

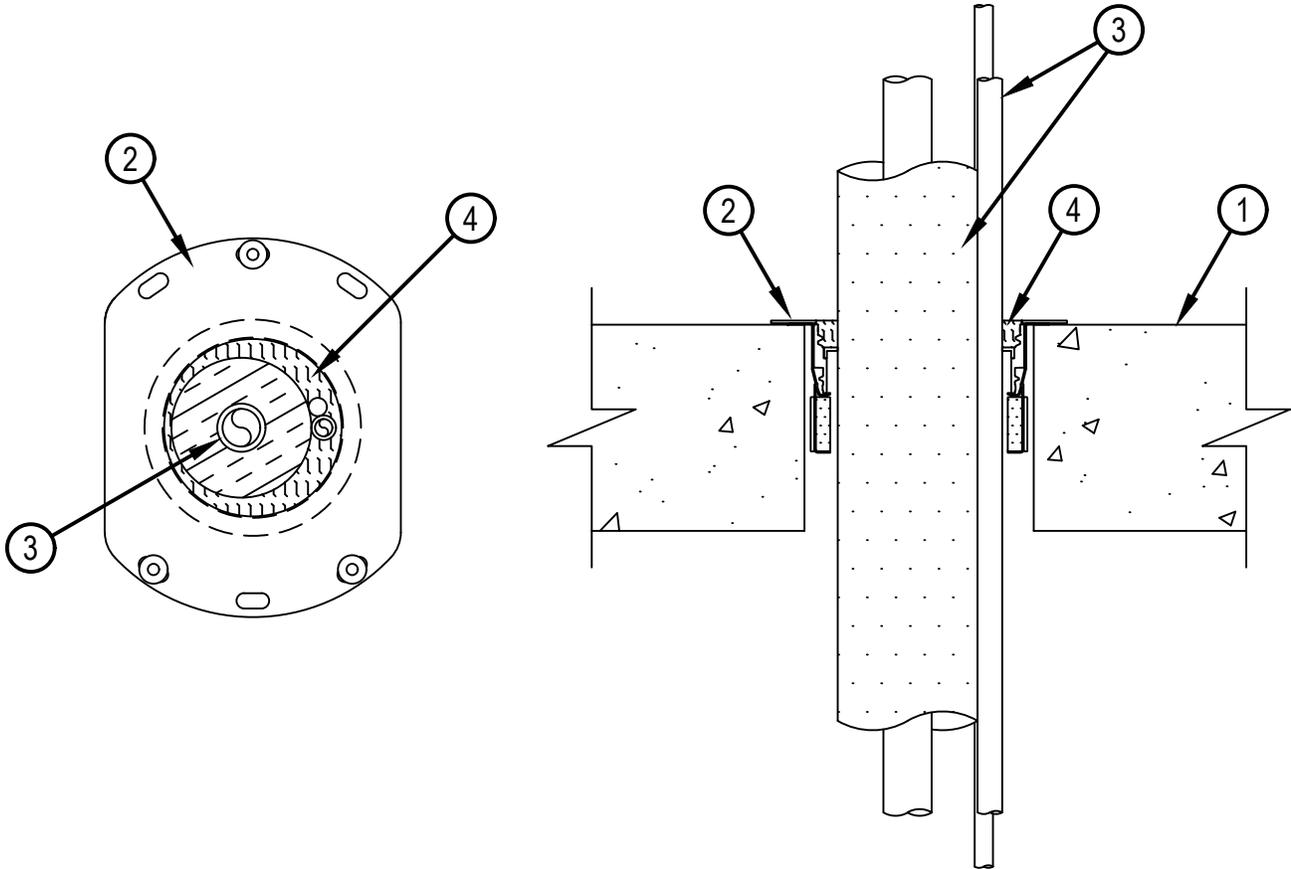


Classified by  
Underwriters Laboratories, Inc.  
to UL 1479 and CAN/ULC-S115

# System No. F-A-8047

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115      |
|-------------------------|-------------------|
| F Rating — 2 Hr         | F Rating — 2 Hr   |
| T Rating — 1 Hr         | FT Rating — 1 Hr  |
|                         | FH Rating — 2 Hr  |
|                         | FTH Rating — 1 Hr |

FA 8047



SECTION A-A



**Hilti Firestop Systems**

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November 13, 2017

# System No. F-A-8047

FA 8047

1. Floor Assembly — Min 4-1/2 in. (114 mm) to max 12 in. (305 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete. Diam of opening is 5 in. (127 mm).
- 1A. Floor Assembly — (Optional, Not Shown) — The fire rated concrete and steel deck floor assembly shall be constructed of the materials and in the manner specified in the individual D700, D800 or D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - A. Concrete — Min 4-1/2 in. (114 mm) to max 12 in. (305 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete, as measured over crest of fluted steel deck.
  - 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\* — Drop-in firestop device installed in core-drilled or sleeved opening in concrete floor assembly in accordance with accompanying installation instructions. The firestop device flange should be secured to the top surface of the floor with three 1/4 in. (6 mm) diam by min 1-1/4 in. (32 mm) long steel expansion bolts or screw anchors (installed in a triangular fashion through holes provided). As alternates to the anchors specified above, Hilti 1/4 in. (6 mm) diam by 1-1/4 in. (32 mm) long KWIK-CON II+ concrete screw anchor, Hilti 1/4 in. (6 mm) diam by 1-3/4 in. (45 mm) long KWIK-BOLT 3 steel expansion anchor or Hilti 1/4 in. (6 mm) by 3/4 in. (19 mm) long Metal HIT Anchor may be used. In addition, for nom 2 in. (51 mm), 3 in. (76 mm) and 4 in. (102 mm) firestop devices, four 11/16 in. (18 mm) long Hilti X-GH P18 MX steel fasteners may be installed through the steel flange, two on each side. The firestop devices shall be installed as detailed in the following table:

| Firestop Device | Core Hole Diam,<br>In. (mm) | Min-Max Floor Thickness In.<br>(mm) |
|-----------------|-----------------------------|-------------------------------------|
| CFS-DID 3"MD    | 5 (127)                     | 4-1/2 - 8 (114 - 203)               |
| CFS-DID 3"C     | 5 (127)                     | 6 - 12 (152 - 305)                  |

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-DID 3"MD, CFS-DID 3"C Firestop Device

3. Single HVAC Line Set — Line set penetrants to be bundled and installed within the device. Penetrants to be rigidly supported on both sides of floor assembly. The following types and sizes of penetrants may be used:
  - A. Metallic Pipes — A max of two pipes or tubes installed within opening. The following types and sizes of metallic pipes, conduits or tubing may be used:
    - A1. Copper Tubing — Nom 1 in. (25 mm) diam (or smaller) Type L (or heavier) copper tubing.
    - A2. Copper Pipe — Nom 1 in. (25 mm) diam (or smaller) Regular (or heavier) copper pipe.All pipes or tubing larger than nom 3/8 in. (9.5 mm) diam shall be provided with pipe covering (Item 3C).
  - B. Cables — One max 4 pair No. 18 AWG (or smaller) thermostat cable; XLPE or PVC insulation with XLPE or PVC jacket.
  - C. Tube Insulation-Plastics+ — Nom 1 in. (25 mm) thick (or less) acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing.  
See Plastics+ (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5A may be used.
4. Packing Material — Min 1/2 in. (13 mm) thickness of min 4.0 pcf (64 kg/m<sup>3</sup>) mineral wool insulation firmly packed into annular space between penetrants and device, flush with top 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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