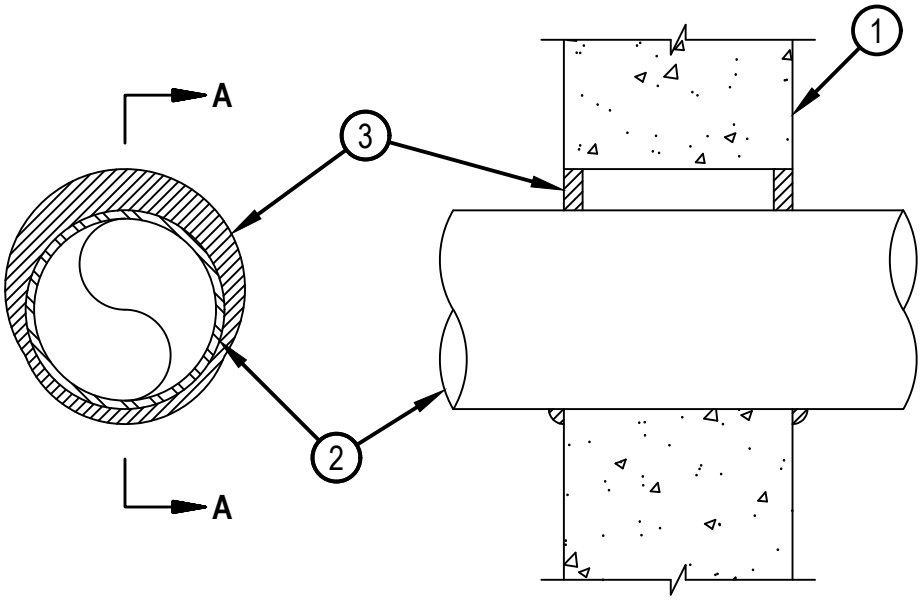
System No. W-J-1067

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

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 1 and 2 Hr (See Items 1 and 3)	F Rating — 0, 1 and 2 Hr (See Items 1, 2 and 3)
T Rating — 0 and 1/2 Hr (See Item 2)	FT Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft	FH Rating — 0, 1 and 2 Hr (See Items 1, 2 and 3)
L Rating At 400 F — Less Than 1 CFM/sq ft	FTH Rating — 0 Hr
	L Rating At Ambient — Less Than 5.1 L/s/m2
	L Rating At 400 F — Less Than 5.1 L/s/m2



SECTION A-A

1. Wall Assembly — Min 3-3/4 in. and 5 in. (95 and 127 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete for 1 and 2 h rated assemblies, respectively. For items 2F and 2G, min 6 in. (152 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 diam of opening is 32-1/4 in. (819 mm).

   See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through—Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space for items 2A to 2E shall be min 0 in. to max 2-1/4 in. (57 mm). These pipes/tubings may be installed with continuous point contact. The annular space for items 2F and 2G shall be min 0 in. to max 1-1/2 in. (38 mm). Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

   A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) diam (or smaller) steel conduit.
   D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
   F. Aluminum Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 5 (or heavier) aluminum pipe for use in closed (process or supply) piping systems.
   G. Aluminum Conduit — Nom 2 in. (51 mm) diam (or smaller) aluminum electric metallic tubing (EMT) or rigid aluminum conduit for use in closed (process or supply) piping systems.

   The hourly T Ratings of the firestop system are equal to 0 Hr when items 2A to 2E are used and equal to 1/2 Hr when items 2F and 2G are used. The hourly CAN F and FH Ratings are equal to 0 Hr when items 2F and 2G are used.

3. Fill, Void or Cavity Material* — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe-wall interface on both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — 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.