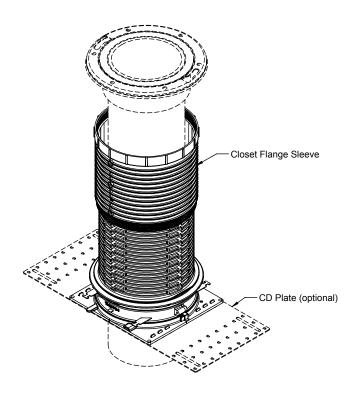
PRODUCT SPECIFICATION DRAWING <u>Hydroflame Pro Series - Closet Flange Sleeves</u>



Technical Data for HydroFlame Pro Firestop Device					
Product Test Criteria					
UL Fire Tested & Listed to UL1479 (ASTM E814) & CAN/ULC S115					
UL Ratings (consult individual product specs & UL Systems):					
"L": Yes; "F": 3 Hrs. typical; "W": Yes (UL system may require caulk)					
Intumescent Fire Wrap Physical Properties, Performance					
Contains no solvents or carcinogenic fillers					
Color:	Gray/Black				
Material shelf/store life:	Indefinite				
Heat Expansion begins:	~375°F (191°C)				
Greatest Expansion:	575°F-1100°F (302°C - 593°C)				
Constrained Expansion:	≥18 times volume				
Free Expansion:	≥37 times volume				
Expansion after accelerated weathering (tested to UL 1479):					
Temperature aging:	Pass - 270 days @ 158°F (70°C)				
High humidity aging:	Pass - 180 days @ 97-100% humidity, 95°F (35°C)				
Surface Burning Indices (Per ASTM E84/UL 723):					
Flame spread:	5				
Smoke developed:	5				

The HOLDRITE® Hydroflame Pro Series "Closet Flange Sleeves" are UL Listed Firestop Devices that accept 3" or 4" plastic or no-hub closet flanges and drain pipes. They provide 3-hour "F" & "T" ratings and also "L" & "W" ratings for concrete slabs 2-1/2" and thicker. Sleeves have a mid-body seal and built-in firestop materials. Optional "CD Plate" can be added for use on metal deck forms. Models include #HFP-CF3PL (B), #HFP-CF4PL (B), #HFP-CF3NH (B) and #HFP-CF4NH (B).

Product Information:

Material:

Main Sleeve Body, Base & Safety Cap: Polypropylene.

Mid-Body Seal: Thermoplastic Rubber (TPR); Mold & Fungus resistant per ASTM G-21.

Locator Whiskers: Polypropylene.

Fire Ring: 24GA CRS.

Firestop Material: UL Listed Intumescent Composite.

- Patented & Patents Pending.
- See Hydroflame Pro Series Installation Instructions, Best Practices documents and the latest UL Fire Resistive Directory file (R25101) for details.





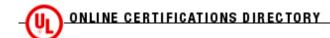


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Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product
 manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each
 product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate
 methods of construction.
- · Only products which bear UL's Mark are considered Certified.

XHEZ - Through-penetration Firestop Systems XHEZ7 - Through-penetration Firestop Systems Certified for Canada

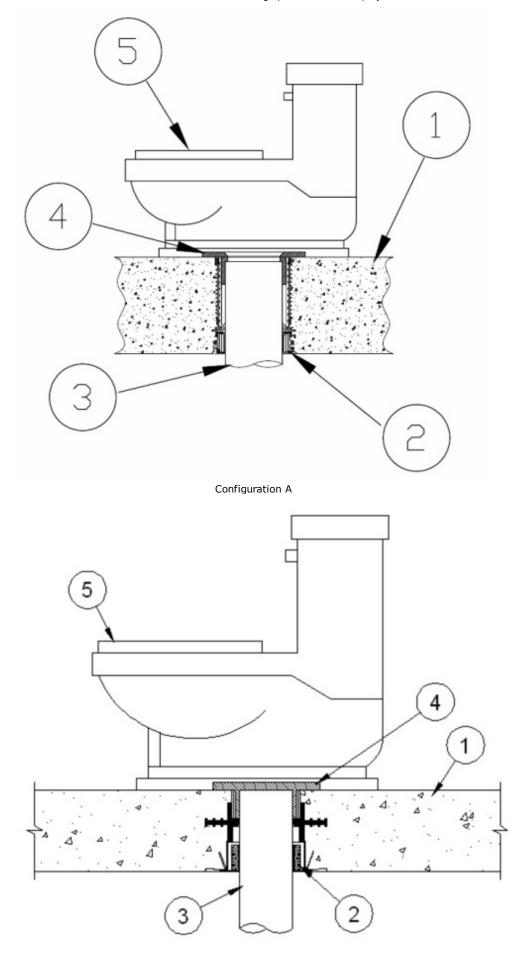
See General Information for Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems Certified for Canada

System No. F-A-2189

September 12, 2016

ANSI/UL1479 (ASTM E814)	CAN/ULC S115	
F Rating — 3 Hr	F Rating — 3 Hr	
T Rating — 3 Hr	FT Rating — 3 Hr	
L Rating At Ambient — Less Than 1 CFM/sq ft	FH Rating — 3 Hr	
L Rating At 400 F — Less Than 1 CFM/sq ft	FTH Rating — 3 Hr	
W Rating — Class 1	L Rating At Ambient — Less Than 5.1 L/s/m ²	
	L Rating At 400 F — Less Than 5.1 L/s/m ²	



Configuration B

System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

- 1. **Floor Assembly** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete floor when measured above base of device excluding any adapters.
- 1A. Floor Assembly (Not Shown) The fire-rated concrete and fluted steel deck floor assembly shall be constructed of the materials and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
 - A. **Concrete** Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or $1600-2400 \text{ kg/m}^3$) concrete topping, as measured over crests of fluted floor units and above base of device excluding any adapters.
 - B. **Steel Floor and Form Units*** Composite or noncomposite max 3 in. (76 mm) deep fluted galv units as specified in the individual Floor-Ceiling design. Diam of opening cut through fluted floor unit to be maximum 1/4 in. (6 mm) larger than outside diameter of bottom extension portion of firestop device base.
- 2. **Firestop Device*** Cast-in-place firestop device permanently embedded during concrete placement in accordance with accompanying installation instructions. For Conf A HFP devices and optional accessories (not shown) includes sleeve extension, water module, deck adapter and/or aerator adapter installed in accordance with installation instructions. For Conf B devices, optional accessory (not shown) includes aerator adapter installed in accordance with the installation instructions. The device shall be installed flush with top and bottom surfaces of floor.

Nom Pipe Diam in. (mm)	Conf A Firestop Devices for Concrete Slab	Conf A Firestop Devices for Fluted Deck (Not Shown)	Conf B Firestop Devices for Concrete Slab	Conf B Firestop Devices for Fluted Deck (Not Shown)
3 (76)	HFP-CF3PL, HFP-CF3PLB, HFP-P3, HFP- P3B	add HFPCD3	PS-NPCF-0300, PS- NPCF40-0300, OPS- PL-0300, OPS-PL40- 0300	CD-CPCF-0300, CD- NPCF40-0300, CD-OPS- PL-0300, CD-OPS- PL40-0300
3 to 4 (76 to 102)	HFP-CF4PL, HFP-CF4PLB, HFP-P4, HFP- P4B	add HFPCD4	PS-NPCF-0400, OPS-PL-0400	CD-NPCF-0400, CD- OPS-PL-0400

SECURUS INC, DBA HOLDRITE — (Configuration A) HydroFlame HFP-CF3PL, HFP-CF3PLB, HFP-CF4PLB, HFP-P3, HFP-P3B, HFP-P4, HFP-P4B or (Configuration B) HydroFlame PS-CF, PS-NPCF-0300, PS-NPCF-0300, PS-NPCF-0400, CD-NPCF-0300, CD-NPCF40-0300, OPS-PL-0300, OPS-PL-0400, CD-OPS-PL-0300, CD-OPS-PL-0300, CD-OPS-PL-0400

- 3. **Nonmetallic Pipe** One nonmetallic pipe to be installed within the firestop device. Pipe to be installed approximately flush with top surface of floor in accordance with firestop device installation instructions and to be rigidly supported on underside of floor assembly. The following types of pipe may be used:
 - A. **Polyvinyl Chloride (PVC) Pipe** Nom 3 in. (76 mm) or 4 in. (102 mm) diam Schedule 40 solid or cellular core PVC pipe.
 - B. **Acrylonitrile Butadiene Styrene (ABS) Pipe** Nom 3 in. (76 mm) or 4 in. (102 mm) diam Schedule 40 solid or cellular core ABS pipe.
- 4. **Toilet Flange** PVC or ABS toilet flange with nominal 7 in. (178 mm) diam top ring and with nominal 4 in. (102 mm) OD throat sized to fit both 3 in. (76 mm) and 4 in. (102 mm) diam drain piping. Toilet flange cemented to top of nonmetallic pipe (Item 3) and secured to top surface of floor with closet bolts.
- 5. Water Closet Floor mounted vitreous china water closet. Install in accordance to installation instructions.
- * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Last Updated on 2016-09-12

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- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product
 manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each
 product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate
 methods of construction.
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XHEZ7 - Through-penetration Firestop Systems Certified for Canada

See General Information for Through-penetration Firestop Systems

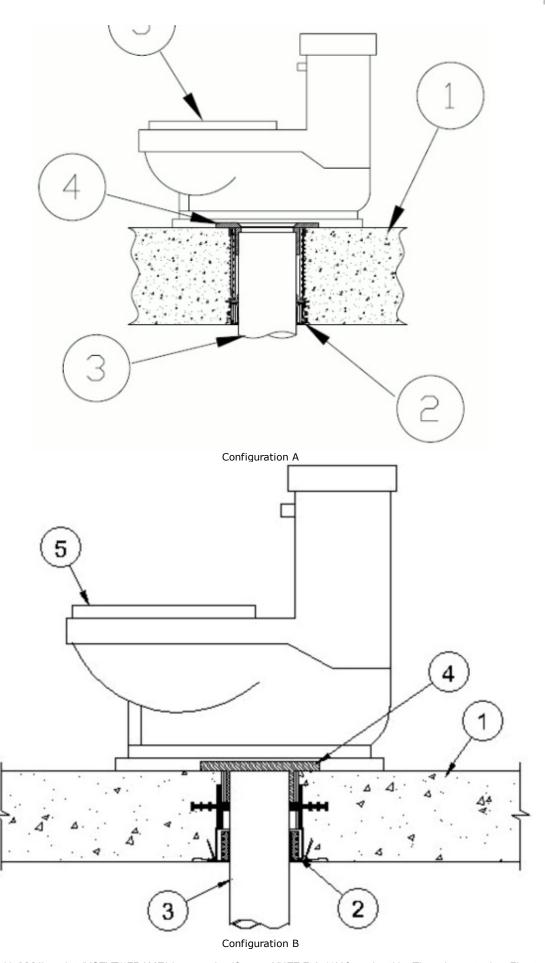
See General Information for Through-penetration Firestop Systems Certified for Canada

System No. F-A-1109

September 12, 2016

ANSI/UL1479 (ASTM E814)	CAN/ULC S115	
F Rating — 3 Hr	F Rating — 3 Hr	
T Rating — 0 Hr	FT Rating — 0 Hr	
L Rating At Ambient — Less Than 1 CFM/sq ft	FH Rating — 3 Hr	
L Rating At 400 F — Less Than 1 CFM/sq ft	FTH Rating — 0 Hr	
W Rating — Class 1	L Rating At Ambient — Less Than 5.1 L/s/m ²	
	L Rating At 400 F — Less Than 5.1 L/s/m ²	

MENU



MENU

kg/m³) concrete floor measured over the base of the device.

- 1A. **Floor Assembly** (Not Shown) The fire-rated concrete and fluted steel deck floor assembly shall be constructed of the materials and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
 - A. **Concrete** Config A Min 2-1/2 in. (64 mm) or Config B Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m 3) concrete topping, as measured over crests of fluted floor units or the top of the base of the device.
 - B. **Steel Floor and Form Units*** Composite or noncomposite max 3 in. (76 mm) deep fluted galv units as specified in the individual Floor-Ceiling design. Diam of opening cut through fluted floor unit to be maximum 1/4 in. (6 mm) larger than outside diameter of bottom extension portion of firestop device base.

Configuration A

2. **Firestop Device*** — Cast-in-place firestop device permanently embedded during concrete placement in accordance with accompanying installation instructions. The device shall be installed flush with top and bottom surfaces of floor. For HFP devices the optional accessories (not shown) includes a sleeve extension, aerator adaptor, deck adapter and/or water module installed in accordance with installation instructions. The devices are sized to accommodate installed pipe sizes.

Nom Pipe Diam in. (mm)	Firestop Devices for Concrete Slab	Firestop Devices for Fluted Deck (Not Shown)
3 (76)	HFP-CF3NH, HFP-CF3NHB, HFP-M3, HFP-M3B, HFP- P3, HFP-P3B HFP-CF3PL, HFP-CF3PLB	add HFPCD3
3 to 4 (76 to 102)	HFP-CF4HN, HFP-CF4NHB, HFP-M4, HFP-M4B, HFP- P4, HFP-P4B HFP-CF4PL, HFP-CF4PLB	add HFPCD4

SECURUS INC, DBA HOLDRITE — HydroFlame HFP-CFxNH, HFP-CFxNHB, HFP-CFxPL, HFP-CFxPLB HFP-M3, HFP-M3B, HFP-P3B, HFP-M4B, HFP-M4B, HFP-P4B

Configuration B

2. **Firestop Device*** — Cast-in-place firestop device permanently embedded during concrete placement in accordance with accompanying installation instructions. The device shall be installed flush with top and bottom surfaces of floor. Optional accessories (not shown) includes aerator adapter installed in accordance with the installation instructions The devices are sized to accommodate the pipe sizes installed.

SECURUS INC, DBA HOLDRITE — HydroFlame PS-CICF-xxxx, PS-CXCF-xxxx, CD-CICF-xxxx, CD-CXCF-xxxx

- 3. **Waste Pipe** One nom 3 in. (76 mm) or 4 in. (102 mm) diam cast iron pipe to be installed within the firestop device. Pipe to be installed approximately flush with top surface of floor in accordance with firestop device installation instructions and to be rigidly supported on underside of floor assembly.
- 4. **Toilet Flange** Cast iron toilet flange with nominal 7 in. (178 mm) diam top ring and with nominal 4 in. (102 mm) OD throat sized to fit both 3 in. (76 mm) and 4 in. (102 mm) diam drain piping. Toilet flange secured inside metallic pipe (Item 3) and secured to top surface of floor with closet bolts.
- 5. Water Closet Floor mounted vitreous china water closet.
- * 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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