

## CORRUGATED METALLIC CAST-IN-PLACE SLEEVE CD SERIES (CD-CT, CD-CH, CD-CI, CD-CX, CD-ST & CD-ET)

For use in Concrete floor assemblies with corrugated metal deck forms and dust and fiber free environments such as hospitals, computer centers and laboratories

### Product Description

- HydroFlame corrugated metal deck sleeves offer fire and water protection for a variety of pipe sizes and types that pass through concrete floors in multi-story buildings.
- These sleeves are delivered to the job site completely assembled and need only be fastened to the corrugated metal deck for final installation.
- HydroFlame sleeves appreciably reduce job time and material expenses by not requiring additional steps, such as cutting and caulking.
- OSHA compliant safety cap

### Metallic Through Penetrants

½" - 6" pipe sizes: Steel Pipe, Iron Pipe, Conduit (Steel conduit or electrical metallic tubing), Copper Tubing, Copper Pipe.

### Product Feature & Benefits

- Simple and quick installation, snug fit holds pipe in place
- Helps prevent water, fire, smoke, moisture & mold intrusion, Helps eliminate rework due to water damage
- Reduces time to finish building by allowing dry in of bottom floors faster
- Sleeves are pre-cut at the factory to your specified height

### Not for use in Walls or Wood form decks

### Safety & Precautions

- Keep this device out of reach of children and read the Material & Safety Data Sheet

### Storage of Device

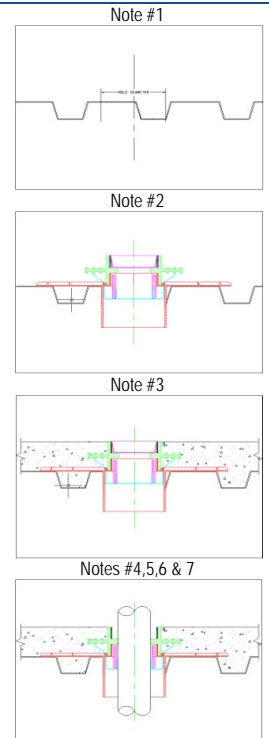
- Store in a covered or closed area protected from weather and do not stack devices on top of one another other than how they are shipped from manufacture



Technical Data for HYDROFLAME Firestop Device	
Physical Properties	
Color: Gray/Black	
Heat Expansion (Intumescence)	
Expansion begins:	410°F (210°C)
Significant expansion:	555°F (290°C)
Free expansion:	25 times (5 min @ 662°[350°C])
Weatherability (Tested to ASTM G23 and G53)	
Test Condition	Temperature/Humidity 90°F (32°C)/90%
Time	120 Days
After Exposure	No change in expansion
Surface Burning Characteristics (ASTM E84, UL 723)	
Flame spread index: 0	
Smoke development index: 5	
Testing Data	
UL Fire Tested & Listed to UL 1479 (ASTM E814) Standards	
L Rating UL	
W Rating UL	
F Rating UL – 3 Hours	

## Installation Instructions

- Lay out the corrugated deck for the appropriate corrugated deck device, cut the hole in the corrugated deck to the outside dimension of the bottom extension portion of the device.
- Select the correct sleeve for pipe type, size and concrete thickness. Align the hatch marks on lower base to layout lines on form deck to center the sleeve for the pipe that will penetrate through. Attach sleeve to deck with sheet metal screws using the holes provided in the lower base. Make sure the protective cap is securely inserted in the sleeve top before pouring concrete.
- Pour the concrete slab around the device to the appropriate slab thickness.
- Remove the protective cap from the top portion of the device before inserting pipe.
- Prior to installation, thoroughly clean the outside of the pipe to be inserted through the sleeve. The pipe must be free of concrete, dirt, paint, rust or anything protruding from the outside of pipe including burrs of pipe material. Make sure the mid-body seal membrane is clean of all debris, dirt, concrete or anything that might have gotten on the mid-body seal membrane during or after construction that could damage the sealing surface of the mid-body seal membrane when the pipe is inserted through the mid-body seal. Failure to perform proper cleaning could damage the mid-body seal membrane of the sleeve when the pipe is installed.
- After cleaning the debris from the surface of the pipe, it can now be inserted through the device. Recommendations:
  - Insert the pipe of choice up through the bottom of the device. Note: If circumstances arrive in the field, you may insert the pipe of choice down through the top of the device. Care should be taken to avoid coming in contact with the top of the fire ring tabs that hold the fire material in place in the lower section of the device.
  - Use of the factory beveled end of the cast iron or steel pipe should be inserted through the device, if not, cast iron or steel pipe shall have a slight bevel applied to the end of pipe being inserted through the device to ease installation and minimize the possibility of damaging the mid-body seal membrane.
  - Use a compatible soap solution or other recommended compatible lubricant to ease installation and further minimize the possibility of damaging the mid-body seal membrane. Lightly coating the mid-body seal center sealing surface will ease the insertion of pipe.
- To ensure that the water-tight feature of the W-rated sleeving systems perform as required, it is recommended that piping be confirmed to be within manufacturer's specified dimensional tolerances, prior to installing the penetrating pipe into the sleeve. For no-hub cast iron pipe, where a water-tight seal is required and 1) the pipe outer surface is very rough or irregular, or 2) the pipe O.D. is in excess of 25/1000 inch (0.025") smaller than pipe manufacturer's nominal O.D. specification, it may be necessary to add a bead of compatible silicone sealant around pipe for a fully water-tight seal. Also, due to its smaller O.D. specification, a water-tight seal cannot be guaranteed without using silicone sealant on service weight cast iron pipe. Be sure to use a sealant that is compatible with both the PVC sleeve riser and the penetrating pipe.



**Note:** HOLDRITE HYDROFLAME is not responsible for sleeve performance when installation instructions are not followed and will not be liable for damage to property or persons due to improper installation of materials or through attempts to utilize the material under conditions which exceed the designed capacities. Purchaser agrees to indemnify and hold HOLDRITE harmless for any and all claims, liabilities, damages, costs and expenses asserted against HOLDRITE or incurred by us because of injuries to persons or damages to property resulting from the improper installation or misuse of the material. For additional warranty limitations, refer to HOLDRITE's Limited Warranty dated 1/15/13

Product Submittal			
Job Name:	Architect/Owner:		
Date:	Contractor:		
Part#:	Qty:	Notes:	

## **System No. F-A-1104 XHEZ.F-A-1104 Through-penetration Firestop Systems**

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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.
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### **XHEZ - Through-penetration Firestop Systems**

[See General Information for Through-penetration Firestop Systems](#)

#### **System No. F-A-1104**

June 06, 2016

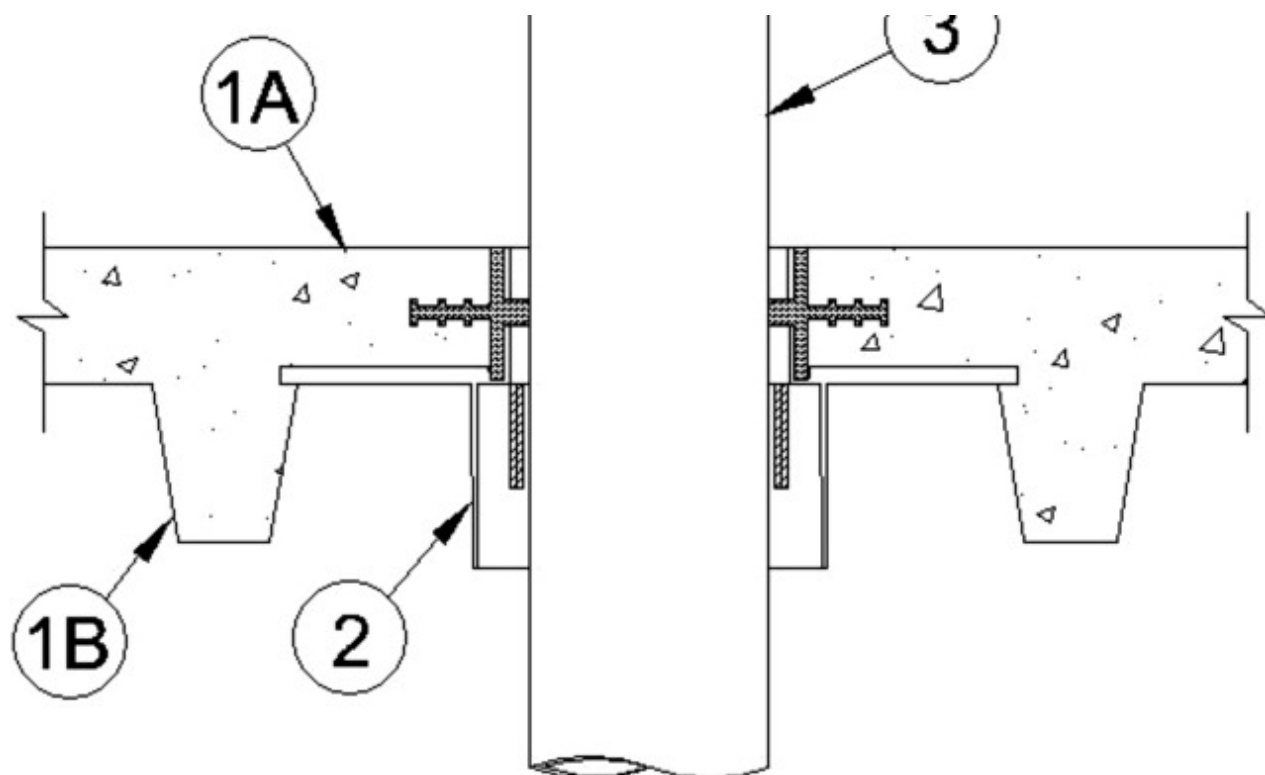
**F Ratings — 2 or 3 Hr (See Item 4)**

**T Rating — 0 Hr**

**L Rating At Ambient — Less Than 1 CFM/sq ft**

**L Rating At 400°F — Less Than 1 CFM/sq ft**

**W Rating — Class 1**



**1. Floor Assembly** — 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 kg/m<sup>3</sup>) concrete topping, as measured over crests of fluted floor units.

B. **Steel Floor and Form Units\*** — Composite or noncomposite nominal 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. The device shall be inserted through circular cutout in fluted floor unit and secured to crests of steel floor unit with steel screws. Top sleeve extension of device to be installed flush with top surface of floor.

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**3. Through Penetrant** — One metallic pipe, conduit or tubing to be installed within the firestop device. Pipe, conduit or tubing to be installed in accordance with firestop device installation instructions and rigidly supported on both sides of floor assembly. The following types of pipe, conduit or tubing may be used:

A. **Steel Pipe** — Nom 6 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe** — Nom 6 in. (152 mm) diam (or smaller) cast or ductile iron pipe.

C. **Conduit** — Nom 6 in. (152 mm) diam (or smaller) rigid steel conduit or nom 4 in. (102 mm) diam steel electrical metallic tubing.

D. **Copper Tubing** — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.

E. **Copper Pipe** — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.

**4. Pipe Tee Fitting System** — (Optional, Not Shown) — For use with Iron Pipe (Item 3B) only, One nom 6 in. (152 mm) diam (or smaller) PVC TESTRITE TEE Fitting (matched to penetrant diameter). The PVC TESTRITE TEE Fitting is secured to metallic penetrant (Item 3B) with compression type pipe coupling elastomeric gasket with stainless steel jacket and stainless steel band clamps for use in vented (drain, waste or vent) iron pipe systems. Installed (Item 3B) penetrant shall extend a minimum of 6 in. (152 mm) above the surface of the floor and minimum 12 in. (302 mm) below the bottom surface of the floor above assembly.

**When Item 4 is used within 24 in. (610 mm) of the device (Item 2) the F rating is limited to 2 Hours.**

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