
Design No. FS 571 W

FIRE PENETRATION SEAL

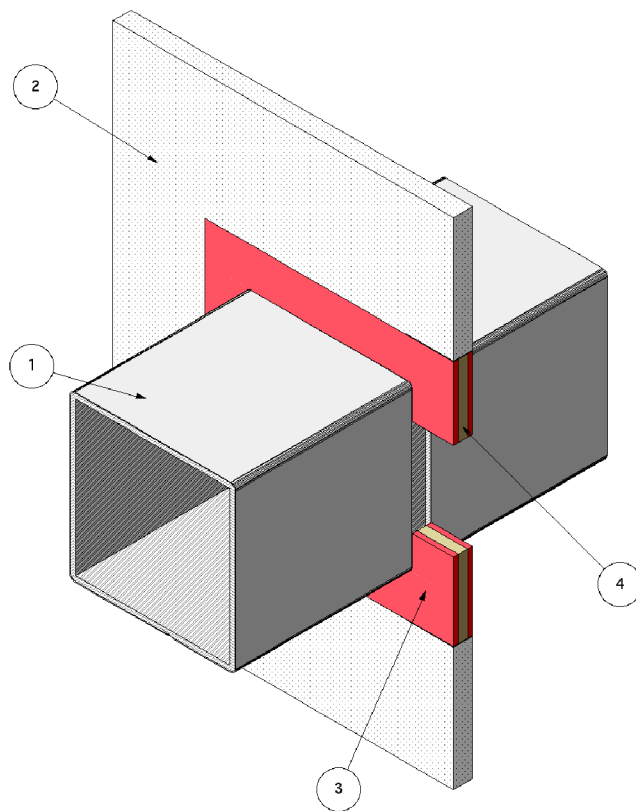
Penetrating Item Steel Duct

ISO 6944

Integrity, Stability, Insulation – 2 Hr.

T-Rating - 2 hr

F-Rating - 2 hr



1. **PENETRATING ITEM:** An airtight round or rectangular steel duct system constructed with the limiting specifications in the table below. Protect duct with two layers of 3M Fire Barrier Duct Wrap 15A or 20A as detailed in systems VAD 529 F, VAD 530 F, VAD 531 F, or VAD 542 F. The insulation abutts the firestop system (3&4) on both sides of the wall.
2. **WALL ASSEMBLY:** The two-hour fire-rated wall assembly consists of min. 4-1/2 in. thick normal weight (100-150 pcf) reinforced concrete or concrete blocks. Create an opening in the wall assembly in accordance with the applicable specifications in the table below. Position the duct assembly concentrically or eccentrically in the opening so that the annular space ranges from min. 1 in. on one side to max. 2 in. on the other.
3. **FILL, VOID OR CAVITY MATERIAL:** Min. 1/4-in. depth of sealant fill material is to be

Through-Penetration Fire Stop Systems

applied over the recess of the packing material (4) on both sides of the wall through-penetration opening. The fill material is in direct contact with the steel duct or the insulation. The sealant material overlapped the concrete a nom. 1/4-in.

Listed Manufacturer:

3M -

Firestopping

Firestopping Sealants

3M Fire Barrier™ CP 25WB+ Caulk

4. PACKING MATERIAL: Fill the annular space with scrap 3M Fire Barrier Duct Wrap 15A, 20A, or 4 pcf mineral wool**. Cut the

mineral wool into strips. Then compress it approximately 50% and insert it into the opening to fill the entire annular space. Recess the surface of packing material a min. 1/4 in. from both sides of the wall as required to accommodate the necessary depth of caulk fill material. (** Listed with Omega Point Laboratories)

Listed Manufacturer:

3M -

Insulation

Mineral Wool Blanket

3M Fire Barrier Duct Wrap 15A

3M Fire Barrier Duct Wrap 20A

| Max. Duct Area (in ²) | Max. Duct Dimension (in) | Min. Duct Gage Thickness | Max Area of Opening (in ²) | Max Dimension of Opening (in) |
|-----------------------------------|--------------------------|--------------------------|--|-------------------------------|
| 1440 | 60 | 20 GA | 2432 | 70-1/2 |
| 400 | 40 | 24 GA | 1035 | 50-1/2 |
| 144 | 12 | 26 GA | 506 | 22-1/2 |