

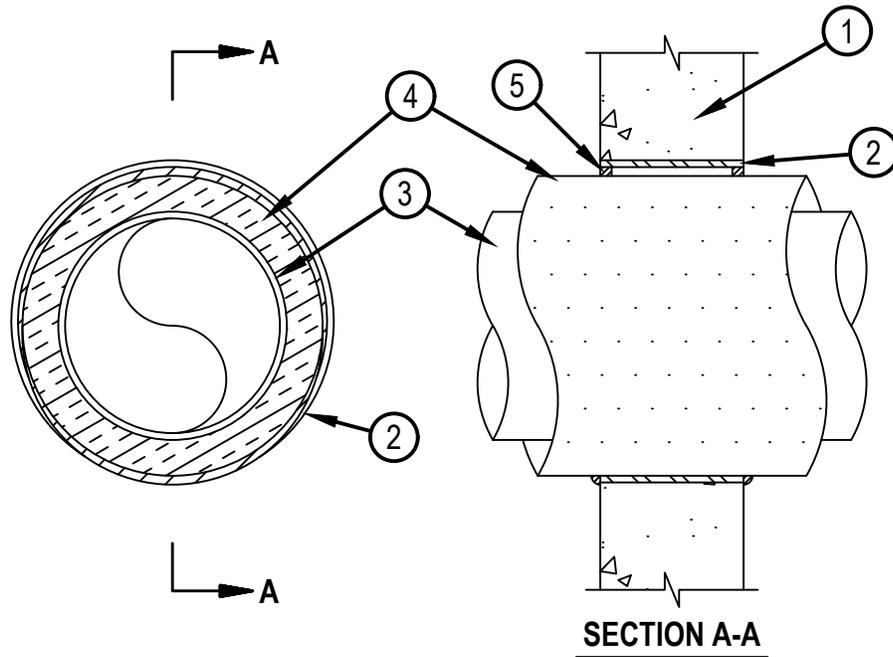


Classified by  
Underwriters Laboratories, Inc.  
to UL 1479 and CAN/ULC-S115

### System No. W-J-5140

F Ratings — 1 and 2 Hr (See Items 1 and 4)  
T Ratings — 0, 1/2, and 1 Hr (See Item 3 and 4)

WJ 5140



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November 15, 2021

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1. Wall Assembly — Min 3-3/4 in. (95 mm) and 5 in. (127 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600 2400 kg/m<sup>3</sup>) concrete for 1 and 2 hr rated assemblies, respectively. Wall may also be constructed of any UL Classified Concrete Blocks\*. The max diam of the opening is dependent upon the type through penetrant installed within the firestop system as shown in Item 4.  
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Steel Sleeve — (Optional) Max 18 in. (457 mm) diam Schedule 40 (or heavier) steel pipe sleeve cast in or grouted into wall, flush with both surfaces of wall assembly.
3. Through Penetrant — One metallic pipe or tubing installed concentrically or eccentrically within the firestop system. Pipe or tube to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tube may be used:
  - A. Steel Pipe — Nom 12 in. (305 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe. When steel pipe is used, T Rating is 1/2 hr.
  - B. Copper Tube — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tube. When copper tube is used, T Rating is 1/2 hr and 1 hr when installed in 1 and 2 hr rated walls, respectively.
  - C. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe. When copper pipe is used, T Rating is 1/2 and 1 hr when installed in 1 and 2 hr rated walls respectively.
4. Pipe Covering\* — Max. 2 in. (51 mm) thick hollow cylindrical heavy density (min 3.5 pcf or 56 kg/m<sup>3</sup>) 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. When pipe covering thickness is less than 2 in., T Rating is 0 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 Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

The min and max annular space of the firestop system is dependent on the type and max diam of the through penetrant used as shown in the table below:

Through Penetrant Type	Max Diam, In., (mm)	Min Annular Space, In. (mm)	Max Annular Space, In. (mm)
Steel Pipe	12 (305)	0 (0)	1/2 (13)
Copper Pipe or Tube	6 (152)	0 (0)	1-7/8 (48)

5. Fill, Void or Cavity Material\*-Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with both surfaces of wall. At point contact, an additional 1/2 in. (13 mm) bead of sealant shall be applied to the insulated pipe/wall interface on both surfaces 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.



Hilti Firestop Systems

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