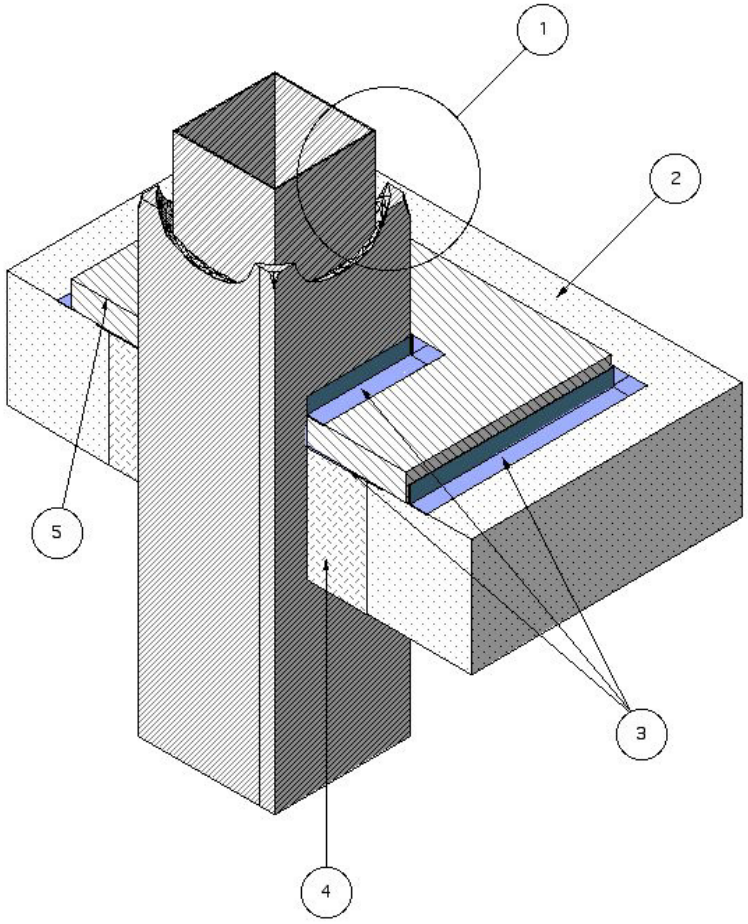
Design No. FS 551 F

FIRE PENETRATION SEAL

Penetrating Item Steel Duct

ISO 6944

Integrity, Stability, Insulation - 2 hr



1. PENETRATING ITEM: An airtight duct system with horizontal shafts constructed of min. 22 GA (0.028 in.) sheet steel with a max. 1296-in. area and a max. 54-in. width (max. 24-in. high x max. 54-in. wide) and as detailed in Design VAD 521 R.
2. FLOOR/CEILING 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 measuring max. 34 high x 63-1/4-in. wide. Position the duct assembly eccentrically in the opening so that the annular space ranges from min. 1/2in. on one side (4a) to max. 1-1/2 in. on the other (4b).
3. FILL, VOID OR CAVITY MATERIAL: Apply a min. 1/2-in. sealant fill material over the packing material (4) in the recess around the top surface of the floor through-penetration opening.

Listed Manufacturer:

Johns Manville Corporation

Firestopping

© Omega Point Laboratories, Inc.

Firestopping Sealant

Firetemp® SI

Firetemp® SE

Firetemp® CI

4. PACKING MATERIAL: Fill the annular space with loose fill high temperature soluble amorphous wool blanket packed to min. 10 pcf. Recess the surface of packing material a min. 1/2 in. from the top surface of the floor/ceiling assembly.

Listed Manufacturer:

Johns Manville Corporation --

Applied Fireproofing

Ceramic Blanket

Firetemp® Wrap

5. COVER STRIPS: After sealant is completely dry, cut strips from nom. 2-in. thick boards. Make strips min. 2-1/8-in. wide and long enough to completely cover the sealant (3). Place a bead of sealant at junction between cover strips and penetrating item enclosure (1).

Listed Manufacturer:

Johns Manville Corporation

Board Fireproofing

Mineral and Fiber Boards

Super Firetemp® T

6. ATTACHMENTS: Cement all joints together, between the penetrating item and the cover strips, with a compatible high temperature ceramic cement by coating both mating surfaces before joining. Use nom. 1/8-in. thick layer of cement to mate boards together. Use approximately 1 gal of cement per 50 lf. Compress mating boards tightly together so that cement continuously protrudes from joint. After cementing the cover strips in place, attach the strips to the surface of the duct enclosure using nom. 4-1/2 in. long, No. 10 pan head screws spaced approximately 1-1/2 in. from each end and 8 in. O.C.

© Omega Point Laboratories, Inc.