

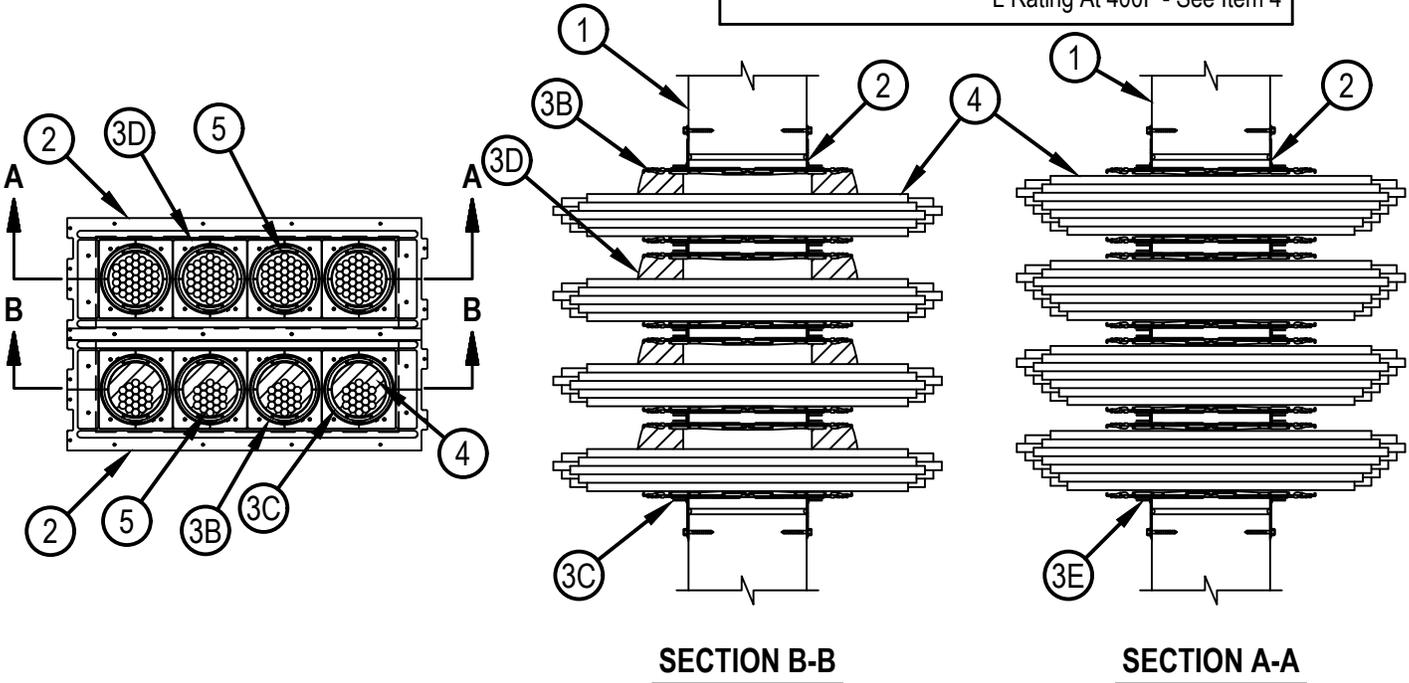


Classified by  
Underwriters Laboratories, Inc.  
to UL 1479 and CAN/ULC-S115

# System No. W-J-3200

WJ 3200

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



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\*. Maximum opening sizes are specified in Table below. Opening may be oriented vertically or horizontally.

FIRESTOP DEVICE (Item 2)	MAXIMUM OPENING SIZE, in. (mm)	
24" GANGPLATE :		
•SINGLE	5-1/2" x 20-1/2"	(140 x 521)
•DOUBLE (STACKED)	13-1/4" x 20-1/2"	(337 x 521)
16" GANGPLATE :		
•SINGLE	5-1/2" x 15"	(140 x 381)
•DOUBLE (STACKED)	13-1/4" x 15"	(337 x 381)

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



**Hilti Firestop Systems**

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2. Firestop Device\* — The firestop device consists of a steel plate sandwich construction with three (16" device size) or four (24" device size) circular opening ports which are each nom 4 in. (102 mm) diam. The firestop device is intended to be oriented vertically or horizontally and mounted to the face of the opening on both sides of wall. As an option, up to two devices may be installed adjacent to each other with a nom 13/16 in. (2 cm) overlap to protect larger sized openings (see Item 1 for double device). Each device shall be secured to wall with min 1-1/2 in. (38 mm) long masonry screws or anchors through prepunched holes around periphery of steel device plates; min three (16" gang plate) or four (24" gang plate) fasteners are used at each long dimension and three fasteners at each end. For double plate installations, four min No. 10 by 3/4 in. (19 mm) steel screws are used to secure the plate to plate joint through prepunched holes in the plate. The device shall be installed in accordance with the accompanying installation instructions.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SL GP 16" and 24" Firestop Gangplate

3. Firestop Device — Within each circular opening port of the CFS-SL GP firestop gang plates (Item 2), one of the following firestop devices shall be installed. Any combination of these firestop devices may be used within each gang plate.

3A. Firestop Device\* — (Not Shown) Rectangular steel plate designed to close port openings with no penetrants. Plate is field installed in accordance with Hilti Installation Instructions. Flanges of gang plate over port opening are removed by loosening GP nuts, the steel plate cap installed with prepunched holes aligned with GP fasteners, and the flanges of GP then reinstalled and nuts reinstalled to tighten the plates in position.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SL GP CAP Firestop Gangplate CAP

3B. Firestop Device\* — Firestop device consists of a corrugated steel tube. The device flanges are removed by spinning counterclockwise and are not used. Device tube slid into gang plate port opening and centered within wall such that ends of device tube project an approximate equal distance from the gang plate on each side of wall. The two integral screws within the flange of the gang plate port at each side of wall are tightened to firmly bear against the device sleeve to retain it in position. Device is designed to allow installation before or after the cable penetrants (if employed) are in place. Device is used in combination with the firestop plugs described in Item 3D.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SL RK 4" Firestop Sleeve

3C. Firestop Device\* — Firestop device consists of a corrugated steel tube. The device flanges are removed by spinning counterclockwise and are not used. Device tube slid into gang plate port opening and centered within wall such that ends of device tube project an approximate equal distance from the gang plate on each side of wall. The two integral screws within the flange of the gang plate port at each side of wall are tightened to firmly bear against the device sleeve to retain it in position. Device is used in combination with the firestop plugs described in Item 3D.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SL SK 4" Firestop Sleeve

3D. Fill, Void or Cavity Material\* - Plug — Plugs are required to be used with the CFS-SL RK and SK firestop devices (Items 3B and 3C). Nom 4" diam plug friction fit within the device sleeve flush with each end of the device on both sides of wall. Plug cut to fit around the cable bundle (if used) and installed tightly within the device sleeve.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-PL Firestop Plug 4"

3E. Firestop Device\* — Firestop device consists of a corrugated steel tube with an inner plastic housing, intumescent material rings and twisted inner fabric smoke seal. The device flanges are to be spun counterclockwise and removed since they are not used. Device tube slid into gang plate port opening and centered within wall such that ends of device tube project an approximate equal distance from the gang plate on each side of wall. The two integral screws within the flange of the gang plate port at each side of wall are tightened to firmly bear against the device sleeve to retain it in position. The inner fabric seal shall be twisted to completely close off any unused opening within the device. As an option, the inner fabric seal within the device may remain open except that, for all blank devices (no cables), the inner fabric seal shall be twisted to completely close the device. In addition, to attain the L Rating, the inner fabric seal must also be twisted to completely close the opening within each device.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 653 4" Speed Sleeve



4. Cables — Within the loading area for each firestop device (Items 3B through 3E), a tightly bundled cable may be installed. The aggregate cross-sectional area of cables shall be min 0 to max 60 percent fill for each CFS-SL RK and CFS-SL SK firestop device (Items 3B and 3C). For the CP 653 Speed Sleeve firestop device (Item 3E), the cables can be used for 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. 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.
- H. 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.

- I. Max 3/C No 12 AWG MC Cable.

The L Ratings are dependent on the type and number of devices within the gang plate and the cable type and fill. For devices with cable bundle, the cable bundle shall be nominally centered within the device to attain the L Ratings. The L Ratings in CFM per GP device (Table 1) and in CFM per ft2 of opening (Table 2) are specified below:

Table 1 - CFM per CFS-SL GP Gangplate Device at Ambient and 400F

	TYPE AND NUMBER OF DEVICES IN CFS-SL GP (CAP - ITEM 3A; DEVICES - ANY COMBINATION OF ITEMS 3B THROUGH 3D EXCEPT AS NOTED)				
	CAP(S) ONLY	CAP(S) AND ONE DEVICE	CAP(S) AND TWO DEVICES	CAP (OPT) AND THREE DEVICES	FOUR DEVICES
BLANK OPENING (NO CABLES) :	LESS THAN 1	1	2	2.5	3.5
OPENINGS WITH ANY COMBINATION OF ITEM 5 CABLES FOR MAX 33% AGGREGATE FILL IN DEVICE TYPES 3B AND 3C, AND/OR MAX 100% VISUAL CABLE FILL IN DEVICE TYPE 3D	-	2	4	6	8
	CAP(S) ONLY	CAP(S) AND ONE CP 653 DEVICE (ITEM 3D)	CAP(S) AND TWO CP 653 DEVICES (ITEM 3D)	CAP (OPT) AND THREE CP 653 DEVICES (ITEM 3D)	FOUR CP 653 DEVICES (ITEM 3D)
OPENINGS WITH MAX 100% VISUAL CABLE FILL WITH CABLE TYPE 5D ONLY AND CP 653 ONLY	-	1.5	3	4	5.5



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Table 2 - CFM per FT<sup>2</sup> of Opening at Ambient and 400F.

	TYPE AND NUMBER OF DEVICES IN CFS-SL GP (CAP - ITEM 3A; DEVICES - ANY COMBINATION OF ITEMS 3B THROUGH 3D EXCEPT AS NOTED)				
	CAP(S) ONLY	CAP(S) AND ONE DEVICE	CAP(S) AND TWO DEVICES	CAP (OPT) AND THREE DEVICES	FOUR DEVICES
BLANK OPENING (NO CABLES) :	1.2	1.3	2.6	3.2	4.5
OPENINGS WITH ANY COMBINATION OF ITEM 5 CABLES FOR MAX 33% AGGREGATE FILL IN DEVICE TYPES 3B AND 3C, AND/OR MAX 100% VISUAL CABLE FILL IN DEVICE TYPE 3D	-	2.6	5.1	7.7	10.2
	CAP(S) ONLY	CAP(S) AND ONE CP 653 DEVICE (ITEM 3D)	CAP(S) AND TWO CP 653 DEVICES (ITEM 3D)	CAP (OPT) AND THREE CP 653 DEVICES (ITEM 3D)	FOUR CP 653 DEVICES (ITEM 3D)
OPENINGS WITH MAX 100% VISUAL CABLE FILL WITH CABLE TYPE 5D ONLY AND CP 653 ONLY	-	1.9	3.8	5.1	7.0

\* 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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