



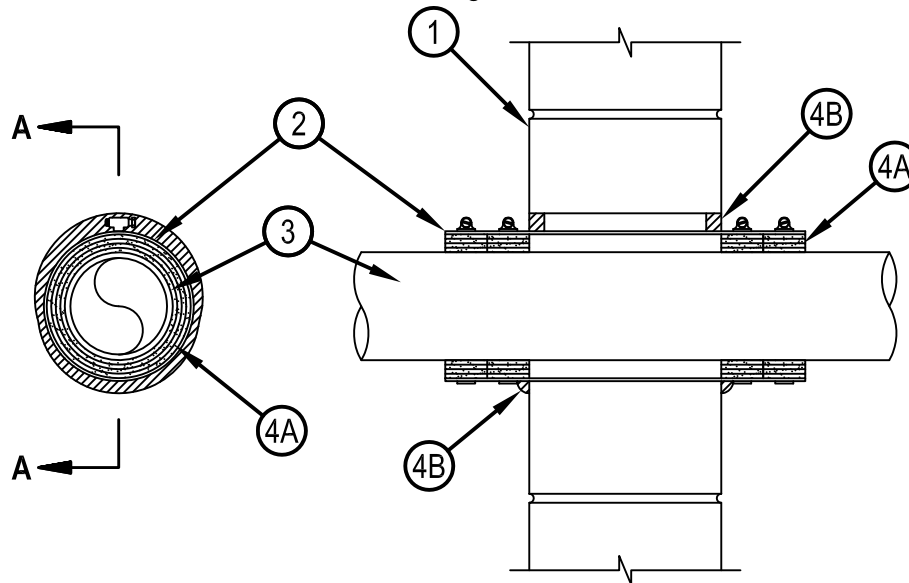
Classified by
Underwriters Laboratories, Inc.
to CAN/ULC-S115

System No. W-J-2019

F Ratings — 1 and 2 Hr (See Item 1)
FT Ratings — 1 and 2 Hr (See Item 1)
FH Ratings — 0 Hr
FTH Ratings — 0 Hr



WJ 2019



SECTION A-A

System tested with a pressure differential of 50 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

1. Wall Assembly — Min 127 mm (5 in.) and 152 mm (6 in.) thick reinforced lightweight or normal weight (100-150 pcf) concrete for 1 and 2 hr ratings, respectively. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 381 mm (15 in.).
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Steel Sleeve — Nom 368 mm (14-1/2 in.) diam cylindrical sleeve fabricated from 0.04 mm (0.016 in.) thick (No 28 gauge) galv sheet steel and having a min 25 mm (1 in.) lap along longitudinal seam. Sleeve to extend 89 mm (3-1/2 in.) beyond each surface of wall. The sleeve shall be compressed around the pipe (Item 3) and wrap strip (Item 4A) using 13 mm (1/2 in.) wide by 0.71 mm (0.028 in.) thick stainless steel band clamps fastened at the center of each wrap strip. The annular space between the sleeve and the periphery of the opening shall be a min 0 mm (point contact) to max 19 mm (3/4 in.).
3. Through Penetrants — One nonmetallic pipe to be installed concentrically or eccentrically within the firestop system. Pipe to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes may be used:
 - A. Polyvinyl Chloride (PVC) Pipe — Nom 305 mm (12 in.) diam (or smaller) Schedule 40 solid or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
 - B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 305 mm (12 in.) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.
4. Firestop System — The firestop system shall consist of the following:
 - A. Fill, Void or Cavity Material* - Wrap Strip — Nom 5 mm (3/16 in.) thick by 45 mm (1-3/4 in.) wide intumescent wrap strip. Four layers of wrap strip are continuously wrapped around the pipe and held in place with aluminum tape. Two sets of wrap strip are installed within the steel sleeve on each side of the wall, flush with surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP648-E W45/1-3/4" Wrap Strip
 - B. Fill, Void or Cavity Material* - Sealant — Min 16 mm (5/8 in.) thickness of fill material applied within annulus between periphery of opening and steel sleeve, flush with both surfaces of wall. At point of contact, a min 13 mm (1/2 in.) bead of fill material shall be applied at the wall/steel sleeve interface on both sides 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

Reproduced by HILTI, Inc. Courtesy of
Underwriters Laboratories, Inc.
January 21, 2015