

# INSTALLATION GUIDELINES

## TYROL SERIES TILT-GLIDE DOOR

### OVERVIEW

Wall systems designed to manage water or that have been upgraded to manage water are important for a trouble free installation. Site conditions, building designs, building materials and construction methods vary from project to project. Determining the proper installation is the responsibility of you, your architect or construction professional. Installation will require a minimum of two (2) or more people depending on the size/weight of the windows, size of the project and schedule.

### I. RECEIVING & HANDLING

#### **INSPECTION:**

Customer should conduct a thorough inspection of the window products after receiving them. Windows should be inspected for proper type, operability, shipping damage, and size. All damages or freight claims must be submitted in writing within 5 business days of receipt to: [service@thinkalpen.com](mailto:service@thinkalpen.com). Follow these steps when inspecting new window products:

- Thoroughly inspect the windows, note that some products contain items that are not to be removed until after the windows are installed properly.
- Check for proper size and location prior to the start of installation.

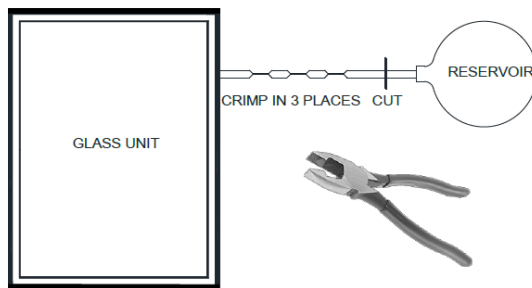
#### **STORAGE AND HANDLING:**

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 the units have been installed, allow them to acclimate to local conditions for a minimum of 24 hours. Larger units may take up to 72 hours.
2. Once acclimated, the capillary tube requires crimping and the reservoir removed. This should be completed within 5 days of installing the windows. Crimping should be performed between 12 and 3 PM or the warmest part of the day.
3. Crimp (hard enough to collapse or flatten the tube) the capillary tube 1" from the edge of glass/glazing bead, again at 1/2", and again at another 1/2" flat jaws of a pair of side cutting pliers as show in the image.



4. Cut the tube 1/2" -1" from the end to remove the reservoir and then dip the cut end in Glazing Sealant that adheres to steel (clear silicone is recommended).
5. Tuck the capillary tube under the glazing bead using a putty knife and flat blade screw driver or tape to the edge of the IGU for glass only products.

## I. PREPARE ROUGH OPENING

### A. CHECK ROUGH OPENING DIMENSIONS & CLEARANCES

#### 1. ROUGH OPENING

- a) Rough opening should be:
  - (1) Minimum 3/8" at the head, maximum 1/2"
  - (2) Minimum 3/8" wider at each jamb, maximum 1/2"
  - (3) Minimum 3/4" at the sill, maximum 1"
- b) Check that rough opening is **plumb, level, square, and in plane**.
- c) Verify sill is level and free of debris and that the sill of the rough opening must be solid and level.
- d) Adjust sill for finished floor material clearance

### B. SEALANT & FLASHING

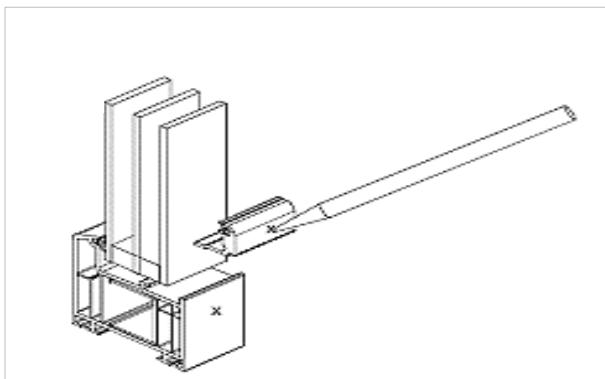
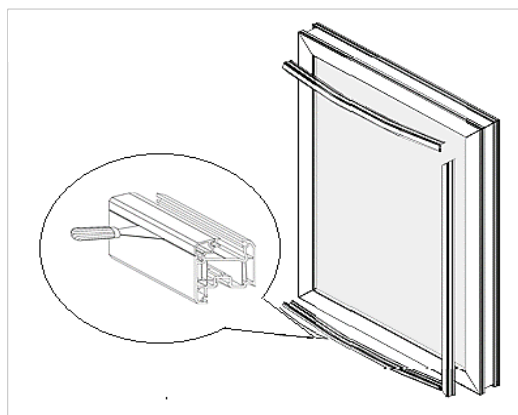
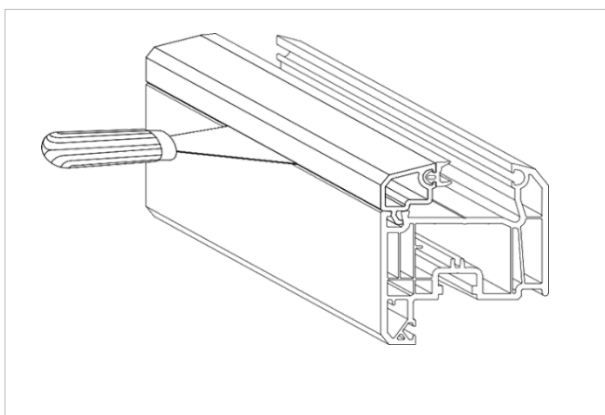
Alpen recommends following ASTM E 2112-01 and AAMA Installation Masters guidelines for sealing and flashing exterior doors. Create a proper seal between the door frame and the rough opening structure.

- 1. Install sill pan (if used)
- 2. Apply sealant to sill (polyurethane sealant recommended)
  - a. With sill pan: Apply continuous bead at interior of sill edge of back dam to ensure secure, tight seal. Use discontinuous bead at exterior of sill for drainage.
  - b. If no sill pan is used: Apply three beads of 3/16" diameter beads of sealant across entire width of subfloor between rough opening framing. Allow some sealant to pool in the corners and carry the bead at least 12" up the side of the framing

## II. PREPARE THE DOOR

### A. REMOVE FIXED GLASS

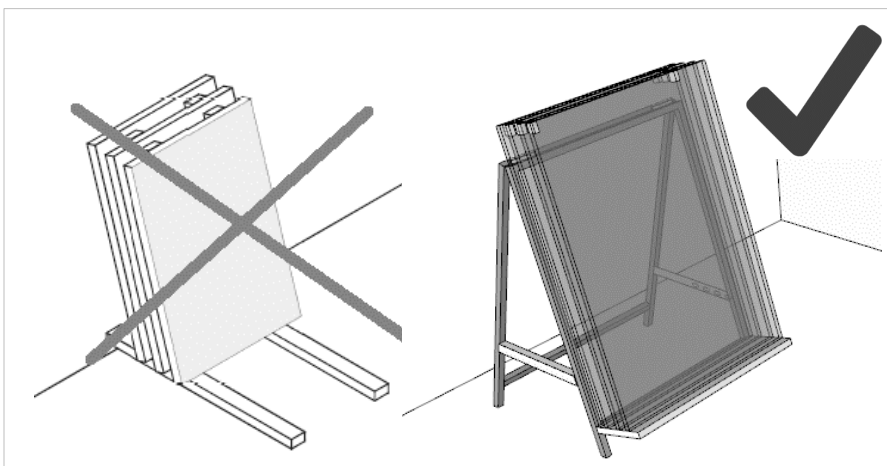
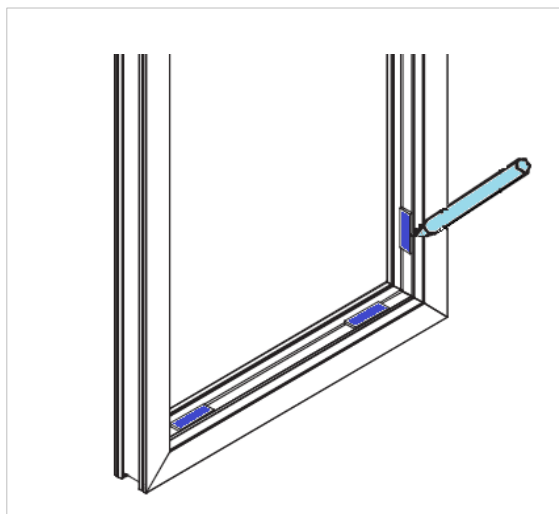
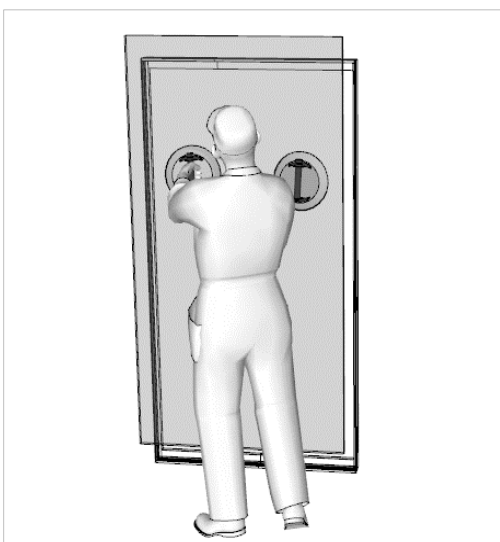
1. Start in the center with the longer glazing beads, then proceed to the shorter ones.
2. Carefully insert a putty knife or 5-in-1 painters tool between the glazing bead rebate bottom and window frame. Push tool straight and then lift upwards until the bead unclips.
3. Repeat the same procedure at short intervals until you can remove it by hand.
4. Using tape or soap pen, mark the glazing stop and corresponding window frame to provide a reference point for location of each glazing stop. This will make it easier to re-apply glazing stops at the end.



5. Press glass cups firmly against glass unit surface and carefully lift glass out of the frame
6. 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.

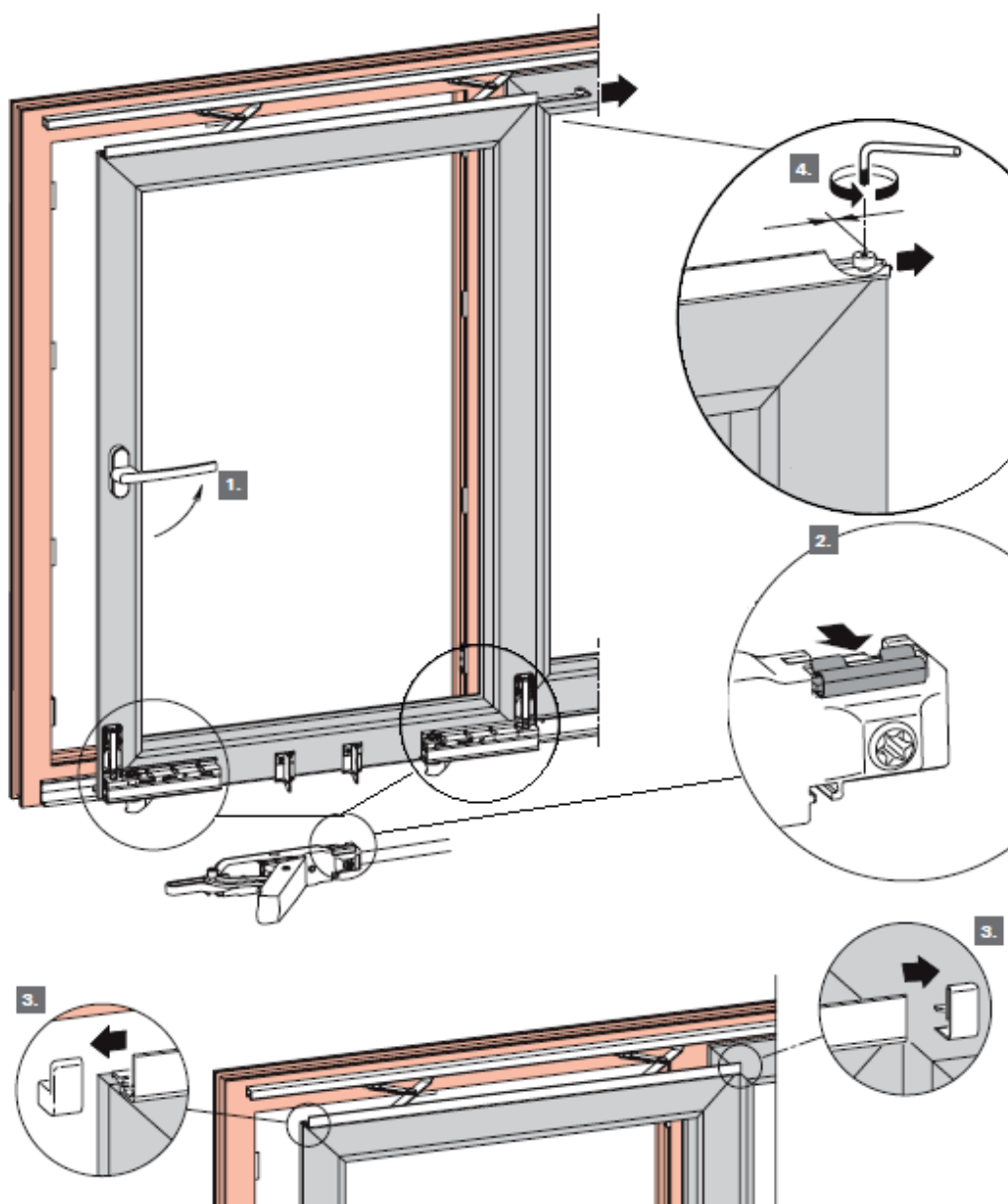
***Do not stack one on top of the other or lean against wall without proper sill support. Do not store in direct sunlight.***

7. Mark reference points where glass setting blocks (glazing shims) are located and remove them.



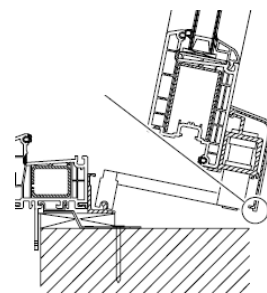
**B. REMOVE SLIDING DOOR PANEL (RECOMMENDED FOR LARGE UNITS – NOT REQUIRED)**

1. Rotate handle 180° to the Glide position. The handle should be pointing toward the ceiling. Gently pull handle towards you. The sash will swing out perpendicular to the floor, supported by the stay arms.
2. Bring each of the bogie safety mechanisms into the disengaged position.
3. Detach the cover caps from the stay-connecting profile
4. Loosen the locking screw
5. Slide the scissors-slider out of the stay connecting profile
6. Tilt the disengaged sash and lift it from the roller track



**CAUTION**

**DO NOT** tilt the sash too far out of the bottom track. If you tilt the sash too far you will damage the glide runner hardware cover



**CAUTION**

Keep the bottom of the sash free of dirt and sand. When you install the sash, dirt and sand in the bottom track can cause operational problems and premature wear of the gliding hardware. Store sash out of direct sunlight and supported so the weight is resting on the sash frame, not the hardware.

### C. APPLY ANCHOR BRACKETS

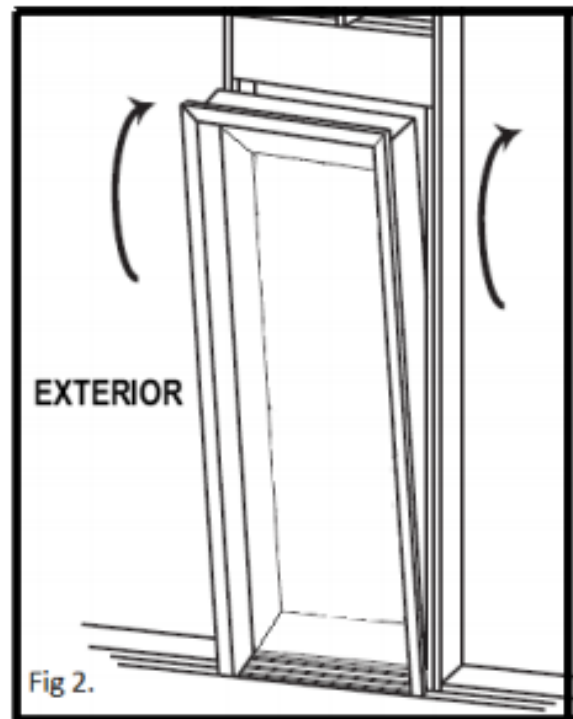
Alpen recommends using at least a few anchor brackets to temporarily hold the door in the opening while shims and support blocks are applied and adjustments are made.

For this approach, apply anchor brackets 4" from the head and sill at both jambs. **DO NOT APPLY BRACKETS AT SILL**

## III. SET DOOR FRAME INTO OPENING

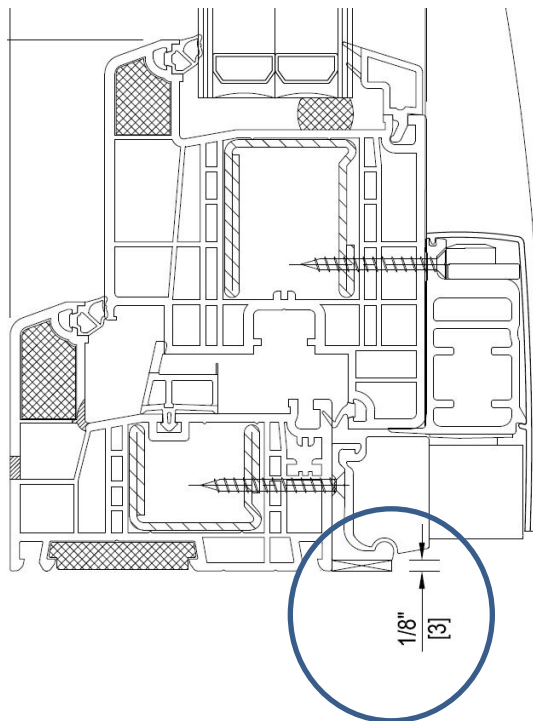
### A. SET DOOR

1. With the door closed and locked, carefully tilt unit, sill first, into the rough opening. Center the unit in the rough opening. (Fig. 2.)
2. Temporarily secure door in opening with anchor brackets at the **top of the jamb on both sides** and **bottom of the jamb on both sides**



## B. APPLY SHIMS

1. With door temporarily secured in place with anchor brackets (Step A-2), check for plumb, level and square. Add shims as needed to correct and straighten door.
2. Use 1/8" thick minimum, non-compressible, impervious shims. Thicker shims may be required depending on door rough opening but should not exceed 1/4". Shims should be wide and long enough to fully support the door frame.
3. Shim along the head and side jambs at 4" (102mm) from the corners/ends. Also, shim at the fastener spacing.
  - a) Use two shims per anchor bracket—one on each side (technique #1).
  - b) Use one shim at each screw location if screwing through the frame (technique #2)
4. Place 1/8" support shim along entire length of sill track for support, as shown.



## C. SECURE DOOR TO FRAMING

Before proceeding, double-check to ensure the sill is straight and level, and plumb the side jambs. Level the exterior head jamb. Adjust the shims if necessary. Then secure door to opening.

### APPLY THROUGH-FRAME FASTENERS

Fasteners are required at all critical attachment points. Ensure all through-frame fasteners are secured through the door frame and through support blocks and/or shims. Frames should not bow or move while fasteners are applied.



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- #10 X 3 1/2" TAPCON OR WOOD SCREW
- 1 1/4"
- 3/8" HOLE PLUG
- DRILL 3/8" PILOT HOLE
- PRE-DRILL #26 PILOT HOLE

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- FIG 6 is a technical drawing showing the elevation view of a double door assembly. The drawing includes the following labels and dimensions:
- Jamb shims**: Indicated at the top left and bottom right corners.
  - 3/8" (10 mm) min.**: Dimension for the jamb shim thickness at the top right.
  - w**: Overall width of the door assembly.
  - Jamb shim**: Indicated at the bottom right corner.
  - Support Shim**: Indicated at the bottom center.
  - a**: Dimension for the jamb shim offset from the door edge.
  - b**: Dimension for the support shim offset from the door edge.
  - c**: Dimension for the support shim offset from the door edge.

Page 9 of 10

#### D. FINAL CHECK FOR SQUARE

Measure the distance from the interior upper left frame corner diagonally down to the lower right frame corner, then measure the other two corners. These measurements must be within 1/16" (2mm) of each other.

In addition, the height of the frame at the center must be the same as the height at each end. The margins around the door should be even on all sides. Adjust the shims and screw tightness as necessary.

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