3M Company
Design No. 3M/PV 120-07
Through Penetration
3M™ Fire Barrier Ultra GS Wrap Strip
3M™ FireDam FD-150+
3M™ Fire Barrier IC 15WB+
3M™ Fire Barrier CP 25WB+
3M™ Fire Barrier 3000WT
CAN/ULC-S115
Rating: See Table 1
Pressure Differential: Positive, 50 Pa (0.20 in. w.g.)

TABLE 1. RATINGS

		CAN/ULC-S115	ASTM E814
Penetrating Item	**Max. Pipe Size**	**F, FT, FH, FTH**	**F, T**
PVC	**4 in.**	**2 Hr**	**2 Hr**

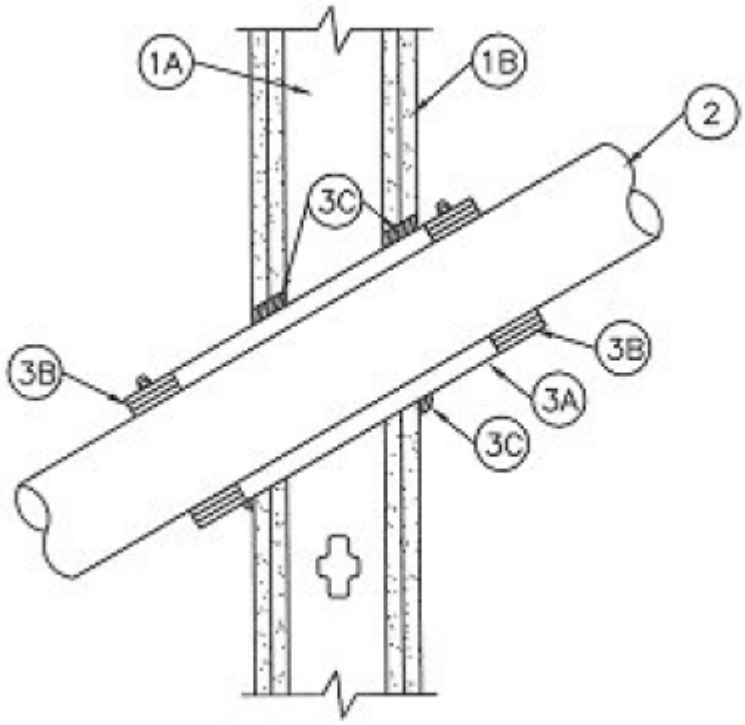

Figure 1. Penetration Detail

1. **WALL ASSEMBLY:** Code conforming 2-hour fire rated wall, metal or wood framed gypsum wallboard, wall assembly.

   a) **Studs:** Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nominal 2x4 lumber, spaced 16 in. oc. Steel studs to be minimum 3-1/2-in. wide and spaced maximum 24 in. oc.

   b) **Gypsum Wallboard:** Thickness, type, number of layers, and fasteners as required in the individual Wall and Partition Design. Diameter of opening is maximum 1/2-in. larger than the outside diameter of metallic sleeve.

2. **PENETRATING ITEMS:** (See Table 1) Nominal 4-in. diameter, Schedule 40 PVC pipes centered within the firestop system. Pipe to be rigidly supported on both sides of wall assembly. The pipe may be installed at an angle not greater than 45 degrees from perpendicular. Ratings achieved will equal that of the wall assembly (Item 1).

3. **FIRESTOP SYSTEM COMPONENTS:**

   a) **Metallic Sleeve:** Cylindrical sleeve fabricated from minimum 0.019-in. thick (26 gauge) galvanized sheet steel, having a minimum 1-in. lap along the longitudinal seam. Sleeve to extend a minimum of 2 in. beyond both sides of the wall. The inside diameter of the sleeve shall be larger than outside diameter of non-metallic pipe or conduit such that an annular space will be present between the steel sleeve and the pipe around the entire circumference of the pipe to accommodate the layer(s) of wrap strips (Item 3b). the annular space between the outside of the wrap strip later(s) and the inside of the sleeve shall be a minimum of 0 in. to maximum 1/4 in. The annular space between the outside of the sleeve and the periphery of the opening shall be minimum 0 in. to maximum 1/2-in.

   b) **Certified Product: 3M™ Interam™ Ultra GS Wrap Strip**

   Use nominal 1/8-in. thick intumescent material supplied in 2-in. wide strips. Tightly wrap around the non-metallic pipe and slide into sleeve on both sides of wall such that the outer edges of wrap strips are flush with the outer edges of the sleeve. For nominal 4-in. diameter pipes, a minimum of three layers of wrap strip is required. Each layer of wrap strip to be installed with butted seams in successive layers staggered. Wrap strip layers held in position using aluminum foil tape, steel wire tie, or equivalent. A minimum 1/2-in. wide stainless steel hose clamp shall be secured around the outside of the sleeve over the center of the wrap strips on both ends of the sleeve.

   c) **Certified Products: Sealant**

   - **3M™ FireDam FD-150+**
   - **3M™ Fire Barrier IC 15WB+**
   - **3M™ Fire Barrier CP 25WB+**
   - **3M™ Fire Barrier 3000WT**

   Minimum thickness of 1-1/4 in., applied within annulus between metallic sleeve and periphery of the opening, flush with both

surfaces of the wall assembly. At the point of contact location between sleeve and gypsum wallboard, a minimum 1/2-in. diameter bead of caulk shall be applied at the sleeve/wallboard interface on both surfaces of the wall assembly. A minimum 1/4-in. bead of caulk shall also be applied over the outer edges of the wrap strips and within the annular space between the wrap strip and sleeve on both sides of the wall.

Consult the listing report on the Directory of Building Products (https://bpdirectory.intertek.com) for the edition of the standard(s) evaluated.

Compliance of the assembly described in this Design Listing with the referenced standard relies on verification that the assembly constructed in the field is consistent with that described herein. Intertek certified products may be verified by the approved Intertek label; other products must be verified by the Authority Having Jurisdiction as meeting the specifications stated herein.