

3M Company
Design No. 3MU/DI 60-02
Firestop System
3M™ Fire Barrier™ Dryer Ventilation Wrap (DVW)
3M™ Fire Barrier™ 615+
ASTM E2816-18b
Condition B – 60 minutes
ASTM E814-13a (2017)
Test Pressure Differential – 2.5 Pa (0.01 in. of water)
T- Rating 60 minutes; F-Rating 60 minutes

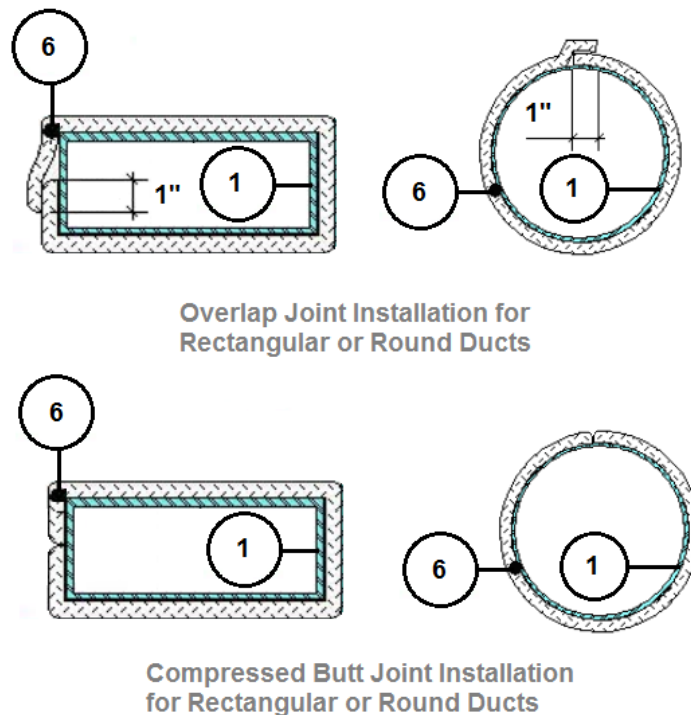


Figure 1. 3M™ Fire Barrier™ Dryer Ventilation Wrap

1. DUCT: Reference Figure 1. Use SMACNA compliant ventilation duct for vertical installation and meeting the following requirements:

- Steel Gauge: Minimum 26 GA
- Shape: Rectangular or Round (straight seam or spiral seam)
- Dimensions: Maximum 4 in. x 10 in. or max. 7 in. diameter.
- Cross-Sectional Area: Max. 40 sq.in.

- Joint Treatment: Apply silicone sealant to all joints, or alternatively apply 3M™ 1525CW FSK Facing Tape to all joints.

Rigidly support the duct in accordance with IMC, SMACNA or NFPA 90A requirements designed to carry the weight of the insulated duct under a fire load equivalent to a 60 minute exposure of the ASTM E119 time-temperature curve.



2. SUPPORTING CONSTRUCTION: Use min. 60 minute fire resistance rated floor/ceiling assembly meeting the following minimum requirements:

- Overall Floor Depth: Min. 10-5/8 in.
- Framing: Min. 2 x 10 solid sawn wood joists
- Ceiling Membrane: one layer, 5/8 in. thick gypsum board. See corresponding listed fire resistance rated designs for approved manufacturers and models.

3. THROUGH-OPENING: Refer to Figure 2. Create a rectangular through-opening in the supporting construction (Item 2) sized three inches greater in both dimensions than the corresponding outside duct (Item 1) dimensions. Frame the opening with min. 2 x 10 solid sawn wood and matching the framing material size used in the supporting construction (Item 2). If resilient channels or furring channels are used in the listed supporting construction (Item 2), install additional resilient channels or furring channels along the perimeter of the framed opening. Position the uninsulated duct (Item 1) concentrically within the through-opening.

4. PACKING MATERIAL: Refer to Figure 2. Use nominal 1-1/2 in. thick, nominal 6 pcf, 3M™ Fire Barrier™ Duct Wrap 615+ or 3M™ Fire Barrier™ Dryer Ventilation Wrap (DVW) core insulations as the firestop packing material.

CERTIFIED MANUFACTURER: 3M Company

CERTIFIED PRODUCT: Duct Insulation

CERTIFIED MODEL: 3M™ Fire Barrier™ Duct Wrap 615+ and 3M™ Fire Barrier™ Dryer Ventilation Wrap (DVW)

Pack the core insulation into the annular space with fibers oriented parallel with the duct (Item 1) resulting in a min. 50% compression based on

nominal insulation thickness. For 3M™ Fire Barrier™ Duct Wrap 615+, pack two layers of nominal 1-1/2 in. thick core insulation into 1-1/2 in. annular space. For 3M™ Fire Barrier™ Dryer Ventilation Wrap (DVW), pack 6 layers of nominal 1/2 in. thick core insulation into 1-1/2 in. annular space. For round ducts, pack additional insulation into corners as required to maintain required compression. Install the packing material the full depth of the supporting construction (Item 2). Recess the packing material 3/4 in. from the top of the supporting construction (Item 2).

5. FILL, VOID OR CAVITY MATERIAL – Apply one of the materials listed below, filling the 3/4 in. recess created with the packing material (Item 4):

CERTIFIED MANUFACTURER: 3M Company

CERTIFIED PRODUCT: Firestop Sealant

CERTIFIED MODELS: 3M™ Fire Barrier™ FD 150+, 3M™ Fire Barrier™ IC 15WB+, or 3M™ Fire Barrier™ CP 25WB+

6. CERTIFIED MANUFACTURER: 3M Company

CERTIFIED PRODUCT: Dryer Ventilation Wrap

CERTIFIED MODEL: Nominal 1/2 in. thick, nominal 8 pcf, 3M™ Fire Barrier™ Dryer Ventilation Wrap (DVW)

Install one layer of 3M™ Fire Barrier™ Dryer Ventilation Wrap (DVW) around the full length of the duct (Item 1) except where it passes through the supporting construction (Item 2). Use compressed butt joints (min. 1 in. compression) or min. 1 in. overlap joints. Secure the insulation with min. 0.047 in.



stainless steel wire, max. 12 in. oc. For transverse overlap joints, center the wire on the overlap. For transverse butt joints position the wire 1/2 in. from each side of the compressed transverse butt joints. For rectangular ducts installed with compressed butt joints, ensure that the first min. 12 in. long section of 3M™ Fire Barrier™ Dryer Ventilation Wrap (DVW) installed on the underside of the supporting construction (Item 2) has the longitudinal butt joint located on the short (maximum 4 in.) side of the duct (Item 1). Tape all joints with 3M™ 1525CW FSK Facing Tape.

- 7. FIRESTOP SUPPORT:** Refer to Figure 2. Use min. 1-1/2 in. x 1-1/2 in. x 1/8 in. steel angles on each of the long sides of a rectangular duct (Item 1) or on opposite sides of a round duct (Item 1) and parallel with opposite sides of the through-opening (Item 3). Extend the angles min. 1-1/2 in. onto the supporting construction on each side. Fasten the angles to the supporting construction (Item 2) with min. No. 10 screws of the appropriate type for the underlying construction; use one screw on each side. Fasten the angles to the duct (Item 1) with min. No. 10 self-drilling hex-head or panhead steel screws. Use two screws on each side for a

rectangular duct (Item 1) spaced max. 6 in. oc, and one screw on each side for a round duct (Item 1).

- 8. FIRESTOP COLLAR:** Refer to Figure 2.

CERTIFIED MANUFACTURER: 3M Company

CERTIFIED PRODUCT: Dryer Ventilation Wrap

CERTIFIED MODEL: Nominal 1/2 in. thick, nominal 8 pcf, 3M™ Fire Barrier™ Dryer Ventilation Wrap (DVW)

Install a min. 12 in. long, 3M™ Fire Barrier™ Dryer Ventilation Wrap (DVW) collar on the top side of the supporting construction (Item 2). Cut slits, 1-1/2 in. tall at the base of the collar in order to fit the collar over the steel angle firestop supports (Item 7). Secure the collar with min. 0.047 in. stainless steel wire, positioned 1-1/2 in. from the bottom of the collar and 1-in. from the top of the collar. Tape the top of the collar to the Dryer Ventilation Wrap (Item 6) with 3M™ 1525CW FSK Facing Tape.

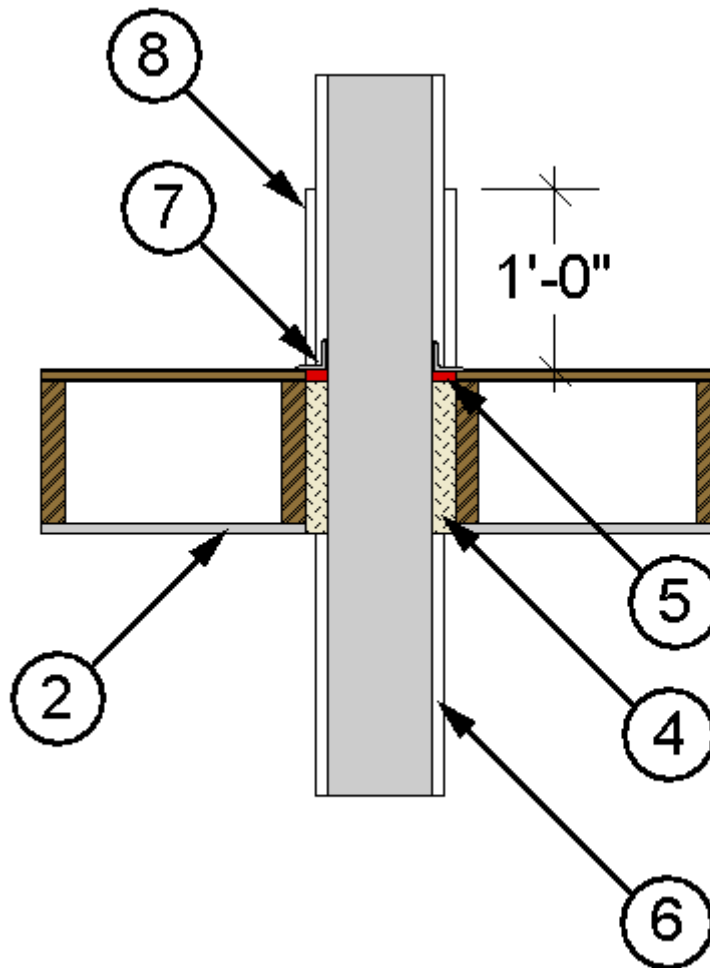


Figure 2. Firestop Details

Consult the listing report on the Directory of Building Products (<https://bpdirectory.intertek.com>) for the edition of the standard(s) evaluated.

Compliance of the assembly described in this Design Listing with the referenced standard relies on verification that the assembly constructed in the field is consistent with that described herein. Intertek certified products may be verified by the approved Intertek label; other products must be verified by the Authority Having Jurisdiction as meeting the specifications stated herein.