



**W I N T E C H**

*An Employee Owned Company*



**Z-VENT  
INSTALLATION  
INSTRUCTIONS**



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# Z-Vent Installation Instructions

## **I. General Overview and Information**

### **A. Handling and Storage**

1. Handle all windows and other material carefully
2. Do not drop, drag, or walk on boxed or crated material.
3. Place protective spacers between each window, windows and walls, and windows and floors during storage.
4. Store windows off the ground on pallets, planks or similar materials. Windows stored outside must be protected from rain, snow, etc.
5. Protect windows from other trade damage or manufacturing processes with ventilated covering.
6. Remove material from packaging if it becomes wet. Repack materials and move to a dry location.

### **B. Window and Material Inspection**

1. Inspect all windows and other material upon delivery for damage and quantity accuracy. Report damage and / or missing material to WinTech and freight carrier immediately.

## **II. Cleaning**

### **A. Cleaning Window Units**

1. Plaster, cement, terrazzo, alkaline, and acid based materials used to clean masonry are very harmful to painted and anodized finishes and should be removed with water and mild soap immediately, to prevent permanent staining. Spot testing is recommended prior to any cleaning agent being applied to the doors.
2. Cleaning of painted aluminum surfaces should be performed in accordance with American Architectural Manufacturing Association (AAMA) 609 and 610-02 "Cleaning and Maintenance Guide for Architecturally Finished Aluminum".
3. Cleaning of anodized aluminum surfaces should be performed in accordance with American Architectural Manufacturing Association (AAMA) 609 and 610-02 "Cleaning and Maintenance Guide for Architecturally Finished Aluminum".
4. If protective coatings are required, they must be removed from any area of the window unit that requires field applied sealant prior the installation of the window unit.

### **B. Cleaning Glass**

1. Glass should be cleaned with a liquid glass cleaner
2. Do not use any dirty or abrasive type material to clean glass
3. Do not use a razor blade on the glass surface

## **III. Construction Notes**

### **A. Reference Project Documents**

1. Check any shop drawings, elevation drawings, project specific details, and installation instructions to become thoroughly familiar with the project. Any project specific documents, such as shop drawings, details, etc., take precedence over these installation instructions.

### **B. Opening Verification**



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1. Ensure that construction that will receive WinTech Z-Vents is in accordance with the contract documents. If construction is not per the contract documents please notify the general contractor in writing and resolve differences prior to proceeding with work.
2. The opening must be verified to confirm it is square, level, and plumb and has the proper clearance for the designated window.

## **C. Isolate Aluminum**

1. Aluminum that is in direct contact with masonry or incompatible materials must be isolated with a heavy coat of zinc chromate, plastic isolators, or bituminous paint.

## **D. Thermal Pour & Debridged Pocket**

1. Do not punch, penetrate, alter, or drill the pour and debridged thermal break.

## **E. Blocking**

1. All blocking and shims will be non-corrosive or high strength plastic material not by supplied by WinTech. Blocking must be of size to support the frame where indicated. The blocking must prevent the window from bowing, twisting, racking or distorting.

## **F. Fasteners**

1. WinTech does not provide perimeter anchorage or fasteners.
2. Refer to the project shop drawings or project design professional to determine size, type, and quantity of perimeter anchors or fasteners to be used when installing the Z-Vent.

## **G. Sealant**

1. All sealant used must be compatible with all the materials it contacts, including other sealant. All sealant unless noted is not by WinTech and is to be supplied by others.
2. WinTech does not recommend sealant or caulking types and will not assume liability or responsibility of sealant or caulking not supplied by WinTech. The sealant supplier should be consulted for sealant recommendations associated with compatibility, adhesion, priming, tooling, shelf life, and joint design. It is the sole responsibility of the customer to perform all sealant adhesion and compatibility testing that is required by the sealant manufacturer of choice for sealant that is to be supplied by the customer.

## **H. Glass**

1. Consult local building codes for information regarding requirements and location of safety glazing.
2. The selection of safety glazing that is in conformance to local building codes is the responsibility of the owner, architect, and installer.

## **I. Safety**

1. Follow all required safety and PPE procedures when installing windows and other aluminum fenestration products provided by WinTech.



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## IV. Z-Vent Installation Instructions

### A. Z-Vent Opening Verification and Preparation

1. Measure daylight opening (DLO) to ensure DLO matches the approved shop drawings or contract documents.
2. Opening should be measured at multiple locations both horizontally and vertically. See blue & green lines in Figure 1
3. Verify opening is square by taking two diagonal measurements. See red lines in Figure 1.
4. Ensure opening is plumb and level.
5. Ensure opening is free of any debris or other obstructions.

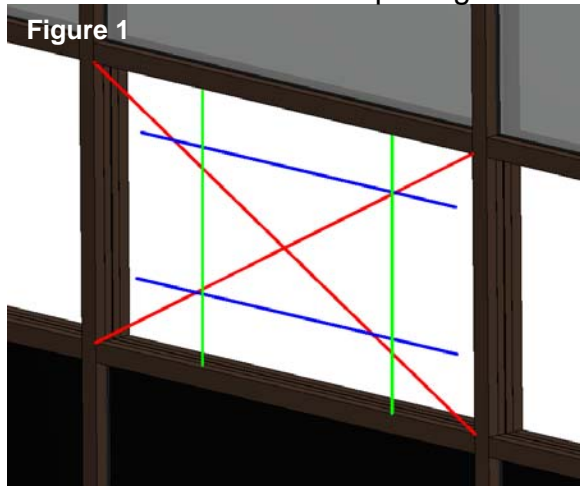


Figure 1

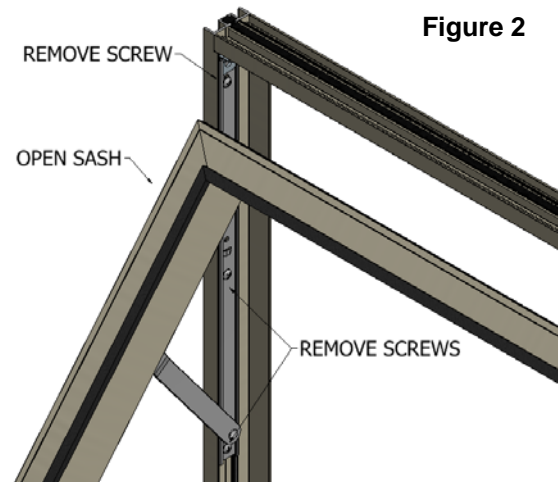


Figure 2

### B. Z-Vent Glazing & Perimeter Adaptor Installation

1. Unlock vent from frame and open vent to gain access to 4-bar arms attached to the Z-Vent frame.
2. Unhang sash from frame by removing the three fasteners attaching each 4-bar arm to the frame. See Figure 2.
  - *Be careful not to rack or damage sash while unhooking it from frame.*
3. Lay sash horizontal on table with preset gasket side facing up.
4. Wipe glazing surface of sash and preset gasket to remove any dirt, dust, and debris using 70% isopropyl alcohol or similar product. See Figure 3.

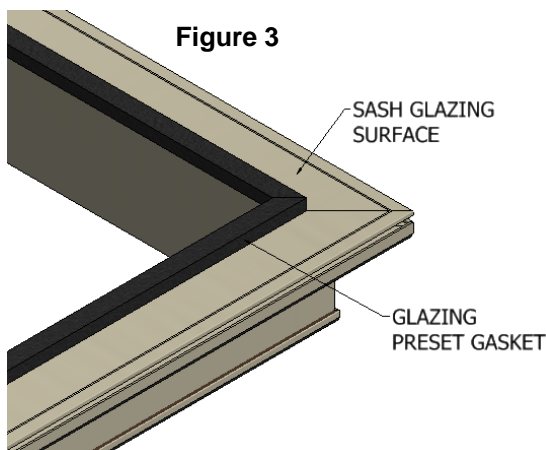


Figure 3

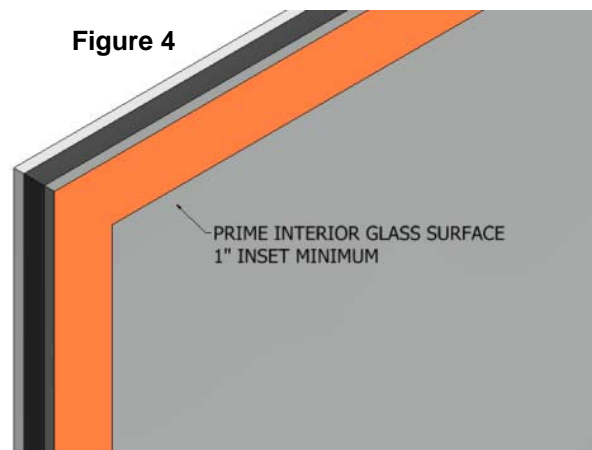


Figure 4

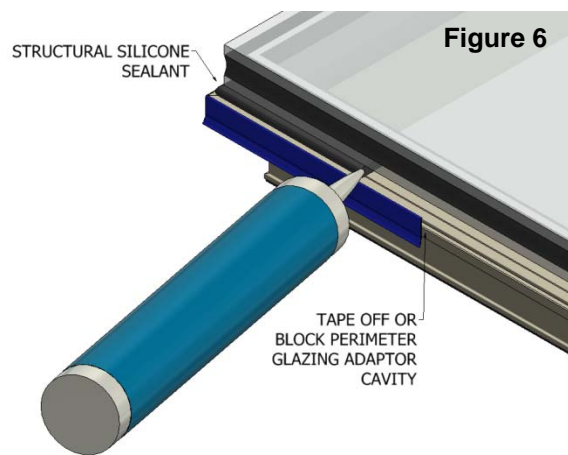
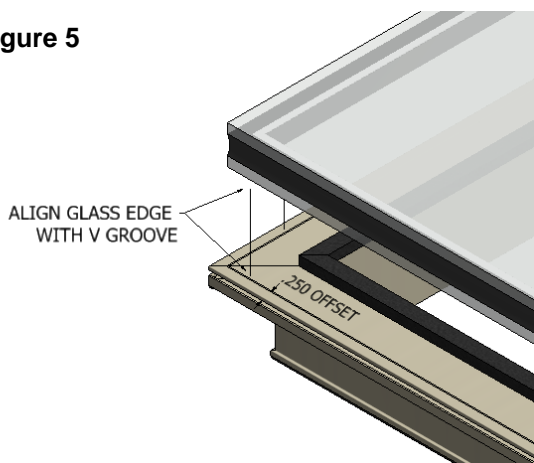


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5. Apply primer to sash glazing surface if required by the chosen sealant manufacturer for the structural silicone being used. See Figure 3.
6. Apply primer to interior glass surface edge if required by the chosen sealant manufacturer for the structural silicone being used. See Figure 4.
7. With Z-Vent sash lying flat; install the glass unit onto the sash.
8. Align glass edges with V groove in sash frame. Glass should set in 1/4" from edge of sash. See Figure 5.
9. With glass aligned and centered on sash, clamp glass to frame using carpenter clamps or similar tool to keep glass compressed to preset glazing gasket.
10. Apply structural silicone sealant to joint between glass and sash. Sealant should fill cavity from edge of glass to preset gasket. See Figure 6.
  - *Ensure sealant does not penetrate or block the perimeter glazing adaptor raceway.*
  - *WinTech recommends taping off or blocking the perimeter glazing adaptor cavity.*

Figure 5

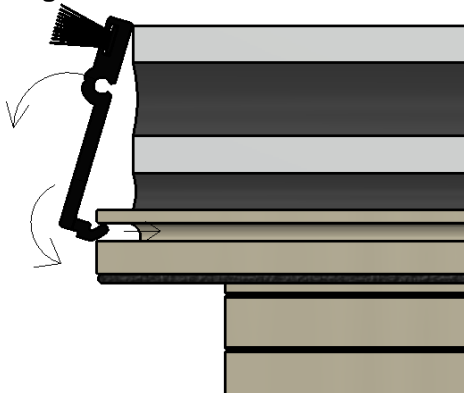


11. Tool structural silicone sealant flush against the glass edge and remove any excess sealant "ooze out" from the sash.
12. Remove the tape blocking the perimeter glazing adaptor cavity.
  - *Follow sealant manufacturer's recommended set time before moving glazed sash from its horizontal position*
13. Install the perimeter glazing adaptors by rocking them or sliding them from the ends into place. See Figure 7.
14. The horizontal perimeters are to run thru and be installed first.
15. Install the vertical perimeters.
  - *Perimeter adaptors should be full installed into the cavity and locked in place.*
16. Screw apply the perimeter adaptor corners using WinTech supplied #6-20 x 1" PL-PH-SMS 18-8 fasteners. See Figure 8.
17. Trim the wool pile perimeter weathering if required.

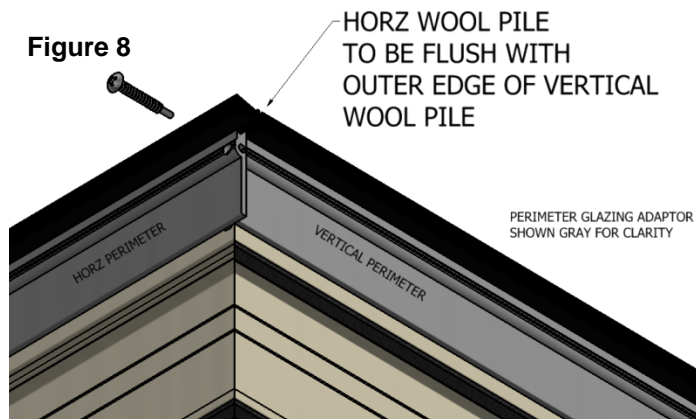
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18. Place WinTech supplied setting blocks at 1/4 points between the glass and perimeter adaptors on all four sides.

**Figure 7**



**Figure 8**



19. Build 2x4 shell or similar around sash perimeter to ensure vinyl perimeter glazing adaptor does not bow out while applying the perimeter weather seal. See Figure 9.

20. Apply continuous backer rod into the cavity between the glass edge and perimeter glazing adaptor. See Figure 10

21. Apply a continuous seal between the glass and perimeter glazing adaptor. See Figure 10

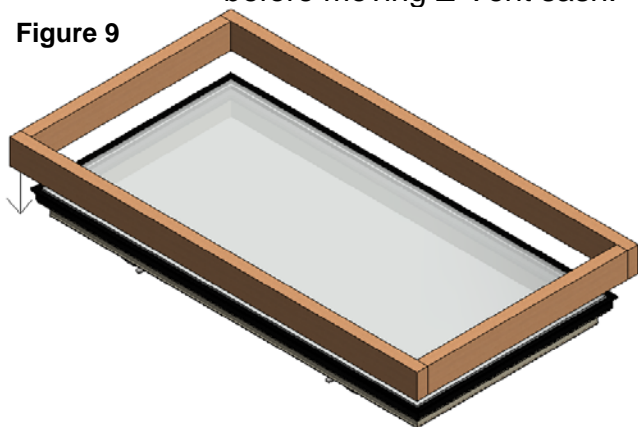
- *WinTech recommends taping off glass edge and perimeter adaptor edge to prevent sealant from spreading to the exterior glass surface and face of the perimeter glazing adaptor.*

22. Tool weather seal and clean excess sealant from glass and perimeter glazing adaptor.

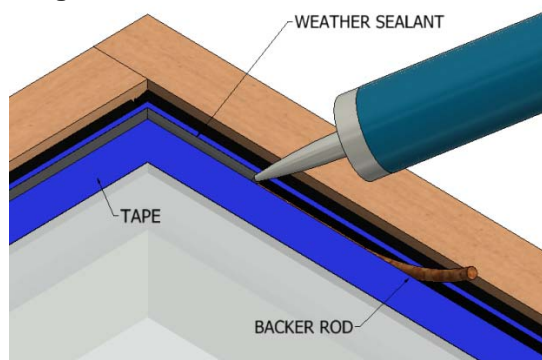
23. Remove 2x4 shell from sash

24. Allow sealant cure per the sealant manufacturer recommended time before moving Z-Vent sash.

**Figure 9**



**Figure 10**



## C. Z-Vent Frame Installation into Opening

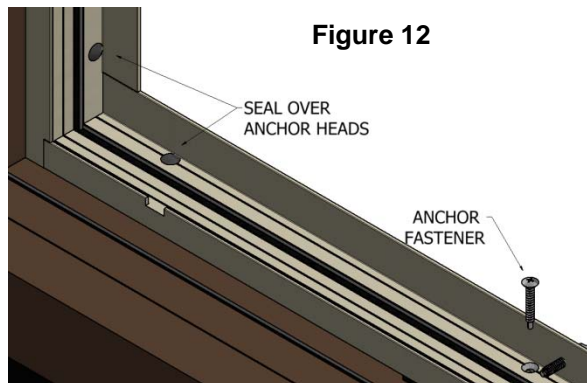
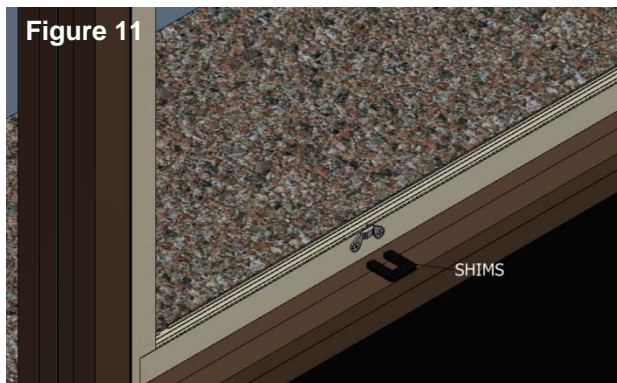
1. Fabricate anchor holes into the Z-Vent with sash removed. See approved project shop drawings for anchor size, type, and location.



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- *WinTech recommends a flathead or oval type head to ensure anchor fasteners do not interfere with the operation of the Z-Vent sash.*
- 2. Insert sashless Z-Vent into storefront, curtain wall, or other slick opening.
- 3. Shim between Z-Vent frame and adjacent fenestration frame using 1/8" shims placed at approximate quarter points on all four sides of the Z-Vent Frame. See Figure 11.
- 4. With Z-Vent frame installed into opening and plumb and level, anchor the Z-Vent through the holes fabricated in step 1. See Figure 12.
- 5. Seal over all anchor fasteners heads and tool sealant. See Figure 12.



- 6. With Z-Vent frame fully anchored on all sides apply a continuous fillet seal between the Z-Vent frame and adjacent fenestration frame. Tool sealant. See Figure 13.

### D. Glazed Z-Vent Sash Installation

1. After the glazed sash sealant has been allowed to cure and be moved from the horizontal position and the continuous fillet seal around the Z-Vent is cured the sash is ready to be reinstalled into the anchored Z-Vent frame.
2. Hold the sash with 4-bar arms up to the frame and reattach the 4-bar arms to the frame.
3. Attach the 4-bar arm to the frame thru the set screw location in the 4-bar arm first, then at the slotted holes. This ensures the sash is placed in the same location as when it was shipped from the WinTech factory. See Figure 14.
4. Repeat for the opposite side.
5. Open and close sash to ensure proper function, and then lock into place.

