

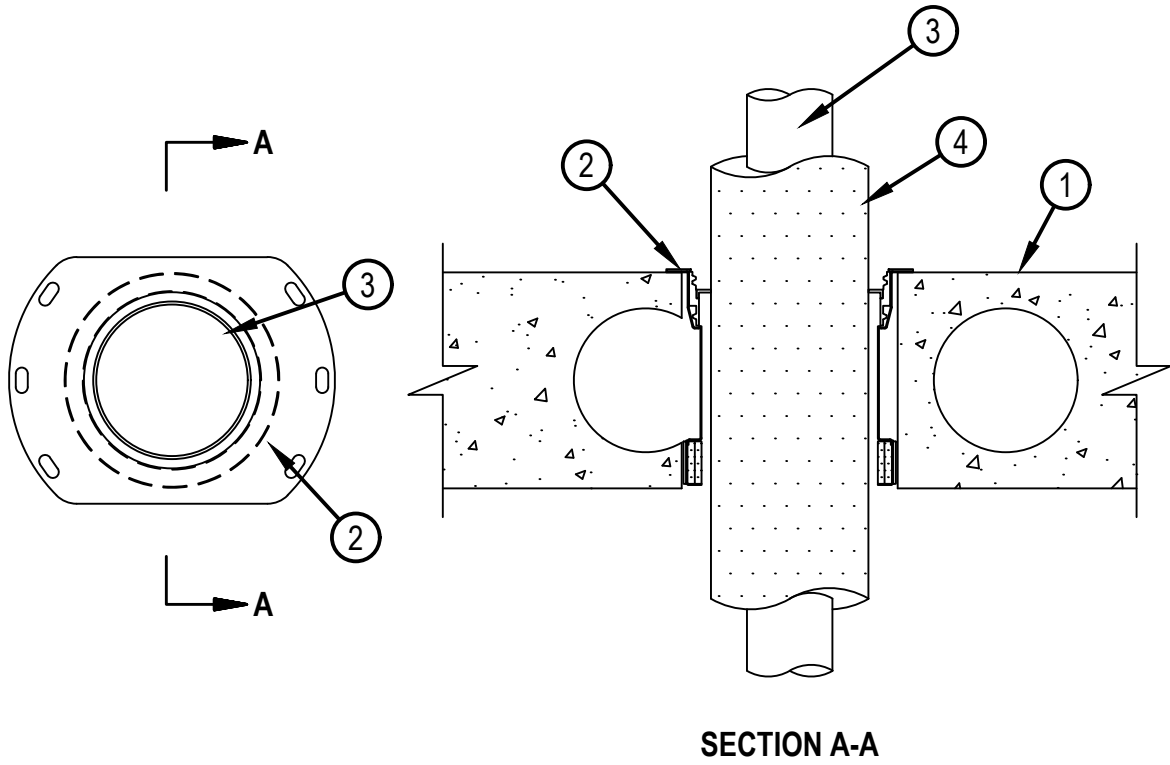


Classified by  
Underwriters Laboratories, Inc.  
to UL 1479

## System No. F-B-5010

F Ratings -- 2 Hr  
T Rating -- 1 3/4 Hr

FB 5010



**SECTION A-A**

1. Floor Assembly — Min 6 in. (152 mm) to max 12-1/2 in. (318 mm) thick UL Classified hollow core Precast Concrete Units\*. Max diam of opening is 6 in. (152 mm).

See Precast Concrete Units (CFTV) categories in the Fire Resistance Directory for names of manufacturers.

2. Firestop System — Drop-in firestop device installed in core-drilled 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:



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Nom Tube (Item 4) Diam, In. (mm)	Insulation (Item 5) Thickness, In. (mm)	Firestop Device	Core Hole Diam, In (mm)	Min-Max Floor Thickness In. (mm)
1/2 (13)	1 (25)	CFS-DID 2"C	4 (102)	6 - 6-1/2 (152 - 185)
1 (25)	1 (25)	CFS-DID 3"C	5 (127)	6 - 6-1/2 (152 - 185)
2 (51)	1 (25)	CFD-DID 4"C	6 (152)	6 - 6-1/2 (152 - 185)
1/2 (13)	1 (25)	CFS-DID 2"HC8	4 (102)	7-1/2 - 8-1/2 (191 - 216)
1 (25)	1 (25)	CFS-DID 3"HC8	5 (127)	7-1/2 - 8-1/2 (191 - 216)
2 (51)	1 (25)	CFS-DID 4"HC8	6 (152)	7-1/2 - 8-1/2 (191 - 216)
1/2 (13)	1 (25)	CFS-DID 2"HC10	4 (102)	9-1/2 - 10-1/2 (241 - 267)
1 (25)	1 (25)	CFS-DID 3"HC10	5 (127)	9-1/2 - 10-1/2 (241 - 267)
2 (51)	1 (25)	CFS-DID 4"HC10	6 (152)	9-1/2 - 10-1/2 (241 - 267)
1/2 (13)	1 (25)	CFS-DID 2"HC12	4 (102)	11-1/2 - 12-1/2 (292 - 318)
1 (25)	1 (25)	CFS-DID 3"HC12	5 (127)	11-1/2 - 12-1/2 (292 - 318)
2 (51)	1 (25)	CFS-DID 4"HC12	6 (152)	11-1/2 - 12-1/2 (292 - 318)

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-DID 2"C, 3"C and 4"C; CFS-DID 2"HC8, 2"HC10 and 2"HC12; CFS-DID 3"HC8, 3"HC10 and 3"HC12; CFS-DID 4"HC8, 4"HC10 and 4"HC12.

3. Through Penetrant — One nonmetallic tube to be installed within the firestop device. Tube to be rigidly supported on both sides of floor assembly. The following type of tube may be used:

A. Crosslinked Polyethylene (PEX) Tubing — Nom 2 in. (51 mm) diam (or smaller) SDR 9 Uponor AquaPEX or Wirsbo hePEX PEX tube for use in closed (process or supply) piping systems.

4. Pipe Covering\* — Nom 1in. (25 mm) thick hollow cylindrical heavy density (min 3.5 pcf or 56 kg/m3) glass fiber units, jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied SSL tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product.

See Pipe and Equipment Covering-Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

\* 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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