

# DELTA<sup>®</sup>-VENT S

## Vapor Permeable Water-resistive & Air Barrier Installation Instructions Strip-in Method

### Health and Safety

- Required safety equipment: hard hat, safety boots, gloves, safety glasses, fall arrest equipment.
- Always follow all safety precautions as directed by the Occupational Safety and Health Administration (OSHA-USA) or the Construction Safety Association (Canada).
- Please refer to Safety Data Sheets for all components and observe all recommended safety precautions therein.
- The general codes of practice for protection at work and instructions of the manufacturers for tools and components are to be observed at all times.

### Recommended Materials

- DELTA<sup>®</sup>-VENT S
- DELTA<sup>®</sup>-FAS CORNER (pre-fabricated window corner)
- DELTA<sup>®</sup>-FLEXX BAND (flexible flashing)
- DELTA<sup>®</sup>-MULTI BAND tape
- DELTA<sup>®</sup>-FLASHING
- DELTA<sup>®</sup>-TILAXX or DELTA<sup>®</sup>-LFS

### Recommended Tools

- Utility knife
- Measuring tape
- Caulking gun
- Hammer or pneumatic nail/staple gun
- Cordless drill (for steel stud applicaiton)
- Hand roller (for flashing applicaiton)

### Notes on Air Barrier Continuity

- To ensure the continuity of air and water-resistive barrier, it is essential to install DELTA<sup>®</sup>-VENT S and all DELTA<sup>®</sup> components in a manner that seals all the potential leakage points:
  - Connections of the walls to the roof air barrier
  - Connections of the walls to the foundation
  - Seismic and expansion joints
  - Piping, conduit, duct and similar penetrations
  - Masonry ties, screws, bolts and similar penetrations
  - Changes in plane
  - All other potential air leakage pathways in the building enclosure
- These installation instructions for DELTA<sup>®</sup>-VENT S are intended only as a guide and are for the convenience of the contractors,specifiers, and other interested parties. The final application and details are the sole responsibility of the design authority on record for the project.
- Building codes, such as International Residential Code (IRC), International Building Code (IBC) and National Building Code (NBC), require the use of a water-resistive barrier on all exterior walls that is at least equivalent to Grade D building paper. Always confirm the local building requirements prior to installation.
- Applications using cementitious coatings directly applied to surface of the DELTA<sup>®</sup>-VENT S are not recommended. For these applications, please call our Technical Support Team: 1-888-433-5824 ext. 326.
- Do not install DELTA<sup>®</sup>-VENT S in adverse weather conditions. High winds may hamper application.
- Ensure protrusions that may penetrate the membrane are removed from substrate.
- If being applied to concrete or masonry substrates fill voids, gaps and spalled areas in substrate to provide an even plane. Strike masonry joints full-flush.
- It is recommended that DELTA<sup>®</sup>-VENT S be installed prior to the installation of seismic straps.
- If sealant is required, DELTA<sup>®</sup>-TILAXX or DELTA<sup>®</sup>-LFS is recommended.
- When attaching brick ties for anchoring masonry claddings after the installation of DELTA<sup>®</sup>-VENT S, install a patch of DELTA<sup>®</sup>-FLEXX BAND at the penetration site before installing the brick tie. The patch should be of an adequate size to seal only the penetration point.
- Minimum slope of 2:12.

- Do not use sealants, flashings, products or chemicals that contain surfactants on DELTA® water-resistive and air barrier membranes because they can adversely affect the water hold-out properties of any PP spunbond-based water-resistive barrier. Such products may include asphaltic materials, various chemicals, acid-based silicones, cleaning compounds, and certain formulations of liquid flashings, e.g. specific STP-based materials. Always confirm compatibility with the manufacturer's published technical data sheets and with the manufacturer's technical department.
- Product is not designed for permanent UV exposure. Always cover as soon as possible.

#### Recommended fasteners

- #4 nails with 1" (25 mm) plastic cap (wood frame construction).
- 1" (25 mm) plastic cap staples with minimum 7/8" (22 mm) leg (wood frame construction).
- 1-1/4" (32 mm) or 2" (50 mm) self-tapping screws with gasketed metal washers (steel stud construction).

#### Step 1 Installation

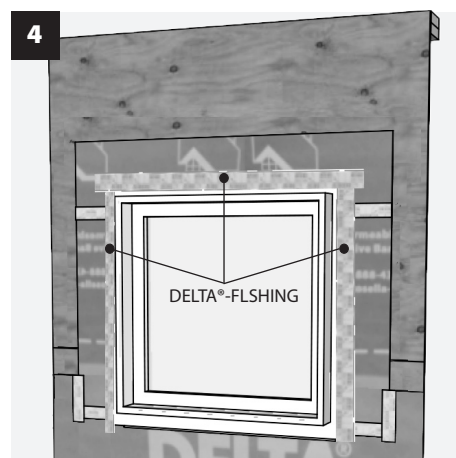
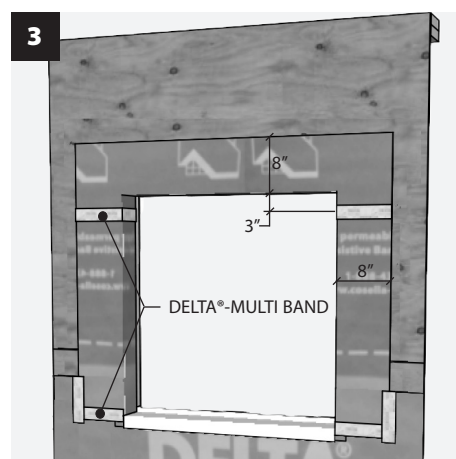
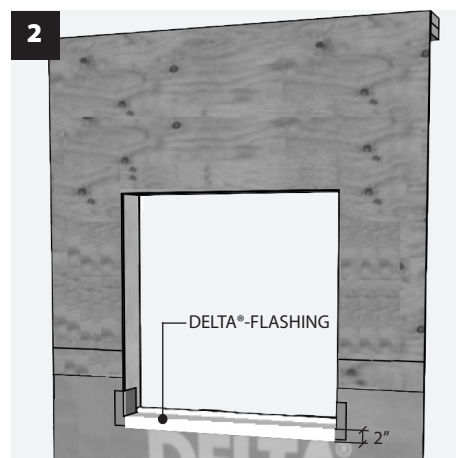
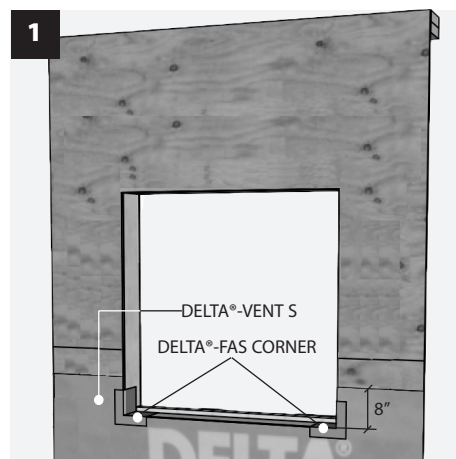
- Cut DELTA®-VENT S into manageable length. DELTA®-VENT S can be installed vertically or horizontally.
- Starting at a corner of the building, unroll DELTA®-VENT S, keeping the roll plumb.
- Extend approximately 12" (300 mm) past either the inside or outside corner of the wall.
- At end and side laps, overlap DELTA®-VENT S by minimum of 6" (150 mm).
- To ensure air barrier continuity, tape any laps with DELTA®-MULTI BAND tape.
- Always begin the installation of DELTA®-VENT S at the bottom of the building to ensure proper downward shingling of the laps.
- Secure DELTA®-VENT S by fastening into the studs (wherever possible) no closer than 6" (300 mm) and no wider than 16" (406 mm) on centre horizontally and vertically.
- Ensure that the DELTA®-VENT S is pressed tightly into all inside corners before fastening to prevent damage during the installation of exterior cladding.

#### Step 2 Wall/foundation transition

- DELTA®-VENT S should overlap through-wall (DELTA®-TW) flashing by minimum of 6" (150 mm).
- For optimum performance:
  - Seal DELTA®-VENT S to through-wall (DELTA®-TW) flashing with DELTA®-TILAXX or DELTA®-LFS or DELTA®-MULTI BAND.
- If no through-wall flashing is installed, the bottom edge of DELTA®-VENT S should extend beyond the sill plate by at least 2" (50 mm) and be sealed with DELTA®-TILAXX or DELTA®-LFS.

#### Step 3 Window

- Install DELTA®-VENT S membrane below window with cut out minimum 8" (200 mm) above sill. Install DELTA®-FAS CORNERS in lower corners of rough opening. Staple on vertical leg for temporary support (see Detail 1).
- Install DELTA®-FLASHING membrane onto window sill. Overlap 2" (50 mm) onto face of DELTA®-VENT S membrane below (see Detail 2).
- Install DELTA®-VENT S membrane strip to wrap jamb. Lap 8" (200 mm) onto face of wall at jamb, minimum 3" (75 mm) at head. Install DELTA®-VENT S membrane at window head or rough opening. Lap minimum 8" (200 mm) onto face of wall at head overlapping window jamb by minimum 3" (75 mm). Install DELTA®-MULTI BAND tape at overlapped edges of DELTA®-VENT S to ensure airtightness (see Detail 3).
- Install window shims in accordance with window manufacturer's specifications, typically at quarter points of rough opening and under setting block locations for window. Install window in accordance with manufacturer's specifications. Generally, the gap between window and rough opening should be around 1/2" (12 mm).
- From interior, install backer rod around the full perimeter of window. Install DELTA®-TILAXX or DELTA®-LFS sealant around perimeter of window alternate air sealing detail; Apply low expansion spray foam around full perimeter of window. Do not seal full cavity to allow drainage from sill flashing.



### Rebate window

- For exposed buildings and buildings taller than 2 stories, apply an exterior bead of sealant between window frame and membrane at jambs and head only.

### Step 4 Installation of membrane

- Install DELTA®-VENT S membrane overlapping the membrane at window flange and head minimum 6" (150 mm). For optimum performance, tape vertical and horizontal laps with DELTA®-MULTI BAND tape (see Detail 5).
- Install kick-out flashing over the window head. Seal any penetrations with DELTA®-MULTI BAND tape (see Detail 6).

### Step 5 Penetrations

- Cut DELTA®-VENT S around penetrations as tightly as possible.
- Seal gaps between penetration and substrate with DELTA®-TILAXX sealant.
- Install DELTA®-FLEXX BAND around the penetration (see Detail 7).

### Step 6 Inspection

- Inspect the DELTA®-VENT S for rips, tears, or other installation deficiencies in the continuity. Tape rips, tears or holes smaller than 2" (50 mm) with DELTA®-MULTI BAND.
- For holes greater than 2" (50 mm), a patch is required.
  - Cut a slit approximately 3" (8 cm) above the hole and approximately 3" (8 cm) wider than the hole.
  - Cut a patch minimum 6" (150 mm) larger than the hole.
  - Slide the top edge up into the cut slit so that the patch covers the hole.
  - Tape the patch with DELTA®-MULTI BAND in the following order:
    1. Bottom
    2. Sides
    3. Top
- Ensure all materials are installed as required.

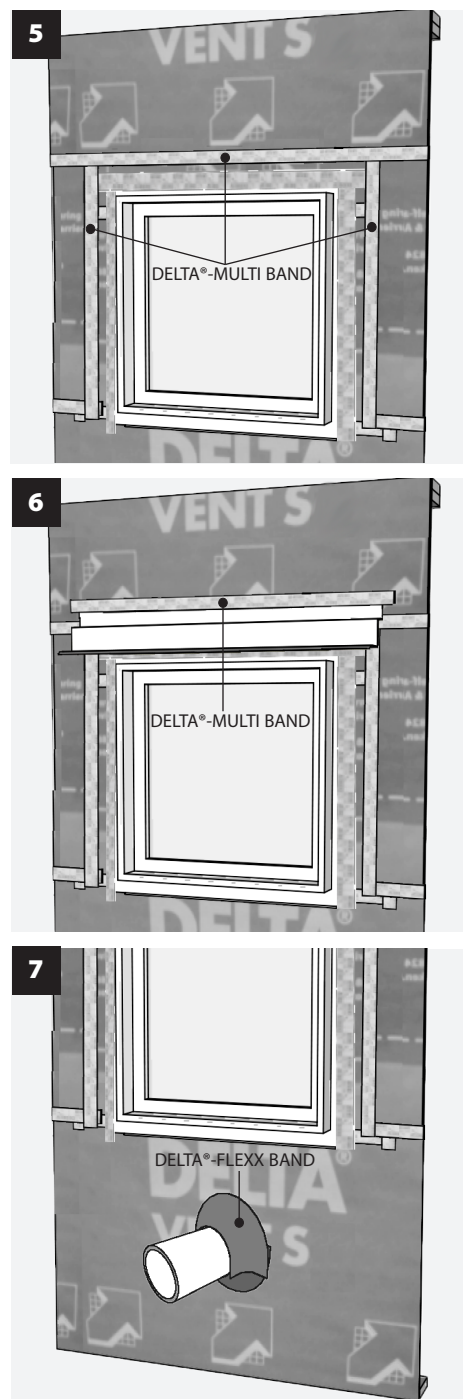
### Step 7

- Clean up all excess materials and dispose of properly.

For technical support, call our Technical Support Team at 1-888-433-5824 extension 4324, or visit [www.dorken.com](http://www.dorken.com)

### Evaluation Reports (certifications)

- ICC Evaluation Service [ESR-2932](https://www.iccs.org) Water-resistive Barriers
- NFPA 285 - compliant wall assemblies



DELTA® is a registered trademark of Ewald Dörken AG, Herdecke, Germany



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05/22/2025