

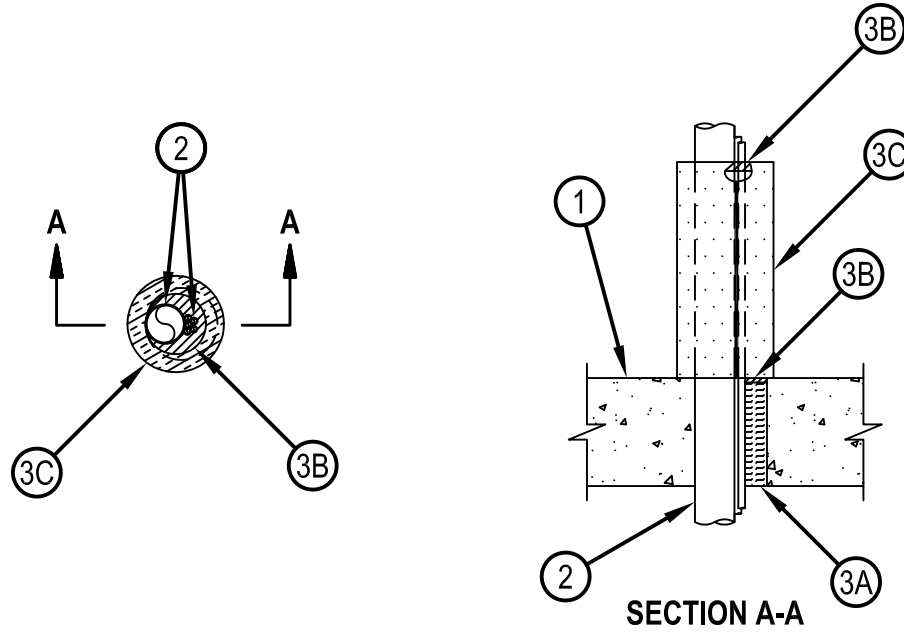


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. C-BJ-8020

CBJ8020

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 0 and 2 Hr (See Item 3C)	FT Rating — 0 and 2 Hr (See Item 3C)
	FH Rating — 2 Hr
	FTH Rating — 0 and 2 Hr (See Item 3C)

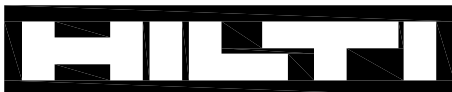


1. Floor or Wall Assembly — Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified Precast Concrete Units*. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 4 in. (102 mm).

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

2. Through Penetrants — One grouping of any combination of the following pipes, tubing, conduit and cables to be installed within the opening. A maximum of two penetrants shall be copper pipes or tubes. A maximum of one metallic penetrant within the grouping shall have a diam exceeding 1 in. (25 mm). A maximum of three cables shall be included within the grouping of penetrants. The penetrants are installed within the opening such that the annular space between the grouping of penetrants and the periphery of the opening is min 0 in. (point contact) to max 2 in. (51 mm). Penetrants to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of pipes, conduits, tubing or cables may be used:

- A. Steel Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
- B. Iron Pipe — Nom 2 in. (51 mm) diam (or smaller) cast or ductile iron pipe.
- C. Conduit — Nom 2 in. (51 mm) diam (or smaller) steel electrical metallic tubing or steel conduit.
- D. Copper Tubing — Nom 1/4 in. (6 mm) diam (or smaller) Type L (or heavier) copper tubing.
- E. Copper Pipe — Nom 1/4 in. (6 mm) diam (or smaller) Regular (or heavier) copper pipe.
- F. Cables — Max 7/C No. 12 AWG cable with polyvinyl chloride (PVC) jacket.



Hilti Firestop Systems

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January 16, 2015

System No. C-BJ-8020

CBJ8020

3. Firestop System — The firestop system shall consist of the following:

A. Packing Material — Min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. Min 5-3/4 in. (146 mm) thickness of packing material required in floors. Min 5-1/2 in. (140 mm) thickness of packing material required in walls. Packing material to be recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of fill material.

B. Fill, Void or Cavity Materials* - Sealant — Min 1/4 in. (6 mm) thickness of fill material within the annulus, flush with top surface of floor or with both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant.

C. Pipe Covering Materials* — (Optional) - Min 12 in. (305 mm) length of nom 1 in. (25 mm) thick hollow cylindrical heavy density (min 3.5 pcf or 56 kg/m³) glass fiber unit installed around grouping of penetrants on top surface of floor or on both surfaces of wall. Inside diameter of pipe covering material to be sized to max diam of grouped penetrants. One end of pipe covering material to abut the surface of the sealant (Item 3B). Pipe covering is jacketed on the outside with an all service jacket. Longitudinal joint sealed with metal fasteners or factory-applied self-sealing lap tape.

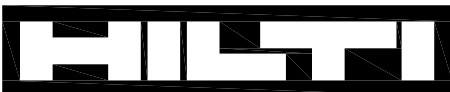
The T Rating is 0 hr except that when the pipe covering material is used, the T Rating is 2 hr.

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 value of 25 or less and a Smoke Developed value of 50 or less may be used.

D. Fill, Void or Cavity Materials* - Sealant — When Pipe Covering Material (Item 3C) is used, min 1/2 in. (13 mm) thickness of fill material applied within the annulus between the grouping of penetrants and the pipe covering material, flush with end of pipe covering material above floor or on both sides of wall.

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.



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