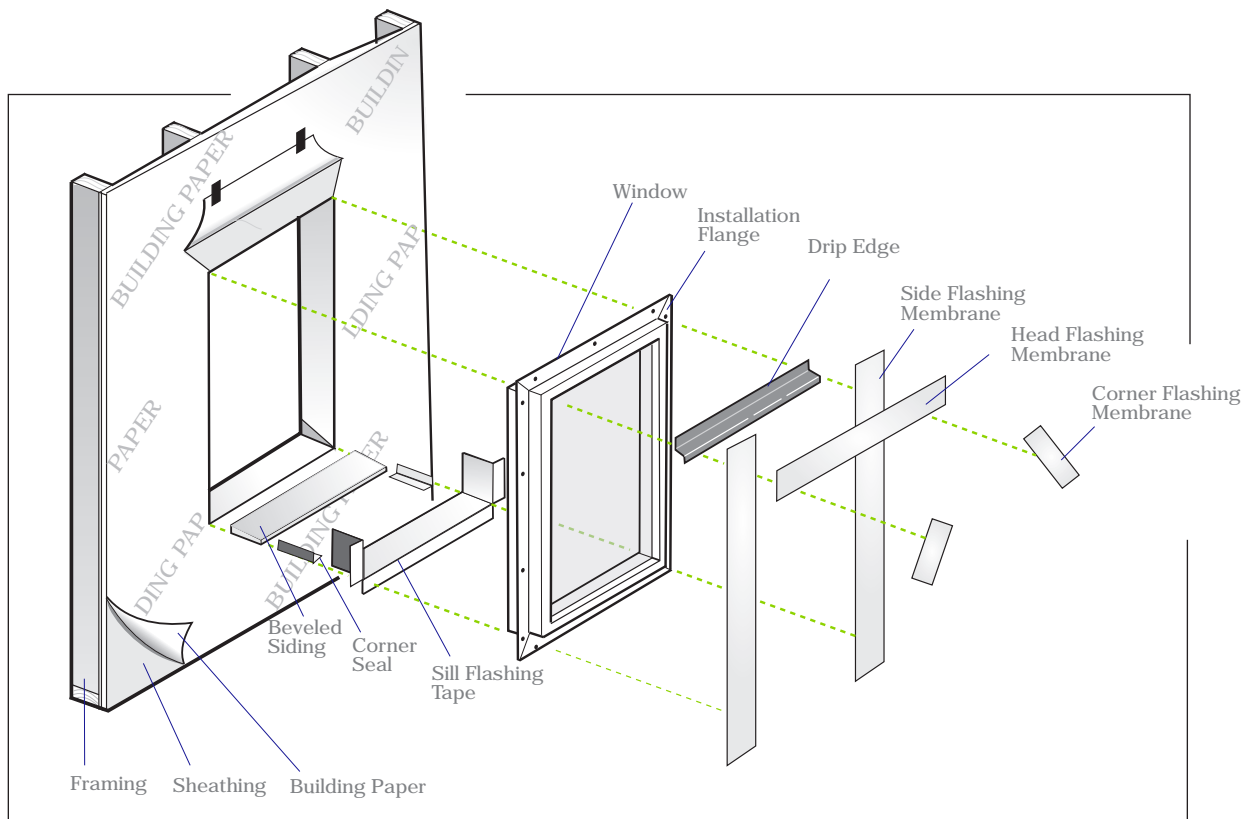


Window Installation Instructions

Please read instructions fully prior to installation

This installation procedure was developed to protect building in the unlikely event of a water leak. It is designed for wood framed opening with a rain screen cladding. If you are not sure what this means or have another type of wall, consult with Thermotech Fiberglass Fenestration.

Failure to follow these installation procedures may result in damage to the building. This damage can take the form of discoloration, rot and structural damage as well as mildew and mold.



Materials Required

- Self Adhesive Flashing Membrane
- Beveled Siding
- Tapered Shims
- Rigid Flashing
- High Quality Silicone Sealant
- Expanding Closed Cell Foam
- #8 screws, 2 1/2" (65mm)

Tools Required

- Tape measure
- Level
- Square
- Hammer
- Stapler
- Screwdrivers
- Scissors or utility knife
- Screw gun

WARNING:

Windows must be installed by a skilled person, who is familiar with modern construction and the rain screen principle. Improper installation voids the warranty and damages buildings.

Important Information

Warning

Failure to follow proper safety procedures will likely result in injury or death.

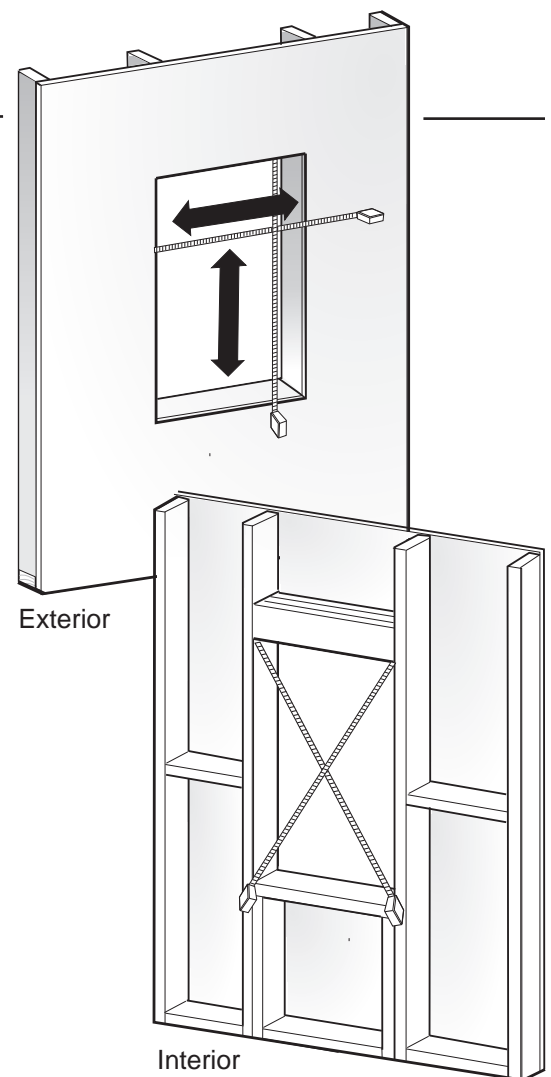
Be cautious when working on or near ladders, scaffolding and rough openings. Follow all relevant safety procedures including , but not limited to using fall protection equipment and respecting the limits of installer's lifting abilities.

Windows and doors are heavy. Perhaps not surprisingly, triple glazed windows and doors are 50% heavier than double glazed products. Lifting heavy loads can cause injury. Getting struck by falling windows and doors can also cause serious injury or even death.

1 Opening Preparation

Check that the rough opening is 1" (25mm) wider and 1 1/4" (32mm) taller than the window.

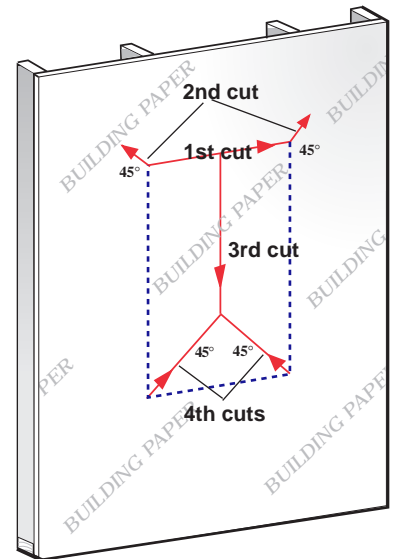
Also check that the opening is reasonably plumb and level.



2 Prepare Rough Opening

A - CUT THE PAPER

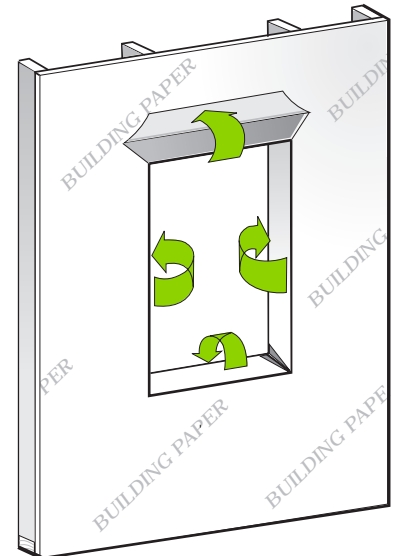
Start by cutting across the top of the rough opening. Secondly cut upwards at a 45 degree angle about 6" (150mm) from each of the upper corners. Next starting at the midpoint of the first cut, cut downwards to a point, that is on a 45 degree line from the bottom corners. Finally make a cut along the 45 degree line towards each corner.



B - FOLD BUILDING PAPER

At the top of the window fold the building paper up, revealing about 6" (150mm) of sheathing. At the sides of the window fold the paper to the inside. Fold the paper to the inside at the bottom as well.

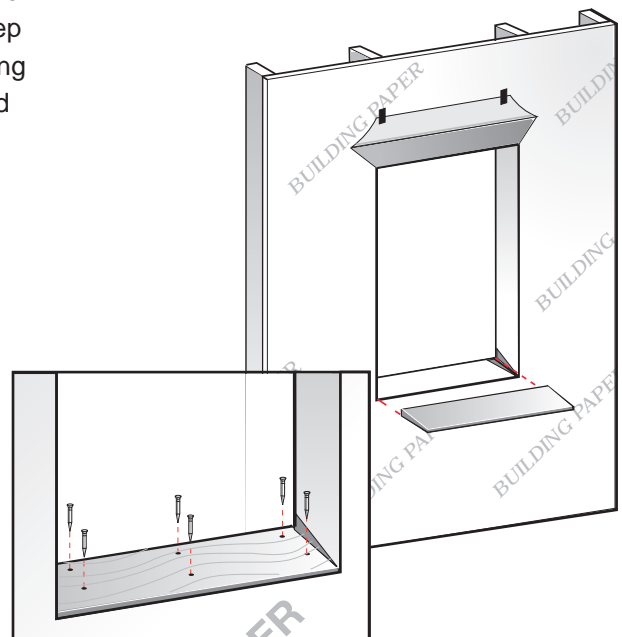
On the sides and bottom cut the building paper back. Leave 2" (50mm) attached to the rough opening. Remove the rest.



C - CREATE SLOPED SURFACE

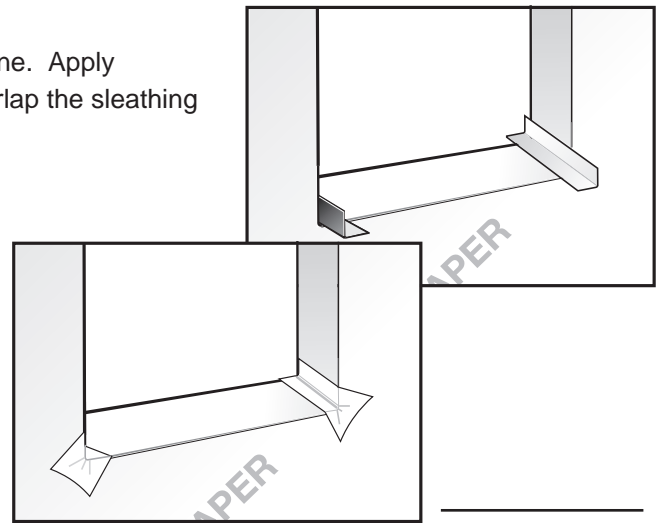
Create a sloped surface on the rough sill with a piece of beveled siding. The siding needs to be at least as deep as the window. On wider windows, two pieces of siding can be butted tightly together. In this case the sloped surface needs to be continuous without gaps.

Note: For improved air tightness put a bead of caulk under the beveled siding.



D - APPLY GUSSETS

Cut two 6" (150mm) strips of self adhering membrane. Apply them diagonally to each corner. They need to overlap the sleathing by at least 1" (25mm)

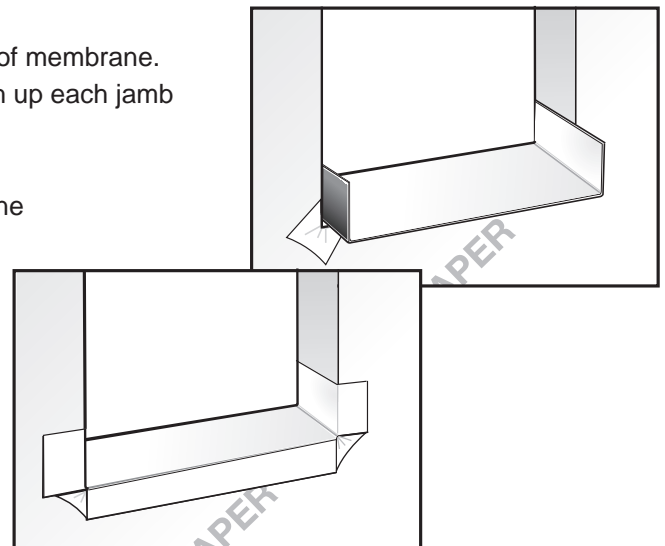


E - COVER CLAPBOARD

Cover the clapboard with a self-adhering waterproof membrane. It must overlap the clapboard by 6" (150mm) - both up each jamb and out over the exterior building paper.

Cut and fold the self-adhering waterproof membrane to the exterior face of the building paper.

Note: Some self adhering membranes require an adhesion promoting primer

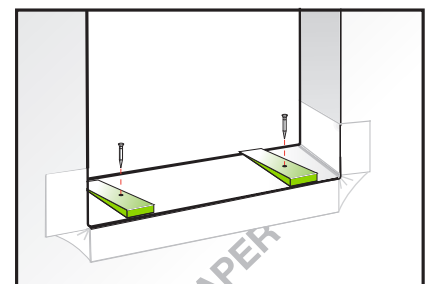


3 Set and Fasten Windows

A- INSTALL COUNTER - SHIMS

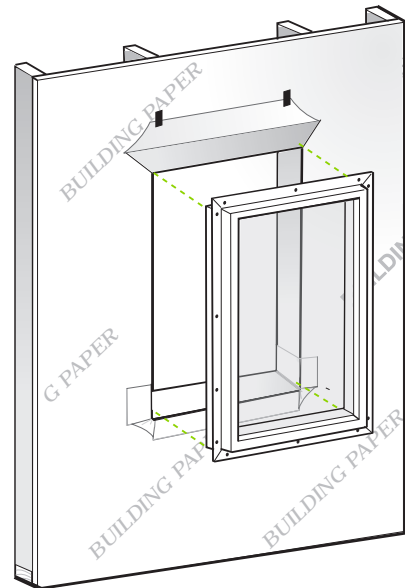
Install Counter-Shims on the sloped membrane. These shims should be within 2" (50mm) of each corner, and also under each mullion. Arrange the shims to provide a level surface for the window.

Note: Use a level to confirm the shims are level with each other.



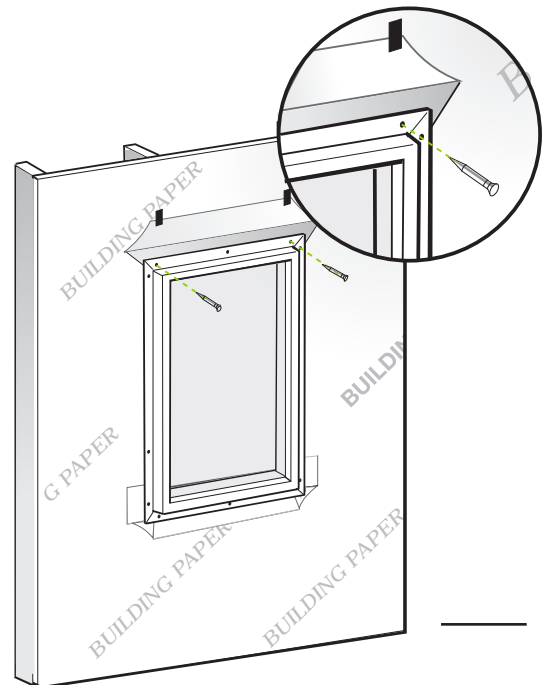
B - SET WINDOW IN ROUGH OPENING

Windows are heavy, make sure you have enough people to comfortably and safely handle the weight. Ensure visible drainage hole covers are on the outside and the bottom of the window.



C - PRE-FASTEN WINDOW

Screw the top corners in place. Use screws that are long enough to bite at least 2" (50mm) into solid framing

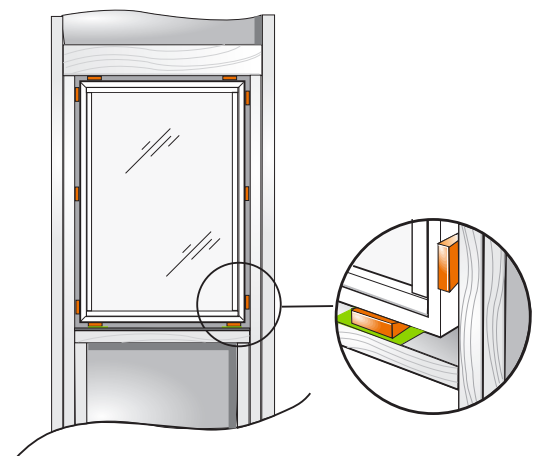


D - SHIM WINDOW

Shim window so that it is plumb, square and level. It is especially important that the window is level. Additionally, there must be shims under bottom right and bottom left corners of all windows. Place additional shims necessary to support the window, within 4" (100mm) of each corner and at least every 24" (600mm).

It is especially important to shim the jambs parallel to the sash.

Ensure that the window is not carrying any structural loads.

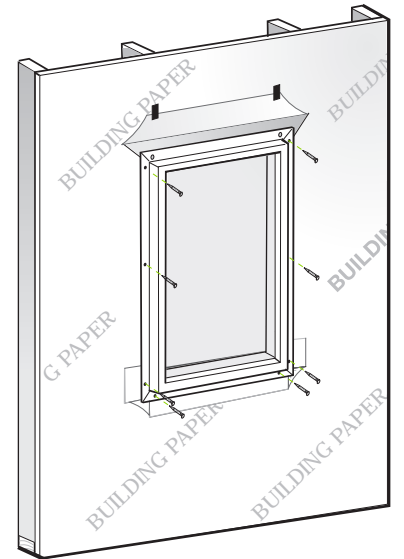


E - SECURE WINDOW

Secure installation flange to the building with screws

There must be screws within 4" (100mm) on each corner and within 4" (100mm) of each mullion - in both directions. That means two per corner and two per mullion. Additionally there must also be a screw at least every 24"(600mm).

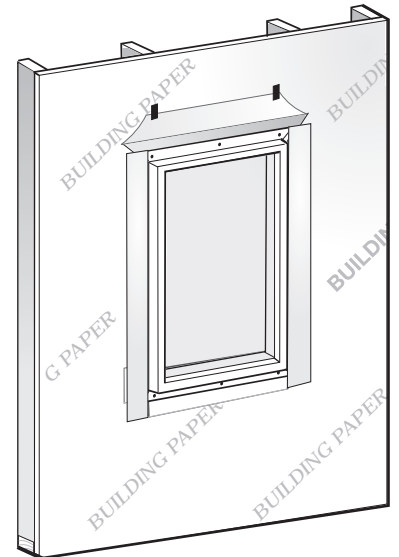
Verify that the window opens and closed smoothly. If not, refer to Step 3D, removing and reinstalling shims as required. If that doesn't work, contact your dealer before proceeding.



4 Integrate Window

A - INTEGRATE JAMB FLANGE

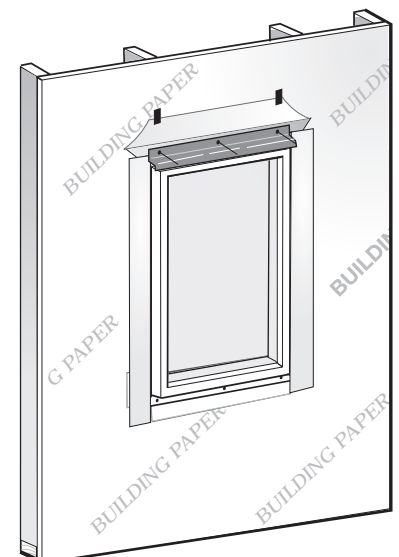
Join the flange to the rest of the building to maintain a continuous drainage plane. Cover the two jamb flanges with a self-adhering waterproof membrane. Always leave the sill flange exposed to allow the sloped sill to drain.



B - INSTALL DRIP EDGE

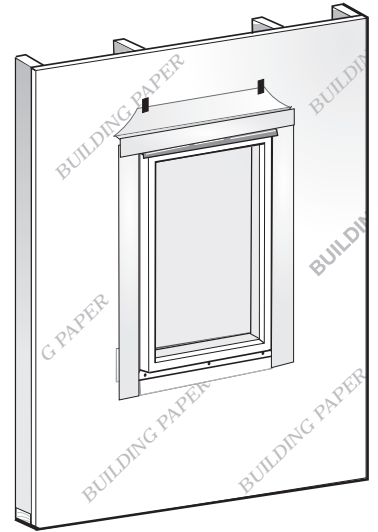
The drip edge must extend at least 2" (50mm) upwards against the sheathing. It must also extend both out past and down over the outer face of the window by at least 1/4" (6mm).

A properly installed drip edge is required over the top of each window, even if there is a board trim over the window that has a drip edge over the board trim.



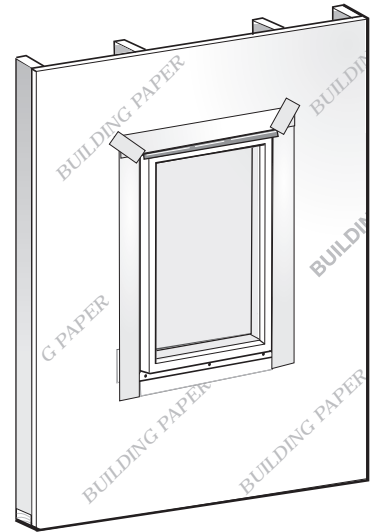
C - INTEGRATE DRIP EDGE

Cover the vertical leg of the drip edge to the wall with a self-adhering waterproof membrane that completely overlaps both jamb membranes.



D - COVER DRIP EDGE

Unfold the building paper down over the taped drip edge. Cover the 45 degree cuts in the building paper that are above the window with self adhering membrane.



E - FINAL OPERATION

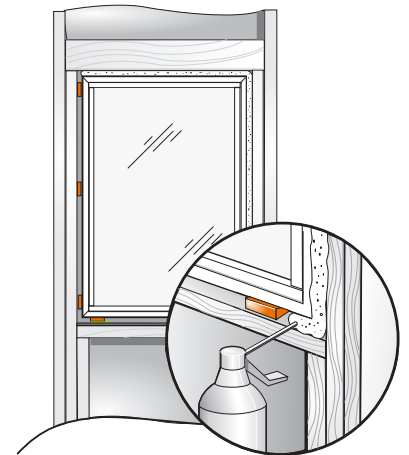
Join the window with the rest of the building to maintain a continuous air barrier.

Careful installers do this by using low expansion urethane foam. Be sure to carefully follow the directions and warnings from the foam supplier. Also be careful not to distort the frame by over insulating.

Before foaming cut the shims flush with the inside of the window. Foam the interior edge of the sill to the self-adhering waterproof membrane sloped surface. Do not foam the sill all the way out to the installation flange; leave a small open space for drainage.

Foam the jambs and head between the rough opening and the window.

After foaming spread caulking around and over the shims to prevent air leakage between the shims and the foam



Note: A good way to verify installation is to spray the exterior of an installed window with a garden hose. Water should not leak into the building. If it does investigate the cause