

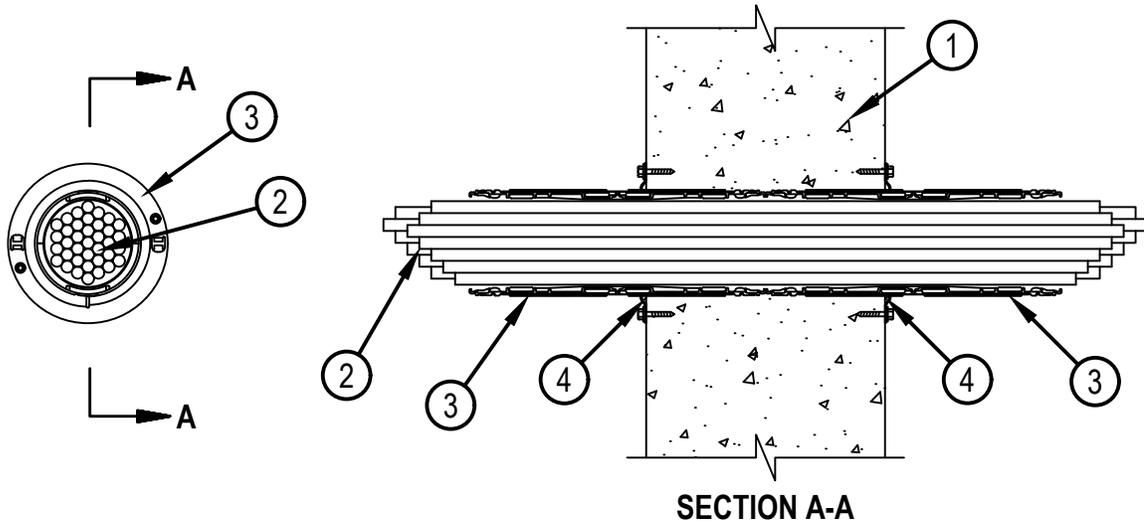


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. W-K-3002

WK 3002

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 3 and 4 Hr (See Item 2)	F Ratings — 3 and 4 Hr (See Item 2)
T Rating — 0 and 2 Hr (See Item 2)	FT Ratings — 0 and 2 Hr (See Item 2)
L Rating At Ambient — See Item 2	FH Ratings — 3 and 4 Hr (See Item 2)
L Ratings At 400 F — See Item 2	FTH Ratings — 0 and 2 Hr (See Item 2)
	L Rating At Ambient — See Item 2
	L Ratings At 400 F — See Item 2



SECTION A-A

1. Wall Assembly — Min 10 in. (254 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Opening in wall to be max 2-1/2 in. (64 mm) diam for 2" device and max 4-1/2 in. (114 mm) diam for 4" device. Wall may also be constructed in a min thickness of 10 in. (254 mm) with any UL Classified Concrete Blocks*.

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Cables — Within the loading area for each firestop device, the cables may represent a 0 to 100 percent visual fill. Cables to be tightly bundled within the device and rigidly supported on both sides of 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.
- 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 20/C No. 22 AWG shielded printer cable with PVC jacket.

H. Through-Penetrating Product* — Two copper conductors No. 18 AWG (or smaller) Power or Non Power Limited Fire Alarm Cable with or without a jacket under a metal armor.

AFC CABLE SYSTEMS INC

I. Max 1/4 in. (6 mm) diameter S-Video Cable consisting of 2 max 24 AWG 75 ohm coax or twisted pair cable with PE insulation and PVC jacket.

J. Through Penetrating Product* — Any Cables, Metal-Clad Cable+ or Armored Cable+ currently Classified under the Through Penetrating Products category.

See Through Penetrating Product (XHLY) category in the Fire Resistance Directory for names of manufacturers.

K. Max 3/C No 12 AWG MC Cable.

When cable types 2J and/or 2K are used, the hourly rating of the firestop system shall not exceed 3 hr and the T, FT and FTH Ratings are 0 hr .



Hilti Firestop Systems

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August 02, 2018

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L Ratings apply only when device flanges are used. L Ratings vary depending on whether the gasketing material (see Item 3) or the sealant (Item 4) is used. See Table below for L Ratings.

Max Cable Fill	Cable Type	L Rating, CFM/Sq Ft				L Rating, CFM			
		Ambient		400°F		Ambient		400°F	
		Sealant	Gasket	Sealant	Gasket	Sealant	Gasket	Sealant	Gasket
0%	—	Less than 1	1.0	Less than 1	2.7	Less than 1	Less than 1	Less than 1	Less than 1
100%	Item 2D only	4.9	4.9	1.3	3.5	Less than 1	Less than 1	Less than 1	Less than 1
100%	Any cables (Item 2) in any combination	9.2	9.2	9.6	11.8	1.2	1.2	1.3	1.6

3. Firestop Device* — Two firestop devices installed within opening, one device from each side of wall. Firestop devices shall extend to mid-depth of wall with ends butted. Each firestop device consists of a corrugated steel tube with an inner plastic housing, intumescent material rings, twisted inner fabric smoke seal, flanges and gasketing material (not shown). Firestop device to be installed in accordance with the accompanying installation instructions. The inner fabric seal within each device shall be twisted to completely close off the opening within device. As an option, the inner fabric seal may remain open except that, to attain the L Rating, the inner fabric seal shall be twisted to completely close off the opening within device. Each device slid into wall from opposite sides such that ends of devices extend to mid-wall depth with ends butted. The annular space between the device and the periphery of the opening shall be min 0 in. (point contact). One flange of each device is spun clockwise onto device threads, over gasketing material, butting tightly to surface of wall. Each flange secured to wall with min two 1-1/4 in. (32 mm) long masonry screws or anchors. As an alternate to gasketing material, sealant (Item 4) may be used.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 653 and CP 653 BA 2" Speed Sleeve, CP 653 and CP 653 BA 4" Speed Sleeve, CFS-SL GA L Speed Sleeve, CP 653 4" BA ILS and CFS-SL GA L ILS Speed Sleeve

4. Fill, Void or Cavity Material* - Sealant — As an alternate to gasket material (see Item 3), min 1/2 in. (13 mm) thickness of fill material applied within the annulus between firestop device and wall, flush with both surfaces of wall, and an additional 1/4 in. (6 mm) bead applied around periphery of device.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE MAX Intumescent Sealant or CP 606 Sealant

* 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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