

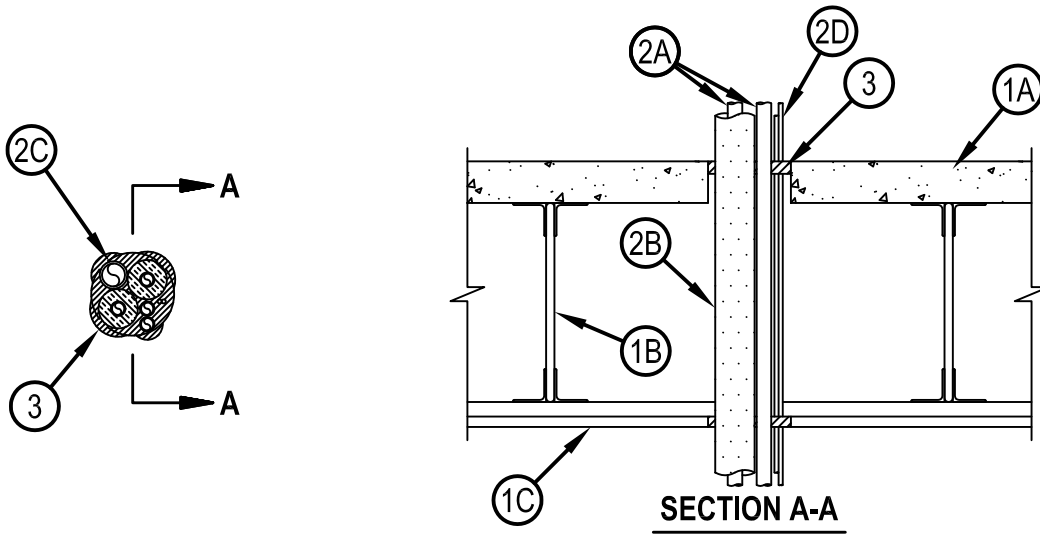


Classified by
Underwriters Laboratories, Inc.
to UL 1479

System No. F-E-8008

FE 8008

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



System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

1. Floor-Ceiling Assembly — The 1 hr fire-rated concrete and steel joist Floor-Ceiling assembly shall be constructed of the materials and in the manner described in the individual G500 Series Design in the UL Fire Resistance Directory, as summarized below:
 - A. Concrete Floor — Normal weight or lightweight (100-150 pcf or 1600-2400 kg/m³) concrete over metal lath or steel deck as specified in the individual G500 Series Design. Max diam of floor opening is 5 in. (127 mm).
 - B. Joists — Steel joists or Structural Steel Members* as specified in the individual G500 Series Design.
 - C. Gypsum Board* — Min 5/8 in. (16 mm) thick, screw-attached to furring channels as specified in the individual G500 Series Design. Max diam of opening in ceiling is 5 in. (127 mm).



Hilti Firestop Systems

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2. Through Penetrants — One or more pipes, conduits, tubing and cables to be installed concentrically or eccentrically within the opening. The space between any penetrant, except nonmetallic pipes and uninsulated metallic pipes to be min 0 in. (point contact) to max 1 in. (25 mm). The space between any penetrants and the periphery of the opening shall be min 0 in. (point contact) to max 1 in. (25 mm). Pipes, conduits, tubing and cables to be rigidly supported on both sides of floor-ceiling assembly.

A. Metallic Penetrants — One or more metallic pipes, conduits or tubing to be installed within the firestop system. The following types and sizes of metallic pipes, conduits or tubing may be used:

A1. Steel Pipe — Nom 3/4 in. (19 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

A2. Conduit — Nom 3/4 in. (19 mm) diam (or smaller) steel electrical metallic tubing (EMT) or 3/4 in. (19 mm) diam galv steel conduit.

A3. Copper Tube — Nom 3/4 in. (19 mm) diam (or smaller) Type L (or heavier) copper tube.

A4. Copper Pipe — Nom 3/4 in. (19 mm) diam (or smaller) Regular (or heavier) copper pipe.

B. Tube Insulation - Plastics+ — Nom 3/4 in. (19 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. Tube insulation to be installed on one or more of the metallic pipes or tubes (Items 2A1, 2A3 and 2A4).

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 94-5VA may be used.

C. Nonmetallic Through Penetrants — One nonmetallic pipe to be installed within the firestop system. Pipe shall be spaced a min 1-1/2 in. (38 mm) from non-insulated metallic through penetrants. The following types and sizes of metallic pipes may be used:

C1. Polyvinyl Chloride (PVC) Pipe — Nom 1-1/4 in. (32 mm) diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

C2. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 1-1/4 in. (32 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.

D. Cables — Max of two 4 pair No. 18 AWG (or smaller) cable with PVC insulation and jacket materials.

3. Fill, Void or Cavity Materials* - Sealant — Min 3/4 in. (19 mm) thickness of sealant applied within the annulus flush with the top surface of the floor and min 5/8 in. (16 mm) thickness of sealant applied within the annulus flush with the bottom surface of gypsum board. A min 1/4 in. (6 mm) diameter bead of sealant shall be applied at the penetrant(s)/floor interface and the penetrant(s)/gypsum board interface at point contact locations.

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.

+Bearing the UL Recognized Component Mark



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