



Underwriters Laboratories, Inc.  
to UL 1479

## System No. C-AJ-2897

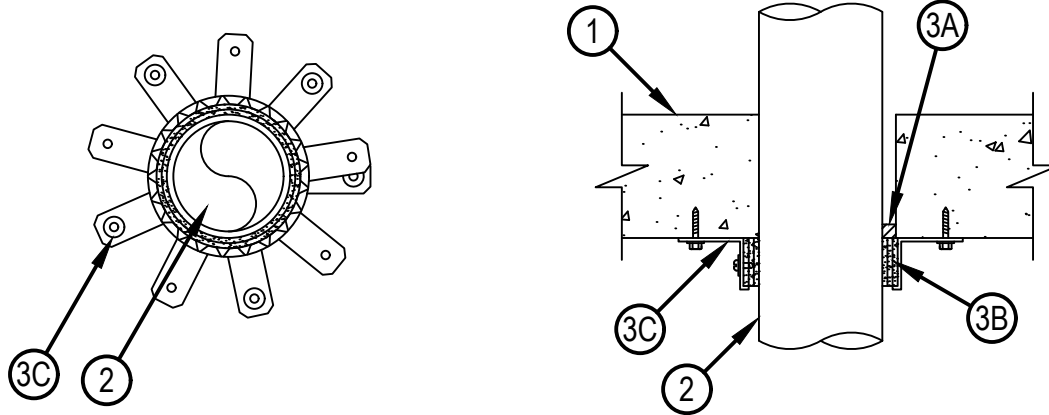
F Ratings — 3 Hr

T Ratings — 1-3/4 Hr

L Rating at Ambient — Less than 1 CFM/ft<sup>2</sup>

L Rating at 400 F — Less than 1 CFM/ft<sup>2</sup>

CAJ 2897



1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf) (1600-2400 kg/m<sup>3</sup>) concrete. Wall may also be constructed of any UL Classified Concrete Blocks\*. Max diameter of opening is 5 in. (127 mm).  
See Concrete Blocks (CAZT) 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) to max 5/8 in. (16 mm). For L Rating, a minimum annular space of 1/4 in. (6 mm) is required. The following types and sizes of nonmetallic pipes may be used:
  - A. Polybutylene (PB) Pipe — Nom 4 in. (102 mm) diam (or smaller) SDR11 PB pipe for use in closed (process or supply) piping systems.
3. Firestop System — The firestop system shall consist of the following:
  - A. Fill, Void or Cavity Material\* — Min 1/2 in. (13 mm) thickness of sealant 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
  - B. Fill, Void or Cavity Material\* — Wrap Strip - Three layers of intumescent wrap strip are continuously wrapped around the pipe overlapping 1 in. (25 mm) at the end and with the ends held in place with masking or aluminum tape. Wrap strip butted tightly against bottom surface of floor or both surfaces of wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP48-E W45/1-3/4" Firestop Wrap Strip
  - C. Steel Collar — 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, 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. Optional securement of the collar may be accomplished with two sheet metal screws screwed through the overlapping portion of the collar. The length of the sheet metal screws shall not exceed the thickness of the wrap strip. Every other anchor tab of collar secured to concrete slab with 1/4 in. (6 mm) diam by 1-3/4 in. (44 mm) long steel expansion type masonry fasteners, 1/4 in. (6 mm) diam by 1-1/2 in. (44 mm) long steel concrete screws or 0.145 in. (3.8 mm) diam by 1-1/4 in. (32 mm) long powder actuated fasteners and min 1-1/4 (32 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. 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 sides 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.



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