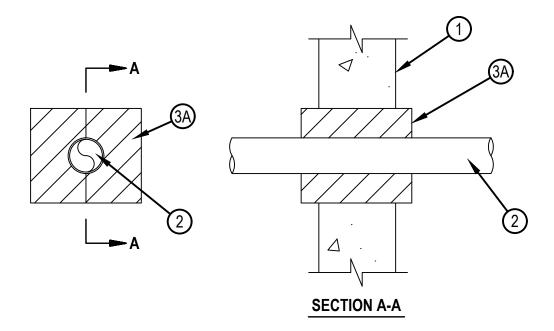


## System No. W-J-1321

ANSI/UL1479 (ASTM E814)	CAN/ULC S115		
F Rating —1 Hr	F Rating — 1 Hr		
T Rating — 1/2 Hr	FT Rating — 1/2 Hr		
L Rating (Without Movement) at Ambient — 5 CFM/sq ft (See Item 3B)	FH Rating —1 Hr		
L Rating (Without Movement) at 400°F — 2 CFM/sq ft (See Item 3B)	FTH Rating — 1/2 Hr		
M Rating (Movement) — See Table 1	L Rating at Ambient (Without Movement) — Less Than 26.1 L/s/m2 (See Item 3B)		
	L Rating at 204°C (Without Movement) — Less Than 10.4 L/s/m2 (See Item 3B)		



- 1. Wall Assembly Min 5 in. (127 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks\*. Max area of opening is 54.4 in2 (929 cm2) with max dimension of 7-3/8 in. (187 mm). See Concrete Blocks (CAZT) in the Fire Resistance Directory for names of manufacturers.
- 2. Through Penetrants One metallic pipe or conduit installed concentrically within the firestop system. Annular space between penetrant and periphery of opening to be min 0 in. (point contact) to max 2.5 in. (63.5 mm). Penetrant to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic penetrants may be used:
  - A. Steel Pipe Nom 2 in. (51 mm) diam Schedule 40 (or heavier) steel pipe.
  - B. Conduit Nom 2 in. (51 mm) diam rigid steel conduit.



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- 3. Firestop System The firestop system shall consist of the following:
  - A. Fill, Void or Cavity Material\* Fire block installed with 5 in. (127 mm) dimension projecting through and centered in opening. For walls thicker than 5 in. (127 mm), fire block installed with long dimension passing through and centered in opening. Blocks to be firmly packed and completely fill the entire opening around the penetrant.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-BL Firestop Block

B. Fill, Void or Cavity Material\* — Fill material to be forced into any voids/openings between blocks, around penetrants, and between blocks and periphery of opening to the maximum extent possible on both surfaces of wall.

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

The M Rating for the firestop system is dependent on the variables as noted in the Table 1 below.

Movement Direction	Penetrant Item	Nominal Penetrant Diameter	Annular Space	Movement	Sealant Depth	L Rating
Υ	All	2 in.	Max 2.5 in.	50%	N/A	N/A
Z	All	2 in.	2.5 in.	1 in.	N/A	N/A

<sup>\*</sup> Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

