

400 SERIES GLAZING INSTRUCTIONS

GLAZING GUIDELINES

Be sure to thoroughly read and understand all the steps before beginning the glazing process. It is always recommended that glazing 400 Series frames should be done by a glazier experienced in installing and glazing high-performance storefront systems or by other experienced window professional.

Please be aware: When windows are field-glazed, Alpen cannot guarantee performance of the glazed system; the glazier or glass installer is responsible for guaranteeing that all glass units are installed properly and sealed to frames in accordance with these instructions to ensure air- and water-tight seals for the life of the window.

Glazing oversize/heavy units requires a minimum of two (2) or more people.

GLAZING KIT INCLUDES:

- Insulated Glass Units (IG)
- Foam glazing tape (*may also be pre-applied to frames*)
- Aluminum glass stops
- Rubber glazing wedges
- 400 Series setting block chairs (White) (part #431)

YOU WILL NEED TO SUPPLY:

- Flat Razor Blades
- Clear Silicone Glazing Sealant (**DOW 1199** is our preference)
- Isopropyl alcohol for cleaning
- Glazing shims / setting blocks

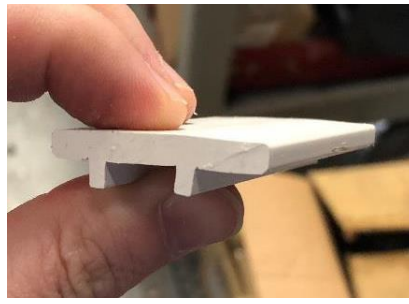
TOOLS REQUIRED:

- Glass Cups
- Bone Folder / Glazing Wedge (*for positioning IG once set into frame*)
- Rubber Mallet
- Tape Measure
- Chop Saw (*for trimming aluminum glazing stop if required*)
- Screen Roller
- Lint-Free Rags

This packet addresses glazing 400 Series frames only. For installation and instructions for field-assembling oversize units, please refer to Alpen's **400 Series Installation** and **400 Series Field-Assembly** guides.

PARTS GUIDE:

400 Series Glass Setting Block Chair #431



Aluminum Glazing Stop



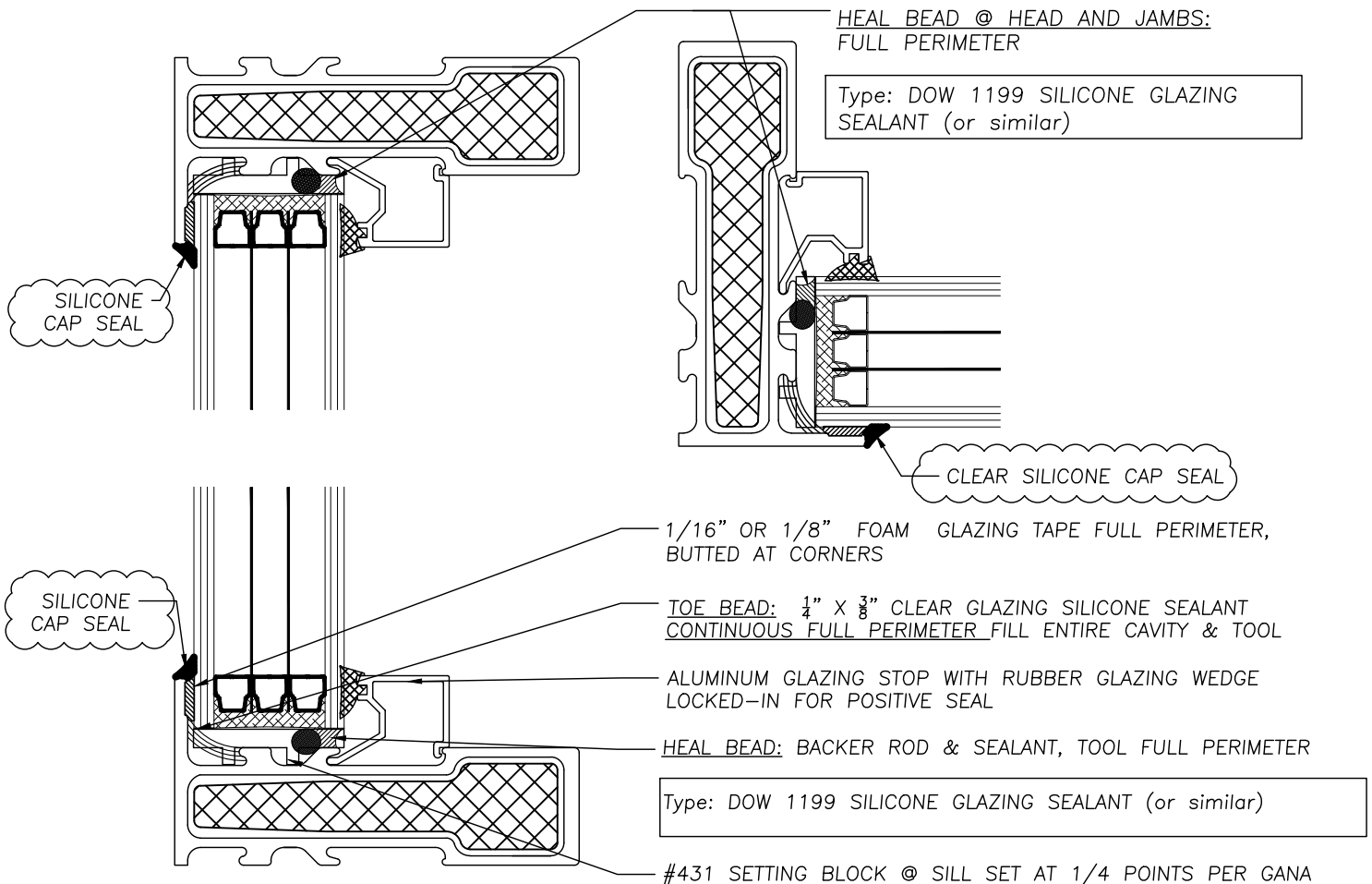
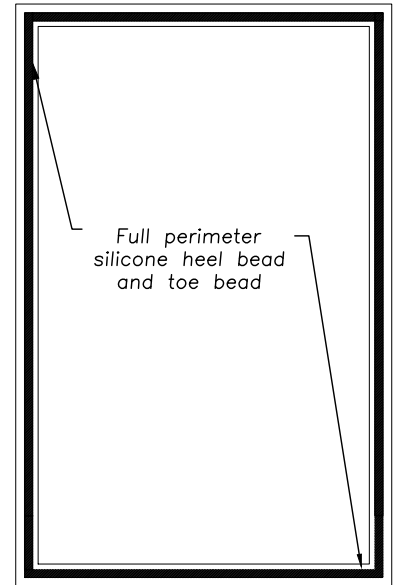
Rubber Glazing Wedge



400 SERIES STANDARD GLAZING DETAIL

Use this detail if glazing IGU into frames that are already installed into rough openings.

For glazing frames that are not already installed, see
"400 Series Glazing Oversize IGU"



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PRODUCT: 400 SERIES

SCALE: NTS

SHT 1 OF 1

DRN: 10/23/2020

DRAWING NAME:

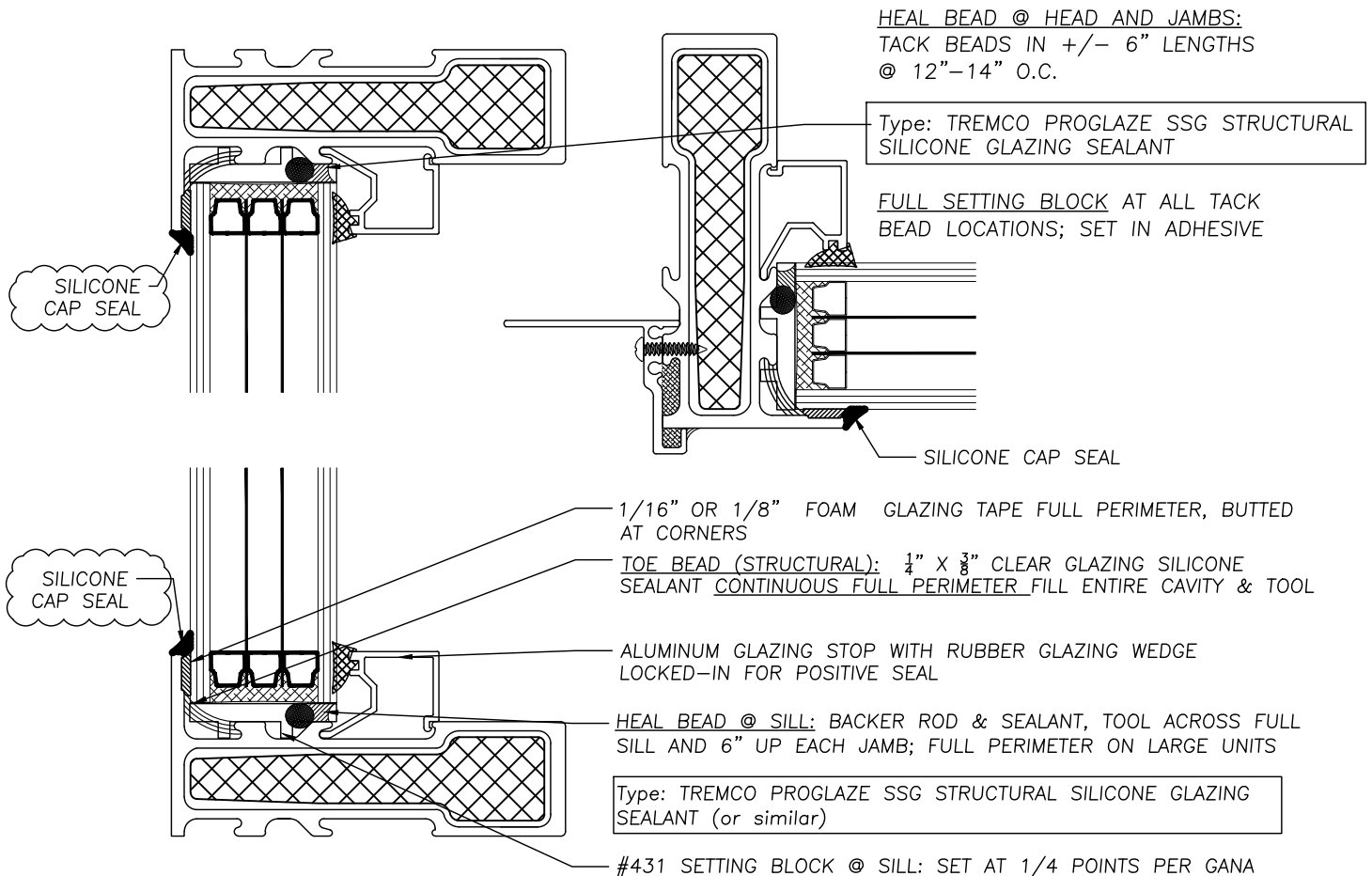
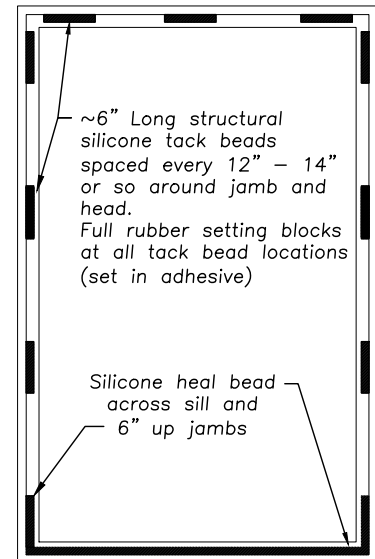
CHK:

400-SER- GLAZING INSTR.

GLAZING LARGE/HEAVY UNITS FOR LIFTING WITH GLASS CUPS

Only use this detail if glazing large/heavy units that will be lifted with glass cups to install.

For glazing frames that are already installed, see "400 Series Standard Glazing Detail"



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SHT 1 OF 1

DRN: 10/23/2020

DRAWING NAME:

CHK:

400-SER- GLAZING OVERSIZE

STORAGE AND HANDLING:

Windows should be properly stored when installation will not take place immediately. The following recommendations will help you store and protect the products until installation can begin:

- Windows shall be transported in an upright position with all manufacturers' packaging in place.
- Do not rack, twist, drag or pull window frames.
- All windows shall be stored in the upright position as close to 90 degrees as possible and placed on their sills.
- If packaging is removed, store with non-abrasive separators between frames.
- Handle units with glass cups as much as possible. Use appropriate manpower when lifting large units.
- Windows shall be stored out of the weather in a clean, dry, low traffic area, away from direct sun light, extreme temperatures and extreme temperature changes. Do not leave wrapped windows exposed to sunlight or heat.

EQUALIZATION PROCESS AND RESERVOIR REMOVAL INSTRUCTIONS:

1. Once units have arrived at the jobsite, allow them to acclimate to their openings/jobsite conditions for a minimum of 24 hours if possible. Larger units may take up to 72 hours.
2. After units are acclimated, check for glass flatness. If glass is flat, proceed with crimping and sealing the capillary tube. Crimping should be performed between 12PM and 3 PM, or when the temperature is at the expected seasonal average.
3. Crimp (hard enough to collapse or flatten the tube) the capillary tube 1/4" from the edge of glass/glazing bead, again at 1/4", and again at another 1/4". Use the flat jaws of a pair of pliers (shown).
4. Cut the tube 1" from the end. Remove the reservoir and then dip the cut end in a sealant that adheres to steel. Let sealant dry.
5. Tuck the capillary tube under/behind the glazing bead using a plastic putty knife, or tape to the edge of the IGU for "Glass Only" products.
6. Follow this link for a video explanation of how to crimp breather tubes:
https://youtu.be/GQFe_W5ZYzY

Before Starting

1. Always check glass units (IGUs) have the correct overall thickness (oa), width and height
2. Always check that new/replacement IGU is same size as the existing/original glass before removing existing IGU
3. Always check for any defects in glass. *See ASTM Inspection Guide at the end of this booklet for inspection criteria*
4. After original glass is removed from the frame, always pre-set new/replacement IGU before removing blue backing on glazing tape and applying silicone (to check for fit)
5. Confirm that window frame is plumb level and square (not racked)
6. Inspect screws that hold the frame together; ensure they are tightly secured and screw-heads embedded in sealant.

II. STAGING & PREPARATION

A. UN-PACK AND INSPECT

1. Remove the packing material from all windows
2. Inspect product Inspect the unit to make sure it is the right size, color, etc. and that there is no damage. If you find something wrong with your windows, please submit a Service Request at: www.ThinkAlpen.com/Warranty-Contract or contact your Alpen representative.

When submitting a claim or service request, please have ready the following information:

- **Pictures of the problem**
- **Order Number**
- **And, Line Number** of the unit for which the claim is requested

This information can be found on on the Finish Goods Label ("glass tag") on the backside of the Alpen logo cling label.

3. Remove and set aside all screens and loose hardware

B. IF SUPPLIED SEPARATELY: IDENTIFY CORRECT ALUMINUM GLAZING STOPS

1. Un-pack and sort glazing stops - identify which glazing stops belong with each window frame and glass unit.

Glass stops are usually delivered cut-to-size for each glass unit unit/frame opening, but additional trimming is often required to fine-tune fit.

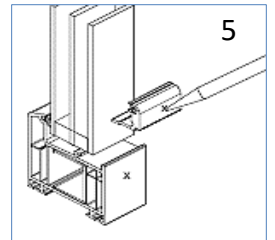
Do not cut-down long pieces of glass stop to fit short glass dimensions – you will run out!

III. (IF DE-GLAZING/ RE-GLAZING) REMOVE GLASS

Follow these instructions to remove glass from factory-glazed frames. If frames are delivered “open” (no glass) and glass is supplied from factory in separate container, skip to step III.

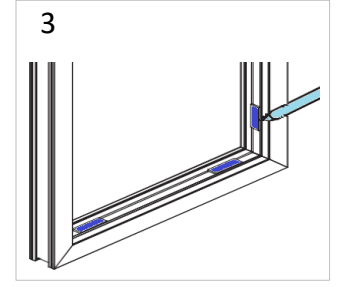
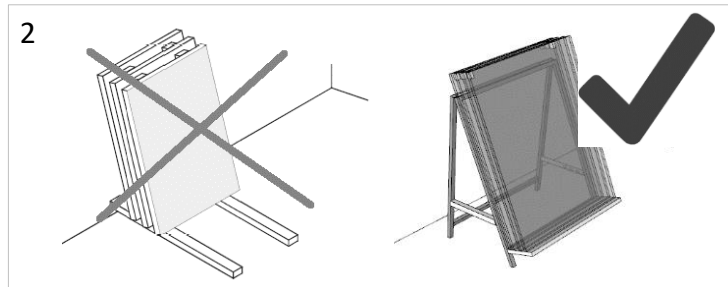
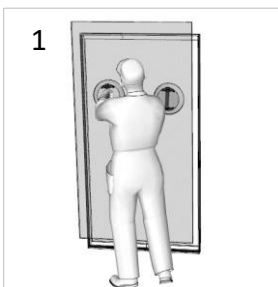
A. REMOVE GLAZING STOPS

1. Starting in 1 corner, pull up on the black rubber glazing wedge to remove from glass stop. Continue around all 4 sides. Mark on rubber wedge which window/glass unit it belongs to.
Coil and set aside **YOU WILL NEED THESE LATER**
2. To remove aluminum glass stops, start with the longer glazing beads, then proceed to the shorter ones.
3. Starting at the center, carefully insert a putty knife or 5-in-1 painters tool between the glazing bead rebate bottom and window frame. Push tool straight and then lift upwards until the bead unclips.
4. Repeat the same procedure at short intervals until you can remove entire length of stop by hand.
5. Using tape or soap pen, mark the glazing stop to identify which glass/window it belongs to and corresponding location on the window frame to provide a reference point of the location of each glazing stop. This will make it easier to re-apply glass stops at the end.



B. REMOVE EXISTING GLASS

1. Press glass cups firmly against glass unit surface and carefully lift glass out of the frame.
2. Store glass units standing upright on A-frame or glass rack ensuring that both glass lights are fully supported. To prevent glass breakage, scratching or damage, place fabric spacers between glass units.
Do not stack one on top of the other or lean against wall. Always place on rack or frame that supports both interior and exterior glass panes equally. Do not store in direct sunlight.
3. Take a photo of the glass setting block locations or mark reference points where they glass are located and remove them.



IV. PREPARE FRAMES

A. CLEAN GLASS POCKET

Wipe down the interior glazing pocket of the 400 Series window frame. Use denatured alcohol to make sure that the fiberglass surface is free of all dust and debris.



B. APPLY GLAZING TAPE

1. Apply 1/8" inch double sided glazing tape around perimeter of glass pocket.
2. Apply 1/8" glazing tape across the width of the frame head (top). Cut square with a sharp razor.
3. Then apply to the jambs. Tightly fit the top of the jamb-tape against the underside of the applied piece of the tape on the frame head. **Ensure tight connection – no gaps!** Guide the glazing tape down both jamb sides to the bottom of the window. Cut the tape square with a sharp razor.
4. Apply tape to the sill piece of the window frame. Cut the tape square with a sharp razor.



C. APPLY TOE BEAD

1. Apply ¼" to 3/8" bead of clear glazing silicone between the inside edge of the 400 Series frame and the glazing tape that was just applied.
2. Apply sealant around the perimeter of the window frame.
3. Apply a larger bead in the corners where the glazing tape joints meet to make sure any void is filled.



D. POSITION GLASS SETTING BLOCKS

1. Following Setting Block layout/spacing guidelines below, apply small drops of sealant around the perimeter of the window frame at each setting block location.
2. Allow sealant to cure to secure setting block in place.



V. SET GLASS

1. Set glass at sill first, then lean the glass into the glazing pocket and guide the glass into the glazing pocket so that it is square and centered in the opening
2. Check sightlines and reveals.
 - A. Interior Inspection – Reveals:

Check that the gaps between edge of IGU and inside edge of frame are even on all sides (IGU is centered)
 - B. Exterior Inspection – Sightlines:

Looking at the glass from the exterior side of the frame, check that the perimeter IGU spacers and sealant is hidden by the frame.

IGU perimeter sealant must not be exposed to sunlight, UV or weather.
3. Once glass is set in the glazing pocket and sightlines are confirmed to be correct, press glass against the frame around the perimeter to compress into the glazing tape and silicone.



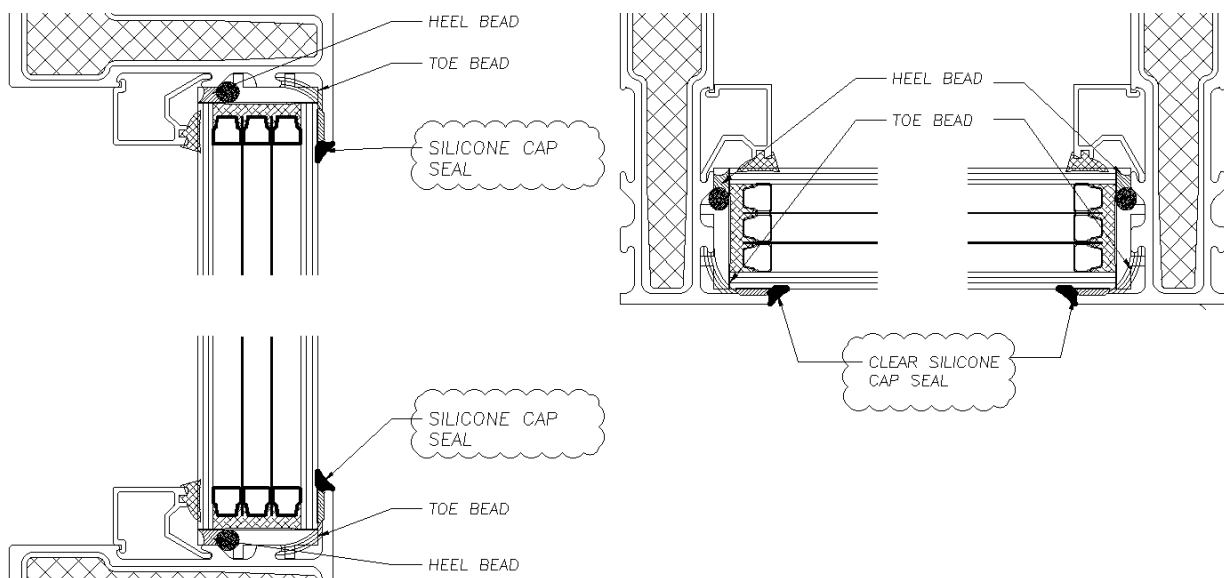
VI. SEAL GLASS TO FRAME

A. APPLY HEEL BEAD

1. Install 1/8" backer rod around entire perimeter of IG between edge of IGU and inside edge of frame.
2. Apply and tool silicone glazing sealant around entire perimeter.

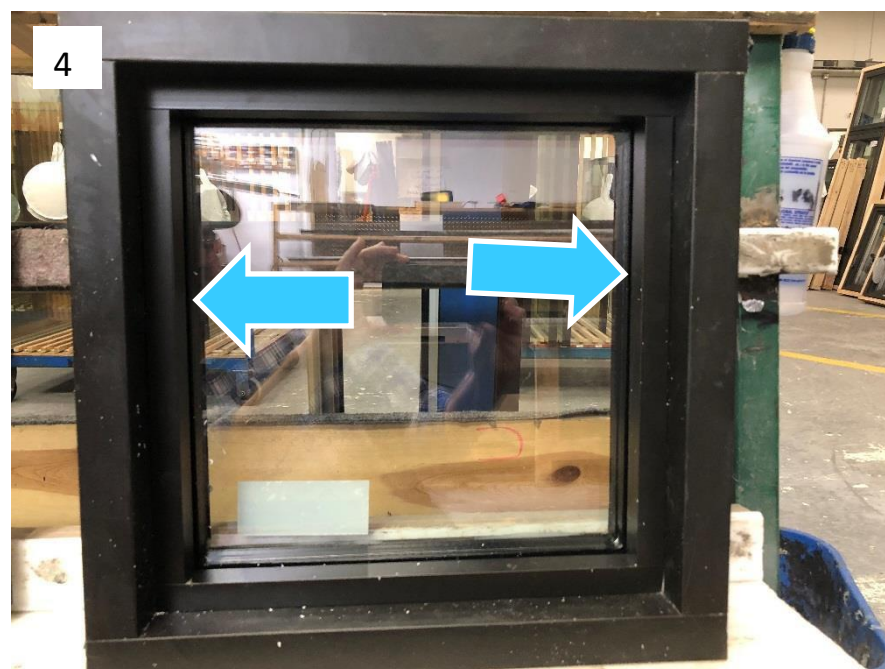


B. APPLY EXTERIOR CAP BEAD



VII. APPLY GLAZING STOPS

1. Test-fit glazing stops. Stops should fit snugly into frame (no gaps at ends)
2. When stops are too long, aluminum glazing stop needs to be cut to size using a chop saw. Using a soap pen or non-permanent marker, mark where excess material is located and trim-off.
3. Fit and cut the horizontal top and horizontal bottom first. Then set into the glazing pocket.
4. Once the top and bottom glazing stop is in place, measure, cut and install the vertical jamb pieces



B. APPLY RUBBER GLAZING WEDGE

1. Once the glazing stop is installed into the glazing pocket of the 400 series, you will now need to apply the rubber glazing gasket. This gasket gets installed between the glazing stop and the glass to complete the seal. Pull enough gasket material off the roll to cover the length and width of the glazing stop. (2 lengths, 2 widths)
2. Start at one end. Install rubber glazing gasket with a screen roller by wedging the rubber gasket between the glass and glazing stop. Once you get it started, roll the wedge into place.
3. Start by wedging rubber gasket into place. Then roll the rest of the width with the screen roller.



4. Once you roll the gasket from the starting point to the first “turn” you will need to put a “splice” into the back side of the rubber gasket with a razor blade. This will allow the rubber gasket to wedge into the corners correctly. Once you “splice” the corner, tuck the gasket into the channel and continue rolling and splicing the gasket around the frame until you finish.



VIII. CLEAN AND FINISH UP

1. Clean the window with Windex, warm water and dawn dish soap. Also the exterior will need any silicone wet out cleaned up after the glass was compressed into the glazing pocket.

