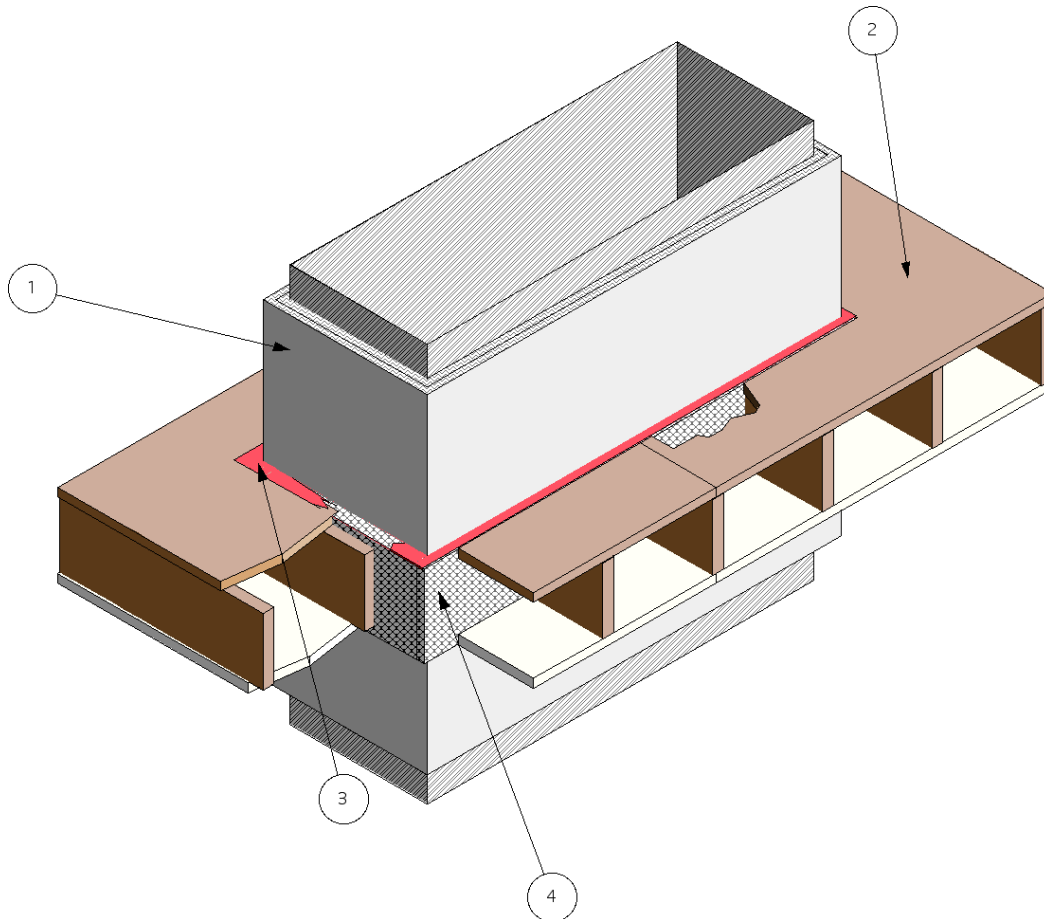

Design No. FS 558 F

FIRE PENETRATION SEAL

Penetrating Item Steel Duct

T-Rating - 1 hr

F-Rating - 1 hr



1. **PENETRATING ITEM:** A round or rectangular steel duct system constructed of min. 24 GA sheet steel with max. 720 in² area and max. 30-in. dimension (max. dim. 24-in. x max. 30-in., or max diameter of 30 in.) and protected with a one layer of 3M Fire Barrier Duct Wrap 15A or 20 A, such as detailed in GD 532 F or GD 548 F or two layers of 3M Fire Barrier Duct Wrap 15 A or 20A as detailed in GD 531 F or GD 547 F.
2. **FLOOR ASSEMBLY:** The one-hour fire-rated floor assembly consists of min. 2 x 10 wood joists spaced a max. 18-1/2-in. O.C. with a min. 3/4-in. plywood attached to the unexposed side and one layer of 5/8-in. Type X gypsum wallboard attached to the exposed side. Create an opening in the floor assembly having a max. cross-sectional area of 1083 in² and a max dimension of 35-1/2-in. 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. 2-1/2 in. on the other.
3. **FILL, VOID OR CAVITY MATERIAL:** Min. 3/4-in. depth of sealant fill material is to be applied over the recess in the packing material

Through-Penetration Fire Stop Systems

(4) on the top surface of the floor through-penetration opening. The sealant material applied flush with the top of the floor assembly.

Listed Manufacturer:

3M -

Firestopping

Firestopping Sealants

3M Fire Barrier™ 2000+ Silicone Joint Sealant

3M Fire Barrier™ 1000 N/S Silicone Joint Sealant

3M Fire Barrier™ 1003 S/L Silicone Joint Sealant

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

mineral wool into strips. Then compress it approximately 25% and insert it into the opening to fill the entire annular space. Completely fill the annular space and recess the surface of packing material a min. 3/4 in. from the top surface of the floor, 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