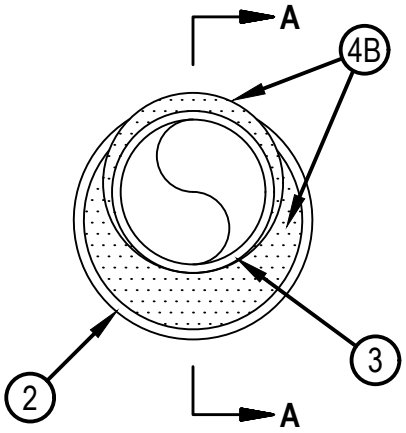
Classified by
Underwriters Laboratories, Inc.
CAN/ULC-S115

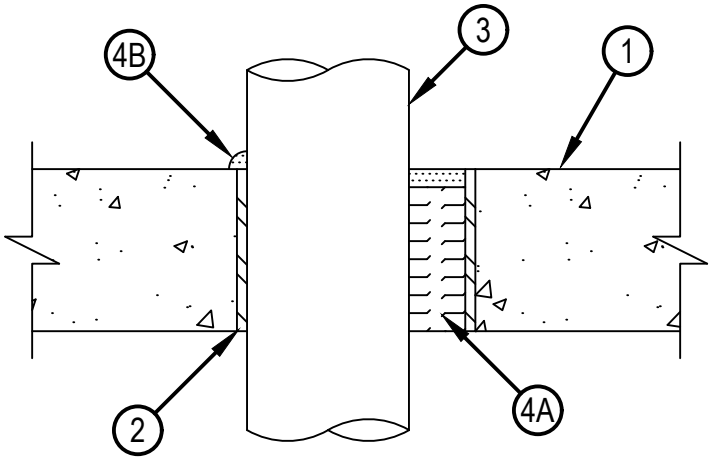
System No. C-AJ-1453

CANADA ONLY

CAJ 1453

F Rating — 2 Hr
FT Ratings — 0 and 1/4 Hr (See Item 2)
FH Rating — 2 Hr
FTH Ratings — 0 and 1/4 Hr (See Item 2)
L Rating At Ambient — Less Than 1 CFM/sq ft
L Rating At 400 F — 4 CFM/sq ft





SECTION A-A

Hilti Firestop Systems

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Underwriters Laboratories, Inc.
February 23, 2012

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1. Floor or Wall Assembly — Min 4-1/2 in. (114 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 in. (813 mm).
   See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Metallic Sleeve — (Optional) - Nom 32 in. (813 mm) diam (or smaller) Schedule 5 (or heavier) steel sleeve cast or grouted into floor or wall assembly, flush with floor or wall surfaces or extending max 3 in. (76 mm) above floor or beyond both surfaces of wall.

2A. Sheet Metal Sleeve — (Optional, Not Shown) - Max 6 in. (152 mm) diam, min No. 26 ga galv steel provided with a No. 26 ga galv steel square flange spot welded to the sleeve at approx mid-height, or flush with bottom of sleeve in floors, and sized to be a min of 2 in. (51 mm) larger than the sleeve diam. The sleeve is to be cast in place and may extend a max of 4 in. 9102 MM) below the bottom of the floor and a max of 1 in. (25 mm) above the top surface of the concrete floor.

2B. Sheet Metal Sleeve — (Optional, Not Shown) - Max 12 in. (305 mm) diam, min No. 24 ga galv steel provided with a No. 24 ga galv steel square flange spot welded to the sleeve at approx mid-height, or flush with bottom of sleeve in floors, and sized to be a min of 2 in. (51 mm) larger than the sleeve diam. The sleeve is to be cast in place and may extend a max of 4 in. (102 mm) below the bottom of the deck and a max of 1 in. (25 mm) above the top surface of the concrete floor.

3. Through Penetrants — One metallic pipe, conduit or tubing to be installed concentrically or eccentrically within the firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of floor assembly. The annular space between pipe conduit or tubing and the periphery of the opening shall be min 0 in. (point contact) to max 2 in. (51 mm). The following types of pipe, conduit 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 6 in. (152 mm) diam (or smaller) rigid steel conduit.
   D. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic conduit.
   E. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   F. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
4. Firestop System — The firestop system shall consist of the following:
   A. Packing Material — Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into the opening as a permanent form. Packing material to be recessed from the top surface of the floor to accommodate the required thickness of fill material.
   B. Fill, Void or Cavity Materials* Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor. At point contact, a min 1/4 in. (6 mm) diameter bead of fill material shall be applied at the pipe/sleeve interface on the top surface of the floor or both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 606 Flexible Firestop Sealant

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