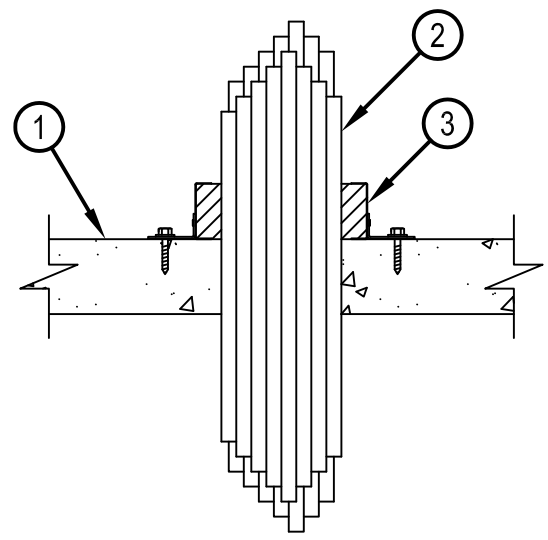
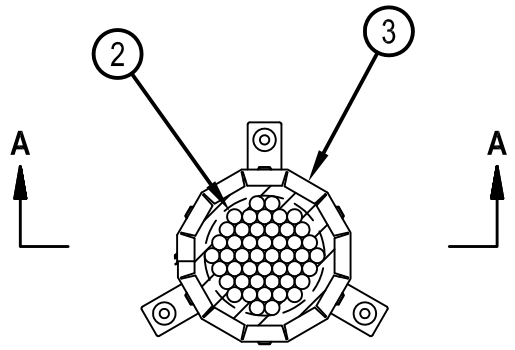


# System No. C-AJ-3320



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

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating - 2 Hr	F Rating - 2 Hr
T Ratings - 1/4 and 3/4 Hr (See Items 2 and 3)	FT Ratings - 1/4 and 3/4 Hr (See Items 2 and 3)
L Rating At Ambient - See Item 3	FH Rating - 2 Hr
L Rating At 400F - See Item 3	FTH Ratings - 1/4 and 3/4 Hr (See Items 2 and 3)
	L Rating At Ambient - See Item 3
	L Rating At 400F - See Item 3



**SECTION A-A**



Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. January 14, 2015

# System No. C-AJ-3320

1. Floor or Wall Assembly — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete. For blank openings (no Item 2 cables) with firestop device (Item 3) installed at top of floor, the minimum floor thickness shall be 4-1/2 in. (114 mm). When firestop device is installed at bottom of floor, the floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow core Precast Concrete Units\*. Wall may also be constructed of any UL Classified Concrete Blocks\*. Max diam of opening is 4 in. (102 mm).  
See Concrete Blocks (CAZT) and Precast Concrete Units (CFTV) categories in the Fire Resistance Directory for names of manufacturers.
- 1A. Sleeve — (Not Shown, Optional) - Nom 4 in. diam (or smaller) sleeve cast or grouted into floor or wall assembly, flush with both surfaces of floor or wall. The following types of sleeves may be used: Schedule 5 (or heavier) steel pipe, min 28 ga steel sleeve, or Schedule 40 solid or cellular core polyvinyl chloride (PVC).
2. Cables — Cables may be installed within opening for a 0 to 100 percent visual fill. When PVC sleeve (Item 1A) is used, the aggregate cross-sectional area of cable in opening to be max 45 percent of the cross-sectional area of the opening. Cables to be tightly bundled and rigidly supported on both sides of floor or wall assembly. Any combination of the following types of cables may be used:
  - A. Max 100 pair No. 24 AWG (or smaller) copper conductor telecommunication cable with polyvinyl chloride (PVC) jacketing and insulation.
  - B. Max 7/C No. 12 AWG copper conductor control cable with PVC or XLPE jacket and insulation.
  - B. Max 7/C No. 12 AWG copper conductor control cable with PVC or XLPE jacket and insulation.
  - C. Max 4/0 AWG Type RHH ground cable.
  - D. Max 4 pr No. 22 AWG Cat 5 or Cat 6 computer cables.
  - E. Max RG 6/U coaxial cable with fluorinated ethylene insulation and jacketing.
  - F. Fiber optic cable with polyvinyl chloride (PVC) or polyethylene (PE) jacket and insulation having a max diam of 1/2 in. (13 mm).
  - G. Max 3/C No 12 AWG MC Cable.
 For opening with cables, the hourly T, FT and FTH Ratings are 1/4 hr.
3. Firestop Device\* — Firestop device consisting of a steel collar with plug to be centered over opening and mounted to top or bottom surface of floor or both sides of wall. For openings with cables, plug within collar cut to fit tightly around the cable bundle. Collar secured to floor or wall using the anchor hooks provided with the collar. The anchor hooks are to be secured with min 1/4 in. (6 mm) diam by min 1-1/4 in. (32 mm) long steel expansion bolts or min 0.145 in. (3.7 mm) diam by 1-1/4 in. (32 mm) long powder actuated fasteners utilizing a min 9/16 in. (15 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. (45 mm) long KWIK-BOLT 3 steel expansion anchor or Hilti X-U 27 P8 S15 powder actuated floor pin with integral nom 9/16 in. (15 mm) diam washer may be used. For blank openings (no cables), the hourly T, FT and FTH Ratings are 3/4 hr.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-CC 4" Firestop Cable Collar

L Ratings apply to blank openings only per Table below.

Opening	CFM (per device)		CFM / Sq Ft Opening	
	Ambient	400F	Ambient	400F
Blank Opening Only In Walls Only (no cables)	Less Than 1	Less Than 1	Less Than 1	4
Max 100% visual fill with Cat 5 and/or Cat 6 cables	Less Than 1	1.2	Less Than 1	13.0

4. Fill, Void or Cavity Material\* — (Optional, Not Shown) - Fill material applied to fill interstices between and around the cable bundle where cables exit each device.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant, FS-ONE MAX Intumescent Sealant, or CP 618 Putty.

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

