



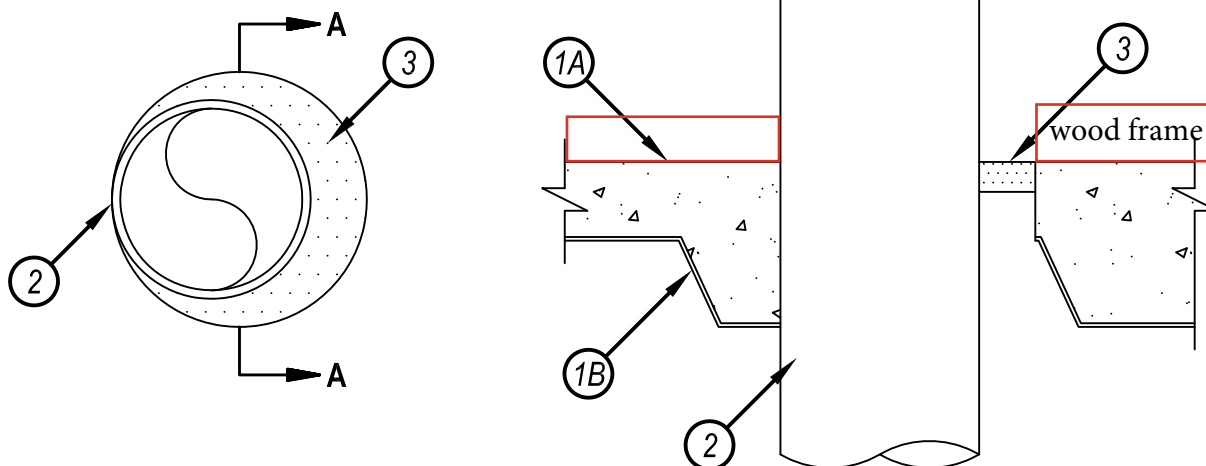
Classified by  
Underwriters Laboratories, Inc.  
to UL 1479 and CAN/ULC-S115

## System No. F-A-1014

FA 1014

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115      |
|-------------------------|-------------------|
| F Rating — 2 Hr         | F Rating — 2 Hr   |
| T Rating — 0 Hr         | FT Rating — 0 Hr  |
|                         | FH Rating — 2 Hr  |
|                         | FTH Rating — 0 Hr |

practically FS-ONE  
thickness increased  
and flashed with the  
wood frame.



### SECTION A-A

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 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) 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. Max diam of opening is 14-5/8 in. (371 mm).
2. Through Penetrants — One metallic tubing, pipe or conduit to be installed within the firestop system. Pipe, tubing or conduit to be rigidly supported on both sides of floor-ceiling assembly. The annular space between pipe, tubing or conduit and periphery of opening shall be min of 0 in. (point contact) to max 1-7/8 in. (48 mm). The following types and sizes of metallic pipes, tubing or conduit may be used:
  - A. Steel Pipe — Nom 12 in. (305 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
  - B. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or nom 6 in. (152 mm) diam (or smaller) steel conduit.
  - C. Copper Tube — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tube.
  - D. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. Fill, Void or Cavity Materials\*-Sealant — Min 1 in. (25 mm) thickness of sealant applied within annular space, flush with top surface of floor. At the point contact location, between pipe and concrete, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the concrete/pipe interface on the top surface of floor.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant.

\* 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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January 16, 2015