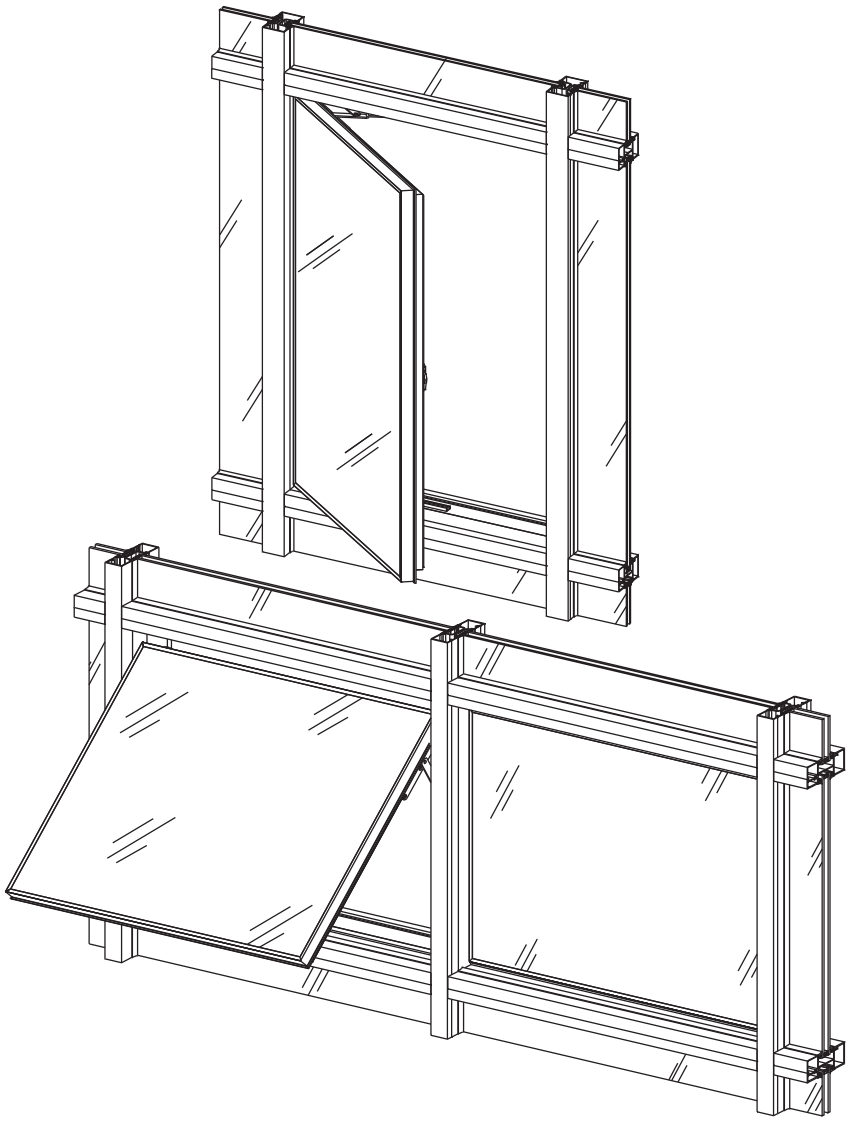
YES SSG Vent Window System



YES SSG VENT SYSTEM DESCRIPTION

- 2-3/4” Overall Depth
- Variations: Casement Outswing
  Projected Outswing
- 1” Glazing
- Optional Screens

YES SSG VENT PERFORMANCE FEATURES

- AAMA/WDMA/CSA 101/I.S.2 A440-08
- CW-PG60-C, CW-PG60-AP Rating
- Construction:
  Vents – Mitered & Sealed
  Frame – Square Cut, Coped & Sealed,
  Both Use Screw Spline Construction

Installation Manual

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INSTALLATION

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INSTALLATION NOTES

1. Do not drop, roll or drag boxes of aluminum framing. Move and stack boxes with proper support to prevent distortion. If fork lifts are used, be especially careful about striking the boxes when lifting or moving.

2. Store in a dry, out of the way area. If rain exposure, condensation or any water contact is likely, then all packaging material should be removed. Wet packaging materials will discolor and may stain aluminum finishes and paints.

3. All materials should be checked for quantity and quality upon receipt, YKK AP must be notified immediately of any discrepancies in shipment. Check to make sure that you have the required shims, sealants, supplies, and tools necessary for the installation.

4. Carefully check the openings and surrounding conditions that will receive your material. Remember, if the construction is not per the construction documents, it is your responsibility to notify the general contractor in writing. Any discrepancies must be brought to the general contractor's attention before you proceed with the installation.

5. Collect your shop drawings, materials, packing list, and this installation manual. Carefully review parts location, the sequence of installation, when you glaze it, and how you seal it. Installation instructions are of a general nature and may not cover every condition you will encounter. The shop drawings and/or installation manuals were prepared specifically for the product.

6. Any material substitutions must be of equal or greater quality.

7. Make certain that material samples have been sent for compatibility testing for all manufacturer's sealants involved. Make certain that sealants have been installed in strict accordance with the manufacturer's recommendations and specifications.

8. All insulating units must be designed for Silicone Glazing. Only neutral curing silicones may be used.

9. Remember to isolate, in a approved manner, all aluminum from uncured masonry or other incompatible materials.

10. System-to-structure fasteners are not supplied by YKK AP. Fasteners called out on shop drawings are to indicate minimum sizes for design loading.

11. If any questions arise concerning YKK AP products or their installation, contact YKK AP for clarification before proceeding.

INSTALLATION NOTES

12. YKK AP window installation is typically completed before drywall, flooring and other products which may still be in process. Take the extra time to wrap and protect the installed material.

13. Cutting tolerances are plus or minus one thirty second unless otherwise specified.

14. YKK AP Model YES SSG Vent windows are prefinished, prefabricated, and preassembled products, and must be protected against damage.

15. Concrete, mortar, plaster, muriatic acid and other alkaline and acid based construction and cleaning materials may be very harmful to window finishes and should be removed with water and mild soap immediately or permanent damage or staining of the finishes will occur. A spot test is recommended before any cleaning agent is used, and abrasive type cleaners must never be used.

16. Windows are never to be used as ladders, step stools, scaffolds or scaffold supports.

17. All work must start from, and be referenced to benchmarks, offset lines and/or column centerlines established by the architectural drawings and the general contractor.

18. All windows must be installed plumb, square, level and true, and in accordance with approved shop drawings and these installation instructions.

19. Glass and glazing building codes governing the design and use of products vary widely. YKK AP America Inc. does not control the selection of products, product configurations, operating hardware and function, or glazing materials, and YKK AP assumes no responsibility for these design considerations. It is the responsibility of the design professional, owner, architect, specifier, general contractor, and the installer to make these selections in strict accordance with all applicable codes.

20. Check our website, www.ykkap.com, for the latest installation manual update prior to commencing work.

Important Notice for YES SSG Vent Window System:

In order to properly perform and to maintain structural integrity, in addition to all other installation requirements, structurally glazed window systems rely specifically upon effective and appropriate structural sealant selection and installation.

It is the responsibility of the glazing contractor to take all steps to ensure the installed structural sealant is capable of meeting all applicable project requirements in accordance with industry standards. Such steps on each project may include, but are not limited to, design reviews, formal adhesion testing, project specification compliance, validating applications, field testing, auditing, sealant design strength analysis, and the quality control review of the installation and surrounding conditions.

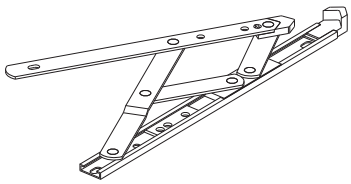
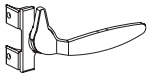
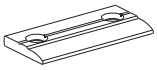
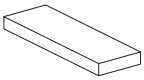
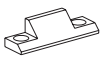
Subject to project specific design pressures, requirements, and/or specifications, the structural sealant that is used between the glass and framing system must be capable of withstanding tensile and shear stresses imposed by the window without failing adhesively or cohesively.

The structural sealant's capability to withstand these stresses are dependent on several factors including, but not limited to, type of structural sealant, method of application (i.e. cleaning, primer),construction of glazing material (i.e. insulating glass unit (IGU), other infill, and finish of framing (i.e. anodizing, paint).

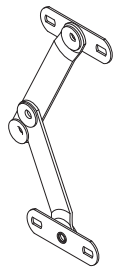
- Adhesive failure occurs when sealant pulls away from substrate cleanly, leaving no sealant material behind.
- Cohesive failure occurs when sealant breaks or tears within itself but does not separate from each substrate because sealant-to-substrate bond strength exceeds sealant's internal strength.

The IGU and/or other infill must be constructed for installation into the structurally sealant glazed window system. Notify the manufacturer or fabricator of the IGU and/or infill and advise of the product's application into 4-sided structurally sealant glazed windows along with the project's design requirements so that appropriate fabrication steps are taken.

Hardware & Accessories

DETAIL	PART NO.	DESCRIPTION	MATERIAL
	**4K-14207** **5K-15284** **4K-14209** **4K-14208** **E1-1841**	4 Bar Hinge (12") 5 Bar Hinge (16") Project Vent Only 4 Bar Hinge (22") Project Vent Only (TU only) 4 Bar Hinge (16") Casement Vent Only Limit Stop (12", 16", 22")	Stainless Steel Aluminum US28
	**E1-1577** **E1-1578**	Cam Handle (R) Cam Handle (L)	White Bronze US25D
	E1-1579	Keeper	White Bronze US25D
	**E1-1585**	Guide Roller Base (Factory Installed)	Aluminum
	E2-0762 PC	Side Block	Black EPDM Silicone Compatible
	**E2-0761 PC**	Setting Block	Black EPDM Silicone Compatible
	E2-0110	Glazing Spacer Tape	Black Polyurethane Foam
	E2-0625	Airtight Bulb Gasket	Black Santoprene
	**E3-1103**	Snubber / Lift Up Ramp (Factory Installed)	Black Nylon

Hardware & Accessories (Continued)

DETAIL	PART NO.	DESCRIPTION	MATERIAL
	**E1-1936**	**-Default-** Limit device meeting the fall prevention requirements (and approved for New York City, with size restrictions.) Note: This hardware may be used in locations outside New York City.	Stainless Steel
	E1-1975	**-Optional-** 4” Quick release limit device meeting the fall prevention requirements (and approved for New York City, with size restrictions.) Note: This hardware may be used in locations outside New York City.	Stainless Steel

GENERAL INFORMATION

Size Limitations:

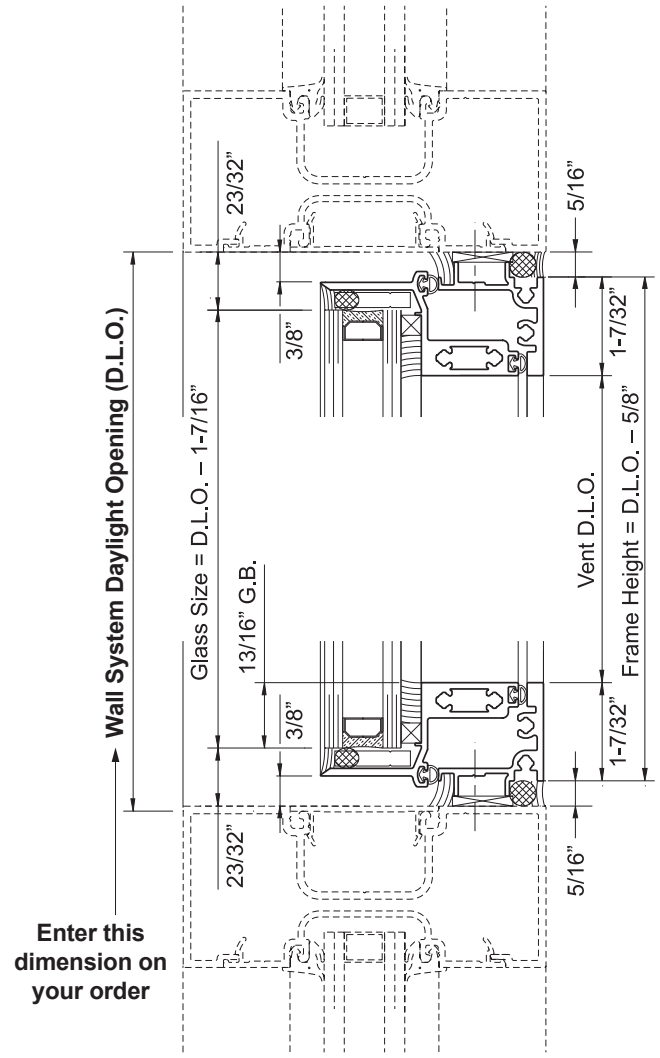
WINDOW	MINIMUM	MAXIMUM
Project	12” x 14”	60” x 36”
Casement	14” x 12”	36” x 60”

STEP 1
DETERMINE FRAME & GLASS SIZE

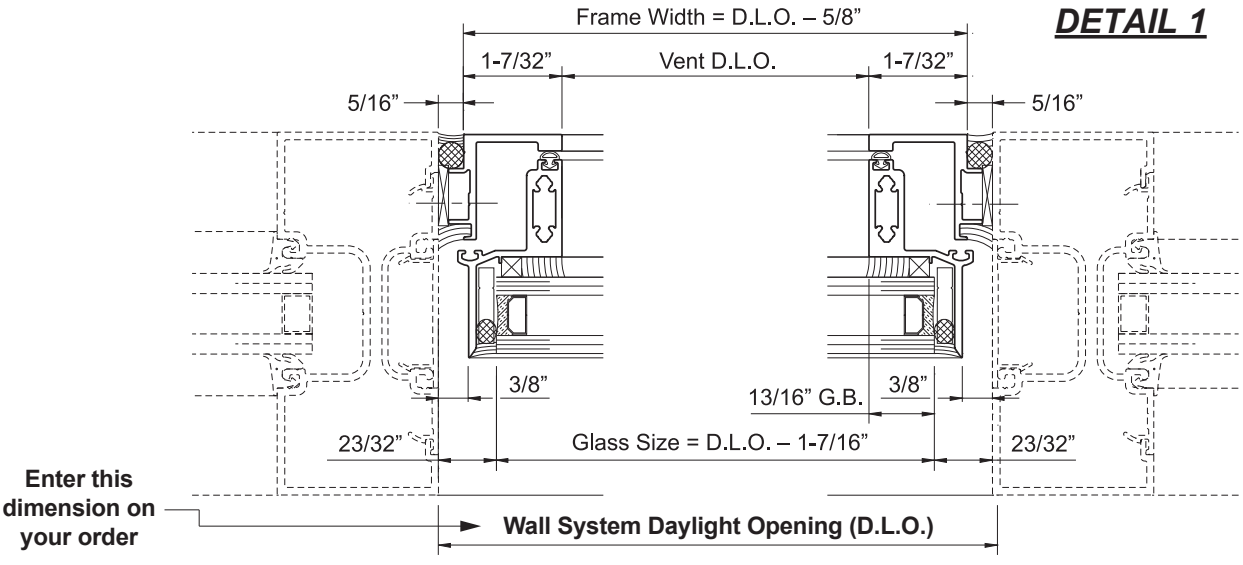
-**To enter an order**, carefully measure the **wall system daylight opening** of the surrounding framing system at several places along the frame opening, both width and height. Select the smallest dimension and enter this number into the order.

-Glass size is equal to the wall system daylight opening dimensions measured above minus(–) 1-7/16”.

See **Detail 1**.



DETAIL 1



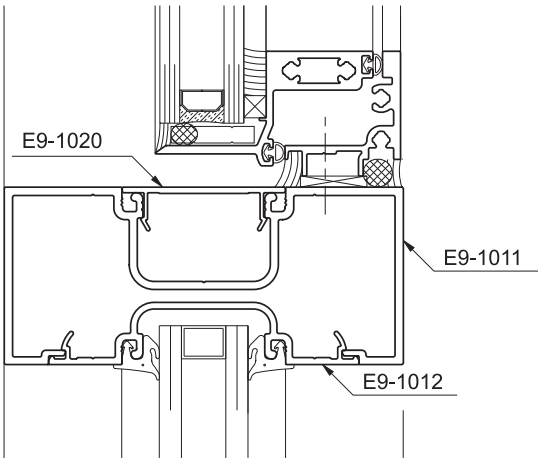
GENERAL INFORMATION

STEP 1 (Cont'd)
INSTALL FLAT FILLER

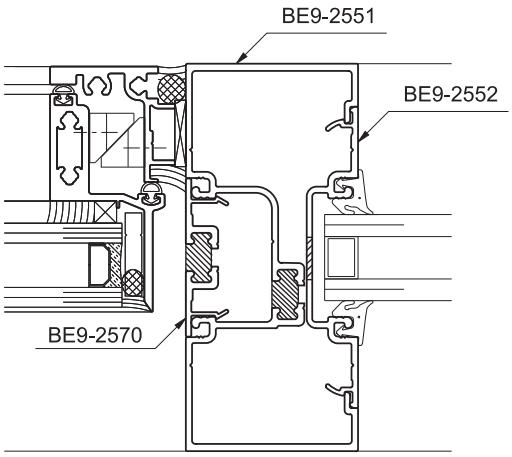
-Prior to instaling vent unit, a flat filler must be installed in the glass pocket of the wall system.

-Select flat filler based on system type, and whether thermal or non-thermal.

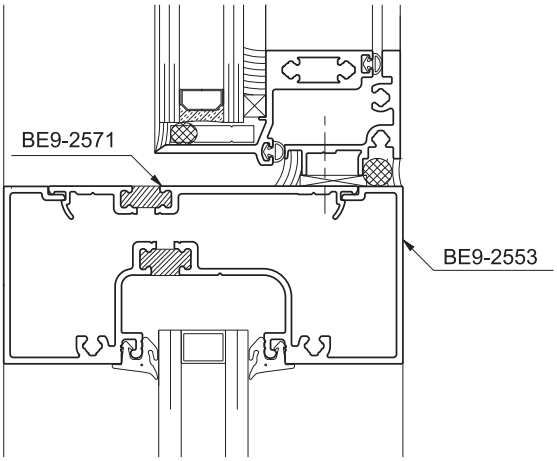
See **Detail 2**.



NON-THERMAL



THERMAL



DETAIL 2

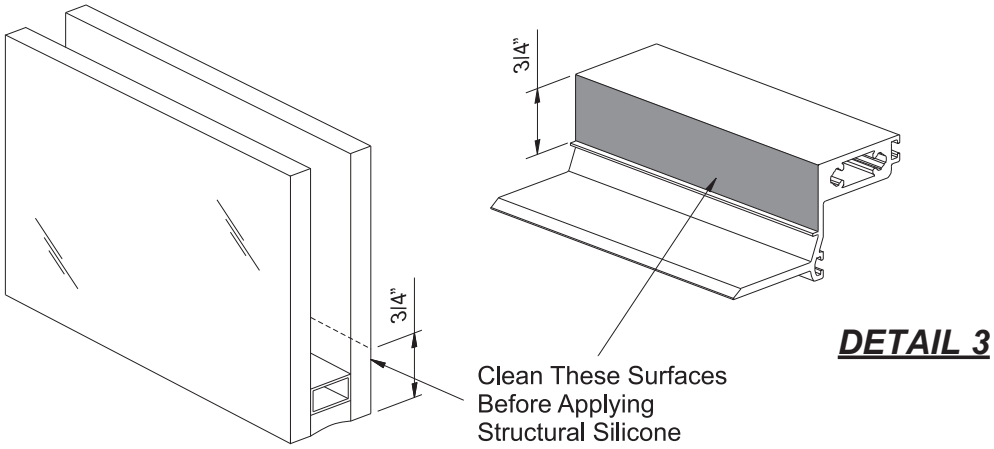
GLAZING

STEP 2
GLAZING

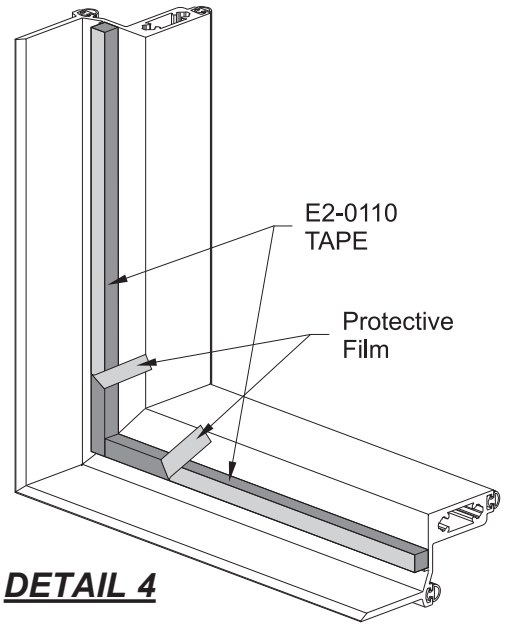
YES SSG Vents are delivered factory glazed, or open for field glazing.
NOTE: For shop glazing, installer must follow GANA Structural Silicone Glazing guidelines and use an approved supplier of insulating glass as established by IGMA (Insulating Glass Manufacturer Alliance), and follow all subsequent ASTM testing methods as specified by GANA.

Shop Glazing:

-Remove the vent from the frame leaving the four bar hinge attached to the vent.
-Using an approved cleaner, clean the surfaces of the glass and vent that will come into contact with the structural silicone, using the two-cloth method.
See **Detail 3**.



DETAIL 3



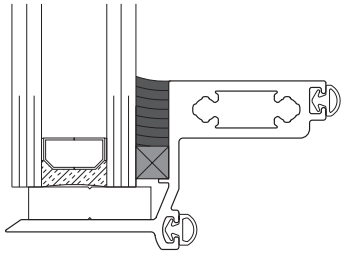
DETAIL 4

-Cut glazing spacers, E2-0110, for the vent:

Vertical: Vent D.L.O. plus(+) 1-1/2”
Horizontal: Vent D.L.O. plus(+) 1”

-Install vertical spacers first and then the horizontal spacers between the verticals.

See **Detail 4**.

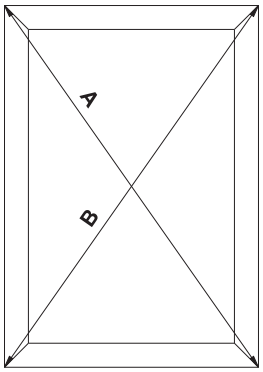


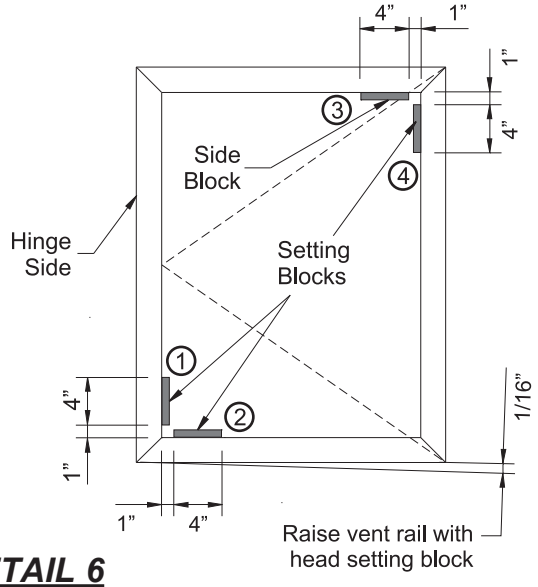
GLAZING

STEP 2 (Continued)
GLAZING

-Check the vent to ensure that it is square by measuring the diagonals (corner to corner). The measured A/B difference should not exceed 1/16": A = B (+/- 1/16").
See **Detail 5**.
-Install setting blocks at locations 1, 2, and 4 side blocks at location 3 as shown for casement vents. Install setting blocks and side blocks for projected vents as shown below.
See **Detail 6**.

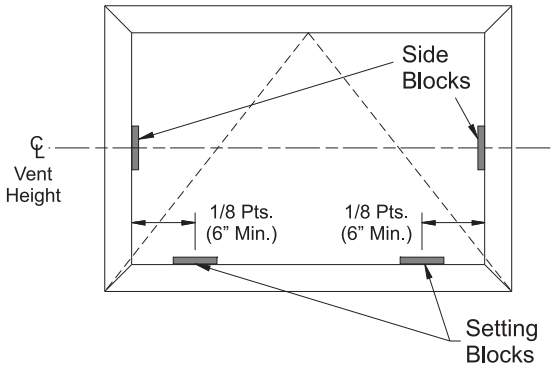
DETAIL 5

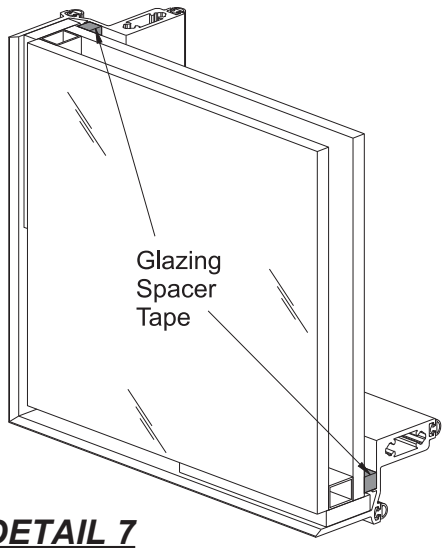




DETAIL 6

-Set the vent down onto the glass, interior side up.
-Check to make sure that the glass is centered in the vent and that it is in full contact with the setting/corner blocks.
-Shim as required.





DETAIL 7

-Carefully lift the vent up and remove the protective film from the top of the glazing spacer tape.
-Press firmly to obtain full adhesion with the glazing spacer.

See **Detail 7**.

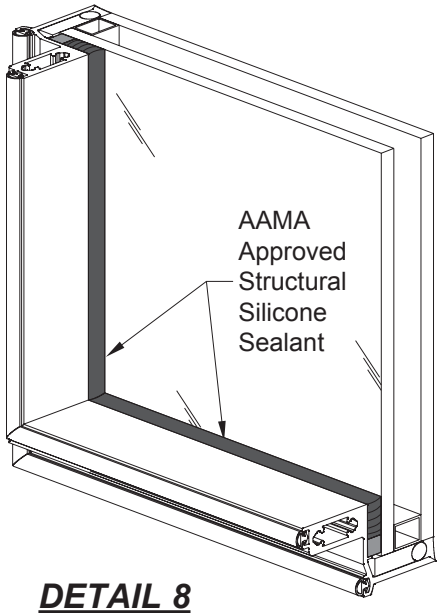
GLAZING

STEP 3
APPLY STRUCTURAL SILICONE SEALANT

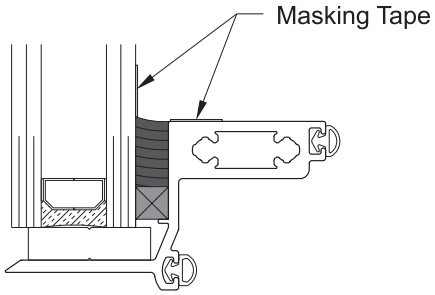
-Apply structural silicone to the interior of the vent:
  -Apply masking tape to the glass and vent.
  -Apply structural silicone sealant using positive pressure to completely fill the cavity between the glass and vent.
  -Immediately tool the silicone sealant using positive pressure to ensure that the silicone sealant makes full contact with both the glass and vent.
  -Immediately remove the masking tape after tooling, before the silicone sealant skins over.
-Prior to moving the glazed vent, permit the structural silicone to fully cure, as prescribed by the silicone manufacturer.

See **Detail 8** .

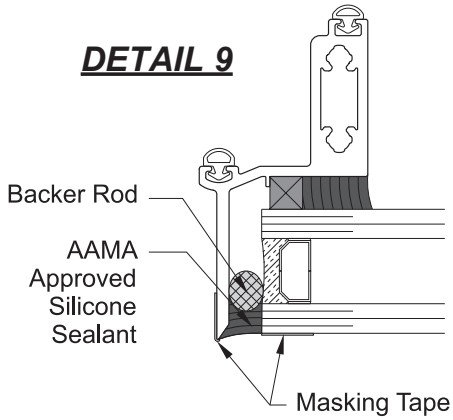
Caution: Verify silicone sealant compatibility with the insulating unit.

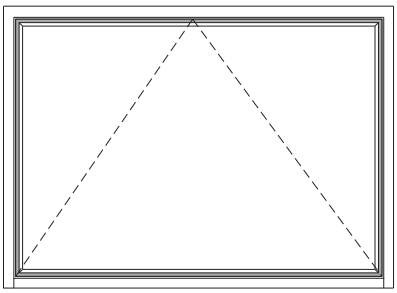


DETAIL 8



DETAIL 9





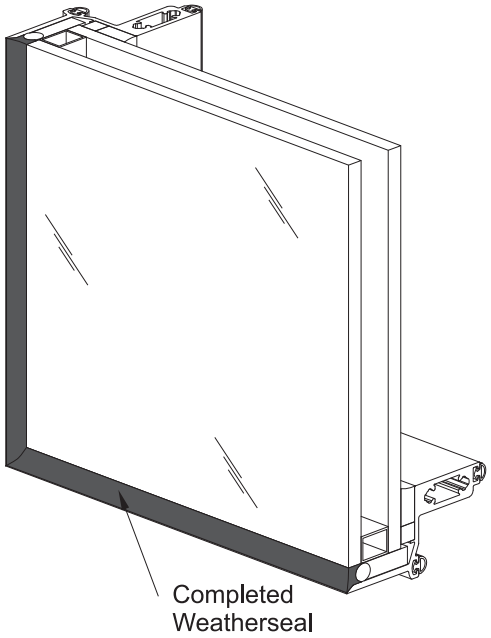
-Apply silicone seal on the exterior of the vent to protect the integrity of the insulating unit.
-Lift up glazed vent, carefully turning the vent over, so that the exterior is facing up.
-Install an approved backer rod between the glass and vent.
-Apply masking tape to the glass and vent.
-Apply sealant to the joint and immediately tool the sealant using positive pressure to ensure that the silicone sealant makes full contact with both the glass and vent.
-Immediately remove the masking tape after tooling. Do not let the sealant cure completely.

See **Detail 9**.

GLAZING / INSTALLATION

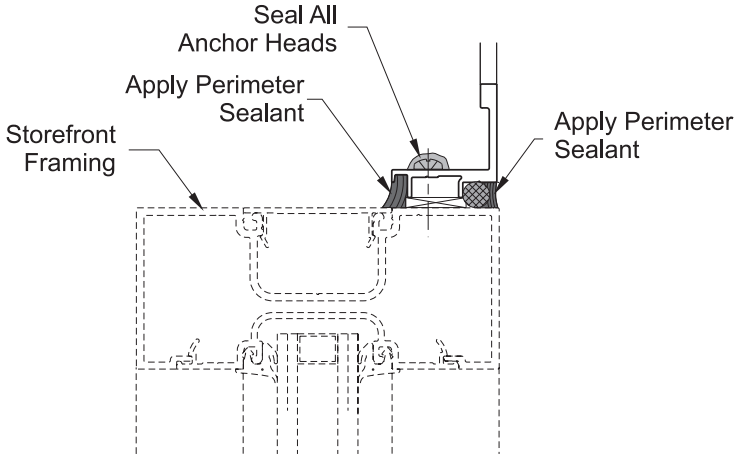
STEP 5
INSTALL WINDOW FRAME

-Set the window frame into the opening and shim as required so that the vent is plumb, square, level, and true.
-Install shims at the four bar hinges.
-Anchor the window frame into the surrounding storefront framing:
  -A maximum of 4” from each corner and a maximum of 17” on center thereafter.
  -A maximum of 3” on each side from the centerline of locking points and snubbers.
  -Shim at all anchor locations.
-Seal the heads of all anchor fasteners.
-Install backer rod between the window frame and the storefront framing along the interior perimeter of the window.
-Apply a quality perimeter silicone sealant around both the interior and exterior of the window.
-Tool the sealant to ensure a watertight seal.



DETAIL 9

See **Detail 10**.



DETAIL 10

INSTALLATION

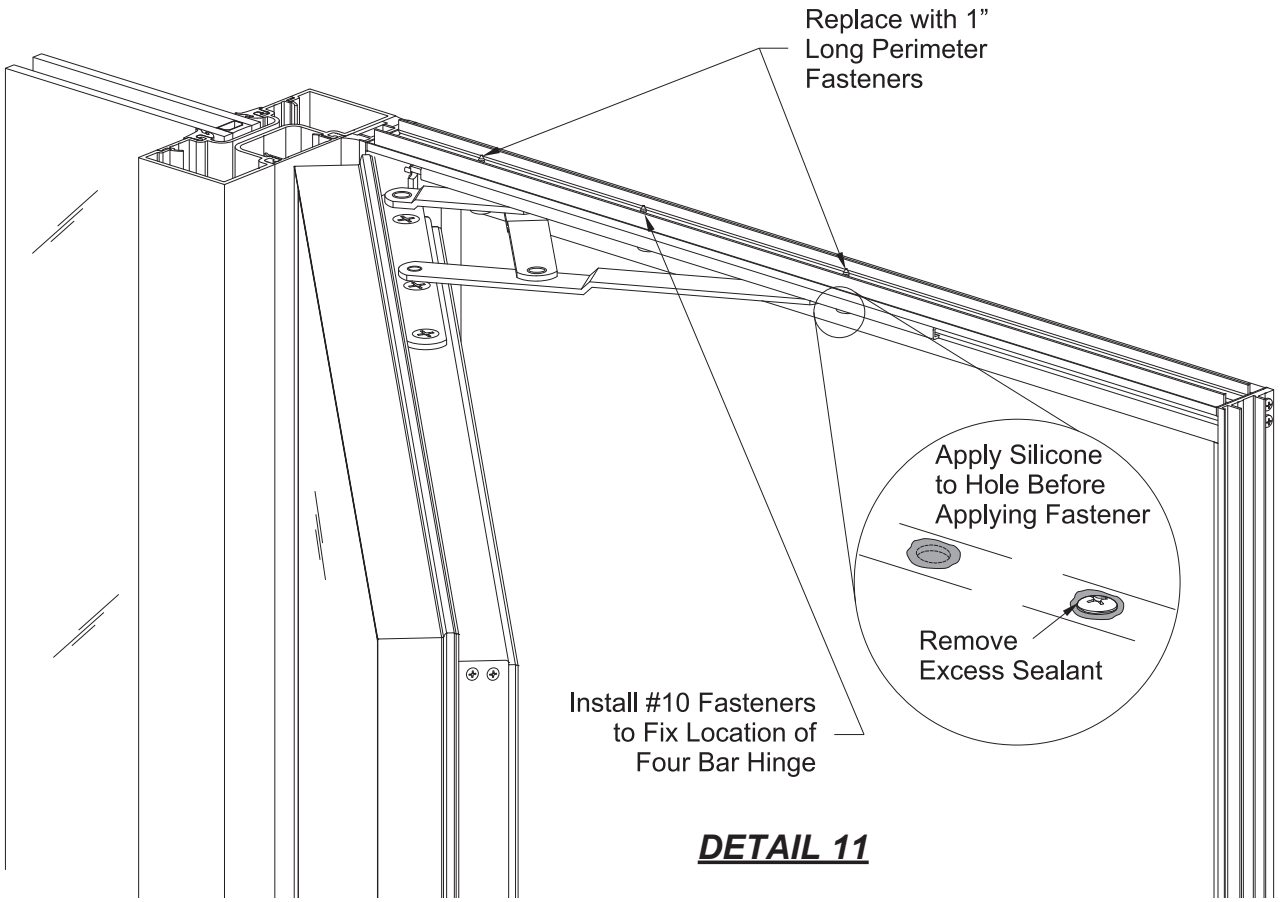
STEP 6
INSTALL VENT

-Carefully set the vent back into the window frame and reattach the four bar hinges. Be careful not to cross thread the fasteners.
-Loosen the two fasteners that attach each four bar hinge to the vent and adjust the vent so that it operates properly.
-Once adjustments are completed, tighten the two fasteners of each hinge by hand using a screwdriver.
Note: Aggressive over-tightening can strip the fasteners.

-Install fasteners that will fix the location of the four bar hinge:
  -Drill a 0.161” diameter (#20 drill bit) hole through the round holes in the four bar hinge at the frame, apply silicone sealant to the hole, and install the #10 stainless steel fasteners provided.
-Remove excess sealant so as to not interfere with operation of four bar hinge.

-Replace the fasteners at each end of the four bar hinge with stainless steel fasteners that are 1” long, to help anchor the window to the surrounding storefront framing.

See **Detail 11**.



DETAIL 11

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