

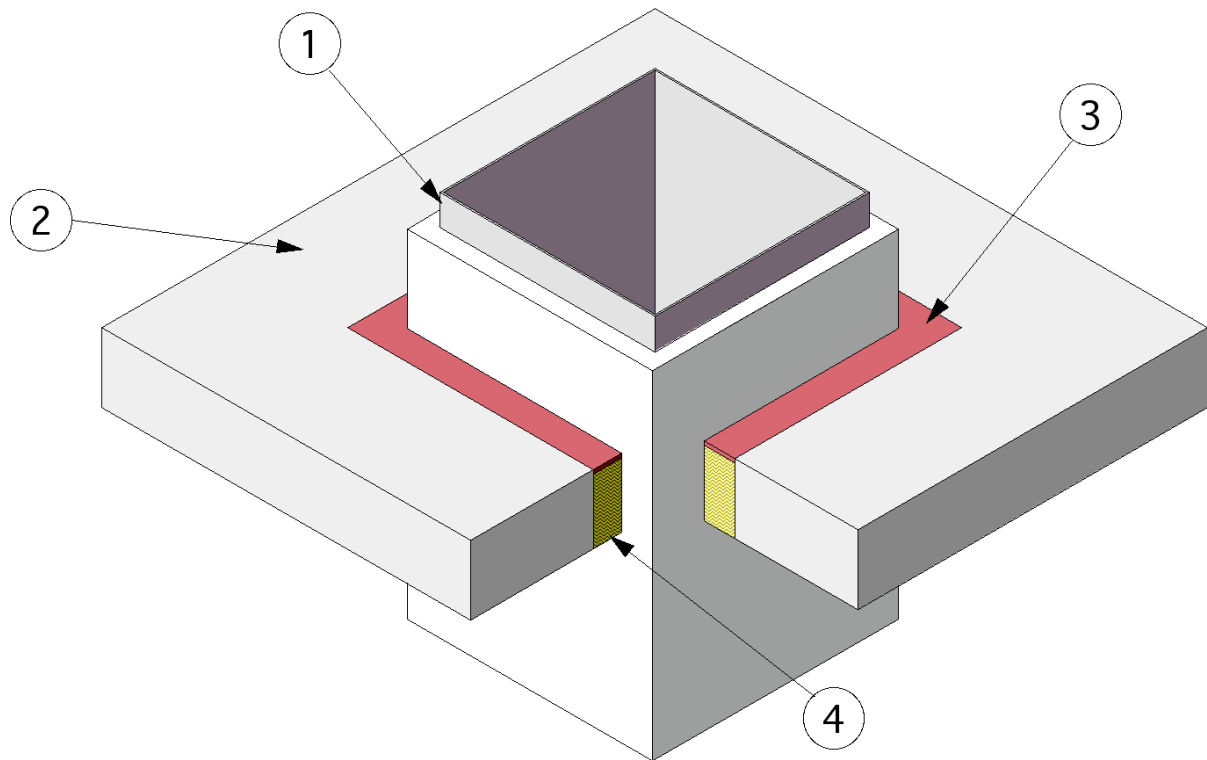
Design No. FS 590 F

FIRE PENETRATION SEAL

Penetrating Item Steel Duct

T-Rating - 2 hr

F-Rating - 2 hr



1. **PENETRATING ITEM:** A liquidtight duct system constructed of min. 16 GA (0.028 in.) sheet steel with max. 2500-in. area and max. 50-in. width (max. dim. 50-in. x max. 50-in.) and insulated with 1 layer of Unifrax Corporation FyreWrap EZ® 1.5 Duct Insulation as detailed in Designs GD 561 F and CFD 505 F.
2. **FLOOR/CEILING ASSEMBLY:** The two-hour fire-rated floor/ceiling assembly consists of min. 4-1/2 in. thick normal weight (100-150 pcf) reinforced concrete. Create an opening in the wall assembly measuring max. 58-1/2 long x 55-in. wide. 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. 5 in. on the other.
3. **FILL, VOID OR CAVITY MATERIAL:** Min. 3/8-in. depth of silicone base firestop

sealant fill material is to be applied to the recess around the top surface of the floor through-penetration opening. The sealant material is to overlap onto the concrete and the duct insulation nom. 1/2-in.

Listed Manufacturer:

Tremco, Inc.

Firestopping

Firestopping Sealant

Tremco Fyre-Sil S/L

Tremco Fyre-Sil Gun Grade

4. **PACKING MATERIAL:** Fill the annular space with leftover unfaced 6pcf soluble fiber blanket. Compress the fiber 25% and insert into the annular space around the penetrating item, filling the annular space. Recess the surface of packing material a

Through-Penetration Fire Stop Systems

min. 3/8 in. from the top surface of the floor, as required to accommodate the necessary depth of fill void or cavity material.

Listed Manufacturer:

Unifrax Corporation

Applied Fireproofing

Insulation Blanket

FyreWrap EZ® 1.5 Duct
Insulation

4B. OPTIONAL PACKING MATERIAL –

As an option, Min 4pcf 4 in. thick mineral wool insulation** compressed to 25% may be substituted for the soluble fiber blanket as the packing material. (**Listed with Omega Point Laboratories)