



# PasFiPro '25

9-10 FEBRUARY | DOHA, QATAR

**FCIA**  **NFCA** 

# FCIA 2025 DOHA MEMBER MEETING & SYMPOSIUM

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**PASSIVE FIRE  
PROTECTION**

**INSTALLATION**

Presented by:

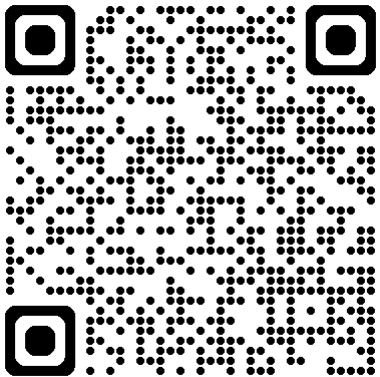
**Bill McHugh**

**Abhishek Chhabra**

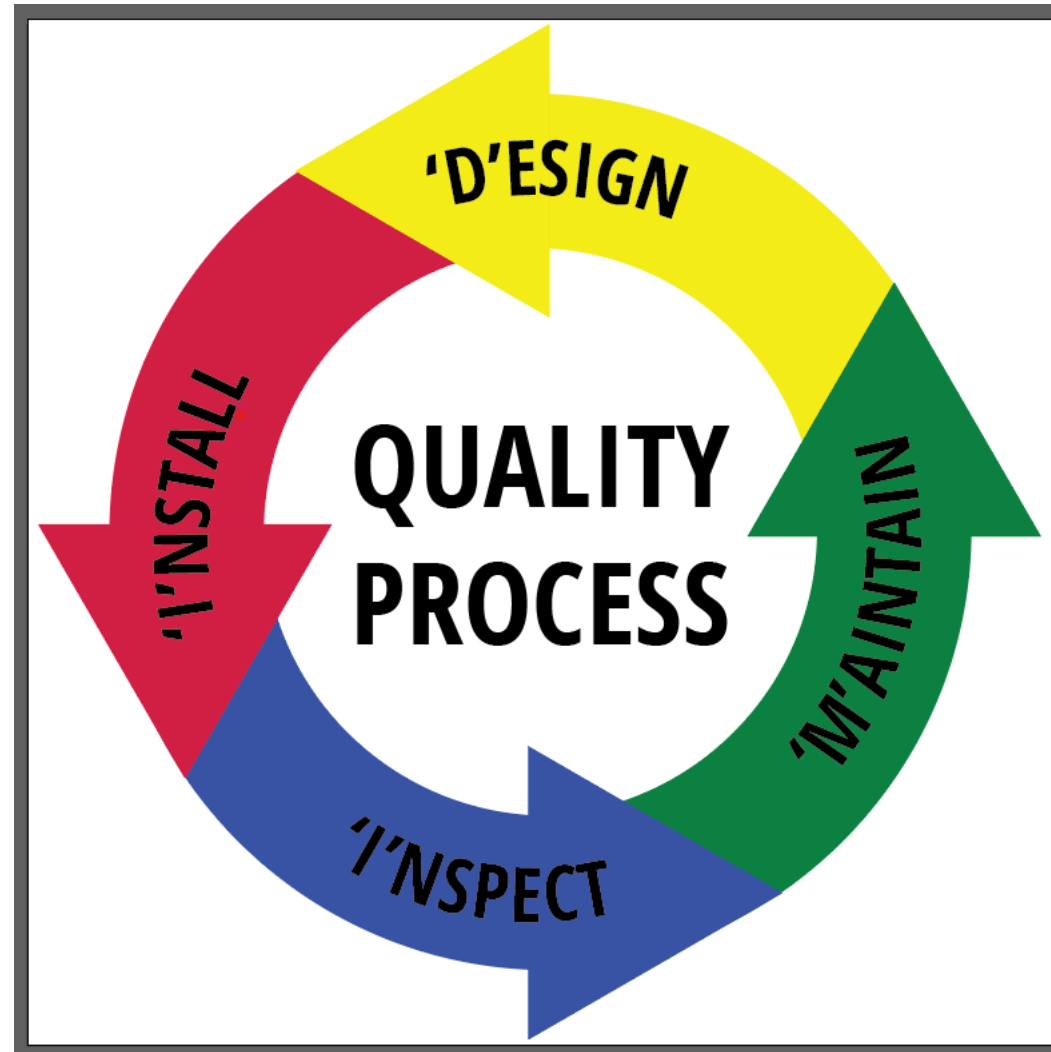
**FCIA/NFCA**

FCIA's DIIM™

FM 4991/UL QFCP  
Programs AND  
Mfr. Education



Specs, Code



IBC Ch. 17 -NFPA 80 - NFPA 1

PFP/BARRIER  
MANAGEMENT  
Fire Codes



# I-Installation



Heckler Photo



C.Zussman, Pepper Photo

C. Zussman Pepper Photo



# UL Product iQ Cont.

## Access and Reading a Firestop System

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- **Review Live:**

- U410
- C-AJ-1155
- C-AJ-4036
- C-AJ-8001
- W-L-2030
- W-L-2154
- W-L-5001



# UL Product iQ Cont.

## Access and Reading a Joint System

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- **Review Live:**
  - BW-S-0002
  - FF-D-1001
  - HW-D-0221

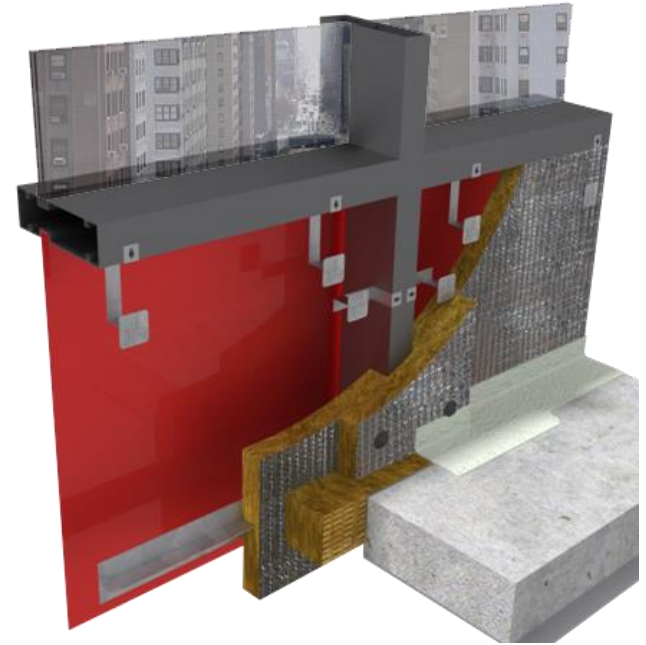


# UL Product iQ Cont.

## Access and Reading a PFC System

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- **Review Live:**
  - CW-D-1046
  - CW-D-2055
  - CW-D-2027
  - CW-D-1026
  - CW-D-1015
  - CW-D-1053
  - CW-D-1046





# Install in Accordance with Listing & Manufacturers Installation Instructions



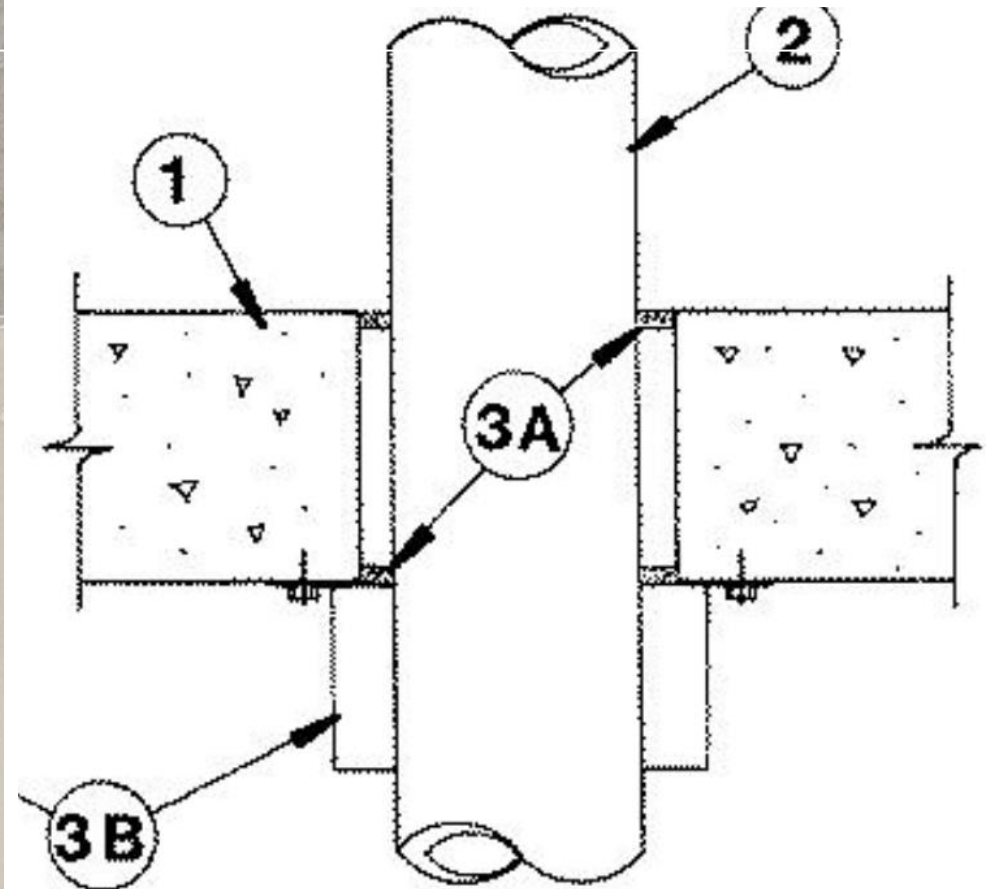
# What's wrong with this picture?



Heckler Photo

C-AJ-2038

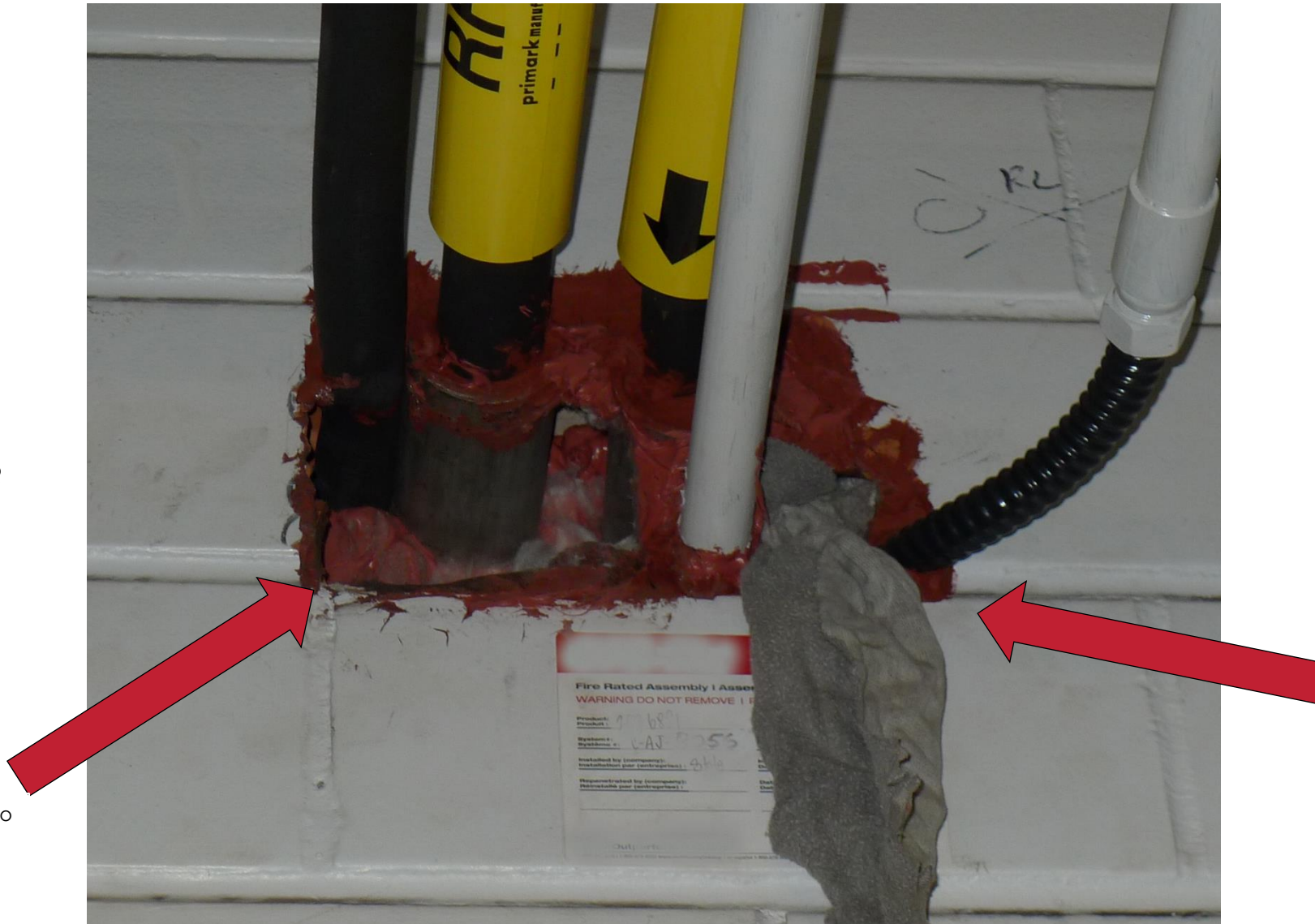
<https://iq.ulprospector.com/en/profile?e=173569>





# What's wrong with this picture?

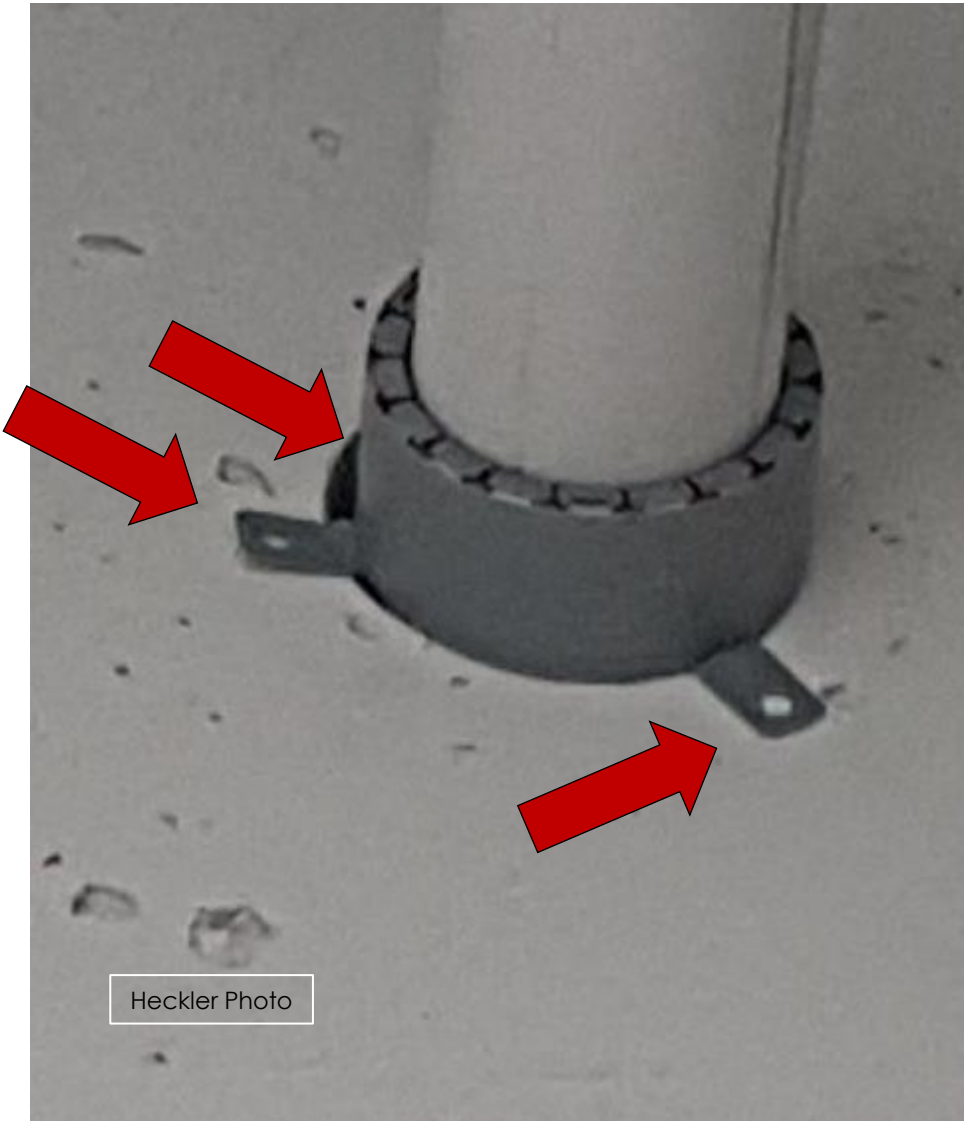
Sleeve?  
Rags?  
No Sealant?



D. Falconer Photo



# What's wrong with this picture?



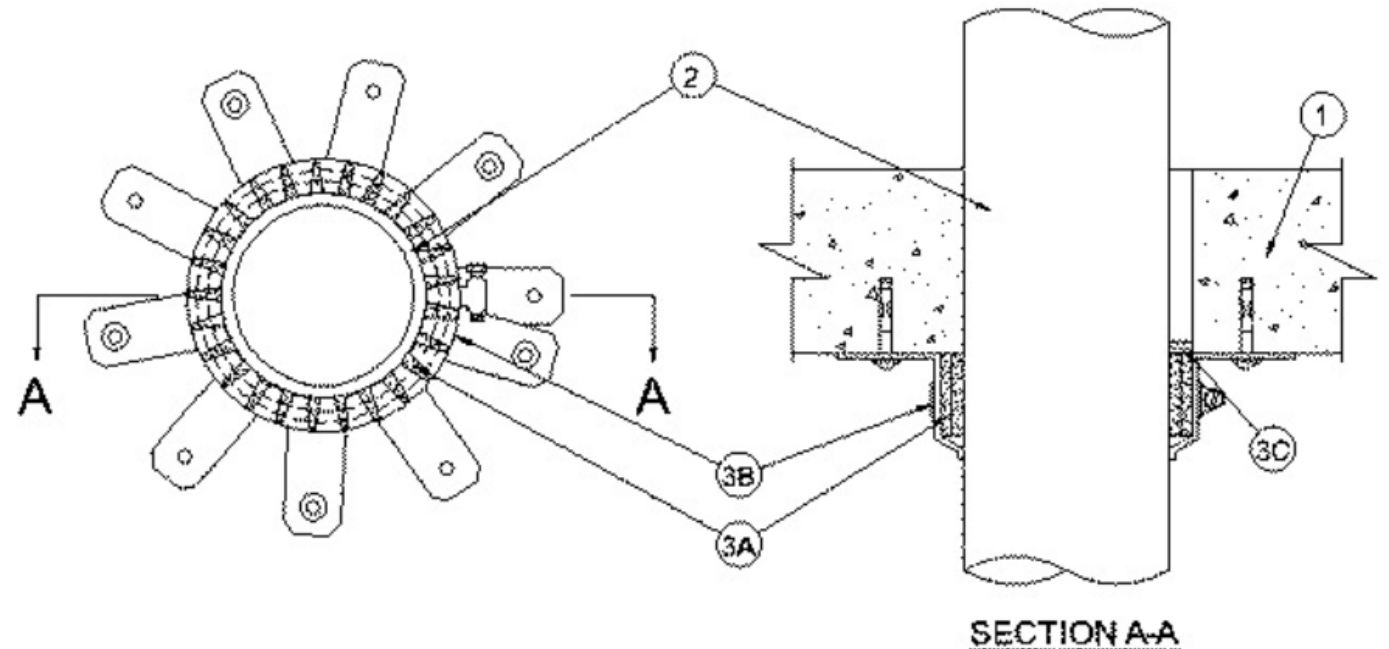
[Through-penetration Firestop Systems](#)

**System No. C-AJ-2371**

January 09, 2015

**F Rating - 3 Hr**

**T Ratings - 2 and 3 Hr (See Item 3)**



# C-AJ-2048?? No

**F-A-2162 – NO 50pa, NOT CANADA!!!**

<https://iq.ulprospector.com/en/profile?e=178770>



## System No. F-A-2162

January 27, 2009

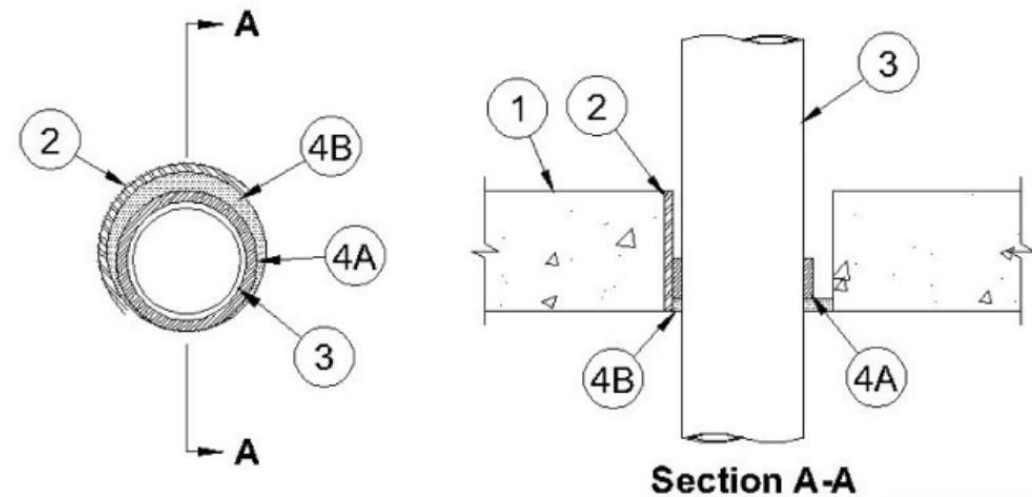
**F Rating — 2 Hr**

**T Rating — 0 Hr**

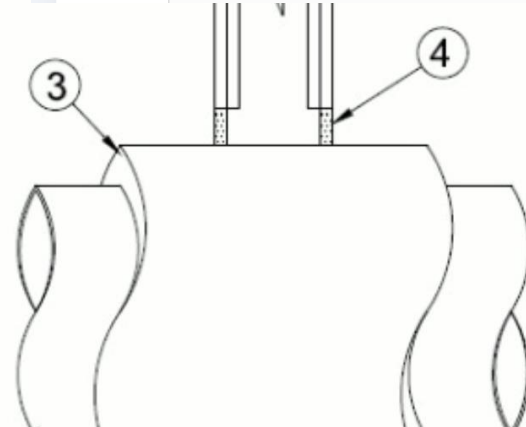
**L Rating At Ambient — Less Than 1 CFM/sq ft**

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

**W Rating — Class 1 (See Item 4B)**



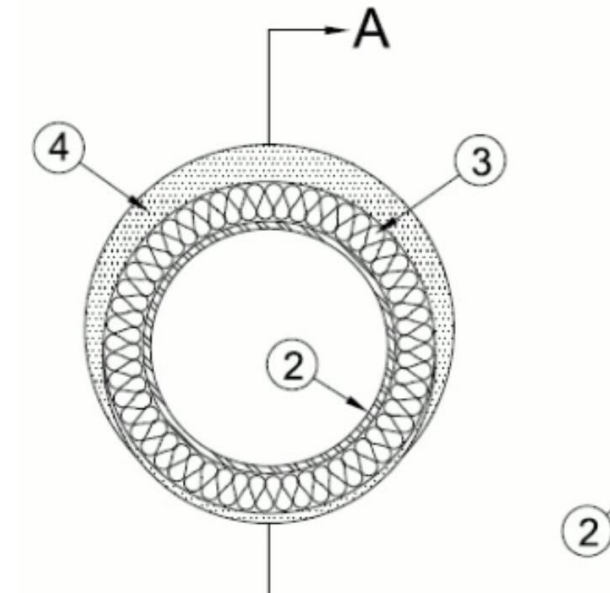
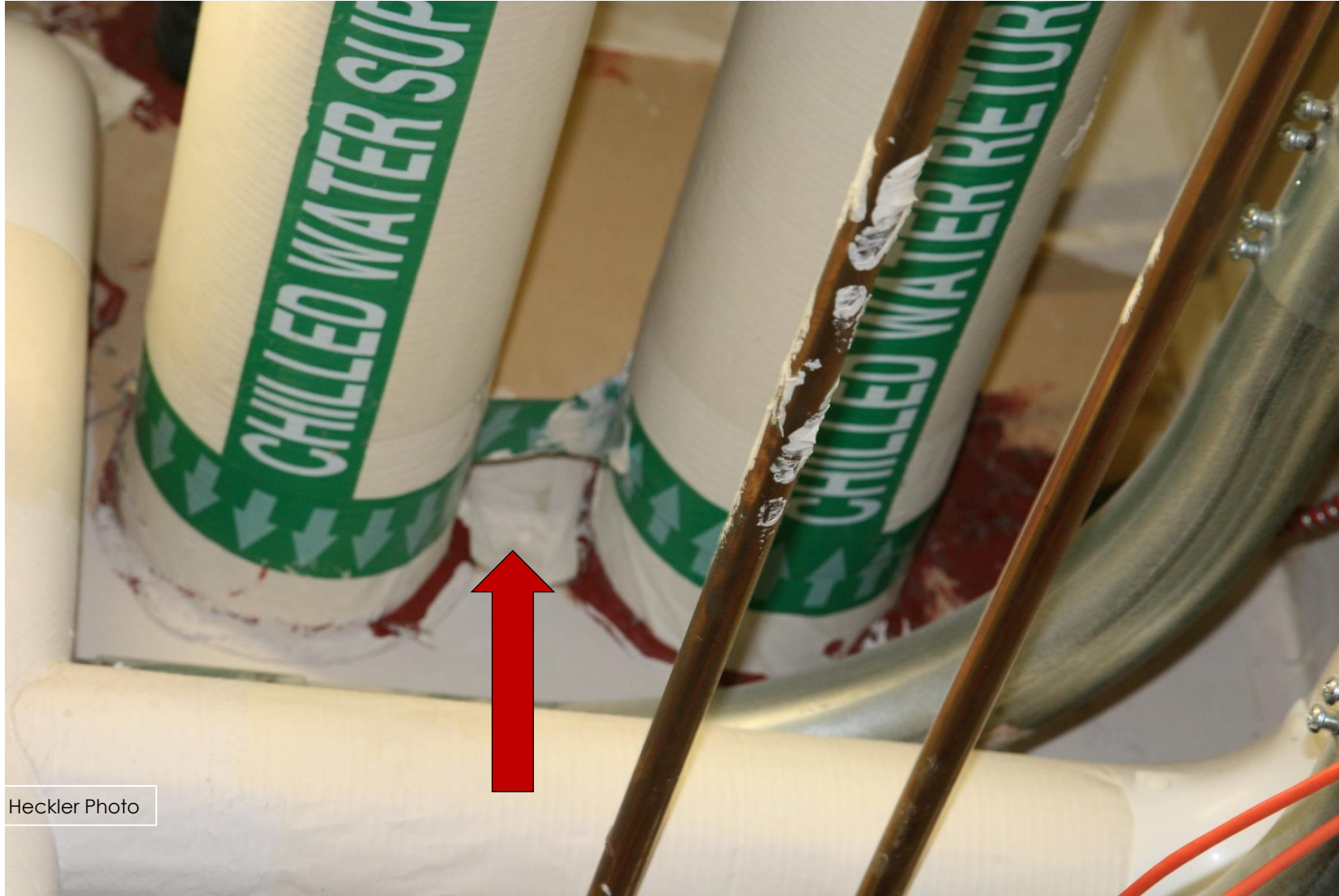
A cross-sectional view of a multi-layered cylindrical structure. The structure consists of a central core (2) surrounded by a first layer (3) and an outer layer (4). A line labeled 'A' points to the interface between the first layer (3) and the outer layer (4).



13

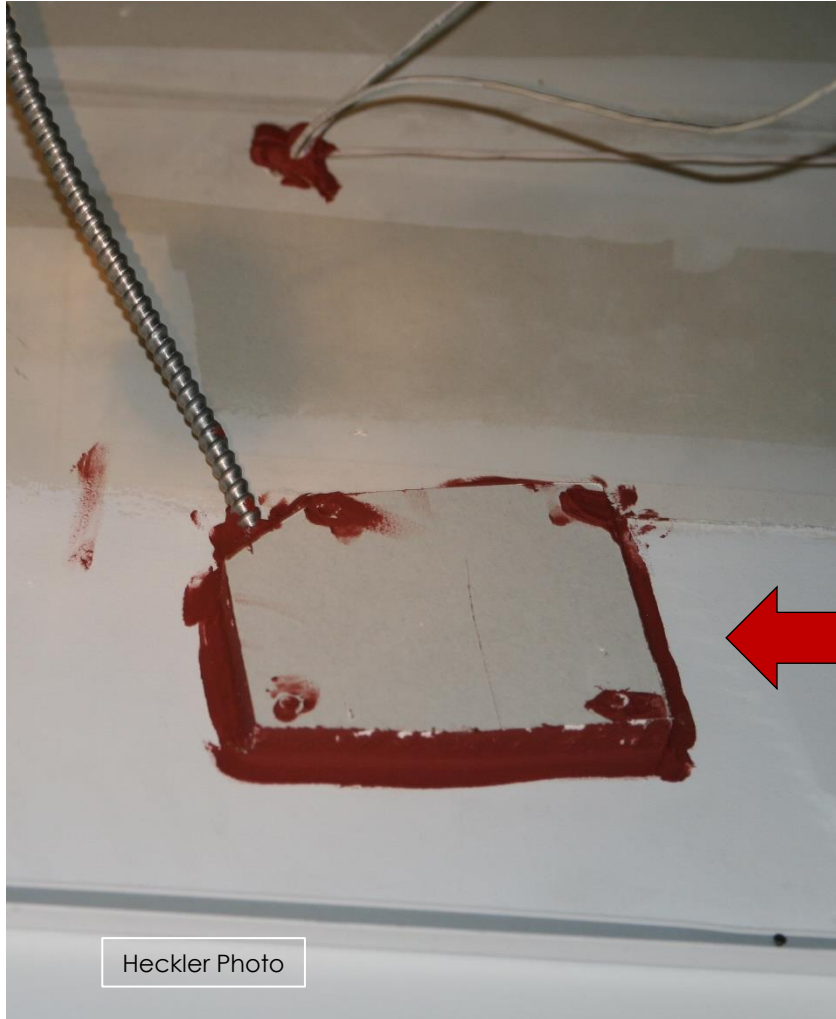


# What's wrong with this picture? MIX??



# What's wrong with this picture?

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Heckler Photo

# What's Wrong? COLLAR?

ABS Plastic Pipes

NOT EQUAL

PVC, PP, Plastic  
Pipes

Heckler Photo

System No. C-AJ-2035

October 26, 2021

F Ratings — 2 and 3 Hr (See Items 1 and 2H)

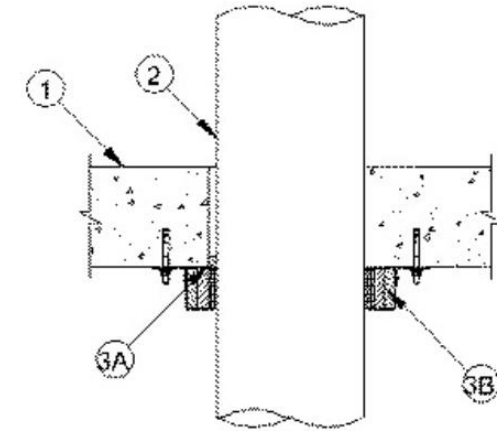
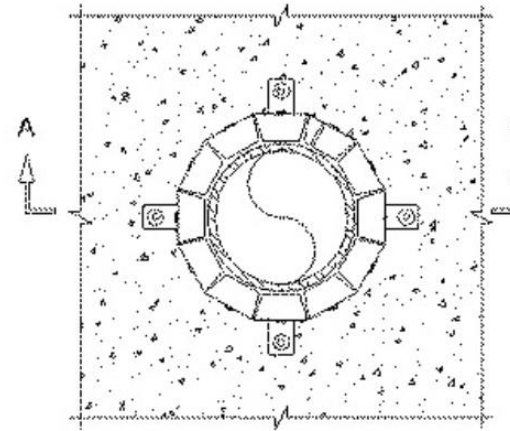
FT Ratings — 1 and 2 Hr (See Item 1)

FH Ratings — 0 and 2 Hr (See Item 2H)

FTH Ratings — 0 and 2 Hr (See Item 2H)

L Rating at Ambient — Less Than 1 CFM/sq ft

L Rating at 400 F — Less Than 1 CFM/sq ft



SECTION A-A

System tested with a pressure differential of 50 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

C-AJ-2035

<https://iq.ulprospector.com/en/profile?e=178762>



# What's wrong with this picture?

- Couplings?
- No Firestop?
- Sheet metal?
- End Cap Sealants?
- Spacing?
- Mixing manufacturers?

Heckler Photo



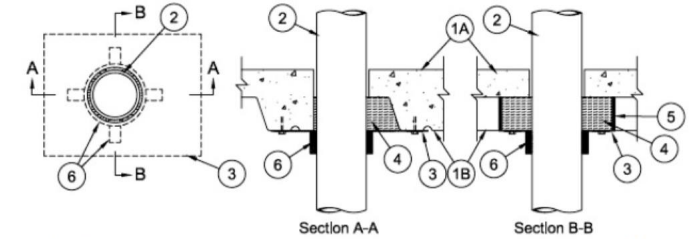
General Information for Through-penetration Firestop Systems

System No. F-A-2025

January 15, 2015

F Rating — 2 Hr

T Rating — 2 Hr





# Firestopping & Compartmentation

## Which is Correct??

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Sheet Metal?



Composite Sheet?



# What's wrong with this picture? NOTHING



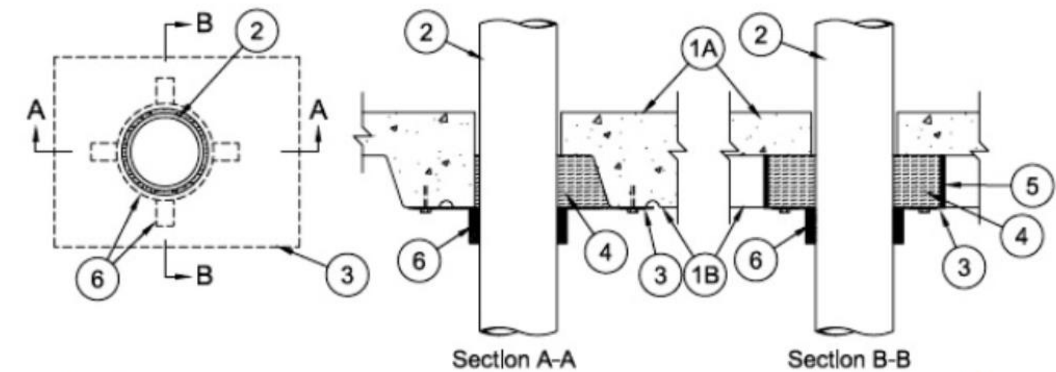
## General Information for Through-penetration Firestop Systems

System No. F-A-2025

January 15, 2015

### F Rating — 2 Hr

### T Rating — 2 Hr



# Firestopping & Compartmentation

## Do we have a Problem??

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FOAM STILL???



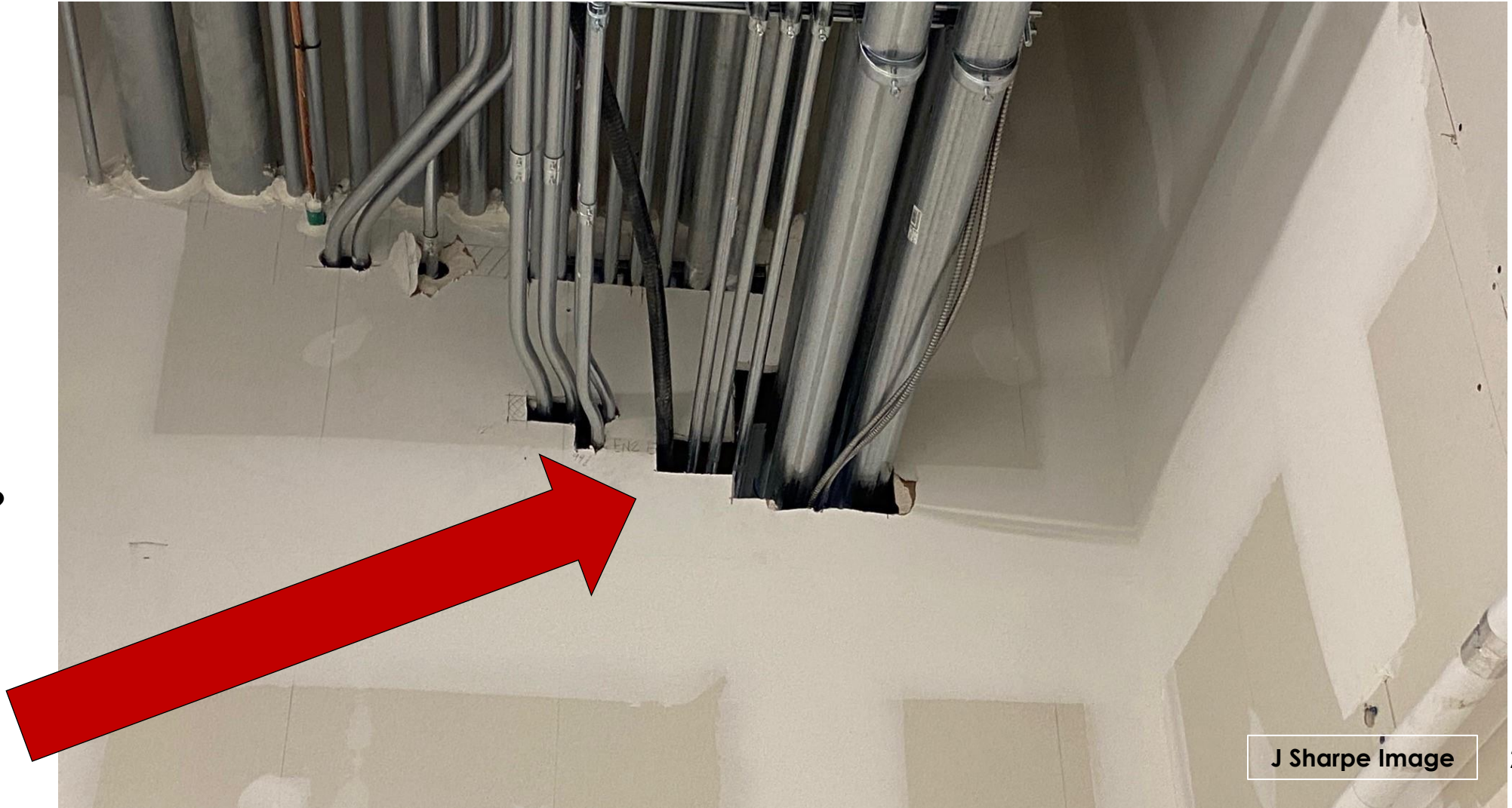


# Firestopping & Compartmentation

## Do we have a Problem??

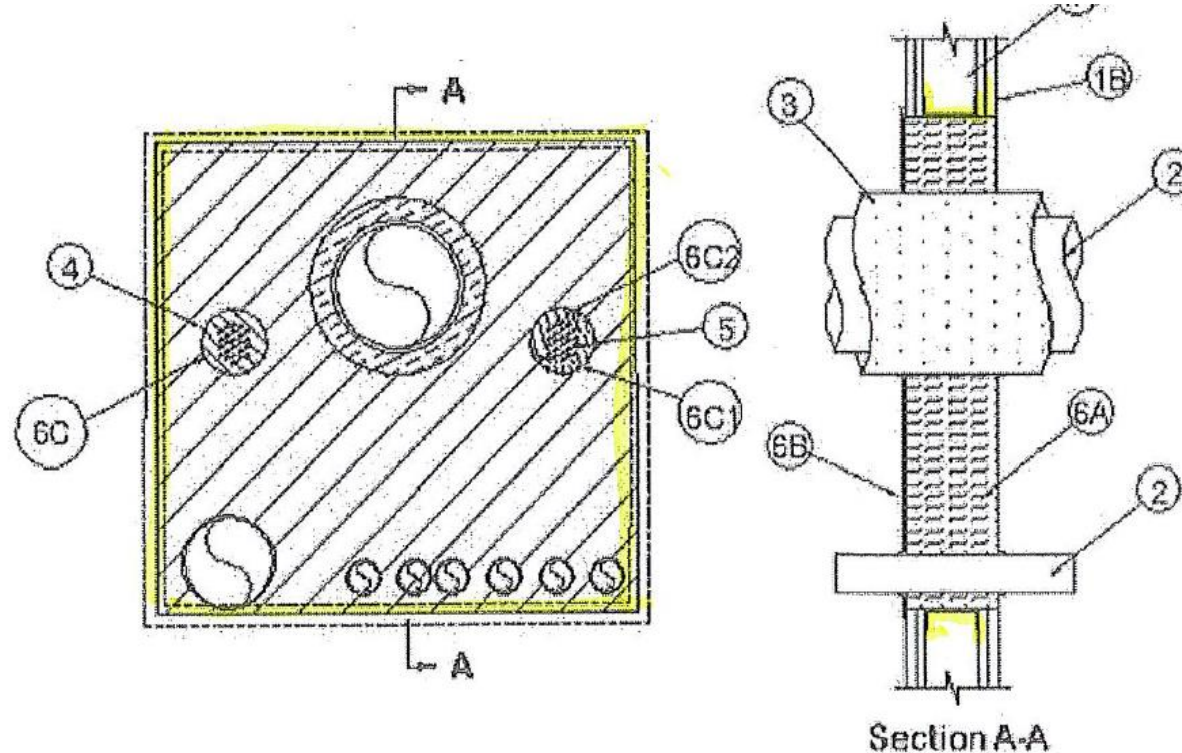
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FRAMING?



# Firestopping & Compartmentation

## Do we have a Problem??



**1. Wall Assembly** — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

**A. Studs** — Wall framing may consist of either wood studs or channel shaped steel studs. Wood studs to consist of nom 51 by 102 mm (2 by 4 in.) lumber spaced max 406 mm (16 in.) OC. Steel studs to be min 89 mm (3-1/2 in.) wide and spaced max 610 mm (24 in.) OC. **Additional framing members shall be located to completely frame the opening.**

# Firestopping & Compartmentation

## Do we have a Problem??

---

∴ Additional framing members shall be located to completely frame the opening.



# Firestopping & Compartmentation

## Do we have a Problem??

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J Sharpe Image

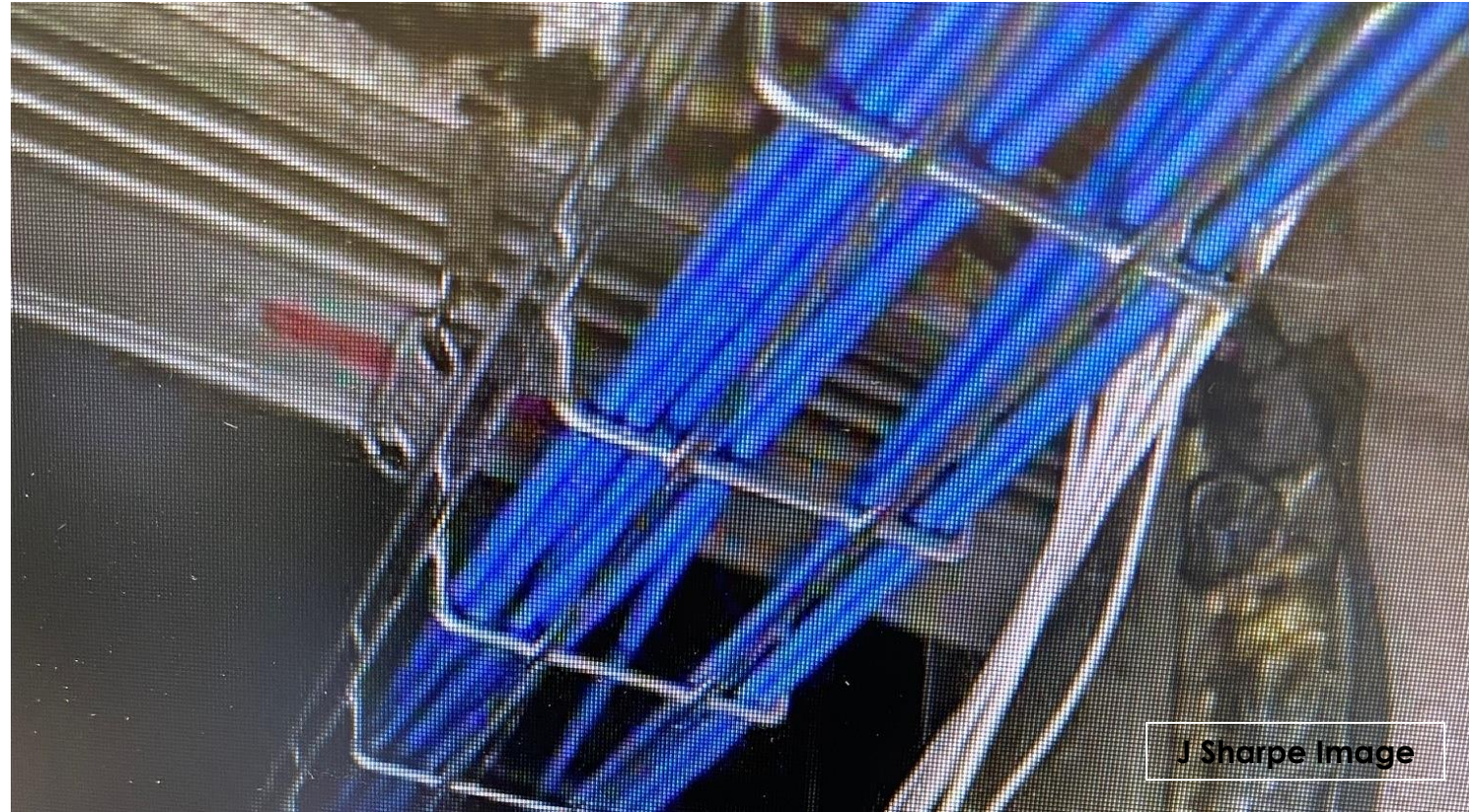


# Firestopping & Compartmentation

## Do we have a Problem??

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Cable Tray through  
a FIRE DAMPER?





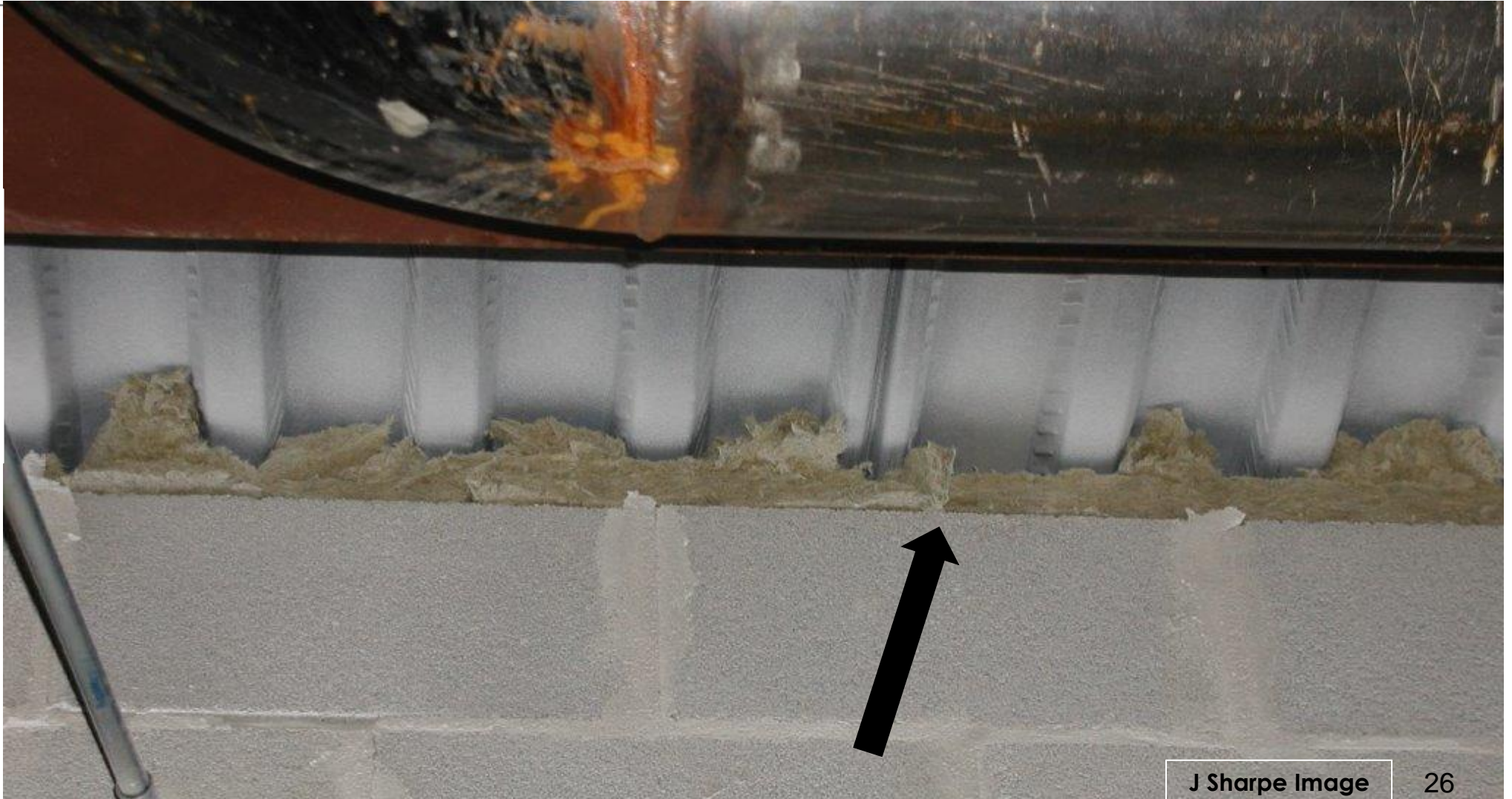
# Firestopping & Compartmentation

## Do we have a Problem??

Mineral Wool  
with NOTHING?

Continuity?

SYSTEM?





# Firestopping & Compartmentation

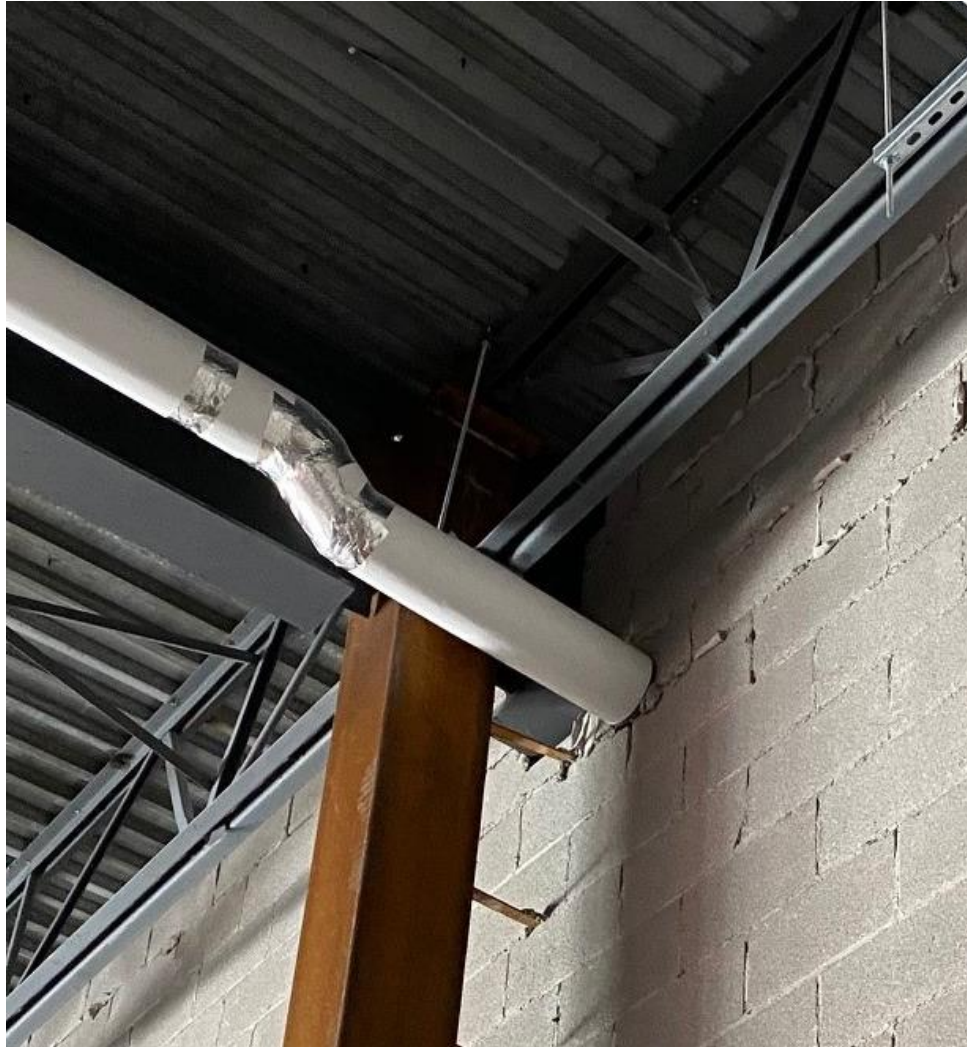
## Do we have a Problem??

Insulation  
HIDING  
Penetrating  
Item

BIG Plastic  
Pipes  
NEED  
COLLARS

Insulated  
Metal  
NEED  
SEALANT  
ONLY - MOST  
CASES

BIG \$\$\$\$  
Difference



# Firestopping & Compartmentation

## Do we have a Problem??

---

### Transitions

Metal Pipe  
Plastic Pipe

**UNSAFE**

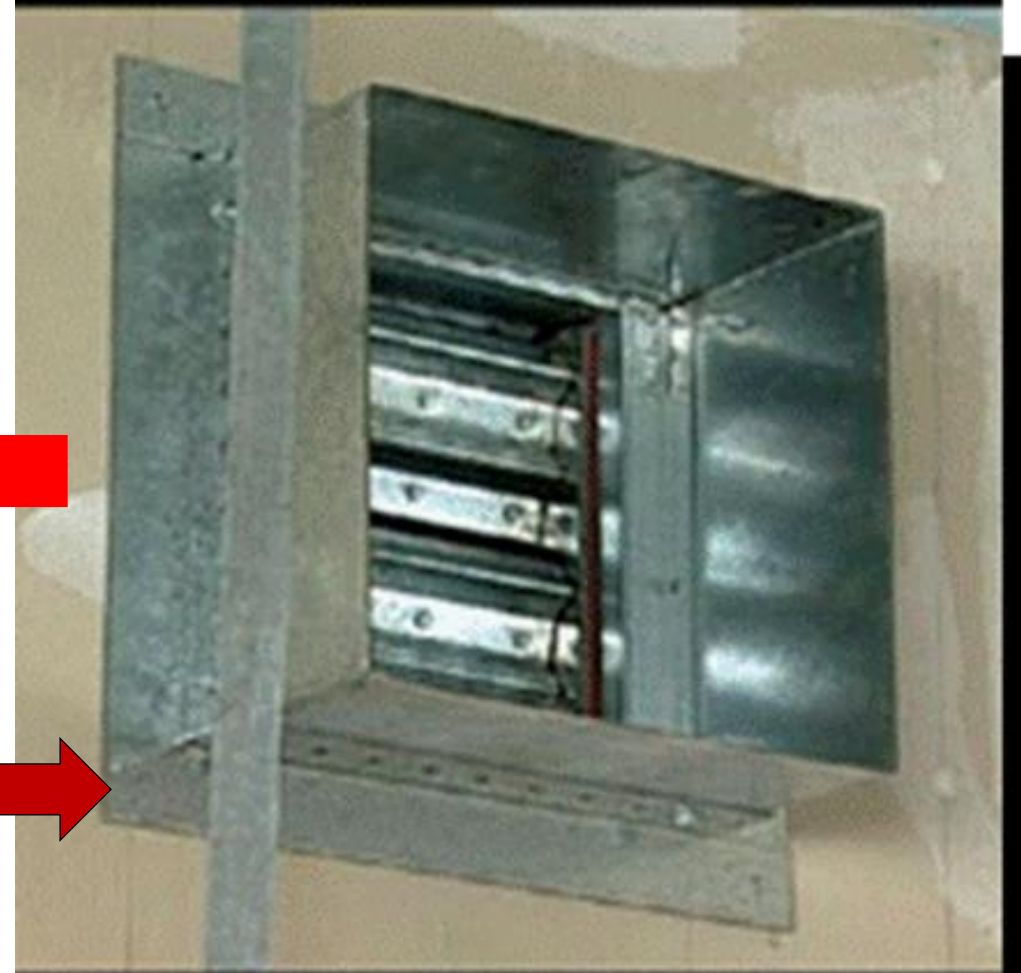




# Firestopping & Compartmentation

## Do we have a Problem??

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Fire Damper Annular Space?

# Firestopping & Compartmentation

## Do we have a Problem??

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Annular  
Space  
Control

System  
LIMITS  
ANNULAR  
SPACE

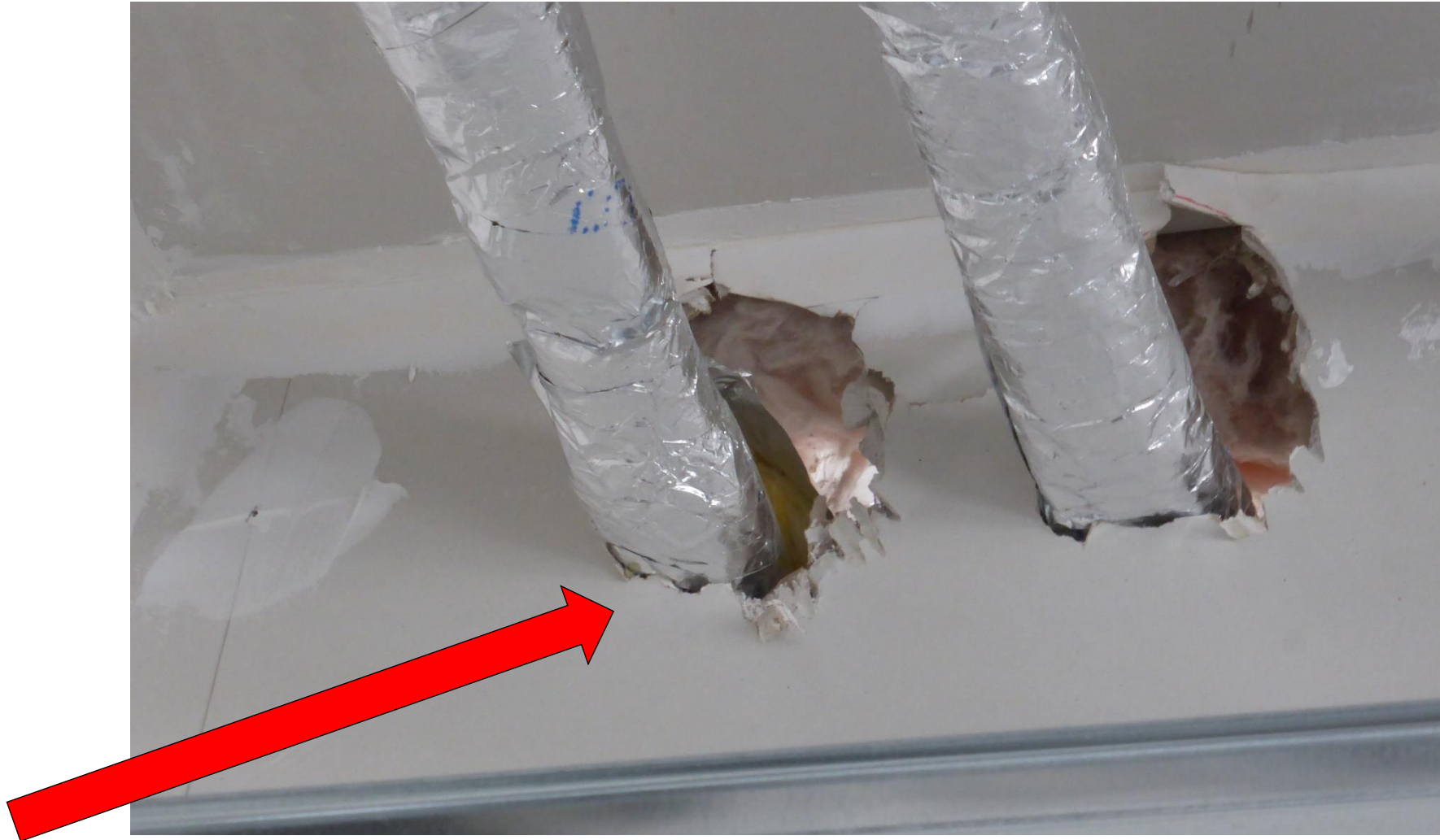


# Firestopping & Compartmentation

## Do we have a Problem??

---

Annular  
Space  
Control?





# Firestopping & Compartmentation

## Do we have a Problem??

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What's this?



# FCIA Recommended Professional Practice Identification Systems

“Labelling”

-On-

Wall/Horizontal Assy.  
Penetrating Item  
Hanging

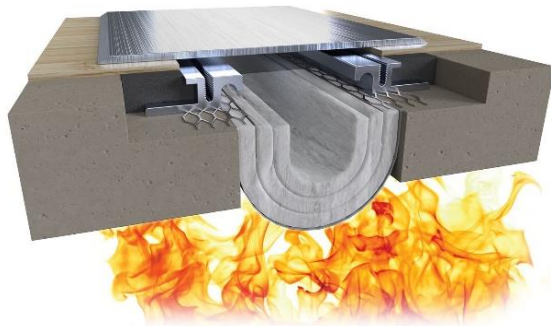
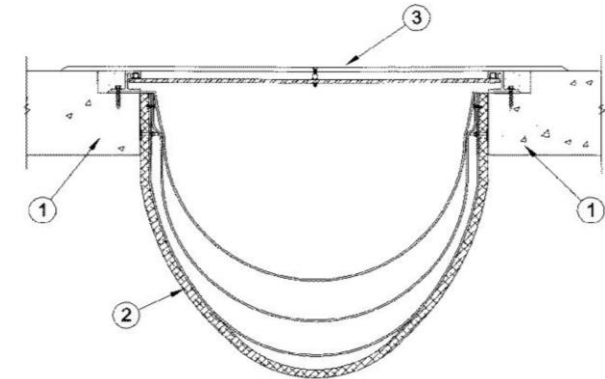
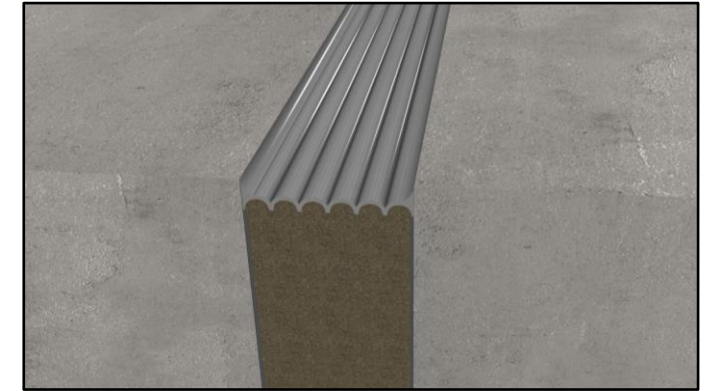
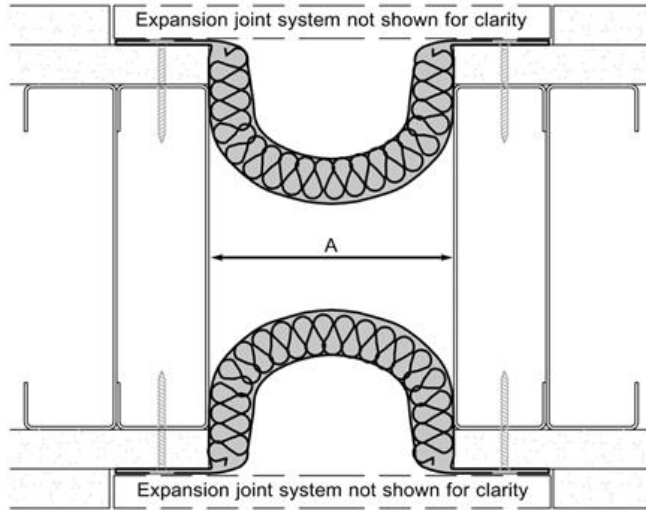








# Firestop & Inspection - Fire Rated Expansion Joints = FF-D-4001, -1201, -1204...more



Balco, Construction Specialties, Inpro,  
MM Systems, UL Solutions

# Firestop - FF-D-4001

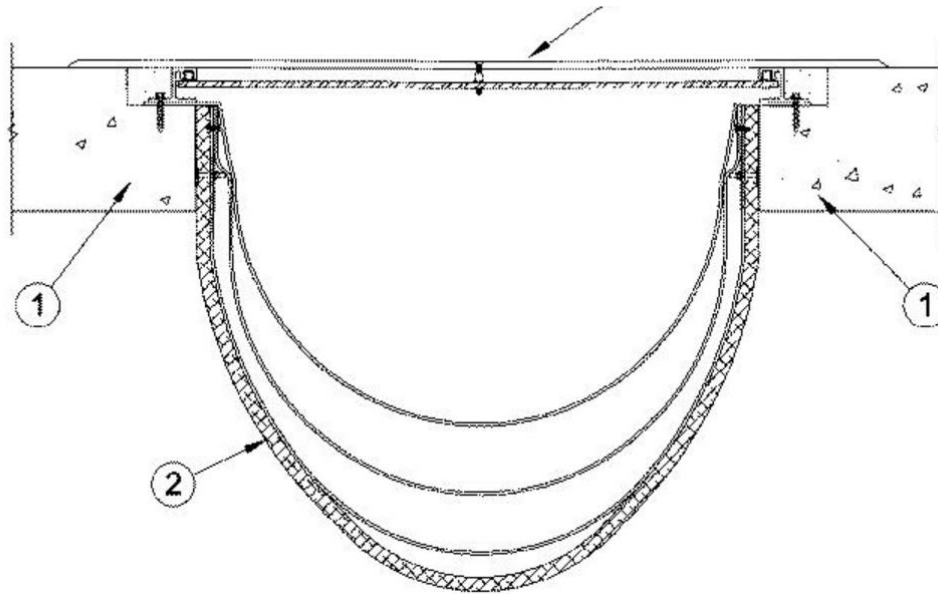
System No. FF-D-4001

September 20, 2000

Assembly Rating — 2 Hr

Nominal Joint Width — 25 to 36 in.

Class II and III Movement Capabilities — 50% Compression or Extension



1. **Floor Assembly** — Reinforced lightweight or normal weight (100-150 pcf) structural concrete having a min thickness of 4-1/2 in. at stepped-edges receiving joint cover (Item 3).

2. **Mechanical Joint Assembly\*** — **Nom width of joint is 25 to 36 in.** Flexible multilayer mat material with galv steel mounting angles on longitudinal edges. The mechanical joint assembly shall be installed in accordance with the installation instructions accompanying the units.

**CONSTRUCTION SPECIALTIES INC** — FB97-25F-++ through FB97-36F-++ (++=max width of joint opening)

3. **Joint Cover** — Min 0.030 in. thick joint cover formed of aluminum, bronze, stainless steel or galv steel. Joint covers anchored to floor slabs on each side of joint opening, continuous over entire length of joint, in accordance with the manufacturer's installation instructions.

As an alternate, where the linear joint opening is enclosed within a chase wall and is non load bearing, a cover consisting of a creased sheet of min 2 mil stainless steel foil secured with 1 in. wide continuous galv steel washer strips along each side of the joint opening may be used.



# What is a Firestop System?

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- Firestop Sealant?
- Firestop Products??
- Fire-Resistance-Rated Floors, Walls?
- Manufacturer's Product Data Sheets?
- Manufacturers Sell Sheets?
- Safety Data Sheets?
- UL Listings?
- ***Wouldn't it be cool if.....***

# LISTINGS + Manufacturer Instructions

## ***INSTALLED & INSPECTED*** = SYSTEMS

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- **Products Become Systems – Test Standards**
  - **Fire & Smoke Barriers – Fire Separations - Structural**
    - ASTM E119, UL 263, CAN/ULC-S101
  - **Firestopping –**
    - UL 1479, ASTM E814, FM 4990, UL 2079, E1966, E2307, E2837, E3037...test methods...”
  - **Swinging/Rolling Fire Doors – UL 10B & UL 10C....NFPA 252**
  - **Fire Rated Glazing – UL 9, NFPA 257, UL 263, ASTM E119**
  - **Fire/Smoke Dampers – UL 555, UL 555S, UL 555C**
- **SYSTEM Testing = Suitability Statement**



# Joints and Voids – Head-of-Wall – Mineral Wool & Spray, Sealants, Top Track Strips...

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Firestop Solutions Image

# Joints and Voids

## Head-of-Wall – Mineral Wool and Spray

System No. HW-D-0300

October 16, 2015

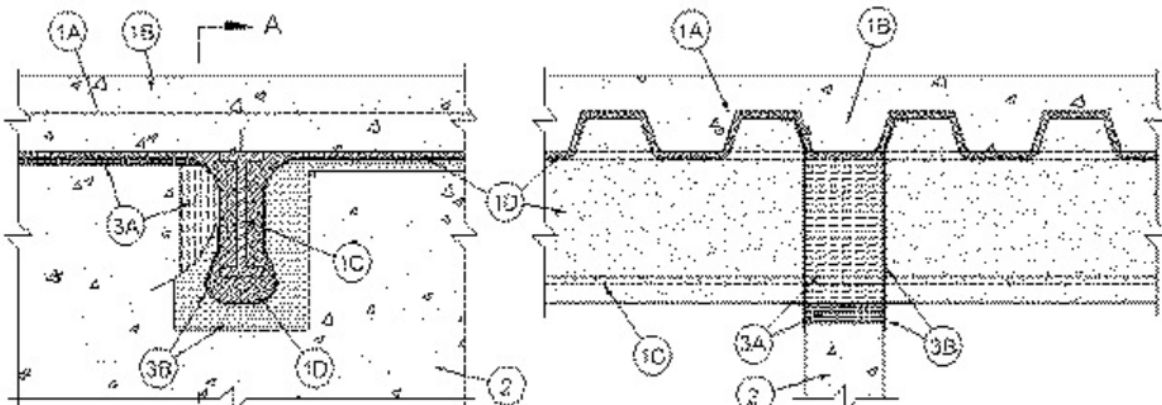
Assembly Ratings — 2 and 3 Hr (See Item 3A)

Nominal Joint Width — 1 and 2 In. (See Item 3)

Class II Movement Capabilities — 25% Compression or Extension

L Rating At Ambient - Less Than 1 CFM/Lin Ft

L Rating At 400 F - Less Than 1 CFM/Lin Ft



UL Solutions Image / Text HW-D0300 - Rectorseal

1A. **Roof Assembly (Not Shown)** — As an alternate to the floor assembly, a fire-rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 and P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly.

The roof assembly shall include the following construction details:

A. **Steel Roof Deck** — Max 2 in. (51 mm) deep galv steel fluted roof deck.

B. **Roof Insulation** — For **P900 Series Designs**, min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the roof deck. **For P700 Series Designs, as specified in the individual P700 Series Design.**

C. **Spray-Applied Fire Resistive Materials\*** — Prior to the installation of the Forming Material and Fill, Void or Cavity Material (Items 3A and 3B, respectively), the steel roof deck shall be sprayed with the thickness of material specified in the individual P700 Series Design. For P900 Series Designs, structural steel supports only to be sprayed in accordance with the specifications in the individual P900 Series Design.

**ISOLATEK INTERNATIONAL** — Type 300

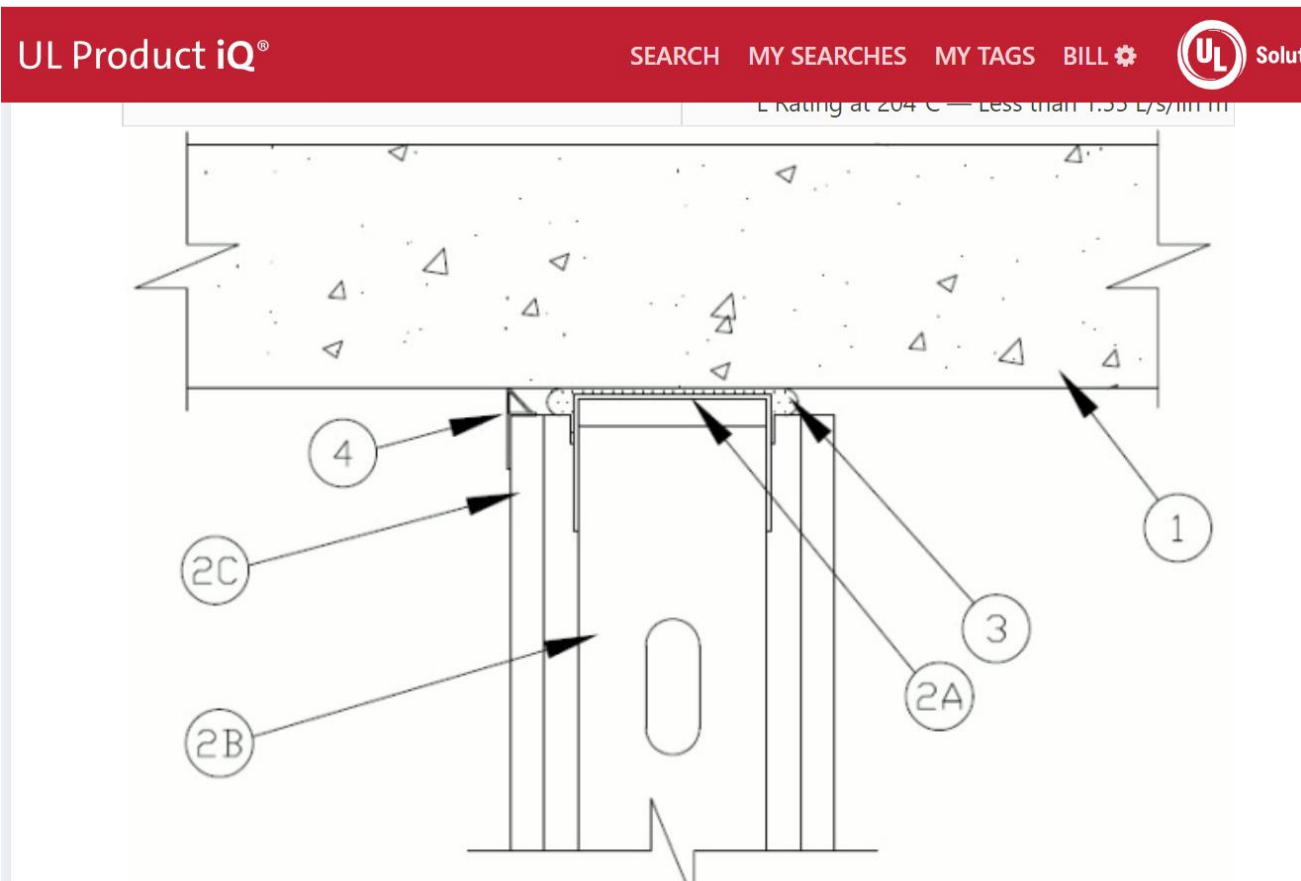
**GCP APPLIED TECHNOLOGIES INC** — Type MK-6/HY, MK-6/HY ES, MK-6S and RG

**The hourly fire rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly.**



# Joints and Voids

## Head-of-Wall – Intumescent Strips



UL Solutions Image

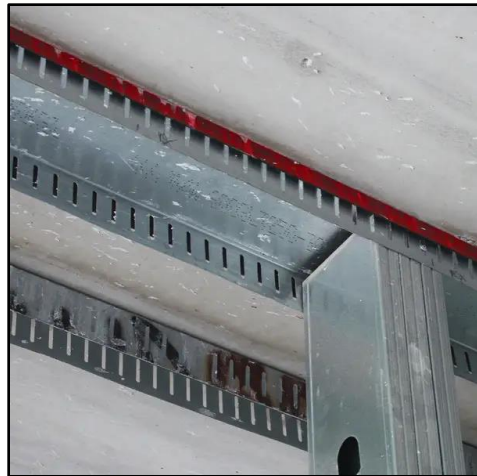
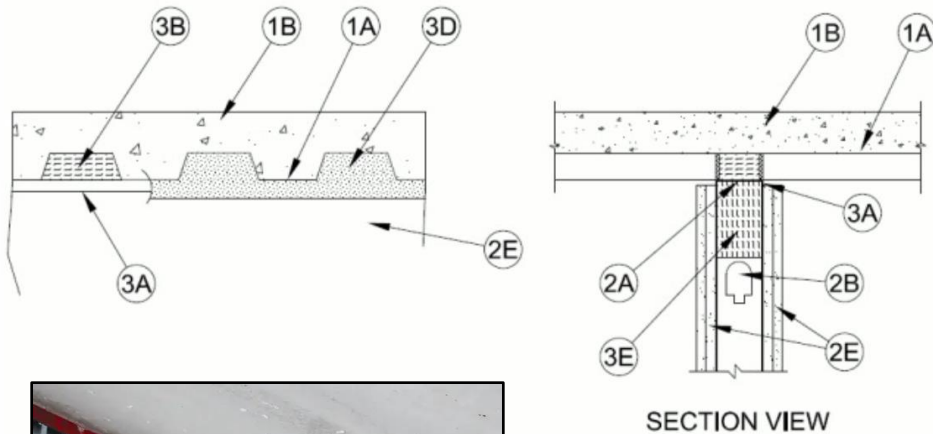
3. Fill, Void or Cavity Material\* — Top Track Seal — When max separation between the bottom of floor and top of wall is **1/2 in. (13 mm)**, the joint system is designed to accommodate a max 50 percent compression or extension from its installed width. When max separation between the bottom of floor and top of wall is **3/4 in. (19 mm)**, the joint system is designed to accommodate a max 66% compression only from its installed width.

**Factory supplied foam seal sized** for width of and installed over the ceiling runner (Item 2A) prior to attachment to underside of concrete floor in accordance with the installation instructions. Butt joints in CFS-TTS shall be compressed min 1/2 in. (13 mm).

**HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC** — CFS-TTS 212, CFS-TTS 358, CFS-TTS 600, CFS-TTS R or CFS-TTS-OS

# Joints and Voids

## Head-of-Wall – Intumescent Strips



**3. Joint System** — Max separation between bottom plane of the floor or roof and top of gypsum board is 1 in. (25 mm). The joint system is designed to accommodate a max 100 percent compression or extension from its installed width. The joint system consists of the following:

**A. Fill, Void or Cavity Material\*** — Factory-supplied intumescent gasket installed and nominally centered over the ceiling runner (Item 2A, 2A1, 2A2, 2A3) prior to attachment to underside of floor or roof assembly. Gypsum wallboard layers to be installed on both sides of the wall maintaining a minimum 1/8 in. (3 mm) overlap over the intumescent gasket at time of installation.

**SPECIFIED TECHNOLOGIES INC** — Speed Flex Track Top Gasket

**C. Forming Material\*** — As an option to Item 3B, preformed mineral wool plugs, formed to the shape of the fluted floor units, friction fit to completely fill the flutes above ceiling runner. The forming material shall be recessed from each surface of wall ceiling runner to accommodate the required thickness of fill material (Item 3D).

**THERMAFIBER INC** — TopStop mineral wool deck plugs Type SAF batts

**D. Fill, Void or Cavity Material\* — Sealant** — Min 1/4 in. (6 mm) thickness of fill material installed on each side of the wall in the flutes of the steel floor or roof deck and between the top of the fill, void or cavity material (Item 3A) and the bottom of the steel floor or roof deck, flush with each surface of wall framing.

**SPECIFIED TECHNOLOGIES INC** — SpecSeal ES Sealant

# I-Beam to Fluted Deck OVER WALL Beam is a WALL TOO!

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Firestop Solutions Image



# How do Contractors Select/Analyze Systems & Inspection Agencies Analyze?

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- Wall or Floor Construction Type, Rating
- Wall or Floor Thickness
- Penetrating Item, Coverings
- Size, Type, Thickness
- Annular Space, Joint, Breach Sizes
- Packing/Damming/Backing Materials
- Fill Material(s)

**= *Rated Firestop System***

***Manufacturers Instructions, Tested and Listed Designs***

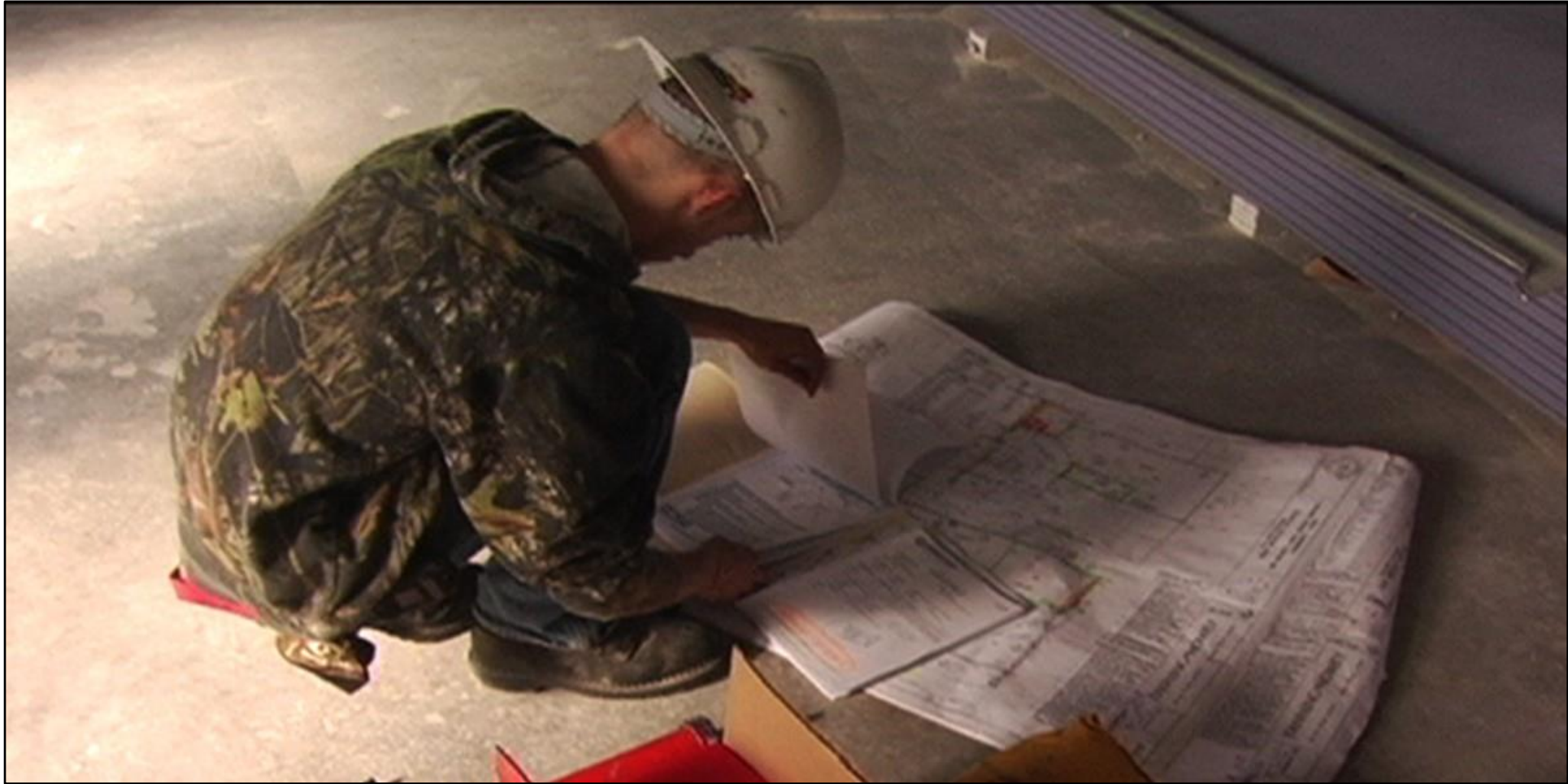


STI Graphic

# Fire Resistance Continuity & Structural Support

## I – Installation – Listed Systems

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# Firestopping for Continuity – Firestop Products

- Sealants
  - Silicone, Acrylic/Latex, Intumescent
- Wrap Strips & Collars
  - “Thick, Thin, Wide, Less Wide”
- Putties
- Pre Fabricated MCT Devices
- Fire Pillows
- Mortar
- Composite Sheets
- Bricks / Plugs
- Spray Products
- Tapes
- Cavity Barriers, Strips





# How do Contractors Select/Analyze Systems & Inspection Agencies Analyze?

---

- Wall or Floor Construction Type, Rating
- Wall or Floor Thickness
- Penetrating Item, Coverings
- Size, Type, Thickness
- Annular Space Sizes
- Joint / Gap Sizes
- Backing Materials
- Fill Material(s)

**= *Rated Firestop System***



STI Graphic



# Systems & Materials....

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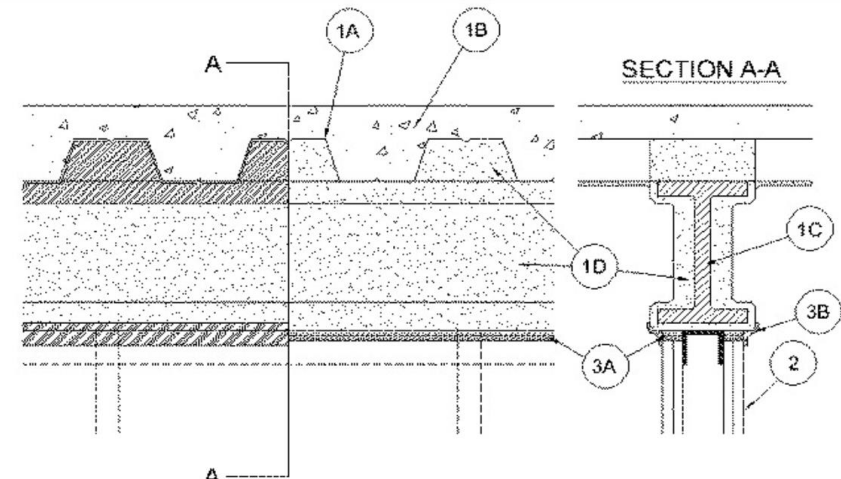


# I-Beam to Fluted Deck OVER WALL

## HW-D-0259

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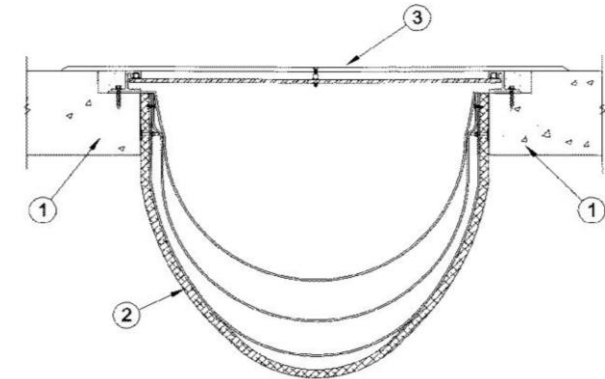
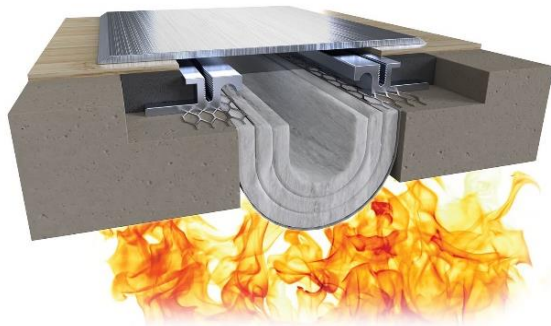
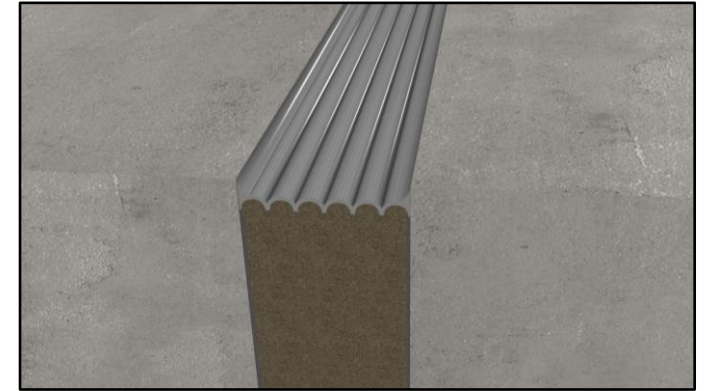
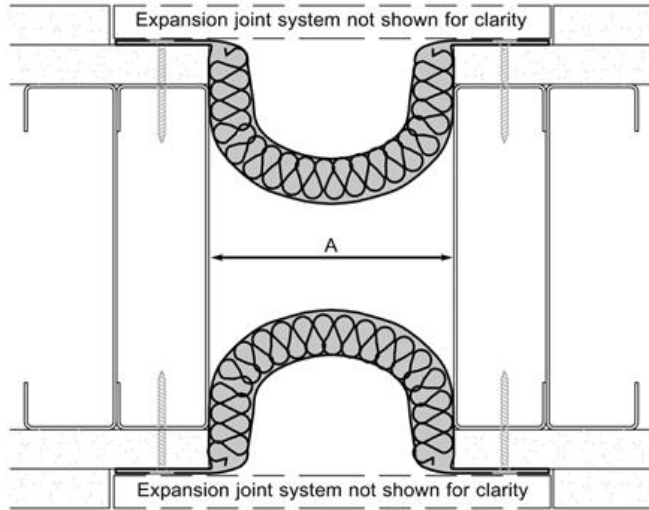
- Beam Size, Shape
- INCREASED Fireproofing Thickness on Web of Beam
  - Acceptance Criteria – 250°F Ave / 325°F Individual Point on non-fire side
- Rest of beam protected based on beam design
- More later...



UL Solutions Image

# Fire Rated Expansion Joints

## FF-D-4001, -1201, -1204...more



Balco, Construction Specialties, Inpro,  
MM Systems, UL Solutions

# Fire Rated Expansion Joints

## FF-D-4001, 1201, 1204...more

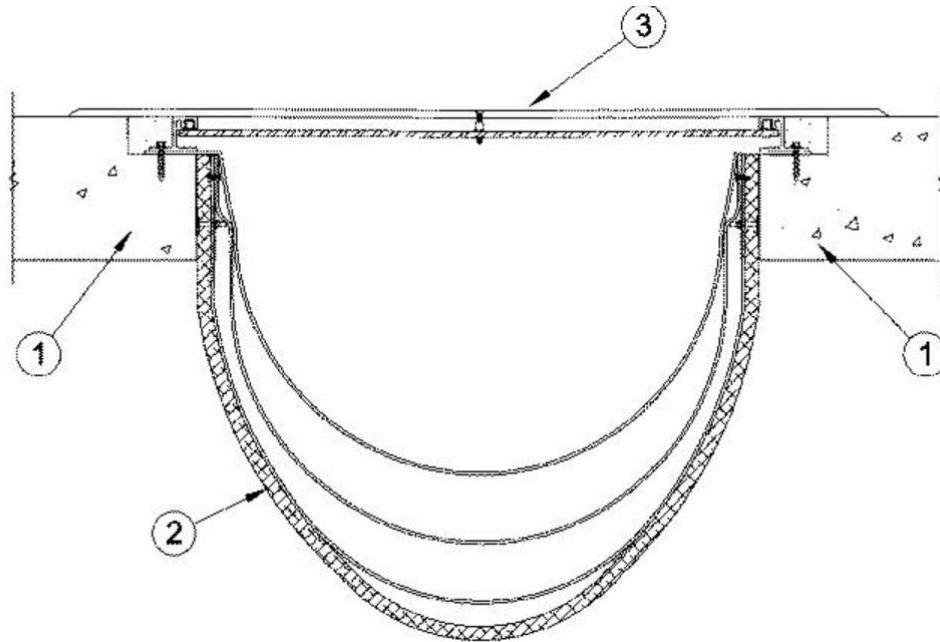
**System No. FF-D-4001**

September 20, 2000

**Assembly Rating — 2 Hr**

**Nominal Joint Width — 25 to 36 in.**

**Class II and III Movement Capabilities — 50% Compression or Extension**



1. **Floor Assembly** — Reinforced lightweight or normal weight (100-150 pcf) structural concrete having a min thickness of 4-1/2 in. at stepped-edges receiving joint cover (Item 3).

2. **Mechanical Joint Assembly\*** — **Nom width of joint is 25 to 36 in.** Flexible multilayer mat material with galv steel mounting angles on longitudinal edges. The mechanical joint assembly shall be installed in accordance with the installation instructions accompanying the units.

**CONSTRUCTION SPECIALTIES INC** — FB97-25F-++ through FB97-36F-++ (++=max width of joint opening)

3. **Joint Cover** — Min 0.030 in. thick joint cover formed of aluminum, bronze, stainless steel or galv steel. Joint covers anchored to floor slabs on each side of joint opening, continuous over entire length of joint, in accordance with the manufacturer's installation instructions.

As an alternate, where the linear joint opening is enclosed within a chase wall and is non load bearing, a cover consisting of a creased sheet of min 2 mil stainless steel foil secured with 1 in. wide continuous galv steel washer strips along each side of the joint opening may be used.



# Contractor Qualifications

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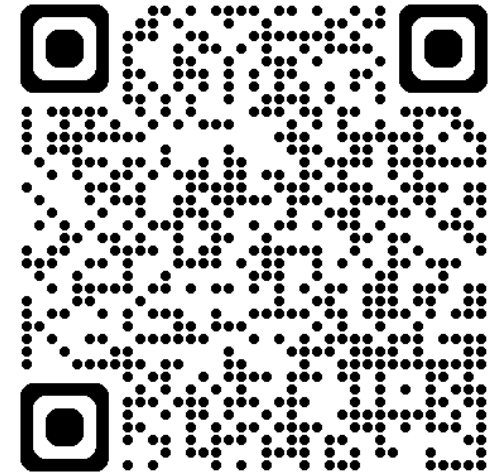
- FM 4991 – Standard for the Approval of Firestop Contractors
- UL Qualified Firestop Contractors
- Other Industries???
- ***FM 4991 / UL-ULC CONTRACTORS UNDERSTAND MANAGEMENT SYSTEM FOR FIRESTOP SYSTEMS, INVENTORY – DOCUMENTATION***



# FM 4991 & UL/ULC QFC Requirements

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- **FM, UL/ULC Firestop Exam @ 80% min.**
- **Management System (MS) Written**
- **MS Procedures implemented**
- **MS Audit @.....**
  - **Contractor Office** – Records & Documents
  - **Jobsite** – Observation, possible destructive



# FM 4991 & UL/ULC QFC

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- **UL QUALIFIED or FM 4991 APPROVED**
- **DRI – Appointed by Contractor, CEU's**
- **Listed @**
  - **[www.FCIA.org](http://www.FCIA.org)**
  - **[www.UL.com](http://www.UL.com)**
  - **[www.ApprovalGuide.com](http://www.ApprovalGuide.com)**





# Firestopping Contractor Qualifications

---

## ***Management System***

- Facility Tour
- Review MS Manual
- Construction Documents Reqt's and Review
  - Listings/Designs, Product Data Sheets, Installation Instructions, Plans
- Procurement
- Storage, Handling, Preservation and Delivery
- Installation, Application and Field Quality Assurance Procedures
  - Installation, Self Inspection

# Firestopping Contractor Qualifications

---

## *Management System*

- Inspection, Testing and Calibration
  - Measuring Devices, Pumps, etc.
- Control of Nonconforming Product
- Training and Qualification of Staff
  - DRI's, Workforce
- Corrective/Preventive Action
- Quality System Monitoring and Improvement
- Documentation and Record Keeping
  - 7 years<sup>57</sup>

# Master Audit Certificate of Compliance Program

A **Jobsite Specific Management System Audit** – Our audit provides verified processes were followed to properly installed firestop systems.

UL Solutions Image

A **Renewable Jobsite Specific Certificate** – After completion of a successful audit, we issue a jobsite specific certificate that is renewable for the building owner.

Improved Firestop Systems Documentation – The MACC certificate in conjunction with the firestop systems documentation, **builds the fire-resistance inventory required by the 2018 International Fire Code** for fire and smoke protection features.



This certificate reports the findings of an audit by UL to the management system requirements of the Qualified Firestop Contractor Program. The audit was conducted to the requirements specified in the Qualified Firestop Contractor Program requirements. The UL qualified contractor was found to be in compliance with the requirements at the time of the site audit.

**Structure Name:** Underwriters Laboratories  
**Job Number:** 0001  
**Address:** 333 Pfingsten Rd  
Northbrook, IL 60062

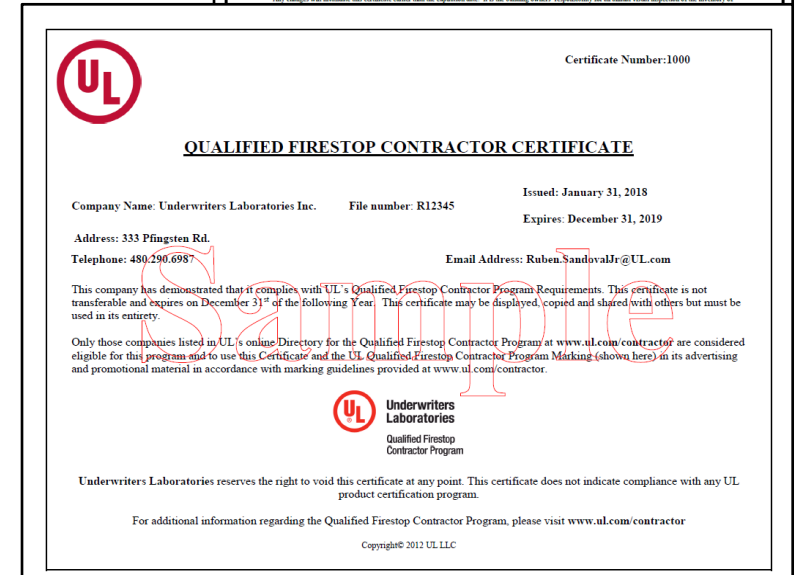
**Qualified Contractor:** PCIA  
**Address:** 4415 W. Harrison Street, Suite 540  
Hillside, IL 60162

**Qualified Contractor Scope of Work:**  
For Project # 0001 Firestopping Head and Bottom of Interior Fire Walls and all Trade Penetrations / Except Cable Tray

UL LLC makes no representations or warranties, expressed or implied, that the installed firestop system will prevent any loss or damage in the event of a fire or similar event, or that the system will in all cases provide the protection for which it is installed or intended. The certificate is evidence that the installing contractor's management system was in compliance with the applicable requirements of the Qualified Firestop Contractor Program.

UL LLC is not an insurer and does not assume any obligation or undertake to discharge any liability of the Qualified Building Contractor, or any other party for any loss, which may result in failure, incorrect installation, non-compliance with requirements, cancellation of this certificate, or withdrawal by the Qualified Building Contractor from the Qualified Firestop Contractor Program.

Any modification to any firestop system of the structure will affect the complete firestop system and may render protection afforded by the system ineffective. Any changes will invalidate this certificate unless the expiration date. It is the building owner's responsibility for an annual visual inspection of the inventory of



**QUALIFIED FIRESTOP CONTRACTOR CERTIFICATE**

**Company Name:** Underwriters Laboratories Inc. **File number:** R12345 **Issued:** January 31, 2018  
**Address:** 333 Pfingsten Rd. **Expires:** December 31, 2019  
**Telephone:** 480.290.6987 **Email Address:** Ruben.SandovalJr@UL.com

This company has demonstrated that it complies with UL's Qualified Firestop Contractor Program Requirements. This certificate is not transferable and expires on December 31<sup>st</sup> of the following Year. This certificate may be displayed, copied and shared with others but must be used in its entirety.

Only those companies listed in UL's online Directory for the Qualified Firestop Contractor Program at [www.ul.com/contractor](http://www.ul.com/contractor) are considered eligible for this program and to use this Certificate and the UL Qualified Firestop Contractor Program Marking (shown here) in its advertising and promotional material in accordance with marking guidelines provided at [www.ul.com/contractor](http://www.ul.com/contractor).

**Underwriters Laboratories**  
Qualified Firestop Contractor Program

Underwriters Laboratories reserves the right to void this certificate at any point. This certificate does not indicate compliance with any UL product certification program.

For additional information regarding the Qualified Firestop Contractor Program, please visit [www.ul.com/contractor](http://www.ul.com/contractor)

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# Fireproofing....

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• East Coast Fireproofing image

East Coast  
Fireproofing image

# Fireproofing....

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# Fireproofing....

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# Fireproofing....



# Fireproofing....



Isolatek image



# Fireproofing....

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# Fireproofing....

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# Fireproofing....

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# Fireproofing....

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# Installation - Measuring Thickness





# Bond Strength

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# IFRM Thickness Measurements....

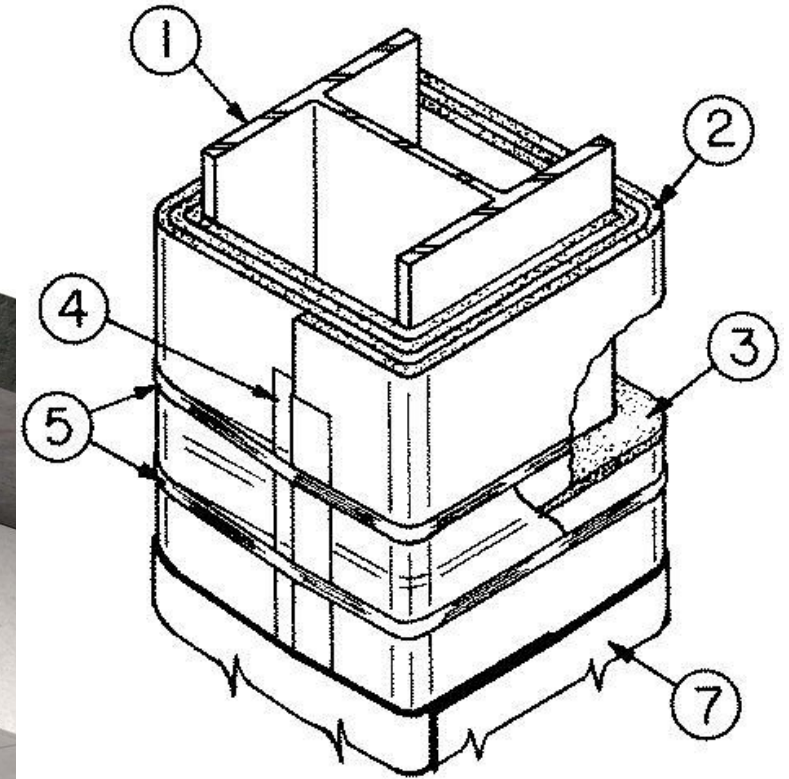
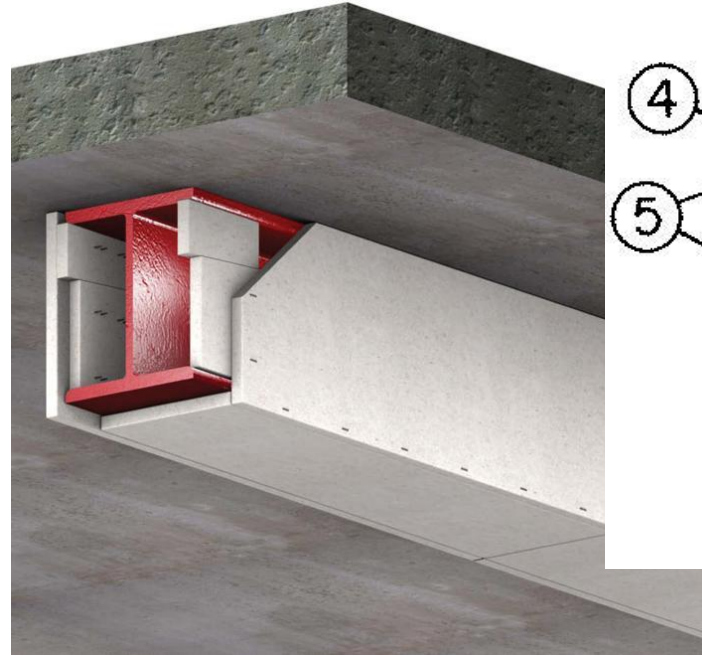
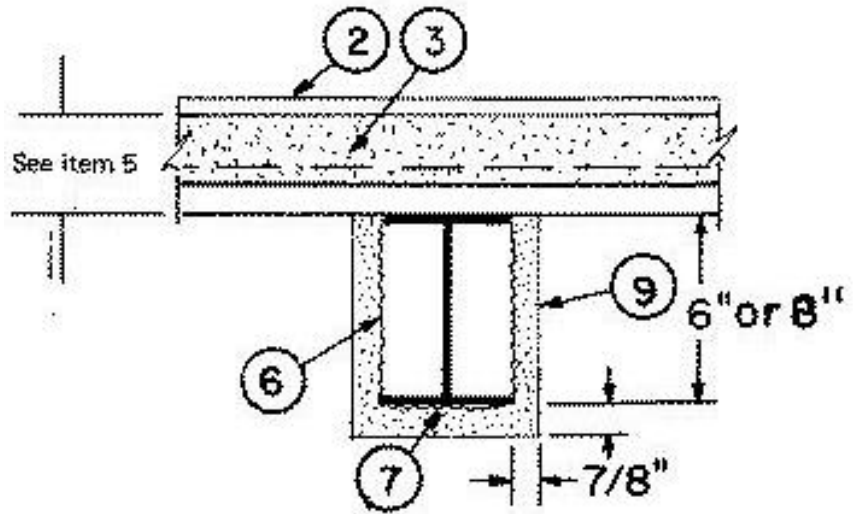
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# Boards & Wraps - LISTINGS

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# NFCA Contractor Accreditation Program (CAP)

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- NFCA Accreditation “seal” - Registered NFCA mark.
- Contract - NFCA & CAP Contractor.



# NFCA Contractor Accreditation Program Objectives

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- **Improve product application quality.**
  - Manufacturer's installation Instructions
  - Listings
- **Improve the contractor personnel knowledge**
  - Design, use and application of SFRM & IFRM fire-resistive products.



# NFCA Contractor Accreditation Program (CAP)

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**To establish NFCA Accredited Contractors by defining**

1. Required classroom and installation training
2. Fireproofing Knowledge, Quality control, and
3. Standard application procedures (NFCA 100-400)

...

= Successful application - SFRM & IFRM.

***Soon...***

# CAP Scope = ***FIREPROOFING ONLY...***

---

- ***Sprayed Fire-Resistive Material***  
***or***
- ***Intumescent Fire-Resistive Material***
- Establishes procedures for examining the knowledge level of the contractor's **Designated Responsible Individual (DRI)**, responsible SFRM and/or IFRM application.

# NFCA CAP Contractors

- Successful Contractor meeting requirements
- Listed @ NFCA-Online.org



4415 W. Harrison St., #540  
Hillside, IL 60162  
P 708-236-3411  
F 708-449-0837  
[info@nfca-online.org](mailto:info@nfca-online.org)

About Join Member List Events Accreditations NFCA Education Resources Members Only

ABOUT

- Join
- Contact
- Board
- Committees

MEMBER LIST

- Contractors
  - NFCA IFRM Accredited Contractors
  - NFCA SFRM Accredited Contractors
  - NFCA Contractors
  - Interim Members

## SFRM Accredited Contractors

Sort by Company

Sort by State

Member's First Letter:

7 A B C D E F G H I J K L M N O P Q R S T U V W Z

CONTRACTORS OPERATING IN...

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Guam



# NFCA Handbook of Accepted Fireproofing Knowledge (HAFK)

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- Study Resource for NFCA Fireproofing Exams
- Fireproofing in 'One Place'
- **SAFETY HANDBOOK INCLUDED**
- More New Chapters coming...

[www.nfca-online.org](http://www.nfca-online.org)



# Basis for NFCA Accreditation

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## 1. NFCA Accreditation basis:

- **Contractor Appoints a DRI**
- **Verification that the contractor's DRI has been actively involved in the installation of products for a minimum of two (2) years.**
- **Attends NFCA Education Program – SFRM / IFRM**
- **Passes NFCA SFRM / IFRM Exam at 80%**
- **Understands DRI Responsibility**
- **Keeps CEU's**

# Maintaining NFCA Accreditation – DRI CEU's

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- **10 CEU's / year OR 30 CEU's / 3yrs. One hour equals 1 CEU.**  
**Attained through...**
- **Attending seminars, Instructional Sessions, Webinars**
  - NFCA Week of Learning
  - Fire-Resistance
  - Fireproofing
  - Safety
  - Building & Fire Codes
  - Standards
  - Educational Conferences
  - NFCA & Other Webinars
- **OR**
- **DRI retakes and successfully pass the examination every three years.**



# Designated Responsible Individual (DRI)

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- **Employ at least one DRI**
- **Contractors with crews working from separate location shall have ONE DRI for each location.**
- **One DRI may be used for all business names operating from a single location.**
- **A Jobsite is not a Separate Location**

# Designated Responsible Individual (DRI)

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- **Contingency Plan**

- In the event that the DRI ceases employment with the contractor or is unable to perform duties contractor shall be given a grace period of **four (4) months or the next SFRM / IFRM available testing** and training to employ or qualify another DRI, without loss of accredited recognition.
- Contractor option - Use another Employed DRI .

# Applicable Documents

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- **NFCA Handbook of Fireproofing Knowledge**
- **NFCA 100** – Standard Practice for the Application of Sprayed Fire-Resistive Material (SFRM)
- **NFCA 200** – Field Quality Assurance Procedures for the Application of Sprayed Fire-Resistive Material (SFRM)
- **NFCA 300** – Standard of Practice for the Application of Intumescent Fire-Resistive Material (IFRM)
- **NFCA 400** – Field Quality Assurance Procedure for the Application of Intumescent Fire-Resistive Material (IFRM)



# Applicable Documents

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- **UL Product iQ Online Directory**
- AWC1 12-B – Standard Practiced for the Testing and Inspection of Field Applied Thin-Film Intumescent Fire-Resistive Materials: an Annotated Guide



# **NFCA HANDBOOK OF ACCEPTED FIREPROOFING KNOWLEDGE**

Version 1.0  
© 2007 (Slides), 2015-2020



 4415 W Harrison, Suite 540 - Hillside, IL 60162  
 708-236-3411  
 [info@NFCA-online.org](mailto:info@NFCA-online.org)

# NFCA Handbook of Fireproofing Knowledge

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- Chapter 1 General Information
- Chapter 2 Standards for Fireproofing Building Construction
- Chapter 3 Standards for Fireproofing Petrochemical Facilities
- Chapter 4 Code Requirements for Fireproofing
- Chapter 5 Understanding the UL Product iQ Online Directory
- Chapter 6 Installation Considerations Common to Sprayed Fire-Resistive Materials and Intumescent Fire-Resistive Materials
- Chapter 7 Installation Considerations for Sprayed Fire-Resistive Materials
- ***NEW Chapter 8 Quality Management Systems – Development for the UL QFCP Program***



# Fireproofing Contractor Qualifications

## NFCA Contractor Accreditation Program

---

1. NFCA Education - Quality, Application
2. Employ a DRI....
  - PASS SFRM, IFRM Fireproofing Exam @ 80% or better
  - ***Designated Responsible Individual (DRI)***
  - DRI if employed by CAP Firm,
4. CEU's – 30 over 3 years or RE-EXAM
5. Annual Renewal
6. Annual NFCA Membership
7. No Audits Required



# UL Qualified Fireproofing Contractor Program

- **NEW....**
  - **NFCA DRI**
  - **Management System (MS)**
  - **Audited**
    - **Contractor's Office**
    - **A Jobsite**
  - **Several Contractors working on MS Manuals**

UL Qualified Spray-Applied Fire  
Resistive Material (SFRM)  
Contractor Program requirements

## Mark Integrity Program

### Introduction:

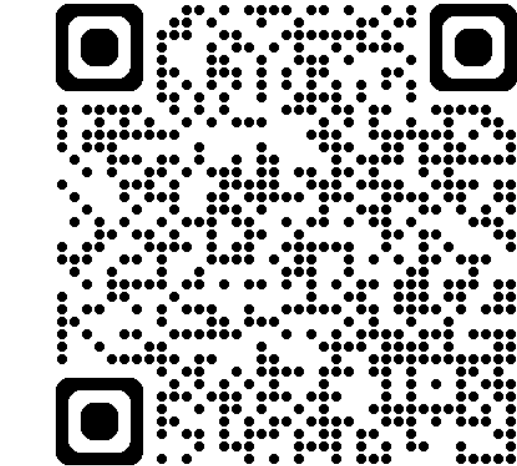
This document outlines the contractor company requirements for participation in the UL Qualified Spray-Applied Fire Resistive Material (SFRM) Contractor Program.

The SFRM installation industry serves residential, institutional, commercial and industrial structures. The industry addresses the need to limit the damaging effects of fire by insulating structural building elements from fire. SFRMs help horizontal assemblies including floor/ceiling, roof/ceiling and building elements such as beams and columns obtain fire endurance ratings. SFRM contractors install certified SFRMs to establish a protective system for a structure to protect fire and life safety and comply with specification and customer requirements.

In order for a SFRM installation contractor organization to qualify for UL's SFRM Contractor Program, the contractor organization shall employ a knowledgeable individual who successfully demonstrates their competency to UL through successful completion of the Designated Responsible Individual (DRI) program at a contractor company that has been recognized in the NFCA Contractor Accreditation Program (CAP).

The company that enrolls in the UL Qualified SFRM Contractor program also has to establish, implement and maintain a management system focused on the application of SFRMs. A management system is used to describe the contractor's SFRM operations.

The Management System approach requires the Contractor



Contractor Program as follows: One (1) CEU is equal to 10 contact hours of participation in an organized continuing

# Fireproofing Contractor Qualifications

## UL Qualified SFRM Contractor Program

---

1. NFCA Education - Quality, Application
2. Employ a DRI....
  - PASS SFRM, IFRM Fireproofing Exam @ 80% or better
  - **Designated Responsible Individual (DRI)**
  - DRI if employed by CAP Firm,
4. CEU's – 30 over 3 years or RE-EXAM
5. Annual Renewal
6. Annual NFCA Membership
7. Build **CONTRACTOR Management System**
8. UL Audit
9. UL Annual Audit





# Fireproofing Contractor Qualifications

## *UL Qualified SFRM Contractor Program*

---

### *Management System*

- Facility Tour
- Review MS Manual
- Construction Documents Reqt's and Review
  - **UL Designs, Product Data Sheets, Installation Instructions, Plans**
- Procurement
- Storage, Handling, Preservation and Delivery
- Installation, Application and Field Quality Assurance Procedures
  - **Installation, Self Inspection**

# Fireproofing Contractor Qualifications

## *UL Qualified SFRM Contractor Program*

---

### *Management System*

- Inspection, Testing and Calibration
  - **Measuring Devices, Pumps, etc.**
- Control of Nonconforming Product
- Training and Qualification of Staff
  - **DRI's, Workforce**
- Corrective/Preventive Action
- Quality System Monitoring and Improvement
- Documentation and Record Keeping
  - **7 years**

# NFCA Contractor Accreditation Program

## UL Qualified SFRM Contractor Program

---

- Improve in-place quality
- Listings & Manufacturers Instructions.
- Contractor Personnel Knowledge
  - Design
  - Application
  - Inspection
  - Maintaining Protection
- Differentiate from the Competition
- ***Pathway to UL Qualified SFRM Contractor Program***





# Certificate



Certificate Number: 1004

## QUALIFIED SPRAY APPLIED FIRE RESISTIVE MATERIAL (SFRM) CONTRACTOR CERTIFICATE

Company Name: RECAL Recubrimientos

File Number: R39631

Issued: February 5, 2020

Expires: December 31, 2021

Address: Paseo de la Reforma 243, Piso 17, Col. Cuauhtemoc, Cd. De Mexico, CP 06600

Telephone: 33 1368 9815

Email Address: [rene.zorrilla@recal.mx](mailto:rene.zorrilla@recal.mx)

This company has demonstrated that it complies with UL's Qualified Spray Applied Fire Resistive Material (SFRM) Contractor Program Requirements. This certificate is not transferable and expires on December 31<sup>st</sup> of the following Year. This certificate may be displayed, copied and shared with others but must be used in its entirety.

Only those companies listed in UL's online Directory for the Qualified Spray Applied Fire Resistive Material (SFRM) Contractor Program at [www.ul.com/sfrm](http://www.ul.com/sfrm) are considered eligible for this program and to use this Certificate and the UL Qualified Spray Applied Fire Resistive Material (SFRM) Contractor Program Marking (shown here) in its advertising and promotional material in accordance with marking guidelines provided at [www.ul.com/sfrm](http://www.ul.com/sfrm).



**Underwriters  
Laboratories**

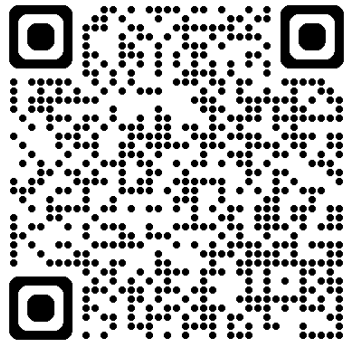
Qualified SFRM  
Contractor Program

Underwriters Laboratories reserves the right to void this certificate at any point. This certificate does not indicate compliance with any UL product certification program. For additional information regarding the Qualified Spray Applied Fire Resistive Material (SFRM) Contractor Program, please visit [www.ul.com/sfrm](http://www.ul.com/sfrm)

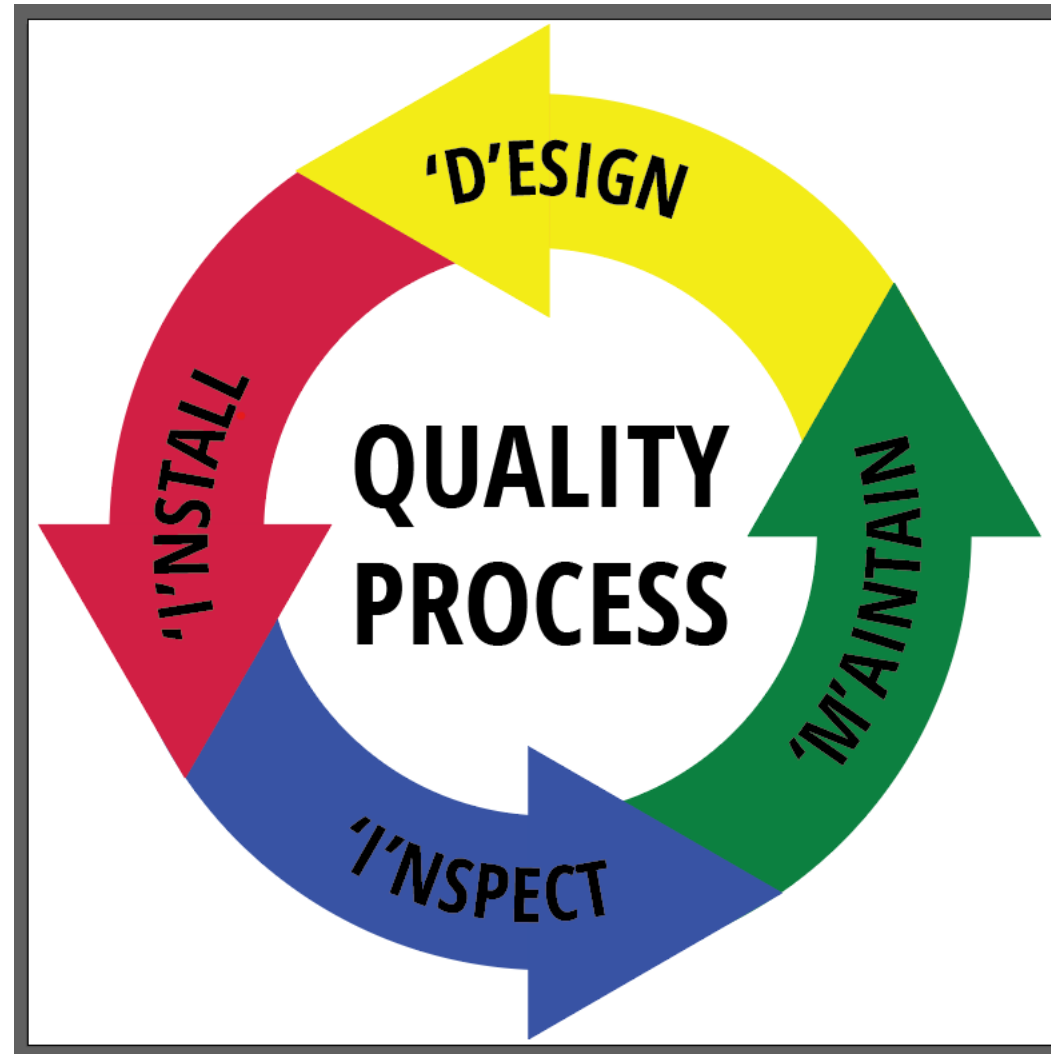
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FM 4991/UL QFCP  
Programs AND  
Mfr. Education



Specs, Code



PFP/BARRIER  
MANAGEMENT  
Fire Codes

IBC Ch. 17 -NFPA 80 - NFPA 1

# FCIA 2025 DOHA MEMBER MEETING & SYMPOSIUM

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**PASSIVE FIRE  
PROTECTION**

**INSTALLATION**

Presented by:

**Bill McHugh**

**Abhishek Chhabra**

**FCIA/NFCA**





# PasFiPro '25

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9-10 FEBRUARY | DOHA, QATAR

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**FCIA**  **NECA** 