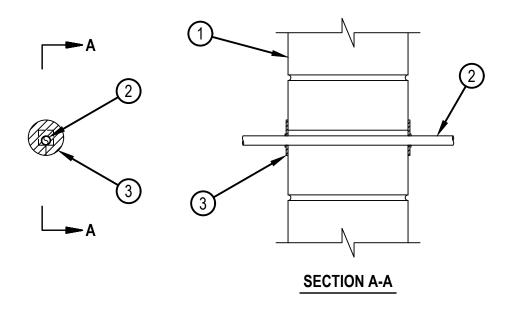


System No. W-J-1248

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating —2 Hr	F Rating — 2 Hr
T Rating — 2 Hr	FT Rating — 2 Hr
L Rating at Ambient — Less than 1 CFM/Opening	FH Rating — 2 Hr
L Rating at 400 F — Less than 1 CFM/Opening	FTH Rating — 2 Hr
	L Rating at Ambient — Less than 1 CFM/Opening
	L Rating at 400 F — Less than 1 CFM/Opening



- 1. Wall Assembly Min 6 in. (152 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Opening may be round, rectangular or irregular with a max diam or dimension of 1 in. (25 mm), or round with a max diam of 1-1/8 in. (29 mm).
 - See Concrete Blocks (CAZT) in the Fire Resistance Directory for names of manufacturers.
- 2. Through Penetrant Max one metallic pipe, tubing or conduit installed either concentrically or eccentrically within the firestop system. The annular space between penetrant and periphery of the opening shall be min 0 in. (point contact). When opening dimension exceeds 1 in. (25 mm), the max annular space is 3/8 in. (9.5 mm). Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of pipes, tubing or conduit may be used:
 - A. Steel Pipe Nom 3/4 in. (19 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
 - B. Iron Pipe Nom 3/4 in. (19 mm) diam (or smaller) cast or ductile iron pipe.
 - C. Copper Tubing Nom 1/2 in. (13 mm) diam (or smaller) Type L and Type K (or heavier) copper tubing.
 - D. Copper Pipe Nom 1/2 in. (13 mm) diam (or smaller) Regular (or heavier) copper pipe.
 - E. Conduit Nom 3/4 in. (19 mm) diam (or smaller) rigid or flexible steel conduit.
 - F. Conduit Nom 3/4 in. (19 mm) diam (or smaller) electrical metallic tubing (EMT).
- 3. Fill, Void or Cavity Material* Nom 60 mm diam by 3 mm thick putty disc with one seam at radius. Paper-backer of disc to be removed and disc firmly pressed around the penetrant lapping nom 5 mm onto penetrant to completely cover opening and firmly pressed to lap onto the wall around periphery of opening. Disc seam to be firmly pressed and sealed tight, Disc to be installed at both surfaces of wall.
 - HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC CFS-D 1" Firestop Putty Disc
- * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

