



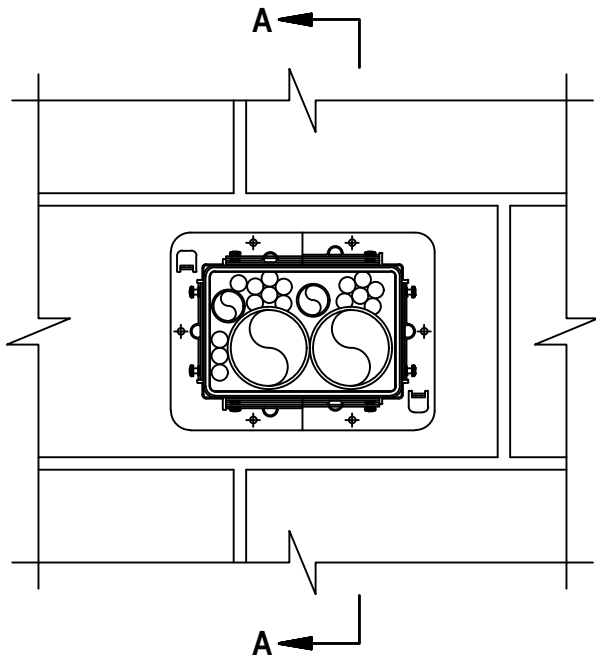
Classified by  
Underwriters Laboratories, Inc.  
to UL 1479 and CAN/ULC-S115

# System No. W-J-8103

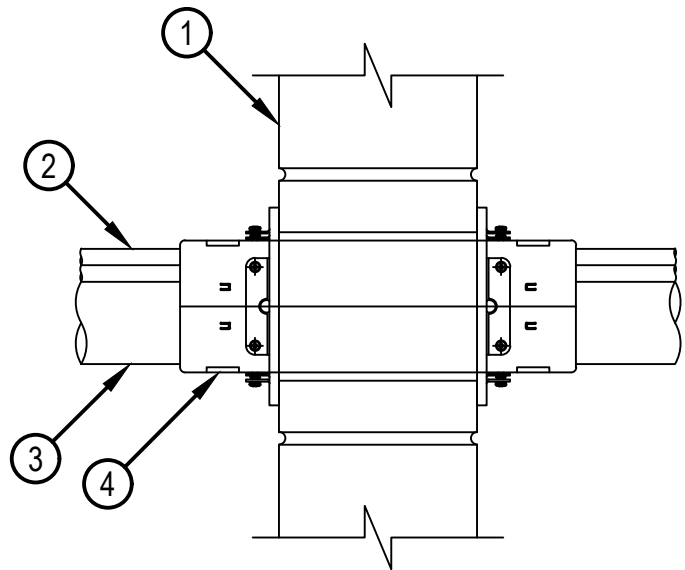
WJ 8103

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

**FRONT VIEW**



**SECTION A-A**



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February 9, 2024

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WJ 8103

1. Wall Assembly — Min 6 in. (152 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\*. Opening in wall to be max 6-1/4 in. (159 mm) x 4-1/4 in. (108 mm).

See Concrete Blocks (CAZT) 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 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. 23 AWG Cat 7 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. Max 1/4 in. (6 mm) diam S-Video Cable consisting of 2 max 24 AWG 75 ohm coax or twisted pair cable with PE insulation and PVC jacket .

I. 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.

J. Single mode fiber optic cable with PVC jacket having a max diam of 13/64 in. (5 mm).

If any of the above cables other than Item 2A (100 pair cable) are used, the T Rating is 1-1/2 hr. If the 100 pair cable (Item 2A) is used, the T Rating is 1 hr.

When the hourly rating of the wall assembly is 1 hr, the T, FT and FTH Ratings are 0 hr. When the hourly rating of the wall assembly is 2 hr, the T, FT and FTH Ratings are 1 hr except that, when Item 2K is used, the T, FT and FTH Ratings are 1/2 hr .

3. Metallic Penetrants — (Optional) One pipe or tube to be installed in opening. The following types and sizes of through penetrants may be used:

Steel Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

Iron Pipe — Nom 2 in. (51 mm) diam (or smaller) cast or ductile iron pipe.

Conduit — Nom 2 in. (51 mm) diam (or smaller) steel conduit, nom 2 in. (51 mm) diam (or smaller) steel electrical metallic tubing (EMT), or nom 3/4 in. (25 mm) diam (or smaller) flexible steel conduit.

For openings with metallic penetrants the hourly T, FT, FTH Ratings are 1 hr.

3A. Nonmetallic Penetrants –(Optional)– One or more nonmetallic penetrants to be installed within the firestop system and rigidly supported on both sides of the wall. The nonmetallic penetrants may be tightly bundled with the cables (Item 2) and the metallic penetrants within the device. The following types and sizes of through penetrants may be used:

3A1. Nom 2 in. (51 mm) diam (or smaller) ENT formed from PVC.

3A2. Nom 3/4 in. (51 mm) diam (or smaller) ENT formed from PVC.

3A3. Nom 2 in. (51 mm) diam (or smaller) ENT formed from high density polyethylene (HDPE).

3A4. Nom 1/2 in. (12.7 mm) diam (or smaller) Dura-Line microduct.

4. Firestop Device\*— Firestop devices each consist of a rectangular outer steel sleeve formed with two half housings, connected and secured together, and installed in accordance with the accompanying installation instructions. Devices slid into wall such that ends project an equal distance from the approximate centerline of the wall assembly. The annular space between the device and the periphery of the opening shall be min 0 in. (point contact) to max 1/4 in. (6 mm). Device is installed with gaskets and flanges installed on both sides of wall per accompanying installation instructions.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-MSL L 6" x 4", CFS-MSL M 3" x 4", CFS-MSL S 3" x 2" Modular Sleeve, CFS-MSL P S 3" x 2", CFS-MSL P M 3" x 4", CFS-MSL P L 6" x 4" Modular Sleeve Plates

\* 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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