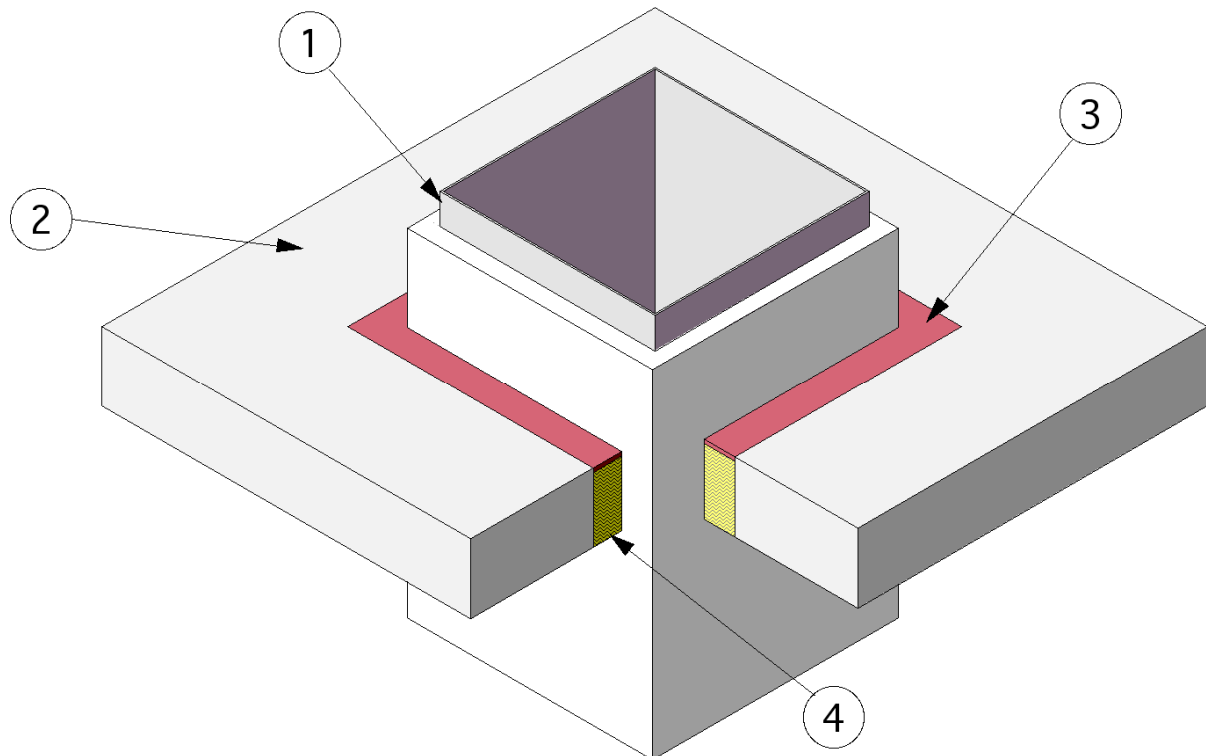


Design No. UNI/FRD 120-22
OPL Design No. FS 590 F
FIRE PENETRATION SEAL
Penetrating Item Steel Duct
Unifrax I LLC
FyreWrap® Duct Insulations

ASTM E 814 - T-Rating - 2 hr
ASTM E 814 - 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 as detailed in Designs GD 561 F and CFD 505 F.
2. CERTIFIED MANUFACTURER: Unifrax I LLC
CERTIFIED PRODUCT: Insulation Blanket
MODEL: FyreWrap® Elite™ 1.5 Duct Insulation (6 pcf)
MODEL: FyreWrap® EZ 1.5 Duct Insulation (6 pcf)

MODEL: FyreWrap® 1.5 Duct Insulation (8 pcf)

MODEL: FyreWrap® MAX 2.0 Duct Insulation (8 pcf)

INSULATION: Use nom. 1-1/2-in. thick, 6-pcf (FyreWrap® Elite™ 1.5 or FyreWrap® EZ 1.5), 1-1/2-in. thick, 8-pcf (FyreWrap® 1.5), or nom. 2 in. 8pcf (FyreWrap® MAX 2.0) blanket made of soluble amorphous wool fibers or calcium magnesium silica fibers. Use one layer min. 1-1/2-in. thick, 6-pcf blanket. Use blanket that is fully encapsulated or single faced with foil-scrim-metallized polyester facing.

3. 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.
4. 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.

CERTIFIED MANUFACTURER:
Tremco, Inc.
CERTIFIED PRODUCT: Firestopping Sealant
MODEL: Tremco Fyre-Sil S/L
MODEL: Tremco Fyre-Sil Gun Grade
5. 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 min. 3/8 in. from the top surface of the floor, as required to accommodate the necessary depth of fill void or cavity material.

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MODEL: FyreWrap® MAX 2.0 Duct Insulation (8 pcf)

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)