

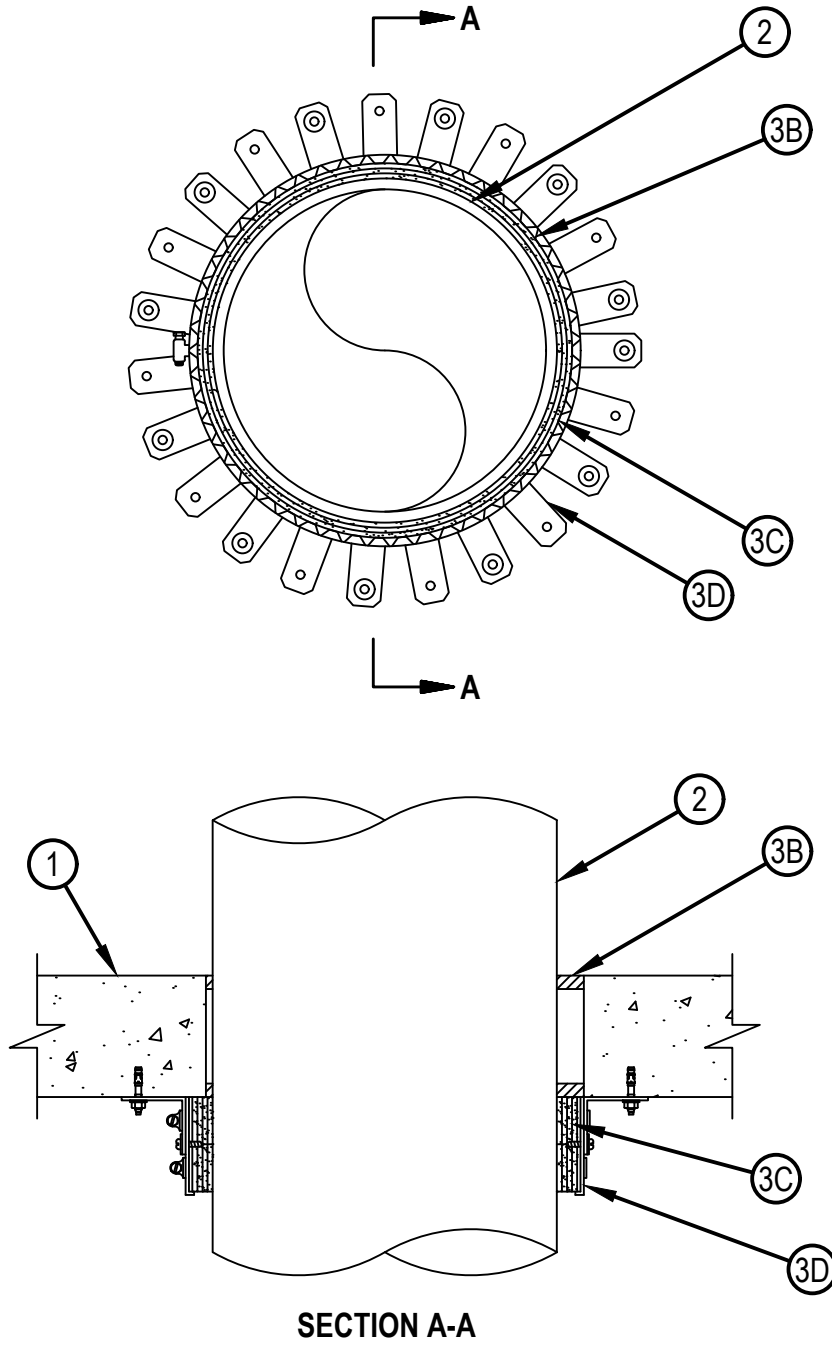


Classified by  
Underwriters Laboratories, Inc.  
to UL 1479 and CAN/ULC-S115

### System No. C-AJ-2420

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 3 Hr	F Rating — 3 Hr
T Rating — 3 Hr	T Rating — 3 Hr
	FH Rating — 3 Hr
	T Rating — 3 Hr

CAJ 2420



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October 27, 2017

## System No. C-AJ-2420

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. 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\*. Max diam of opening is 14 in. (356 mm).  
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Through Penetrants — One non-metallic pipe to be installed either eccentrically or concentrically within the firestop system with an annular space of min 1/4 in. (6 mm) to max 1 in. (25 mm). Pipe to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of non-metallic pipe may be used:
  - A. Polyvinyl Chloride (PVC) Pipe — Nom 10 or 12 in. (254 or 305 mm) diam Sch 40 solid core polyvinyl chloride (PVC) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
  - B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 10 or 12 in. (254 or 305 mm) diam 13.5 CPVC 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 Materials\*-Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with both surfaces of floor or wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or 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. (45 mm) wide intumescent wrap strip. The wrap strip is continuously wrapped around the outer circumference of the pipe covering four times. When multiple wrap strips are used to achieve the required total length, the ends are to be butted end to end and held in place with tape. Two sets of four wrap strips tightly butted against bottom surface of the floor or both surfaces of wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP648-E- W45/1-3/4" Wrap Strip
  - C. Steel Sleeve — Min 0.016 in. (0.41 mm) thick (28 MSG) galv steel sleeve, 3-1/2 in. (89 mm) long, having a min 1 in. (25 mm) lap along longitudinal seam. Sleeve to be installed over wrap strip layers on bottom surface of floor or both surfaces of wall.
  - D. Steel Collar — Steel collar fabricated from coils of precut min 0.016 in. (0.41 mm) thick (No. 28 gauge) galv steel available from fill material manufacturer. Collar shall be nom 1-3/4 in. (45 mm) deep with 1 in. (25 mm) wide by 2 in. (51 mm) long anchor tabs on 2 in. (51 mm) centers for attachment to the underside of floor or both surfaces of wall. In addition, collar contains retainer tabs, 1/2 in. (13 mm) wide by 3/16 in. (5 mm) long, located opposite the anchor tabs. First collar shall be tightly wrapped over the sleeve and wrap strip, overlapping min 1 in. (25 mm) at seam and compressed with a min 0.028 in. (0.71 mm) thick stainless steel band located 1 in. (25 mm) up from bottom of sleeve. The retainer tabs are prebent 90 deg towards the pipe to retain the wrap strip. A second steel collar shall be tightly wrapped over the first collar and sleeve with a min 1 in. (25 mm) overlap at seam and compressed with a min 0.028 in. (0.71 mm) thick stainless steel band located 1 in. (25 mm) below floor assembly or from both wall surfaces. Anchor tabs of second collar secured to bottom surface of the floor or both surfaces of wall with min 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 at every other tab. Collars and steel sleeve secured together with steel sheet metal screws spaced 4 in. (102 mm) OC.

\* 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**

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