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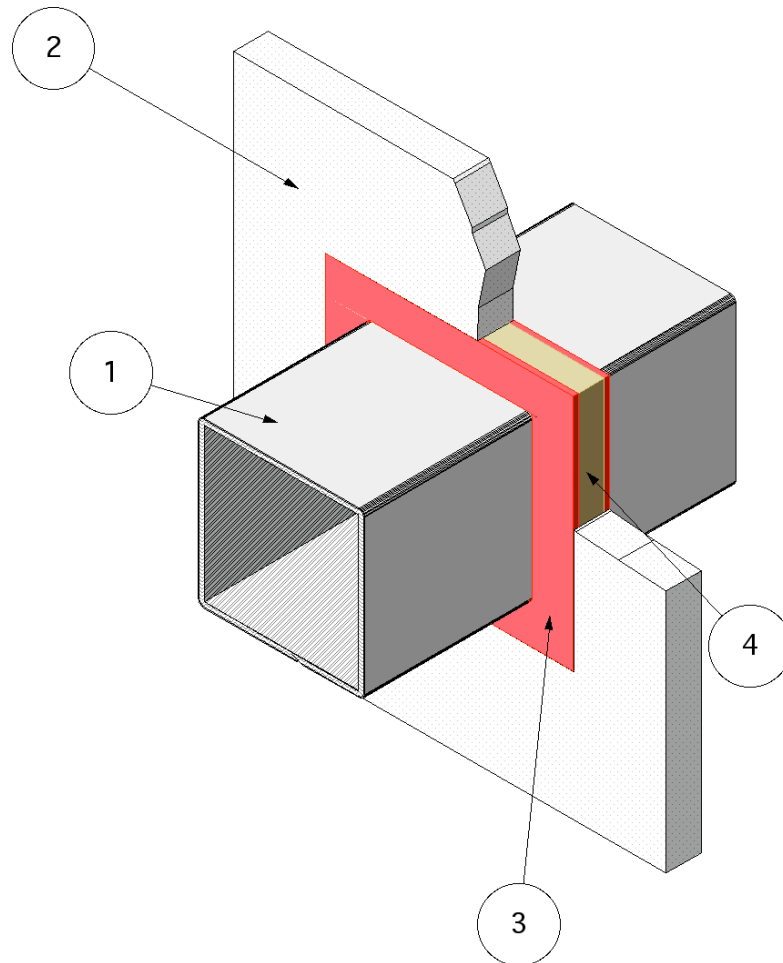
**Design No. FS 554 W**

**FIRE PENETRATION SEAL (Ventilation Duct)**

**ISO 6944**

**Integrity, Stability, Insulation - 2 hr**

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1. **PENETRATING ITEM:** An airtight duct system with horizontal shafts constructed of min. 22 GA (0.028 in.) sheet steel with max. 1296-in. area and max. 54-in. width (max. dim. 24-in. x max. 54-in.) and as detailed in Design VAD 527 F.
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 measuring max. 32 high x 54-in. wide. Position the duct assembly eccentrically in

the opening so that the annular space ranges from min. 3/4in. on one side to max. 3 in. on the other.

3. **FILL, VOID OR CAVITY MATERIAL:** Min. 1/4-in. depth of sealant fill material is to be applied to the recess on both sides of the wall through-penetration opening. The sealant material is to overlap the concrete and the insulation on the duct nom. 1/2-in.

**Listed Manufacturer:**

**Johns Manville Corporation**

Firestopping

## Through-Penetration Fire Stop Systems

### Firestopping Sealant

Firetemp® SI

Firetemp® SE

Firetemp® CI

4. **PACKING MATERIAL:** Fill the annular space with leftover 1-1/2 in. or 2 in. thick, 8pcf soluble fiber blanket. Cut the blanket into 9-in strips. Then fold the blanket into a "U" shape and compress it approximately 37% 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 surfaces of the wall, as required, to accommodate the necessary depth of caulk fill material.

### Listed Manufacturer:

#### **Unifrax Corporation**

Applied Fireproofing

Insulation Blanket (Soluble Fiber)

FyreWrap® 1.5 Duct Insulation

FyreWrap® MAX 2.0 Duct Insulation