
Design No. UNI/FRD 120-12

OPL Design No. FS 589 W

FIRE PENETRATION SEAL

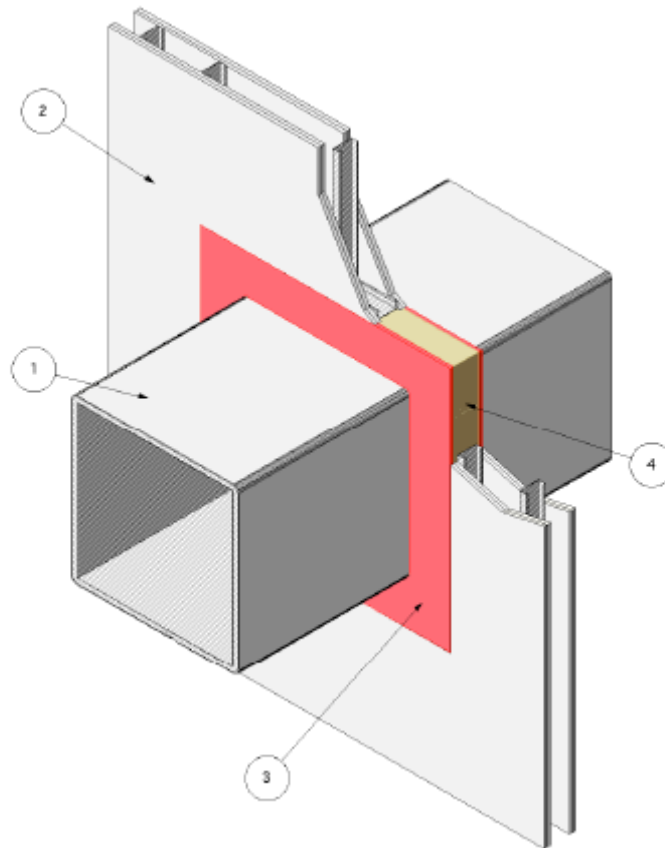
Penetrating Item Steel Duct

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, or 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. GYPSUM WALL ASSEMBLY: A two-hour rated wall assembly constructed of the following: 25 GA galvanized steel studs spaced 24 in. o.c. measuring 3-5/8 in. wide with 1-1/4-in. legs. Studs attached with min. #6 x 3/8-in. steel stud framing screws to channel shaped floor and ceiling runners measuring 1/2-in. deep by 3-5/8-in wide, which are secured to floor and ceiling with 1-in. long fasteners, suitable for the mounting substrate, spaced max. 18-in. o.c. Studs and runners covered with two layers of 5/8 in. thick, Type X gypsum wallboard on each face. The base layer of gypsum wallboard fastened to steel studs with #6 1-1/8 in. bugle head phillips drywall screws spaced 12 in. o.c. The face layer of gypsum wallboard fastened with #6, 1-5/8 in. long bugle phillips drywall screws spaced 8 in. o.c. Joint Tape and Compound - vinyl or casein, dry or premixed joint compound applied to face layers of gypsum wallboard in two coats to all exposed screw heads and gypsum wallboard joints. A min. 2 in. wide paper, plastic or fiberglass tape embedded in first layer of compound over joints in gypsum wallboard. A min. wall depth of 6-1/8 in. created from face layer of gypsum wallboard to face layer of gypsum wallboard. Create an opening in the wall assembly having a max. 3163 in² cross-sectional area and a max. dimension of 57-1/2-in. Position the duct assembly concentrically or eccentrically in the opening so that the annular space ranges from min. 3/4 in. on one side to max. 3 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 of the packing material on both sides of the wall through-penetration opening. The sealant material is to overlap onto the gypsum wallboard 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 6 pcf 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 both surfaces of the wall, as required to accommodate the necessary depth of fill void or cavity material.
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- CERTIFIED PRODUCT: Insulation Blanket
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- 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)
- A. 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)