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Underwriters Laboratories, Inc.  
to UL 1479

# System No. C-AJ-2937

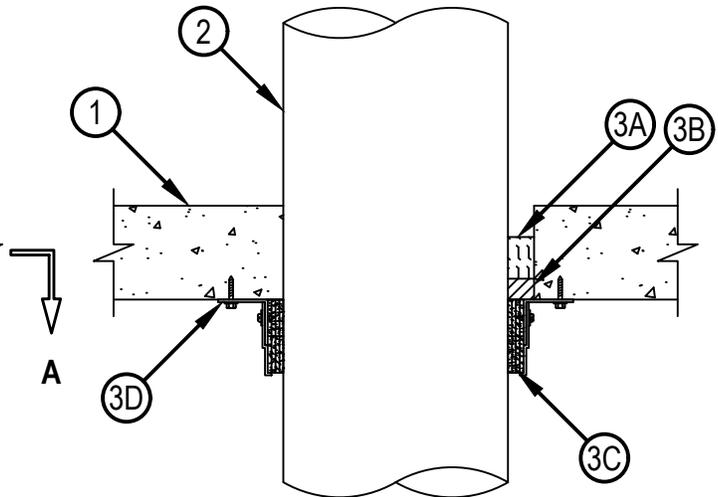
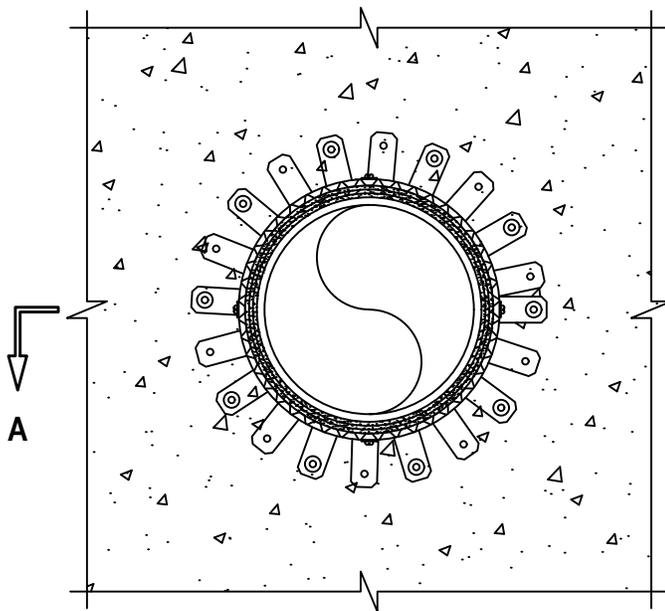
F Rating — 2 Hr  
T Rating — 2 Hr

CAJ 2937

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|-------------------------|
| ANSI/UL1479 (ASTM E814) |
| F Rating — 2 Hr         |
| T Rating — 2 Hr         |

**BOTTOM VIEW**

**SECTION A-A**



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November 17, 2022

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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/m<sup>3</sup>) concrete. Wall may also be constructed of any UL Classified Concrete Blocks\*.  
See Concrete Blocks (CAZT) in the Fire Resistance Directory for names of manufacturers.
2. Through Penetrants — One nonmetallic pipe to be installed within the firestop system. The annular space shall be min 0 in. to max 1-1/4 in. (9.5 mm). Pipe to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of nonmetallic pipes may be used:
  - A. High Density Polyethylene (HDPE) Pipe — Nom 10 in. (254 mm) diam (or smaller) SDR 11 HDPE pipe for use in closed piping systems.
3. Firestop System — The firestop system shall consist of the following:
  - A. Packing or Forming Material — Min 2 in. (50 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from bottom surface of floor or both surfaces of wall to accommodate the required thickness of fill material.
  - B. Fill, Void or Cavity Material\* — Sealant — Min 1 in. (25 mm) thickness of fill material applied within the annulus, flush with bottom surface of floor or with both surfaces of wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE MAX Intumescent Sealant
  - C. 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. Four layers of wrap strip are wrapped around the outer circumference of the pipe with ends butted and held in place with tape. Butted ends in successive layer shall be offset. Two stacks of 4 Layers shall be installed and butted tightly to bottom surface of floor.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 648-E W45/1-3/4" Wrap Strip
  - D. Steel Collars — Steel collar fabricated from coils of precut min 0.016 in. (1.6 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. (52 mm) long anchor tabs on 1-3/4 in. (44 mm) centers for securement to the underside of floor or both surfaces of wall. The opposite side incorporates retainer tabs, 1/2 in. (13 mm) wide by 3/16 in. (4.8 mm) long, pre-bent toward the pipe surface. Collar shall be tightly wrapped over the wrap strip, overlapping min. 2 in (51 mm) at seam. Collar secured with two sheet metal screws though the overlapping portion of the collar. The length of the sheet metal screws shall not exceed the thickness of the wrap strip. A second collar to be wrapped around the second stack of wrap strip with a min 2 in. (51 mm) overlap at the seam. Second collar secured with four sheet metal screws though the overlapping portion of the collar. Anchor tabs of second collar left unbent and every other tab is secured to the first retaining collar with one no. 8 sheet metal screw per tab. Optional securement of the anchor tabs of second collar may be accomplished with one nom 1/2 in. (13mm) wide stainless steel hose clamp secured over anchor tabs at mid-height of first collar. Every other anchor tab of first collar secured to bottom surface of floor or both surfaces of wall with 1/4 in. (6 mm) diam by 1-1/4 in. (32 mm) long steel expansion bolts in conjunction with steel nuts and 1/4 in. (6 mm) by 1-1/4 in. (32 mm) diam washers, or 1/4 in.(6 mm) diam by 1-7/8 in. (48 mm) long steel concrete screws. Collars to be used at the bottom surface of floor or both surfaces of wall.

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