



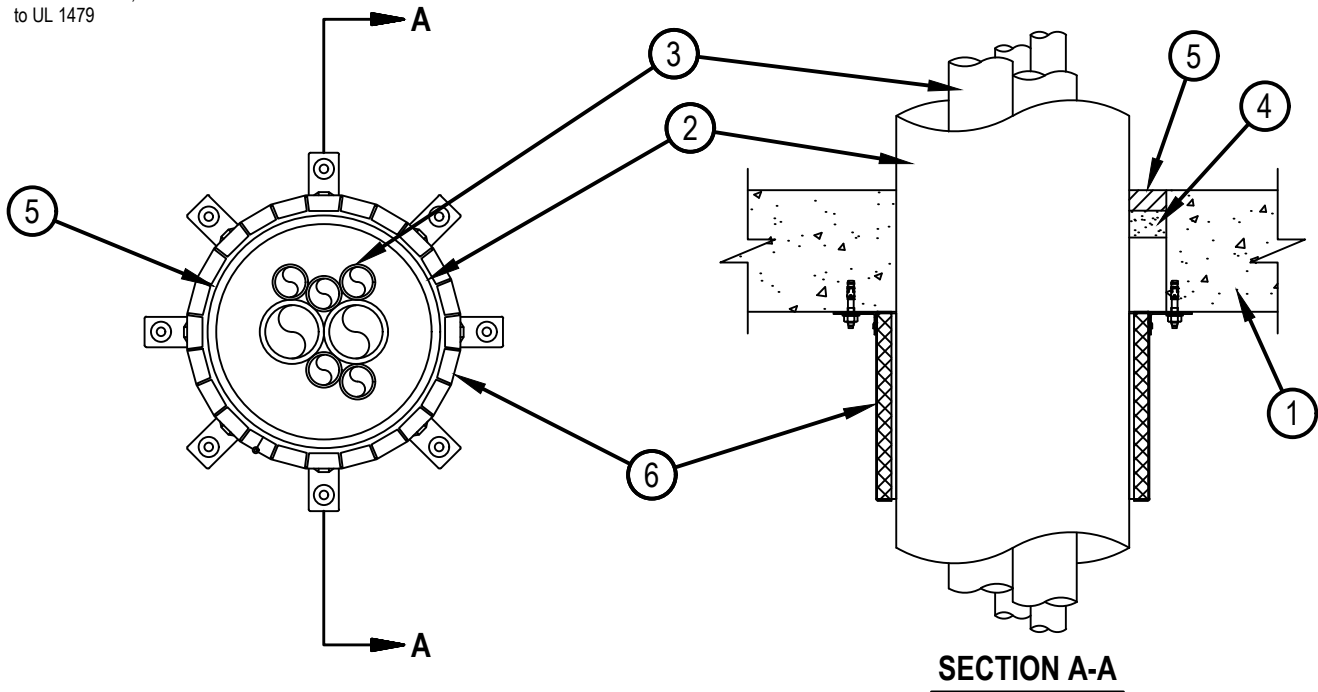
Classified by  
Underwriters Laboratories, Inc.  
to UL 1479

## System No. C-AJ-2284

F Rating — 2 Hr

T Rating — 2 Hr

CAJ 2284



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 12 in. (305 mm).  
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
  2. Through Penetrant — One nonmetallic pipe to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe, and the periphery of the opening shall be min 0 in. (point contact) to max 1-3/8 in. (35 mm). Pipe to be rigidly supported on both sides of the wall assembly. The following types and sizes of nonmetallic pipes may be used:
    - A. Polyvinyl Chloride (PVC) Pipe — Nom 10 in. (254 mm) diam Schedule 40 solid core PVC pipe for use in closed (process or supply) piping systems.
  3. Nonmetallic Pipe — One or more non-metallic pipes to be bundled and installed concentrically within the PVC through penetrant. Aggregate cross sectional area of internal non-metallic pipes to be 20 percent of the cross sectional area of outer pipe. The following types and sizes of non-metallic pipes may be used:
    - A. Polyvinylidene Fluoride (PVDF) Pipe — Nom 2 in. (51 mm) diam SDR11 PVDF pipe for use in closed (process or supply) piping systems.
    - B. Polyvinylidene Fluoride (PVDF) Pipe — Nom 1 in. (25 mm) diam SDR11 PVDF pipe for use in closed (process or supply) piping systems.
  4. Forming Materials\* — Min 1 in. (25 mm) thickness foamed into opening as a permanent form. Forming material applied within the annulus recessed 1 in. (25 mm) from the top surface of floor or both surfaces of wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CF812 or CF-AS CJP Foam Sealant
  5. Fill, Void or Cavity Materials\* — Min 3/4 in. (19 mm) thickness of fill material applied within the annulus flush with top surface of floor or both surfaces of wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE MAX Intumescent Sealant
  6. Firestop Device\* - Firestop Collar — Firestop collar shall be installed in accordance with the accompanying installation instructions. Collar to be installed around the pipe and secured to the underside of the floor or both sides of the wall using anchor hooks provided with the collar. The anchor hooks are to be secured with 1/4 in. (6 mm) diam by min 1-1/2 in. (38 mm) long steel expansion bolts, or equivalent, in conjunction with steel nuts and 1/4 by 3/4 in. (6 by 19 mm) diam steel washers.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 644-250/10". US Firestop Collar
- \* 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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July 31, 2018