

Installation Guidelines

FOR PINNACLE CLAD WINDOWS

Casement / Awning / Double Hung / Glide-by Radius / Direct Set

Installer

- Read instructions completely before attempting installation. Failure to follow these guidelines will void the Windsor warranty coverage, written or implied.
- Always provide a copy of these instructions to the homeowner.
- These instructions are consistent with ASTM 2112 "Standard Practice for Installation of Exterior Windows, Doors and Skylights" into common wall constructions. Contact your architect or construction professional for installation into other building designs or construction methods.
- Regional codes and environmental conditions may require installation that is different from these guidelines. It is your responsibility to ensure that local codes and ordinances are followed.

Warning!

- ⚠ **Work Safe!** Always wear proper eye and hearing protection when installing or adjusting Windsor products.
- ⚠ **Use Power Tools Properly!** To avoid personal injury, always follow manufacturers' instructions for safe operation of power tools.
- ⚠ **Ladder Safety!** Working at elevated levels can be hazardous. Always use ladders and scaffolding properly. Consult manufacturers' guidelines for safe use of these types of equipment.
- ⚠ **Safety Glazing!** Windsor products do not contain safety glazing unless specifically ordered that way. Use caution – injury could result if glass is broken and fragmented. Building codes require safety glazing for windows installed in certain areas. Consult your local building code official for guidelines.

Important

- Windsor reserves the right to change the information contained in these guidelines without notice.
- Maintain a minimum of 1/4" between the window frame and any trim, siding or masonry.
- Use of Windsor products in barrier EIFS systems (synthetic stucco) is not recommended. To do so will void all warranties (written or implied) and Windsor Windows & Doors will not be held responsible for any claims or damages resulting from water infiltration.
- Steel fasteners will corrode when used with ACQ pressure treated lumber. Use corrosion-resistant fasteners (such as stainless steel) when installing windows in or around these types of materials.
- Window nailing flanges and drip caps (integral or applied) do not take the place of window flashing. All windows and doors must be properly flashed and sealed around the perimeter.
- Certain Windsor double hung products are furnished with jamb jacks. Jamb jacks are not required for installation, but rather future adjustment to the frame width at the middle of the unit. Jamb jacks should not be used in place of shims. Refer to Step 4 for shimming guidelines.

Handling and Storage

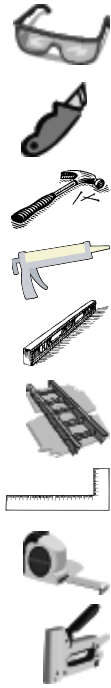
- Always carry door units upright. Do not carry flat! Doing so could result in damage to the unit.
- Do not store units outside.



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Tools Needed

- Safety Glasses
- Utility Knife
- Hammer (or nail gun)
- Caulk Gun
- Level
- Ladder / Scaffolding
- Square
- Tape Measure
- Stapler



Materials Needed

- Backer Rod
 - 1/4"-1/2" diameter closed cell foam
- Insulation
 - Minimally expanding low pressure polyurethane window and door foam
- Shims
 - Made of cedar or synthetic material
- Casing Nails
 - 16d Galvanized
- Silicone Sealant
 - 100% Silicone
- Flashing
 - Self-adhesive flexible flashing that complies with ASTM-D779
- Rigid Metal Flashing and Fasteners
 - Applied to head brickmould

Step 1: Inspect Unit

Before Installation:

- Remove all shipping packaging material (blocks, pads, protectors, stretch wrap).
- Do not remove double hung belly bands (white strap) until after install.
- Inspect unit for any damage or defects.
- Verify that the window unit is the correct size and configuration.
- Make sure the unit operates properly.
- Contact your nearest Windsor distributor if there are any problems.

Step 2: Prepare Rough Opening

- Measure and verify the size of the rough opening. The rough opening should be 3/4" larger in width and 1/2" larger in height than the frame size.
- For windows with clad exterior casings, additional nailer studs may be required around the perimeter of the rough opening.
- Framing recommendations for radius and geometric windows are shown in Fig. 1 below.

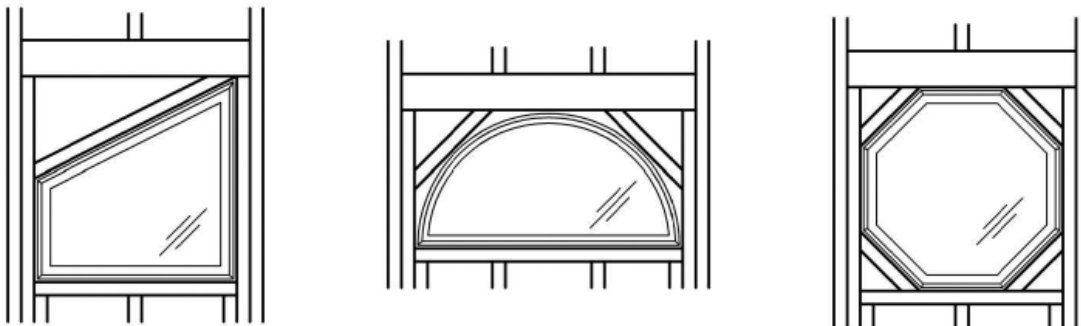


FIG. 1

- D) Verify the rough opening is flat, plumb, level and square. (Fig. 2)
- E) Take diagonal measurements to check for square. (Fig. 2)
- F) Make sure the bottom sill area of the opening does not slope toward the interior.
- G) Cut the weather-resistant barrier (WRB) in a "Modified I" pattern shown below. (Fig. 3)
- H) Fold back the WRB on the sides and sill toward the interior and staple into place. (Fig. 4)
- I) From the exterior, cut the top of the WRB as shown to form a flap. (Fig. 5)
- J) Temporarily tape this top flap up. (Fig. 5)

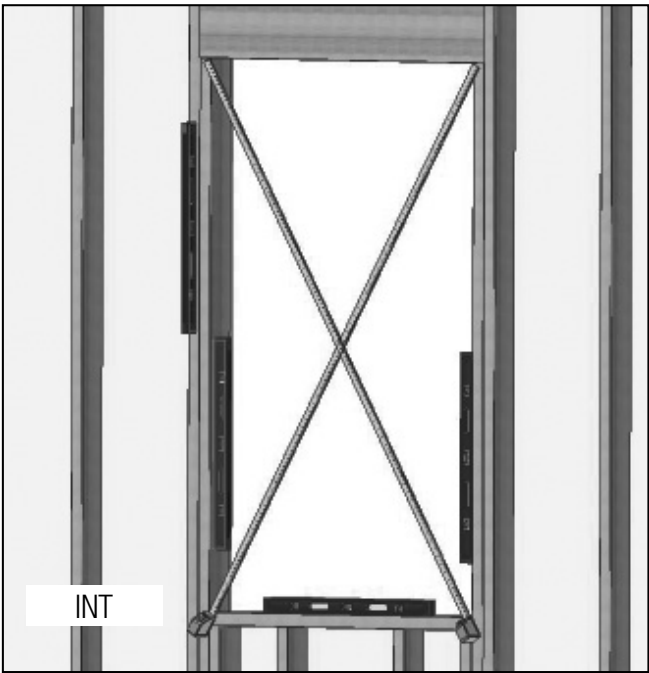


FIG. 2

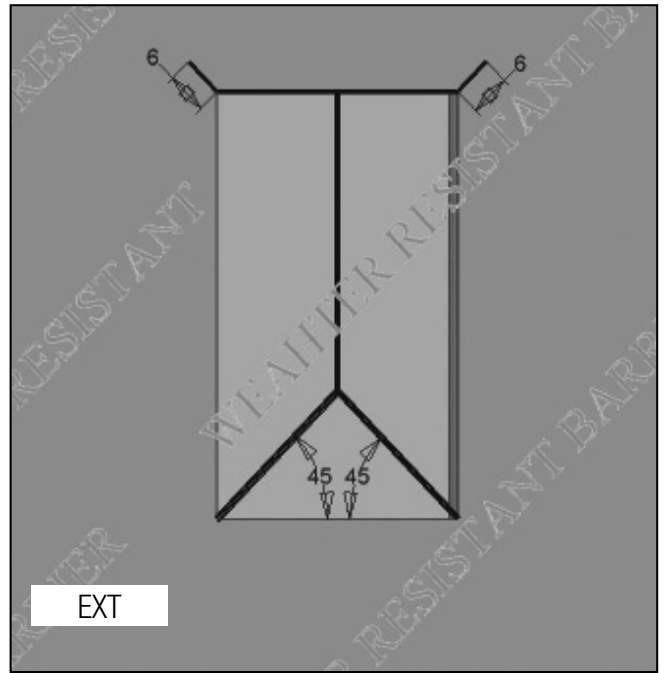


FIG. 3

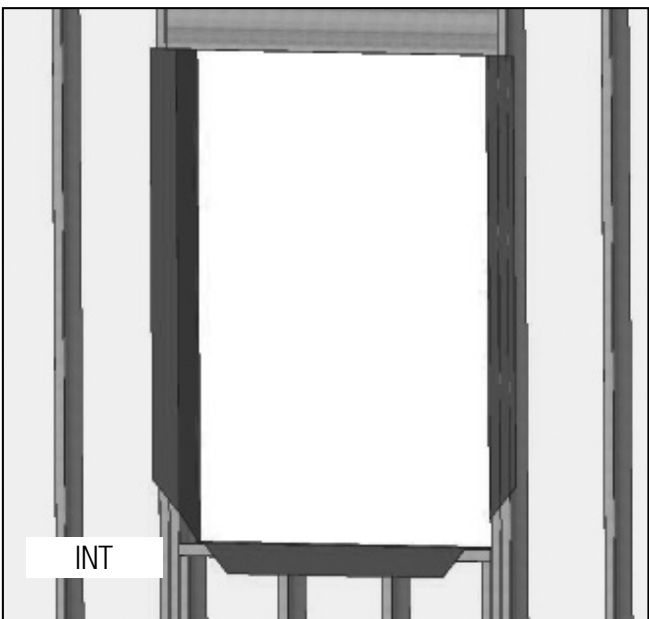


FIG. 4

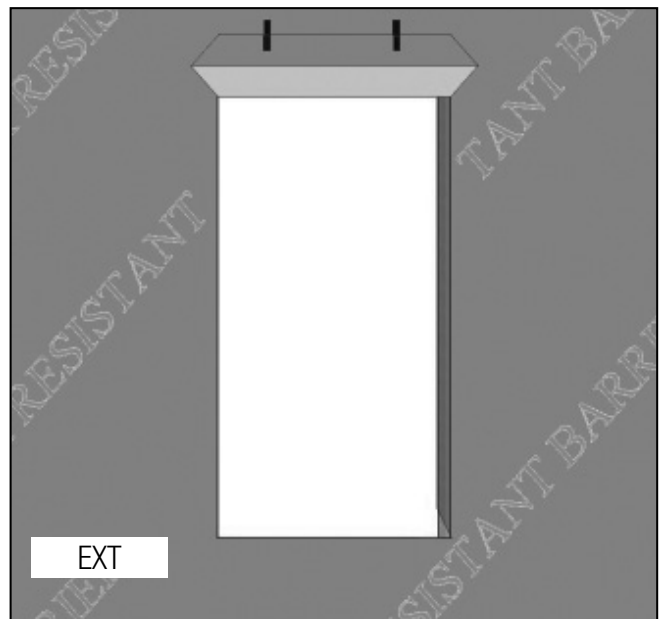


FIG. 5

K) Optional cutting patterns for radius and geometric shapes are shown in Fig. 6 below.

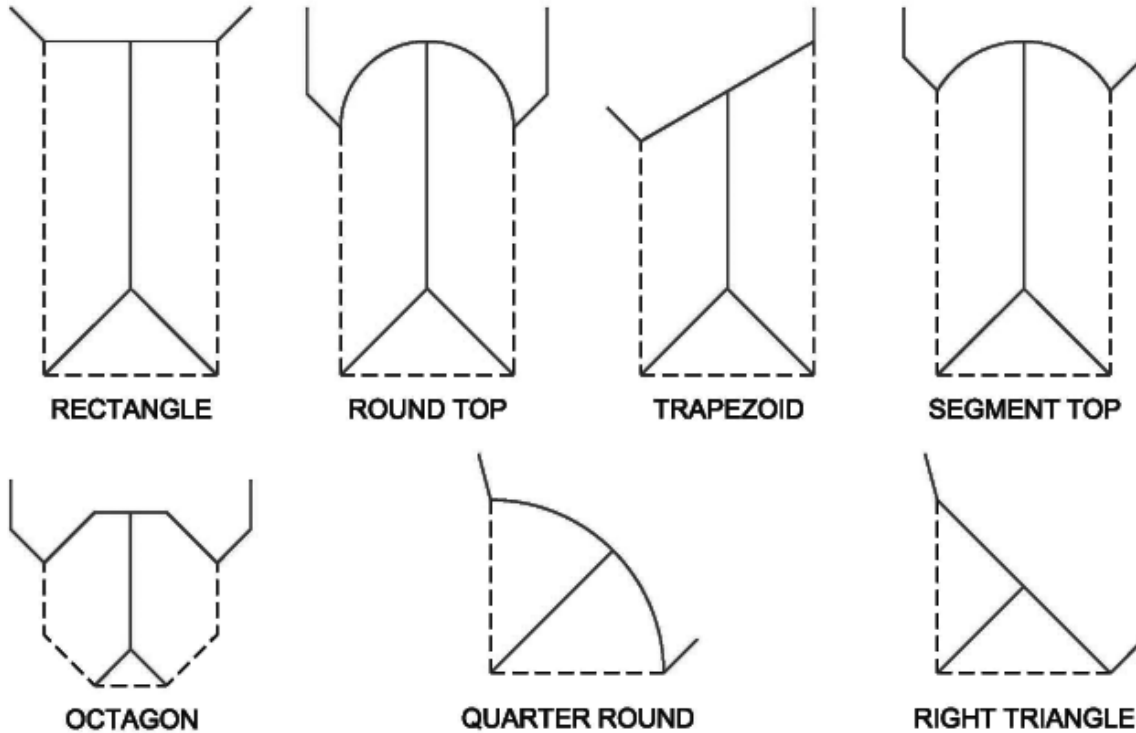


FIG. 6

Step 3: Flashing the Sill

- A) **IMPORTANT!**
 - a. Use flashing that is 6" minimum in width.
 - b. Flashing must meet ASTM-D performance requirements.
 - c. Adhesive or mechanically-fastened flashing may be used.
- B) Measure the width of the rough opening. Cut a length of flashing that is 12" wider than the rough opening. This will allow you to run the flashing 6" up each side.
- C) Cut 1-1/2" slits at each end of the flashing as shown below. (Fig. 7)



FIG. 7

- D) Apply sill flashing to the rough opening as shown below. (Fig. 8)
- E) If you are using non-adhesive flashing:
 - a. Staple flashing into place.
 - b. Seal corner notches using 100% neutral cure silicone sealant.
- F) Flashing tape must cover the entire sill plate. If needed, apply an additional flashing piece over the first one (start from the exterior and work toward the interior). Maintain a minimum 1" overlap. (Fig. 9)

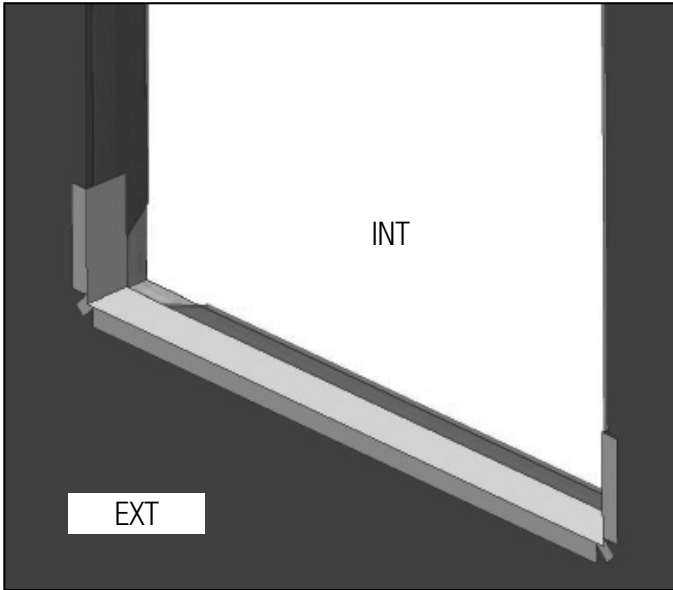


FIG. 8

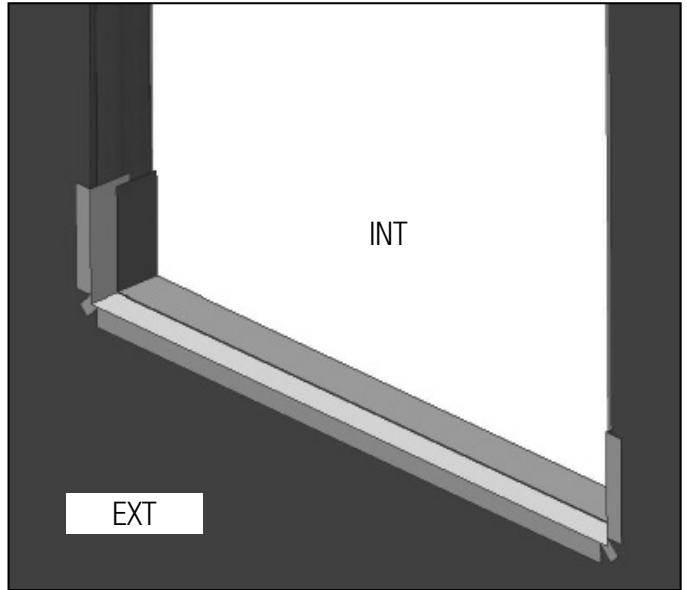


FIG. 9

Step 4: Window Installation

- A) Remove all packaging material (blocks, pads, protectors, stretch wrap).
- B) Do not remove double hung belly band (white strap) until after install.
- C) Inspect and verify the following:
 - a. The window is the correct size and specification.
 - b. The unit is free from any damage or defects.
- D) Contact your nearest Windsor distributor if there are any problems with Step C above.
- E) If windows were ordered with aluminum nailing fin, skip to Step G.

F) Apply corner pads at each nailing fin corner.

- a. Apply the adhesive side of the pad to the outside of the nailing fin corner and fold over the nailing fin. (Fig. 10)
- b. Apply small amount of silicone on the interior side of the small void in the corner of the frame and pad. (Fig. 11)

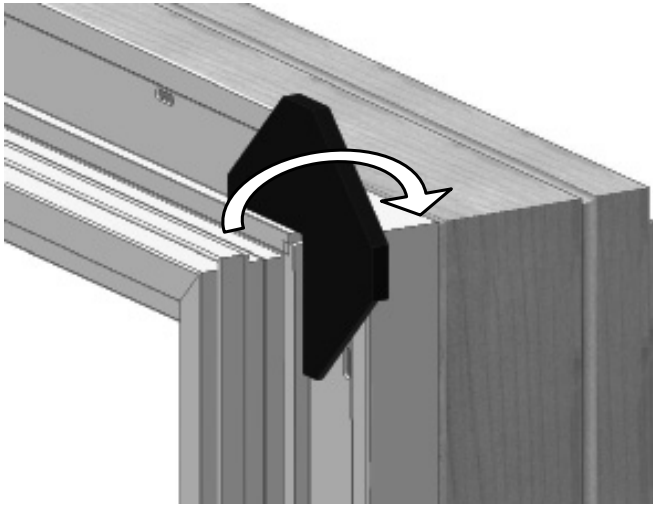


FIG. 10

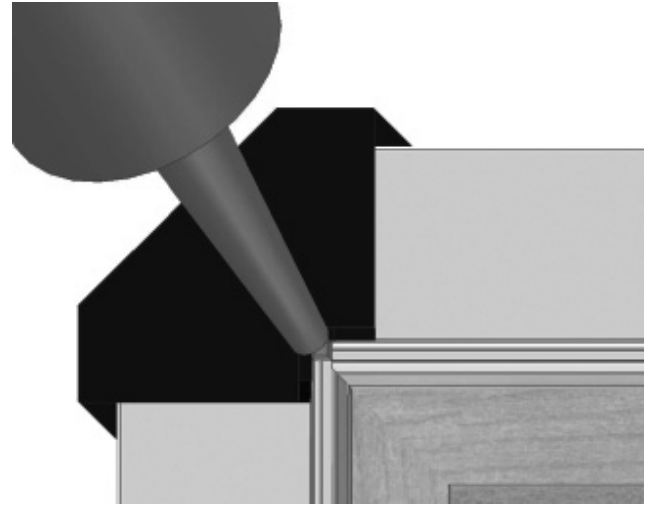


FIG. 11

G) Apply sealant:

- a. On all four sides, apply a 1/4" continuous bead of silicone along the backside of the nailing fin where it meets the frame. (Fig. 12)
- b. On the head and side jamb nailing fins, run a 1/4" continuous bead of silicone in line with and completely covering the nailing flange holes. (Fig. 13)
- c. On the sill nailing fin, run a discontinuous bead to allow for any drainage. Alternate using a 6" long bead with 1" gaps as shown below. (Fig. 13)

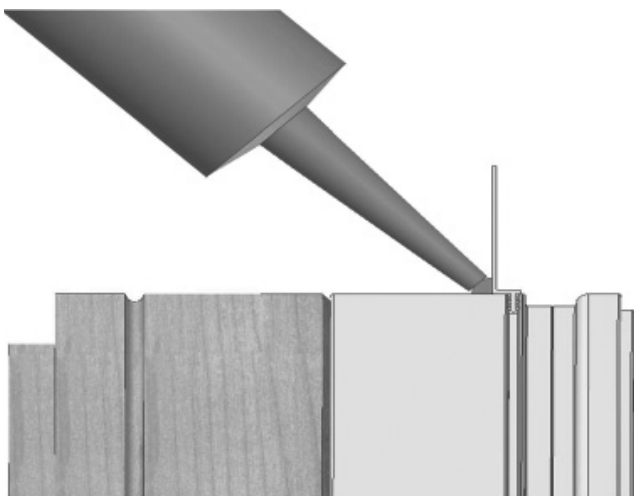


FIG. 12

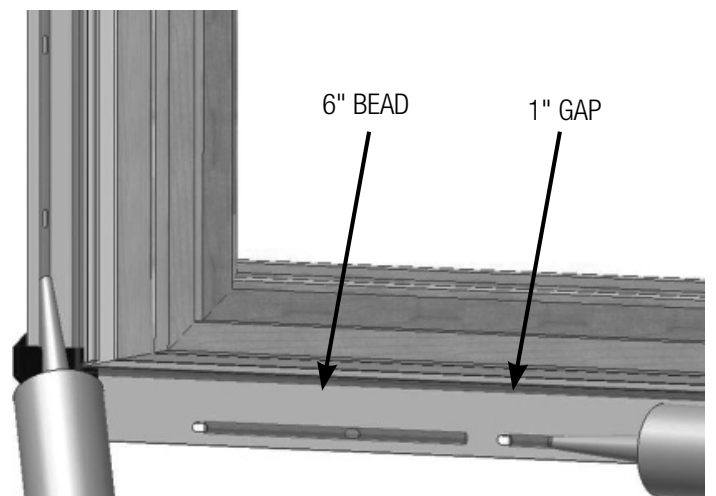


FIG. 13

- H) Set the window into the rough opening. Center the unit in the opening, making sure there are equal gaps on both sides of the window.
- I) Temporarily tack the window into place using 2" galvanized roofing nails through the pre-punched holes on one top corner of the nailing flange. Do not drive the nails in fully.
- J) Shim underneath the window until sill is level. Start with a shim at each corner no more than 1" from jamb corner. Add additional shims spaced evenly from the center of unit, and make sure shims are spaced no more than 16" apart. Failure to evenly support sill can result in improper operation and performance and will void the warranty. See Fig. 14 for shim location guidelines.
- K) Check the unit for square using diagonal measurements. Shim window to ensure the unit is square. Multiple units must have shims under each mull. Casement units over 48" in height must have shims placed at the center to prevent bowing of jambs.
- L) **For double hung units: to ensure proper window operation and performance, it is very important to shim the middle of the unit to obtain equal frame widths as shown. For units furnished with jamb jacks, place the middle shim directly at the jamb jack.**
- M) Nail all four corners in place through the pre-punched holes in the nailing flange.
- N) Make sure jambs, head and sills are straight. Additional shimming may be required. See below for minimum shim placement.
- O) Finish nailing the window into place through the pre-punched holes in the nailing flange, placing nails within 4" of each corner and no more than 8"-10" in between.

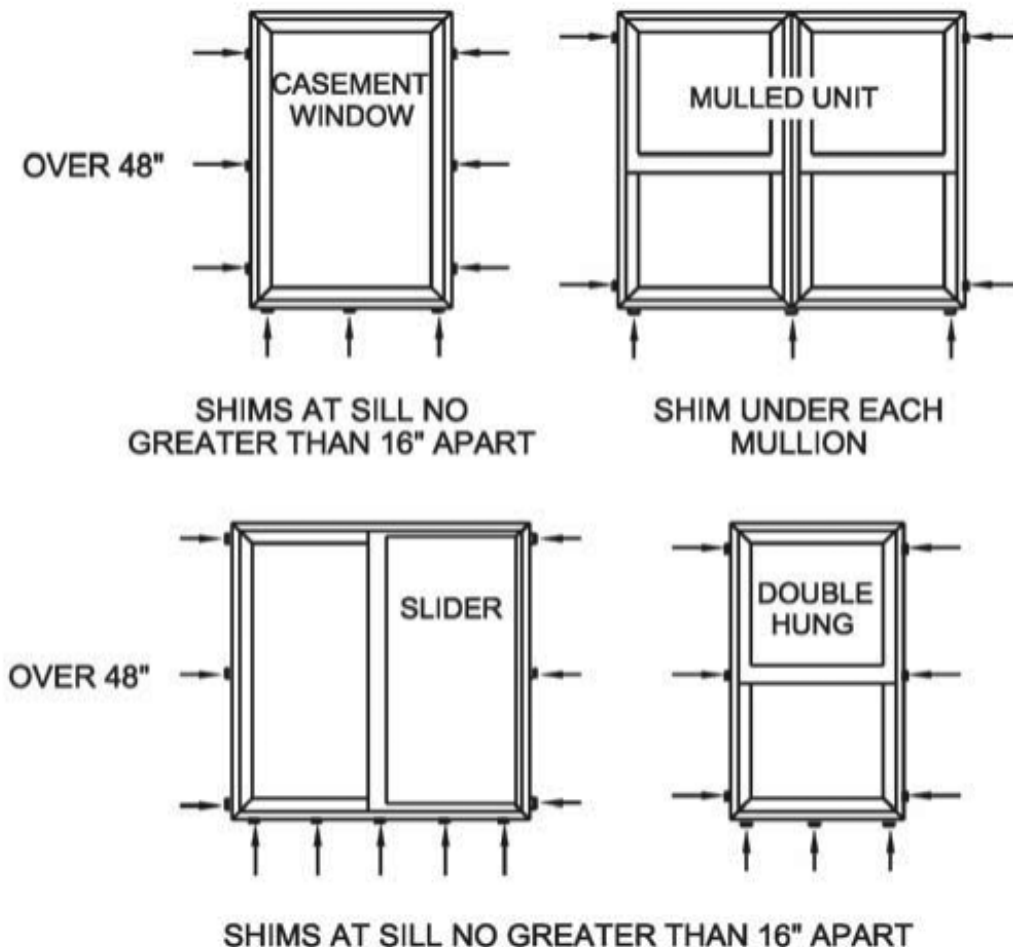


FIG. 14

Step 5: Complete Flashing

- A) Cut and apply side flashing. Side flashing should run from the bottom of the sill flashing to 8" above the rough opening. (Fig. 15)
- B) If non-adhesive flashing is used, make sure all staple holes are sealed with silicone.
- C) Cut and apply head flashing. The head flashing should run slightly past the edge of the side flashing as shown in Fig. 16. For radius top windows, refer to Fig 17.
- D) Flip down the top flap of the WRB.
- E) Tape the cut seams of the WRB. (Fig. 18)

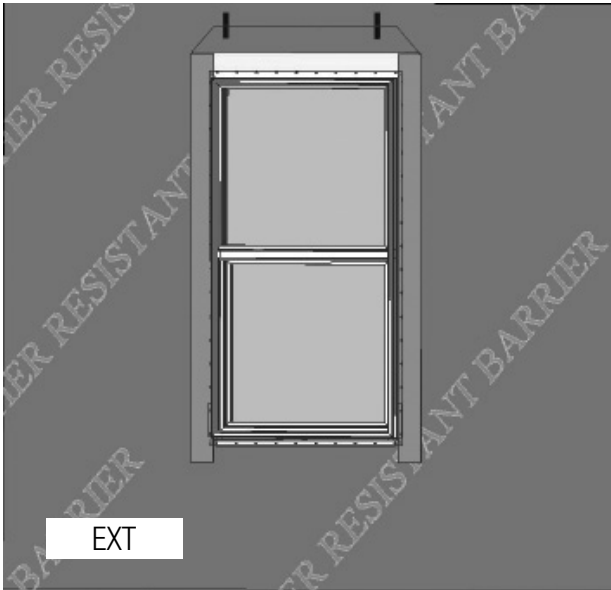


FIG. 15

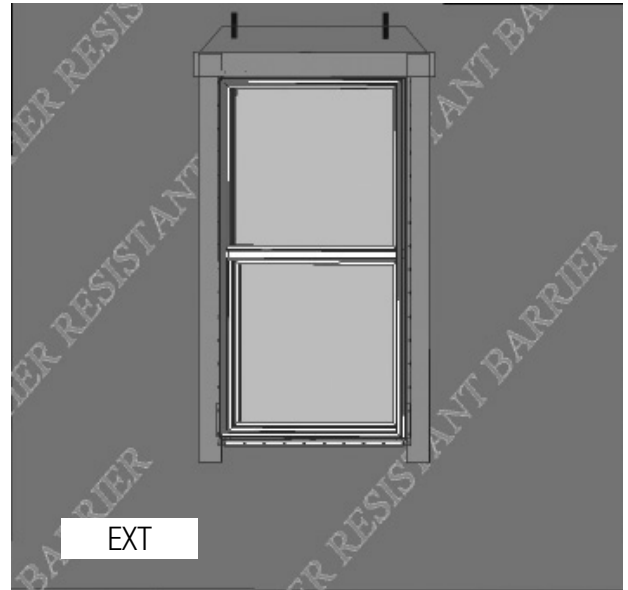
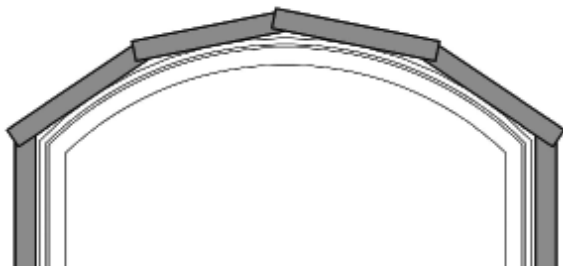


FIG. 16



HEAD FLASHING APPLICATION
FOR RADIUS WINDOWS

FIG. 17

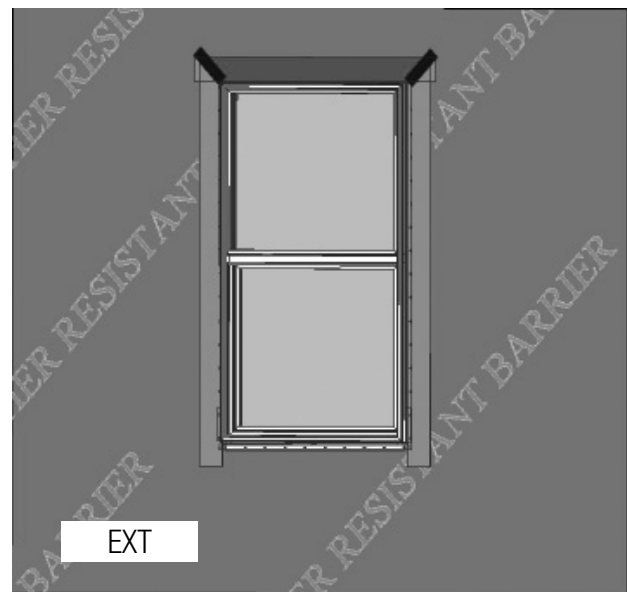
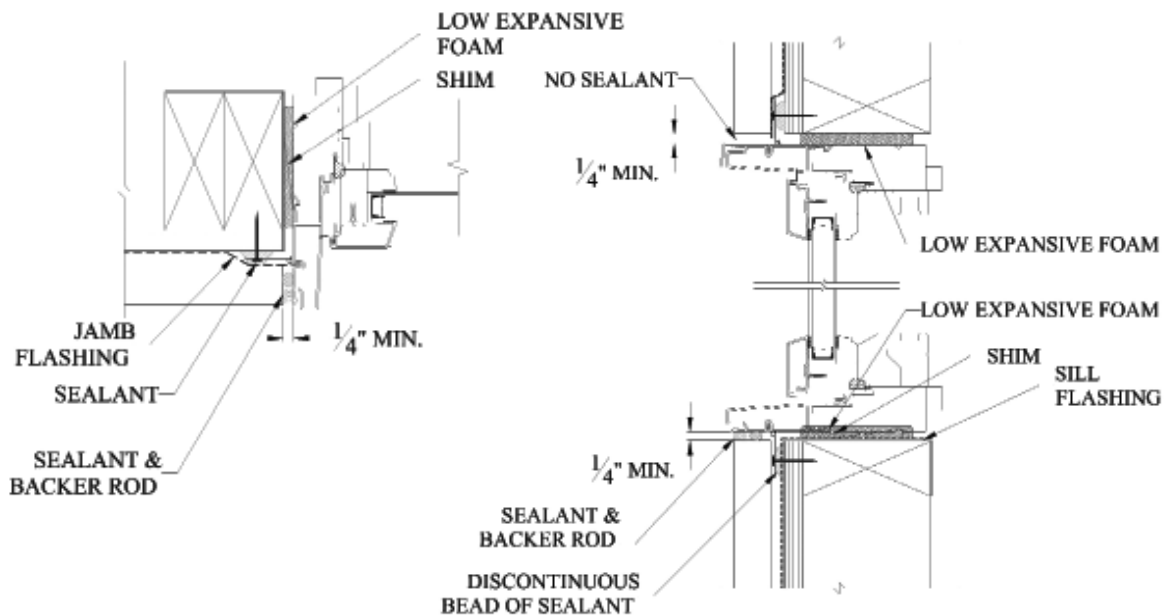


FIG. 18

Step 6: Seal the Exterior

- A) After siding or wall exterior is complete, apply backer rod and silicone sealant between the window frame and siding material on both sides and sill.
- B) **WARNING:** Maintain a minimum of 1/4" between the window frame and any trim, siding or masonry. Failure to do so will forfeit all warranties (written or implied). Windsor Windows & Doors will not be held responsible for any claims or damages resulting from failure to follow these instructions.



Step 7: Complete the Interior

- A) Insulate between the window frame and the rough opening using minimally expanding window and door spray foam insulation. Use caution to not overfill the gap causing the jambs to bow. It is not recommended to apply trim to the unit until the foam has cured to allow the excess to escape.
- B) Operate window unit to ensure proper operation. Sash will not operate correctly if window is out of square, over-shimmed or over-insulated.
- C) Remove all labels or shipping materials.
- D) Properly finish all wood interior components within 60 days of installation. See the Care and Use Guide located at www.windsorwindows.com for further details pertaining to finishing Pinnacle clad products.
- E) **IMPORTANT:** Do not stain or paint any hardware or vinyl components.

If you should have any questions, from installation to adjustments of the Windsor products, please contact Windsor Windows directly at 1-800-218-6186. Also, if you choose, visit our website www.windsorwindows.com. In our **About Us/Contact Us Section**, you will find an easy-to-fill-out form that will be forwarded electronically and your question(s) will be directed to one of our window specialists, who will contact you. While at our website, please find our Windsor Care and Use Guide in the **Resources Section** to assist you in preserving the integrity and reliability of your Windsor products.

Care and Use

An inspection of your windows should be made annually. Visit the Windsor website (windsorwindows.com) or contact your local independent Windsor distributor for information on the care and use of your product. Ask for the Care and Use Guide which contains information on finishing, cleaning, what to look for during yearly inspections, general maintenance tips, sash/panel adjustment, sash/panel removal, screen removal and information on condensation.