

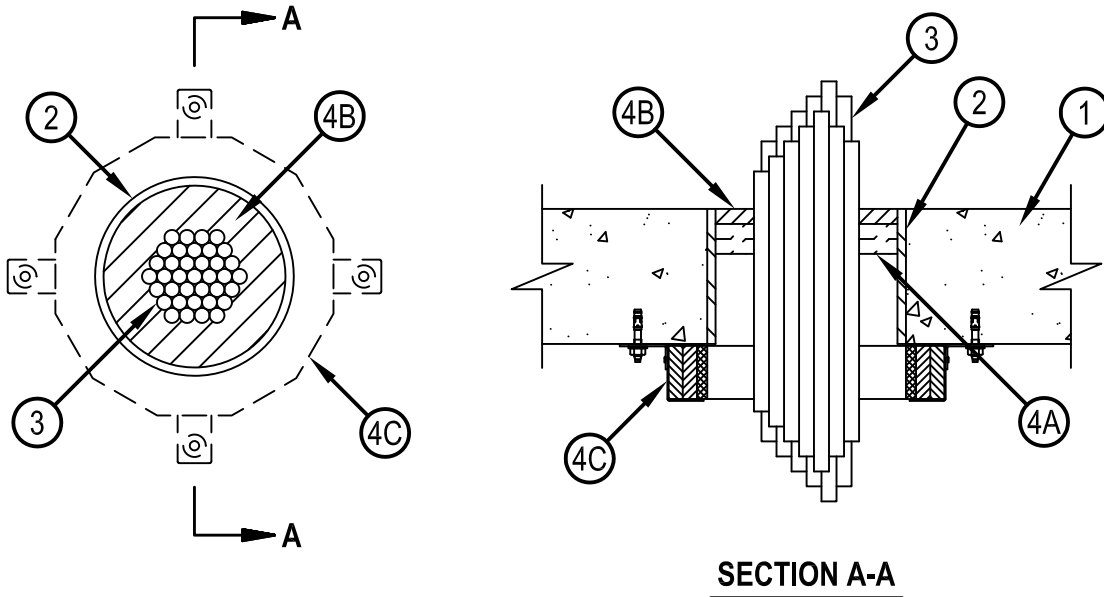


Classified by  
Underwriters Laboratories, Inc.  
to UL 1479 and CAN/ULC-S115

## System No. C-AJ-3096

CAJ 3096

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 3 Hr	F Rating — 3 Hr
T Ratings — 0, 1/2, 3/4, 1 and 1-1/2 Hr (See Item 3)	FT Ratings — 0, 1/2, 3/4, 1 and 1-1/2 Hr (See Item 3)
	FH Rating — 3 Hr
	FTH Ratings — 0, 1/2, 3/4, 1 and 1-1/2 Hr (See Item 3)



**SECTION A-A**

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 floor or wall. Wall may also be constructed of any UL Classified Concrete Blocks\*. Max diam of opening is 6 in. (152 mm).  
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Steel Sleeve — (Optional) — Nom 6 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe cast or grouted into floor or wall assembly, flush with floor or wall surfaces.
3. Cables — Aggregate cross-sectional area of cables in opening to be min 25 percent to max 40 percent of the aggregate cross-sectional area of the opening. Cables to be rigidly supported on both sides of floor or wall assembly. Any combination of the following types and sizes of cable may be used:
  - A. Max 350 kcmil single conductor power cables with cross-linked polyethylene (XLPE) insulation. When single aluminum conductor power cable is used, T, FT and FTH Rating is 0 hr. When single copper conductor power cable is used, T, FT and FTH Rating is 1/2 hr.
  - B. Max 25 pair No. 24 AWG copper conductor telecommunication cables with polyvinyl chloride (PVC) insulation and jacket materials. When telecommunication cable is used, T, FT and FTH Rating is 3/4 hr.
  - C. Max No. 12 AWG multiconductor power and control cables with PVC or XLPE insulation and PVC jacket. When multiconductor power and control cable is used, T, FT and FTH Rating 1 hr.
  - D. Multiple fiber optical communication cables jacketed with PVC and having a max outside diam of 1/2 in. (13 mm). When fiber optic cable is used, T, FT and FTH Rating is 1-1/2 hr.



**Hilti Firestop Systems**

Reproduced by HILTI, Inc. Courtesy of  
Underwriters Laboratories, Inc.  
January 13, 2015



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

## System No. C-AJ-3096

CAJ 3096

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

A. Packing Material — Min 1 in. (25 mm) thickness of min 4.0 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 top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.

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

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant or FS-ONE MAX Intumescent Sealant

C. Firestop Device\* — Firestop Collar — Firestop collar shall be installed in accordance with the accompanying installation instructions. Collar to be installed and latched around the cable bundle and secured to underside of floor or both sides of wall using the anchor hooks provided with the collar. (Minimum 2 anchor hooks for 1-1/2 and 2 in. (38 and 51 mm) diam pipes, 3 anchor hooks for 3 and 4 in. (76 and 102 mm) diam pipes, and 4 anchor hooks for 6 in. (152 mm) diam pipes). 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, in conjunction with steel nuts and min 3/4 in. (19 mm) diam steel washers with one anchor bolt in each anchor hook.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 643 50/1.5"N, CP 643 63/2"N, CP 643 90/3"N, CP 643 110/4"N or CP 643 160/6"N 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.



**Hilti Firestop Systems**

Reproduced by HILTI, Inc. Courtesy of  
Underwriters Laboratories, Inc.  
January 13, 2015

Page: 2 of 2