

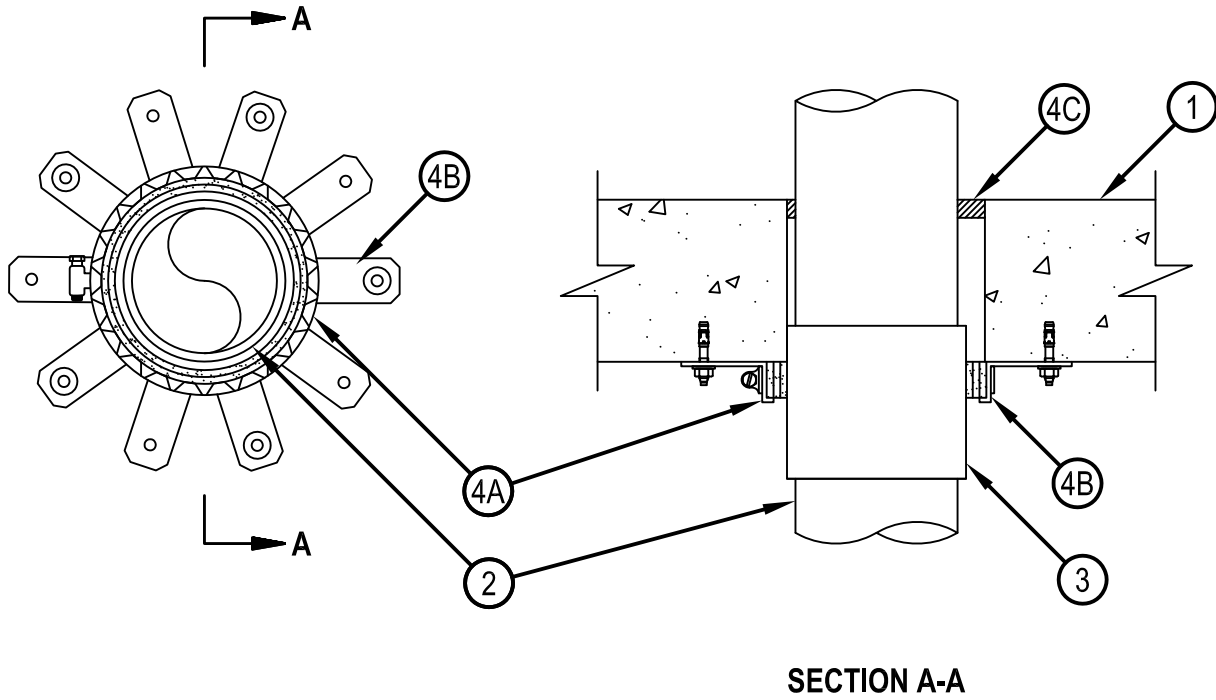


Classified by
Underwriters Laboratories, Inc.
to UL 1479

System No. C-AJ-2336

F Rating - 3 Hr
T Rating - 2 Hr

CAJ 2336



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 5-1/2 in. (140 mm).
See Concrete Blocks (CAZT) in the Fire Resistance Directory for names of manufacturers.
2. Through Penetrant — One nonmetallic pipe to be installed concentrically or eccentrically within the firestop system. Annular space between pipe or coupling and periphery of 0 in. (point contact) and max 1/2 in. (13 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. Polyvinyl Chloride (PVC) Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 solid or cellular core PVC for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
 - B. Chlorinated Polyvinyl Chloride (PVC) Pipe — Nom 4 in. (102 mm) diam (or smaller) SDR13.5 CPVC for use in closed (process or supply) piping systems.
 - C. Acrylonitrile Butadiene Styrene (ABS) Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 solid or cellular core ABS for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
 - D. Flame Retardant Polypropylene (FRPP) Pipe — Pipe Nom 4 in. (102 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.



Hilti Firestop Systems

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3. Nonmetallic Pipe Coupling — (Optional)-Nom 4 in. (102 mm) diam (or smaller) Schedule 40 PVC pipe coupling, SDR13.5 CPVC pipe coupling, Schedule 40 ABS pipe coupling or Schedule 40 FRPP pipe coupling installed such that top of coupling extends a max 1 in. (25 mm) into opening of floor assembly or 1 in. (25 mm) into opening on either side of wall assembly.

4. Firestop System — The firestop system shall consist of the following:

A. Fill, Void or Cavity Material* — Wrap Strip - Layers of intumescent wrap strip are continuously wrapped around the pipe with ends held in place with tape. Wrap strip butted tightly against bottom surface of floor or both surfaces of wall. Size of wrap strip and number of layers for a given size penetrant are shown in table below.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP648-E W25/1" or CP648-E W45/1-3/4" Firestop Wrap Strip

Product Designation	Max. Pipe Size (in.)	Number of Layers	Nom. Wrap Strip Width (in.)
CP648-E W25/1"	3	2	1
CP648-E W45/1-3/4"	3	1	1-3/4
CP648-E W25/1"	4	3	1
CP648-E W45/1-3/4"	4	2	1-3/4

B. Steel Collar — Steel collar fabricated from coils of precut min 0.016 in. thick (No. 28 gauge) galv steel available from fill material manufacturer. Collar shall be nom 1 in. (25 mm) (for 1 in. wide wrap strip) or 1-3/4 in. (44 mm) (for 1-3/4 in. wide wrap strip) deep with 1 in. (25 mm) wide by 2 in. (51 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. (5 mm) long, prebent 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. Every other anchor tab of collar secured to concrete slab. The anchor tabs are to be secured with min 1/4 in. (6 mm) diam by min 1-1/4 in. (32 mm) long steel expansion bolts, min 1/4 in. (6 mm) diam by 1-3/4 in. (44 mm) long steel expansion type masonry fasteners, min 3/16 in. (5 mm) diam by 1-1/2 in. (38 mm) long steel concrete screws or min 0.145 in. diam by 1-1/4 in. (32 mm) long powder actuated fasteners utilizing a 1-7/16 in. (36.5 mm) diam by 1/16 in. (1.6 mm) thick steel washer. As alternates to the anchors specified above, Hilti 1/4 in. (6 mm) diam by 1-1/4 in. (32 mm) long KWIK-CON II+ concrete screw anchor, Hilti 1/4 in. (6 mm) diam by 1-3/4 in. (44 mm) long KWIK-BOLT 3 steel expansion anchor or Hilti X-DNI 27 P8 S15 powder actuated floor pin with integral nom 9/16 in. (14 mm) diam washer may be used. In floor assemblies, one collar to be used at the bottom of the concrete floor only. In wall assemblies, a collar is used on both surfaces.

C. Fill, Void or Cavity Material*—Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top or bottom surface of floor or both surfaces 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.



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