	FTH Rating — 0, 1/4, 1/2 Hr (See Items 3 and 4)

**TOP VIEW**



**SECTION A-A**



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.
  2. Firestop Device\* — Cast in place firestop device with optional accessories including sleeve extensions permanently embedded during concrete placement 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 — CFS-CID U 2", CFS-CID U 2" CA, CFS-CID U 3", CFS-CID U 4", CFS-CID U 6"
  3. Cables — Cables to be rigidly supported on both sides of the assembly. Any combination of the following types and sizes of copper conductor cables may be used:
    - A. Max 1/C 750 kcmil (or smaller) copper conductor cable with polyvinyl chloride (PVC) insulation and jacket.
    - B. Max 7/C No. 12 AWG with polyvinyl chloride (PVC) insulation and jacket.
    - C. Max 300 pair No. 24 AWG telephone cable with PVC insulation and jacket.
    - D. Multiple fiber optical communication cable jacketed with PVC and having a max OD of 1/2 in. (13 mm).
    - E. Max 3/C No. 12 AWG with ground with polyvinyl chloride jacketed steel clad Type MC cable.
    - F. Through Penetrating Product\* - Any cable, metal-clad cable or armored cable Classified under the XHLY category. See Through Penetrating Product (XHLY) category in the Fire Resistance Directory for names of manufacturers.
- \*T Rating is 0 hr when Item 3 F is used.

The firestop device and max cable bundle diameter shall be sized as follows:

Cable Bundle Diameter	Firestop Device	T Rating-Hr
2 in. (51 mm)	CFS-CID U 2" CFS-CID U 2" CA	1/4
3 in. (76 mm)	CFS-CID U 3"	1/2
4-1/2 in. (114 mm)	CFS-CID U 4"	1/2
6-1/2 in. (165 mm)	CFS-CID U 6"	0

4. Fill, Void or Cavity Material\* - Putty — Min 1 in. (25 mm) thickness of fill material applied within annulus flush with top surface of device. Fill material is optional for 2-1/2 (64 mm) diam (or larger) cable bundle installed in 3 in. device and 3 in. (76 mm) diam (or larger) cable bundle installed in 4 in. device and 2 in. (51 mm) diam (or larger) cable bundle installed in 2 in. device. The T Rating for the firestop system is 1/4 hr when fill material or packing material (Item 4 or 4A) is not used.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 618 Firestop Putty Stick
- 4A. Packing Material (Not Shown) — As an alternate to Item 4, min 2 in. thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool insulation firmly packed to the fullest extent possible within annulus 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.