3M Company
Design No. 3MU/BI 120-04
Firestop System
3M™ Fire Barrier™ 615
3M™ Fire Barrier™ 615+
ASTM E814-13a (2017)
CAN/ULC-S115-11
Test Pressure Differential – 2.5 Pa (0.01 in. of water)
Rating1: See Table 1

Penetrating Item	Max Pipe Diameter	Annular Space		Rating (minutes)					
		Min	Max	ASTM E814		CAN/ULC-S115			
				T	F	F	FT	FH	FTH
Cast Iron	4 in.	0 in.	3-3/8 in.	120	120	120	120	120	120
Copper	2 in.	0 in.	1-3/4 in.	120	120	120	120	120	120

Table 1. Through Penetration Firestop System Installation Details and Ratings

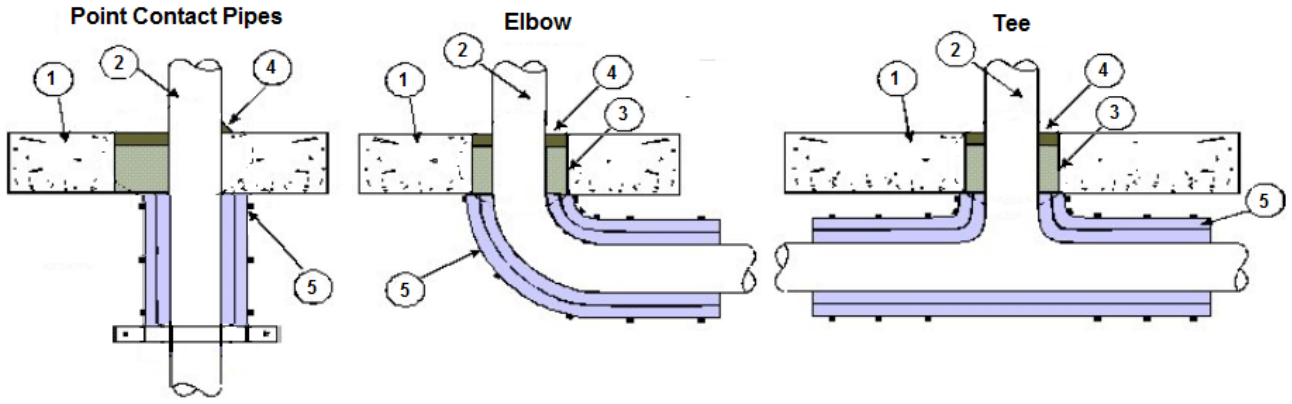


Figure 1. Through Penetration Firestop System

1. **SUPPORTING CONSTRUCTION:** Refer to Figure 1 and Table 1. Create a round opening in a Code-conforming, 2 hour fire-rated floor/ceiling assembly constructed of min. 8 in. thick lightweight or normal weight reinforced concrete having a nominal density of 100-150 pcf. Size the opening to establish the annular space specified in Table 1. Verify compliance of the supporting construction with its corresponding listed design.

2. **PENETRATING ITEM:** Refer to Figure 1 and Table 1. Position the pipe in the opening in the supporting construction (Item 1). Establish the annular space between the Penetrating Item and the Supporting Construction (Item 1) as specified in Table 1.

3. **PACKING MATERIAL:** Tightly pack at min.50% compression, the annular space with nominal 4 pcf or heavier noncombustible mineral wool insulation to the full depth of the supporting

construction (Item 1). Recess the packed insulation a min. of 3/8 in. from the top.

4. **FILL, VOID OR CAVITY MATERIAL –** Refer to Figure 1 and Table 1. Apply the material listed below, filling the min. 3/8 in. recess created with the packing material (Item 3):

   CERTIFIED MANUFACTURER: 3M Company

   CERTIFIED PRODUCT: Firestop Sealant

   CERTIFIED MODEL: 3M™ Fire Barrier™ 1003 Silicone Self Leveling Sealant or 3M™ Fire Barrier™ 1000 No Sag Silicone Sealant

   Apply the material listed above, filling the min. 3/8 in. recess at the top of the supporting construction (Item 1), created with the packing material (Item 3).

5. **CERTIFIED MANUFACTURER:** 3M Company

   CERTIFIED PRODUCT: Duct Wrap

   CERTIFIED MODEL: Nominal 6 pcf**,** 3M™ Fire Barrier™ Duct Wrap 615 and nominal 6 pcf**,** 3M™ Fire Barrier™ Duct Wrap 615+.

   Apply the 3M™ Fire Barrier™ Duct Wrap around the penetrating item (Item 2) projecting from the bottom of the supporting construction (Item 1). Apply two layers of the duct wrap over a min. length of 30 in. starting from the bottom of the supporting construction (Item 1). Seal all seams and cut edges with aluminum foil tape. Use butt joints at all transverse and longitudinal joints and offset the joints between the first and second layers. Use fiber reinforced tape to temporarily secure the duct wrap prior to banding. Secure with 1/2 in. wide, 0.015 in. thick stainless steel banding and 1 in. long stainless steel crimp clamps. Place banding a max. of 1-1/2 in. from any duct wrap edges or outer layer transverse butt joint, and at a max. of 8 in. on center. Tension the banding to hold the duct wrap in place without cutting or damaging the insulation.

6. **RISER CLAMP:** Use a steel riser clamp on any applications that do not involve a wrapped elbow or tee. Secure the rise clamp to the penetrating item (Item 2) at the end point of the duct wrap (Item 5) to retain the duct wrap tight against the underside of the supporting construction (Item 1).