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Underwriters Laboratories, Inc.
CAN/ULC-S115

System No. W-J-2218



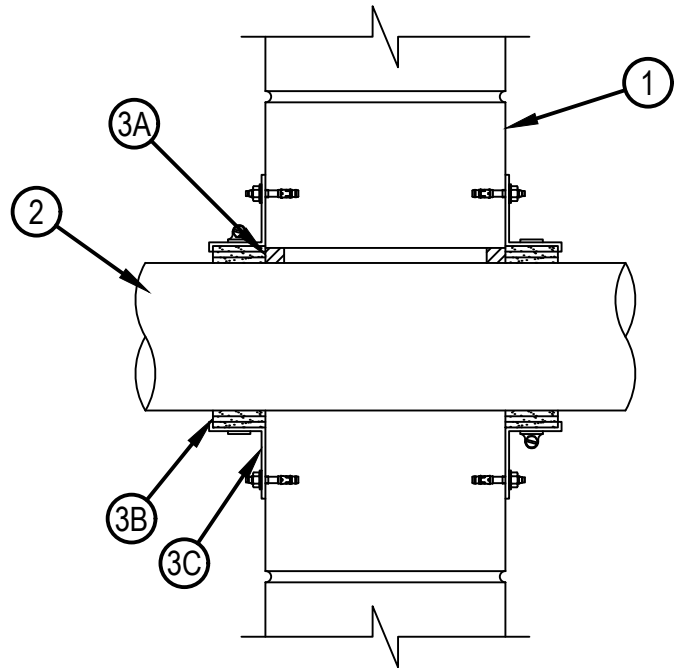
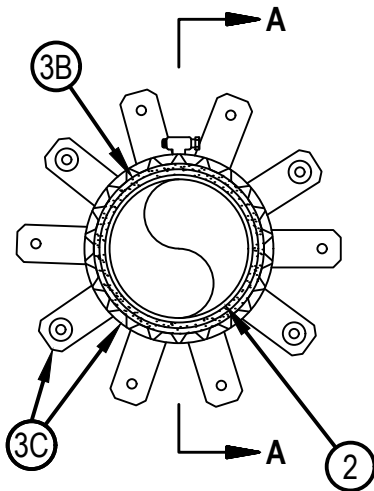
WJ 2218

F Rating — 2 Hr

FT Rating — 2 Hr

FH Rating — 2 Hr

FTH Rating — 2 Hr



SECTION A-A



Hilti Firestop Systems

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March 26, 2018

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WJ 2218

System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

1. Wall Assembly — 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 5-1/2 in. (140 mm).
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Through Penetrants — One nonmetallic pipe to be installed concentrically or eccentrically within the firestop system. Annular space between pipe and periphery of opening to be min 0 in. (point contact) and max 1/2 in. (13 mm). Pipe to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes may be used:
 - A. Polypropylene (PP) Pipe — Nom 4 in. (100 mm) diam (or smaller) SDR11 PP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
 - B. Polypropylene (PP) Pipe — Nom 4 in. (125 mm OD) diam (or smaller) Aquatherm Greenpipe SDR 11 PP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
3. Firestop System — The firestop system shall consist of the following:
 - A. Fill, Void or Cavity Materials* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE MAX Intumescent Sealant.
 - B. Fill, Void or Cavity Material* — Wrap Strip — Nom 3/16 in. (5 mm) thick by 1-3/4 in. (44 mm) wide intumescent wrap strip. Three layers of wrap strip are continuously wrapped around the through-penetrant with ends butted and held in place with tape. For nom 2 in. diam (or smaller) penetrants, min two layers of wrap strip are required. Wrap strip butted tightly against both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP648-E W45/1-3/4" Firestop Wrap Strip
 - C. Steel Collar — Steel collar fabricated from coils of precut min 0.016 in. (0.4 mm) thick (No. 28 gauge) galv steel available from fill material manufacturer. Collar shall be nom 1-3/4 in. (44 mm) deep with 1 in. (25 mm) wide by 2 in. (51 mm) long anchor tabs on 1-3/4 in. (44 mm) centers for attachment to both surfaces of wall. The opposite side incorporates retainer tabs, 1/2 in. (13 mm) wide by 3/16 in. (5 mm) long, which are bent toward the pipe surface. Collar shall be tightly wrapped over the wrap strip, overlapping min 1 in. (25 mm) at seam. A nom 1/2 in. (13 mm) wide stainless steel hose clamp shall be secured to the collar at its mid-height, or collar shall be secured with min two No. 8 sheet metal screws at the overlap. Collar secured to both surfaces of wall with a min of four 1/4 in. (6 mm) diam steel expansion bolts along with min 3/4 in. (19 mm) diam steel washers symmetrically spaced.

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



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