

# Installation Guidelines

## FOR PINNACLE PRIMED & LEGEND PRODUCTS

### 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

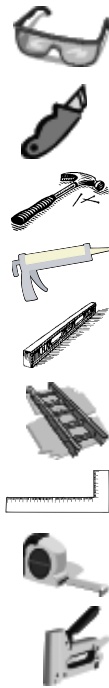
- Always carry door units upright. Do not carry flat! Doing so could result in damage to the unit.
- Do not store units outside.



[www.windsorwindows.com](http://www.windsorwindows.com)

## 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) and sash clips until after install.
- Inspect unit for any damage or defects.
- Verify that the window unit is the correct size and configuration.
- 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.

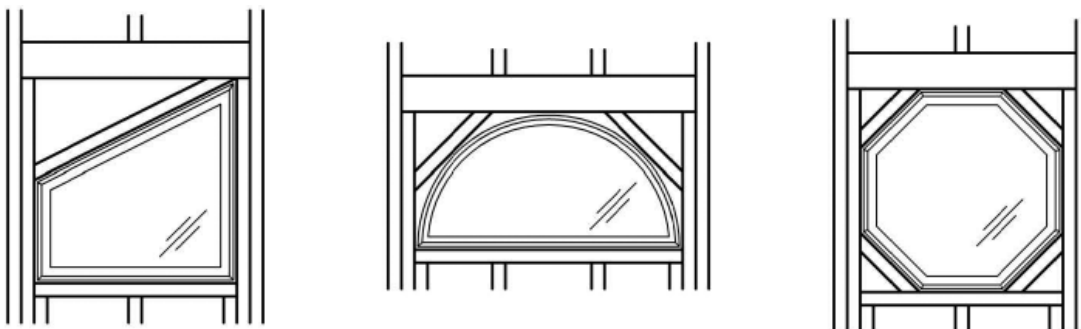
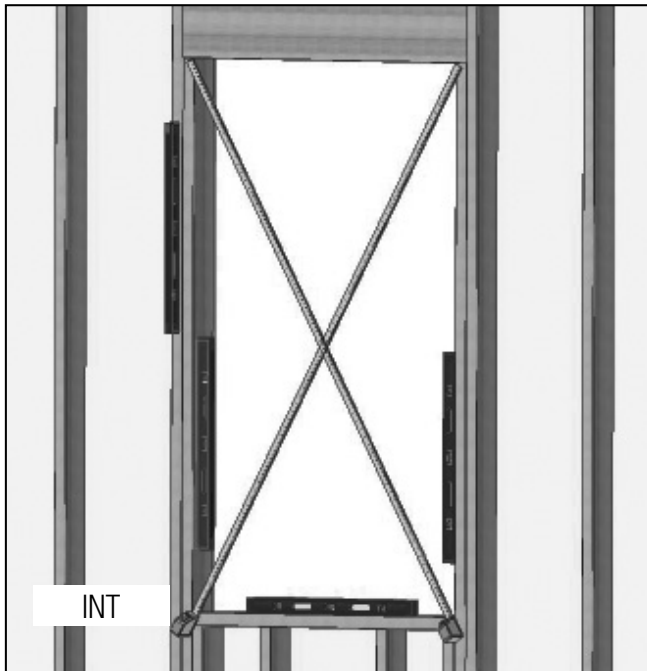
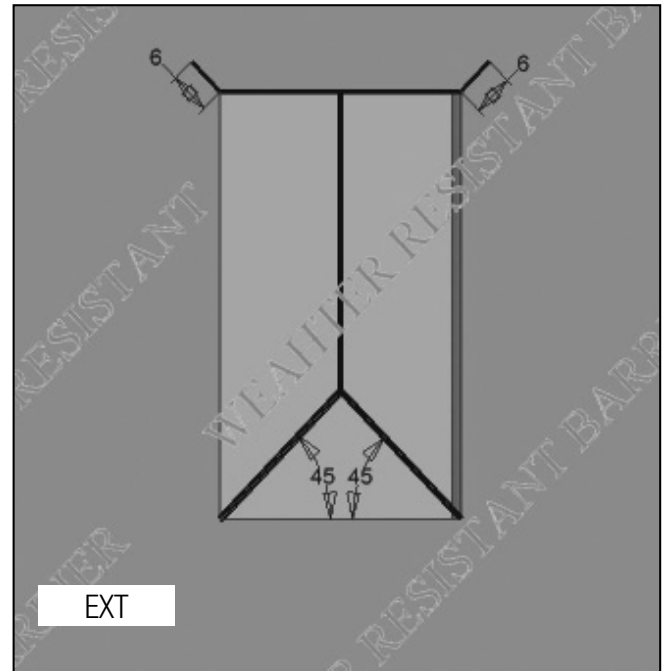


FIG. 1

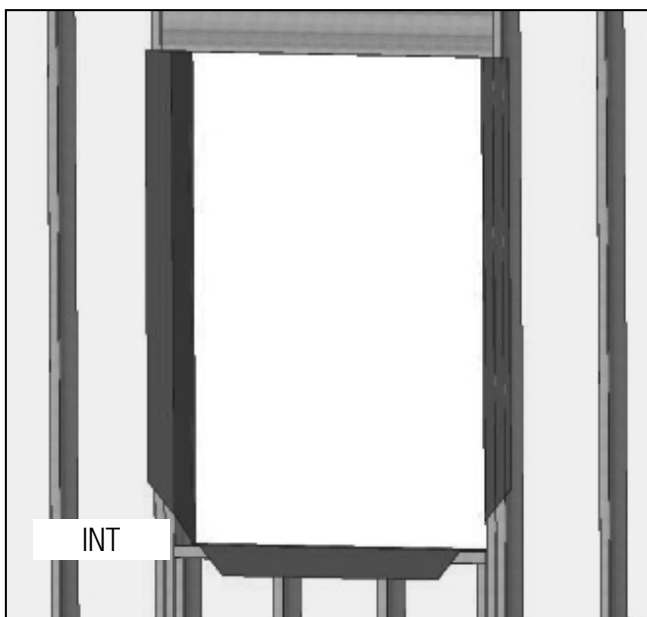
- D) Verify the rough opening is flat, plumb, level and square. (Fig. 2)
- E) Take diagonal measurements to check for square. (Fig. 2)
- F) Make sure the bottom sill area of the opening does not slope toward the interior.
- G) Cut the weather-resistant barrier (WRB) in a “Modified I” pattern shown below. (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)



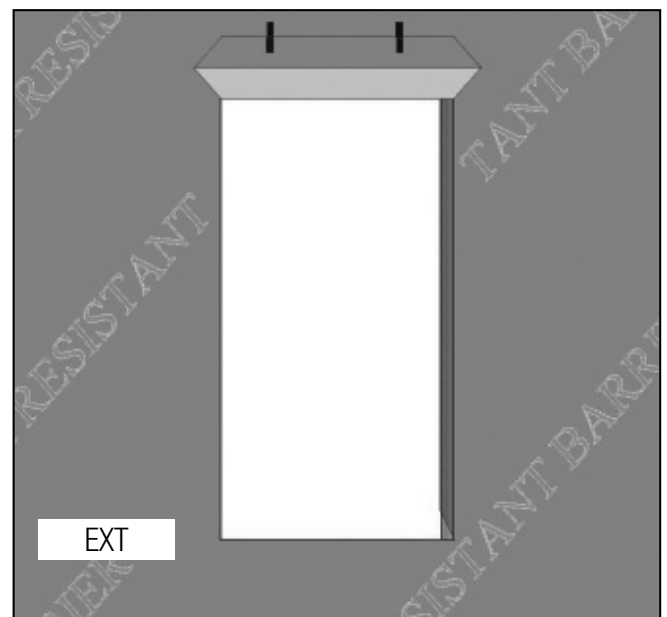
**FIG. 2**



**FIG. 3**



**FIG. 4**



**FIG. 5**

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

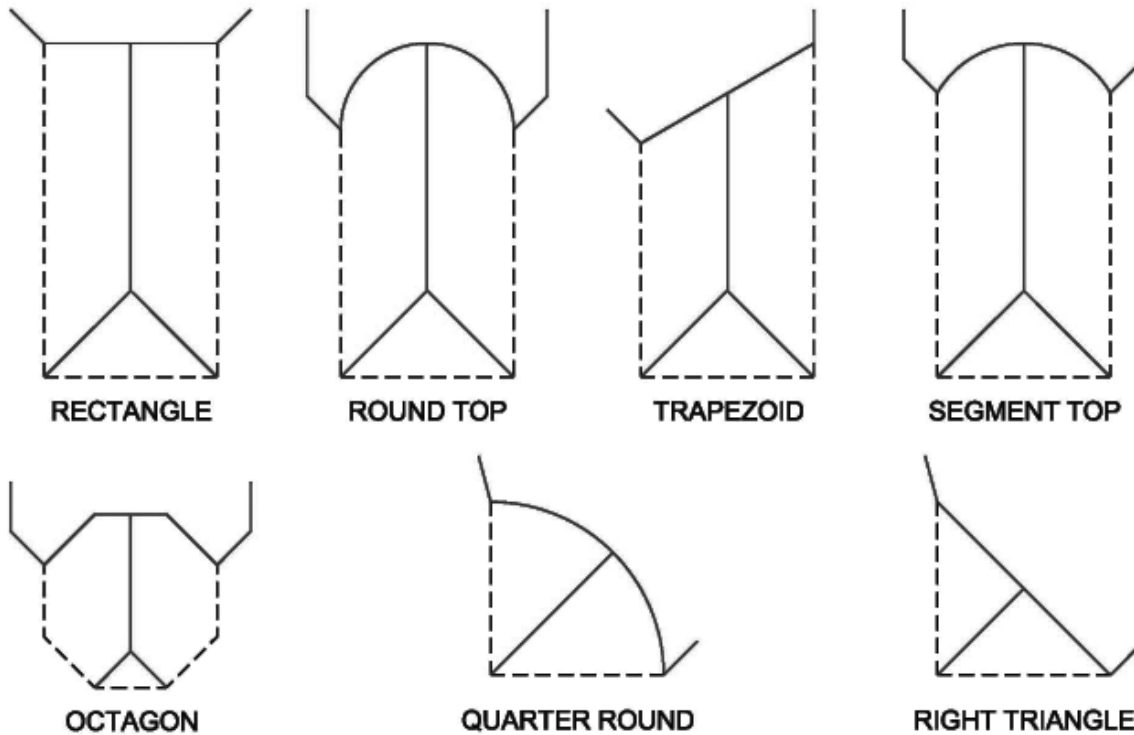


FIG. 6

### Step 3: Flashing the Sill

A) **IMPORTANT!**

- Use flashing that is 6" minimum in width.
- Flashing must meet ASTM-D performance requirements.
- Adhesive or mechanically-fastened flashing may be used.

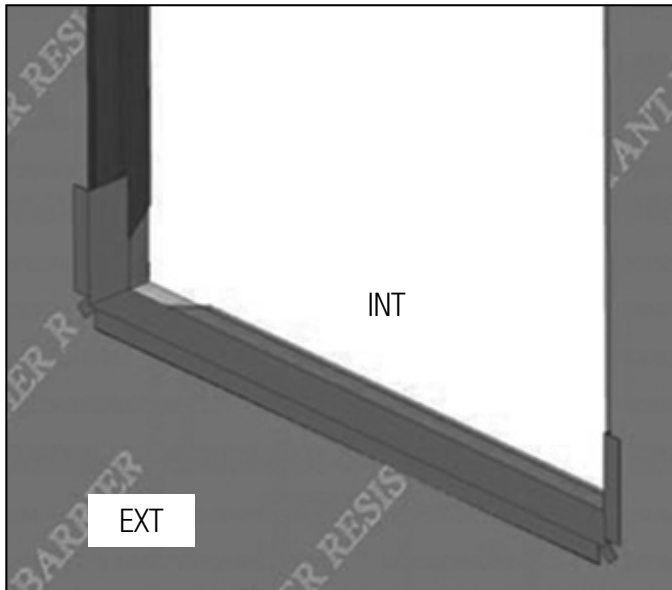
B) Measure the width of the rough opening. Cut a length of flashing that is 12" wider than the rough opening. This will allow you to run the flashing 6" up each side.

C) Cut 1-1/2" slits at each end of the flashing as shown below. (Fig. 7)

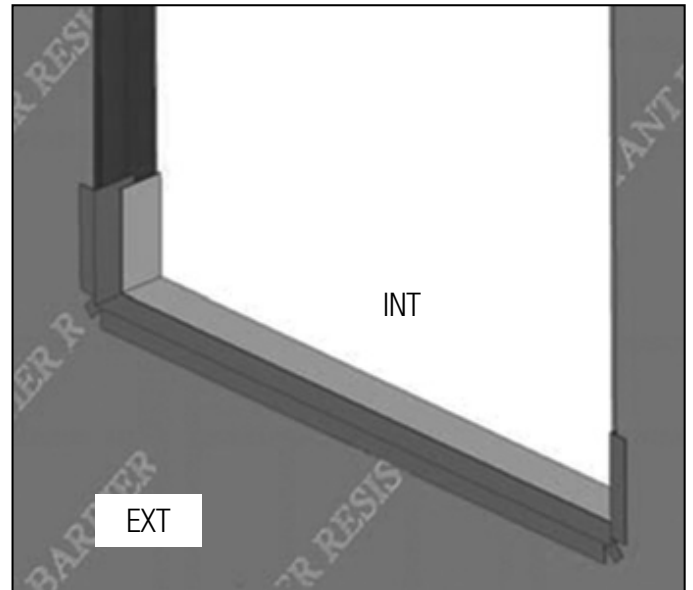


FIG. 7

- 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)

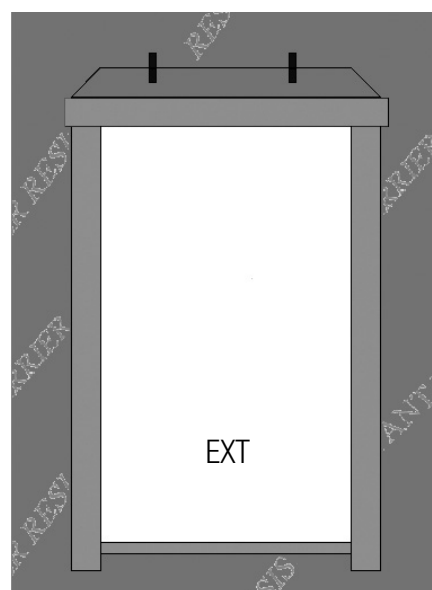


**FIG. 8**



**FIG. 9**

- G) Cut and apply flashing to both sides and the top of the rough opening. Overlap the top flashing over the side flashing. The flashing should run at least 6" past each side of the rough opening.



**FIG. 10**

## Step 4: Window Installation

- A) **For No-Nail brickmould and masonry clip installation, refer to the supplemental instructions located at <http://pro.windsorwindows.com>.**
- B) Remove all packaging material (blocks, pads, protectors, stretch wrap).
- C) Do not remove double hung belly band (white strap) and sash clips until after install.
- D) Inspect and verify the following:
  - a. The window is the correct size and specification.
  - b. The unit is free from any damage or defects.
- E) Contact your nearest Windsor distributor if there are any problems with step D above.
- F) Apply sealant: On the backside of the head and side brickmould, run a 1/4" continuous bead of silicone along the entire length 1/4" from the outside edge of the brickmould. (Fig. 11 & 12)

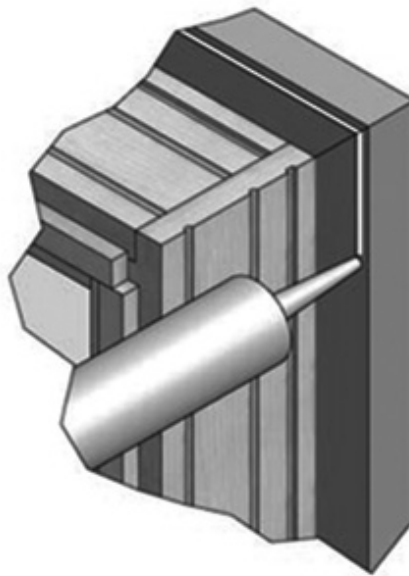


FIG. 11

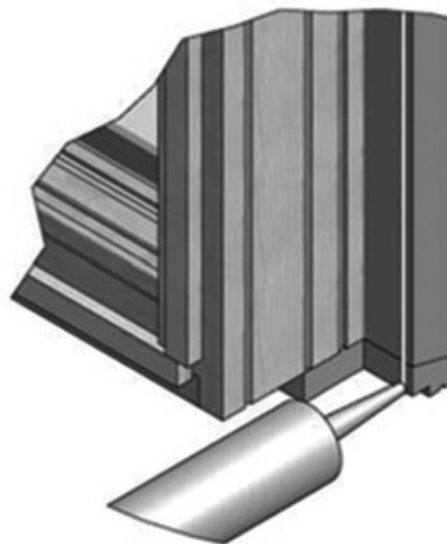


FIG. 12

- G) Apply sealant to sill: Apply a discontinuous bead of sealant at the top of the sill along the edge of the rough opening. Alternate using a 6" long bead with 1" gaps as shown below. (Fig. 13, 17 & 18)

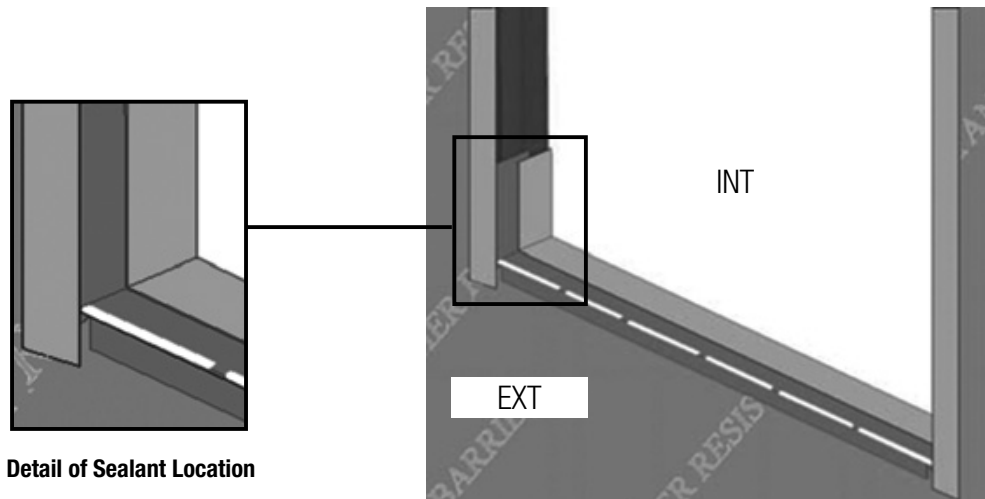


FIG. 13

- 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 16d nails through the brickmould. Place the nails within 4" of each corner. Do not drive the nails in fully.
- J) Check the unit for square using diagonal measurements. Shim window to ensure the unit is square. Casement units over 48" in height must have shims placed at the center to prevent bowing of jambs. Note to use flat shims or pairs of triangle shims to ensure the jamb does not twist. (Fig. 14)
- K) **For double hung units: to ensure proper window operation and performance, it is critical to shim at the check rail to ensure the frame widths are equal at the top, center and bottom of the unit. (Fig. 14)**
- L) Finish nailing all four corners in place through the brickmould.
- M) Make sure jambs, head and sills are straight. Additional shimming may be required. (Fig. 14)
- N) Finish nailing the window into place through the brickmould. Space the nails 8"-10" apart.

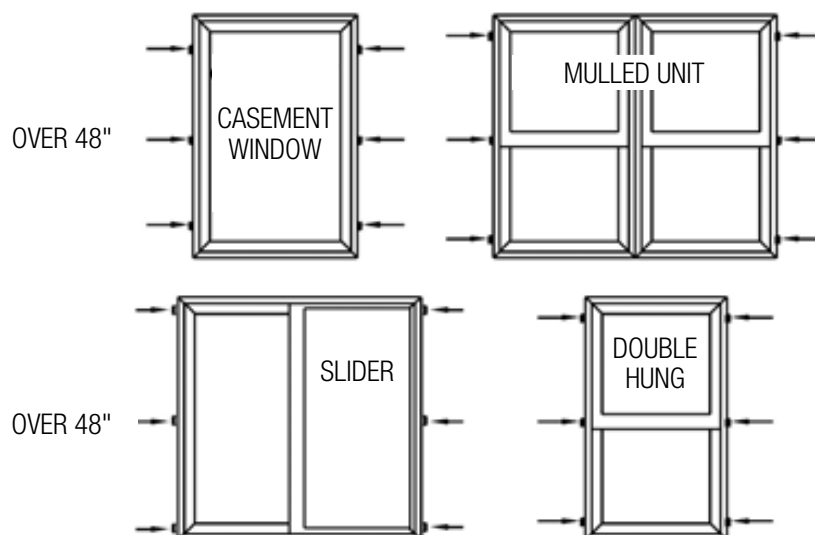


FIG. 14

## Step 5: Complete Head Flashing

- Apply sealant: Apply a bead of sealant at the vertical and horizontal contact surface of the rigid metal flashing. (Fig. 15)
- Apply the rigid metal flashing. The flashing should extend approximately 1/8" past the edge of the brickmould on each side. Nail the flashing to the rough opening using at least a 1" roofing nail every 8"-10" at approximately 1/2" from the top of the rigid flashing. Ensure that the nail is compatible with the rigid flashing material to prevent corrosion. (Fig. 15 & 16)
- Overlap the WRB over the rigid metal flashing. Trim the excess WRB beyond the bead of sealant. (Fig. 15)
- Tape the cut seams of the WRB. (Fig. 16)

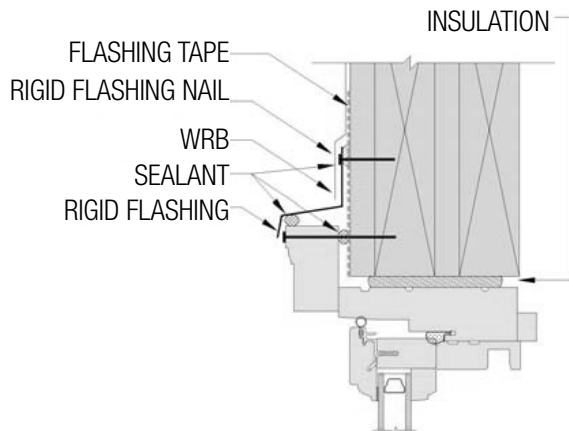


FIG. 15: HEAD JAMB



FIG. 16

## Step 6: Seal the Exterior

- 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. (Fig. 17, 18 & 19)
- 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.

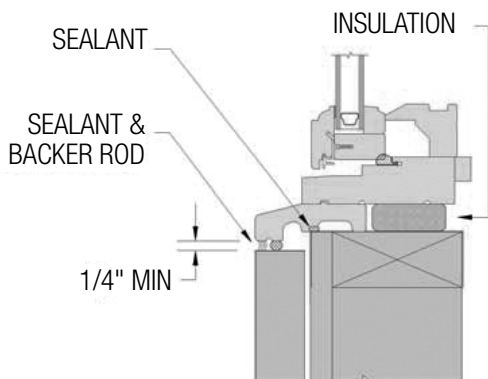


FIG. 17: CASEMENT SILL

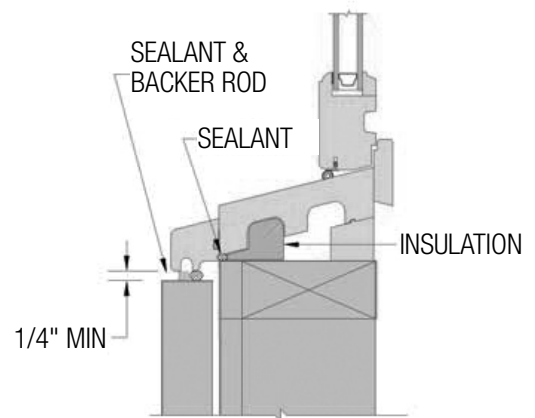


FIG. 18: DOUBLE HUNG SILL

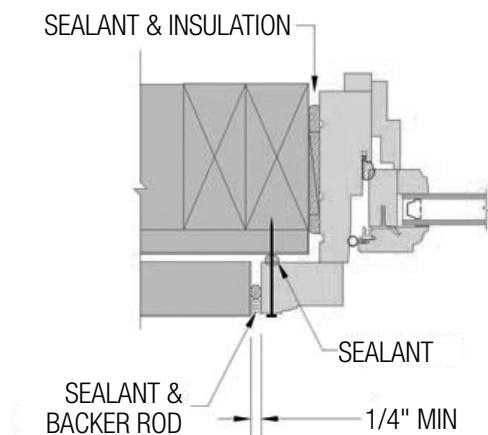


FIG. 19: SIDE JAMB



## Step 7: Completing the Installation

- 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. (Fig. 15, 17, 18 & 19)
- 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/cellular PVC interior and exterior components within 60 days of installation. See the "Care and Use" guide located at [www.windsorwindows.com](http://www.windsorwindows.com) for further details pertaining to finishing Pinnacle primed and Legend products.
- E) **IMPORTANT:** Do not stain or paint any hardware or vinyl components.

## CAUTION! READ BELOW BEFORE PAINTING

When painting cellular PVC products with darker paint colors (L values of 56 or below) UV irradiance can generate high localized temperatures in the product.

**WARNING – Painting of any cellular PVC surface with a paint color darker than L value of 56 (where black = 0 and white = 100) will forfeit the product warranty. If you should, despite the above warning, choose to use darker colors for cellular PVC paint, a paint specifically designed for these applications MUST be used. Contact the paint manufacturer to verify the paints reflective properties and the suitability for painting cellular PVC.**

**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](http://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 ([www.windsorwindows.com](http://www.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.