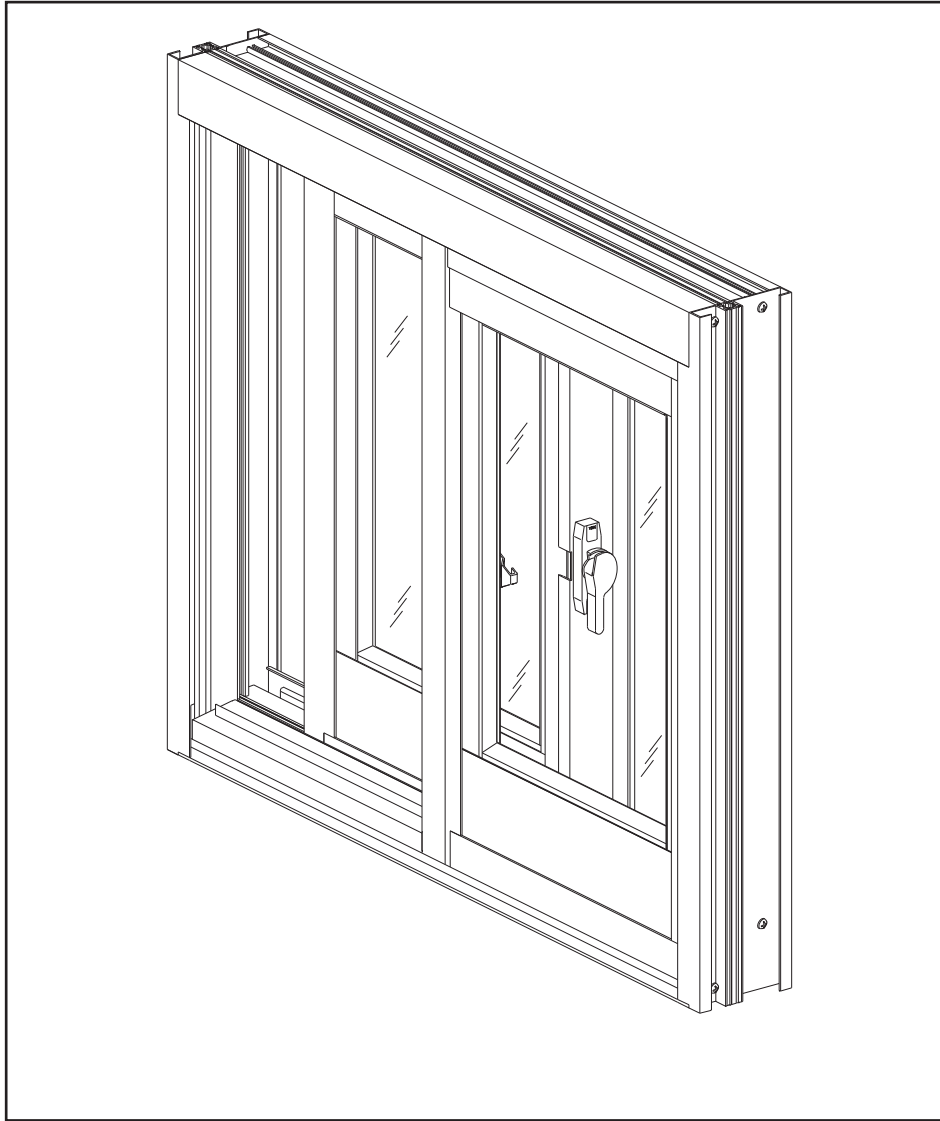


YSW 400 T Sliding Window System



YSW 400 T SYSTEM DESCRIPTION

- 4" Overall Depth
- MegaTherm® Thermal Break
- Variations: XO/OX, OXO, and XOX
- 1" Glazing
- Optional Screens

YSW 400 T PERFORMANCE FEATURES

- AAMA/WDMA/CSA/I.S.A 440-05
Performance class HS-AW
Performance grade 40
- Factory Assembled & Sealed

Installation Manual

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CALCULATE GLASS SIZES Page 14

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.
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. Consult sealant manufacture for proper sealant and backer rod selection.
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 Technical Center for clarification before proceeding.
12. YKK AP sliding 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 work produced.

INSTALLATION NOTES

13. Thermally broken frame and ventilator sections: Do not drill, punch, penetrate, or modify the MegaTherm® thermal barrier in any way. All perimeter anchor fastening must be staggered to the front and back of the thermal barrier as noted in these instructions.

14. Concrete, mortar, plaster, muriatic acid and other alkaline and acid based construction and cleaning materials may be very harmful to 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.

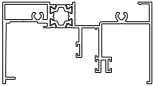
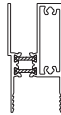

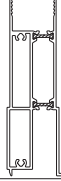
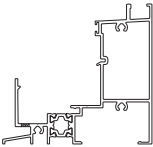





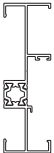



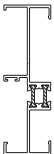



15. All work must start from, and be referenced to benchmarks, offset lines and/or column centerlines established by the architectural drawings and the general contractor.

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









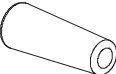




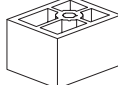


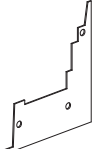


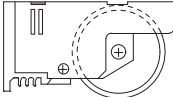
17. Glass and glazing building codes governing the design and use of products vary widely. YKK AP America Inc., does not control the selection of products, product configurations, operating hardware and function, or glazing materials, and YKK AP assumes no responsibility for these design considerations. 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.

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

WINDOW FRAMING MEMBERS


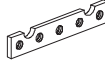
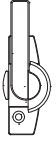

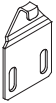

	Frame Head	BE9-4331		Top Rail (Sliding Panel)	BE9-4309
	Head Attachment	E9-4336		Bottom Rail (Fixed Panel)	BE9-4335
	Frame Sill	BE9-4339		Bottom Rail (Sliding Panel)	BE9-4311
	Sill Attachment	E9-4390		Fixed Panel Stile	BE9-4312
	Sill Attachment	E9-4389		Sliding Panel Stile	BE9-4313
	Frame Jamb (Sliding Panel)	BE9-4333		Sliding Interlock Stile (Mates with E9-4316)	BE9-4317
	Jamb Attachment For BE9-4334	E9-4318		Fixed Interlock Stile (Mates with E9-4319)	BE9-4315
	Frame Jamb (Fixed Panel)	BE9-4334		Sliding Interlock Stile (Mates with BE9-4317)	E9-4316
	Top Rail (Fixed Panel)	BE9-4308		Fixed Interlock Stile (Mates with BE9-4315)	E9-4319

ACCESSORIES


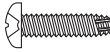





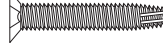

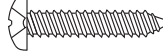
	Sill AT Block	E2-0650*		Glazing Gasket For 1/4" Glazing	E2-0716
	Jamb AT Block	E2-0632*		Setting Block	E2-0704*
	Corner AT Plug	E2-0659*		Weather Seal	E2-0727*
	Joint Plug	E2-0637*		Pile Weather Seal	E2-0712*
	Jamb Bumper	E2-0633*		Dust Plug	E2-0706*
	Bumper For XOX Configuration	E2-0710*		Exterior Head Stopper	E3-1162*
	Bumper For XOX Configuration	E2-0410*		Interior Head Stopper	E3-1163*
	Head Corner Gasket	E2-0641*		Screw Cap For PC-1016	K-6519
	Sill Corner Gasket	E2-0649*		Weep Hole Cover	E3-1101*
	Glazing Gasket For 1" Glazing	E2-0703		Roller	K1-1481*

* Parts assembled to window/frame at the factory.

ACCESSORIES

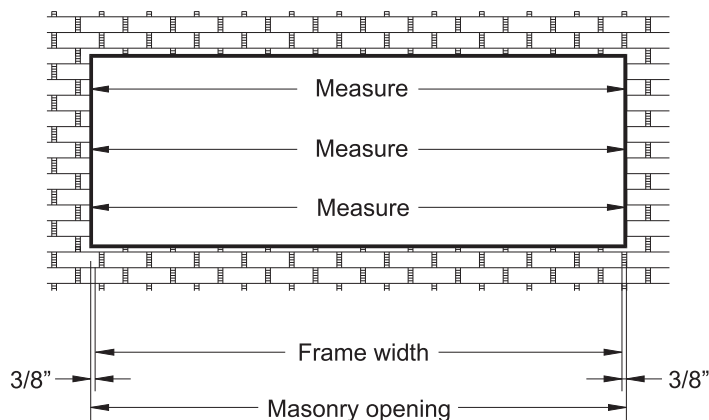
	Lock (RH)	5K-18622*		Backer Plate For Keeper E1-1774	K1-0043*
	Lock (LH)	5K-18623*		Steel Reinforcement For XOX with 1/4" Monolithic Only	E1-1586*
	Keeper	E1-1774*		Twist In Strap Anchor For Sill Only	E1-1970

FASTENERS

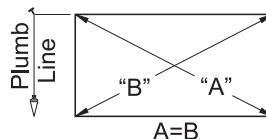
	M4 x 5mm FHMS - D6 Stainless Steel For Keeper Backer Plate	MF-4005 -SS*		#10-24 x 3/4" PHTCS Type F Stainless Steel For Bumper	PF-1012 -SS*
	M4 x 5mm PHMS Stainless Steel For Keeper	MB-4005 -SS*		#8-32 x 5/8" PHTCS Type F Stainless Steel For Head Stoppers	PF-0810 -SS*
	#8-32 x 1/2" FHTCS Type F Stainless Steel For Jamb AT Block	FF-0808 -SS*		#8 x 1-1/4" PHSMS Type AB Stainless Steel For Jamb Bumper	PC-0820 -SS*
	#8-32 x 3/4" FHTCS Type F Stainless Steel For Lock	FF-0812 -SS*		#10-24 x 1" FHTCS Type F Stainless Steel For Sill AT Block	FF-1016 -SS*
	#8-32 x 1/2" PHTCS Type F Self-Drilling Stainless Steel For Interlock Stile	PS-0808 -SS*		#10 x 1" PHSMS Type AB Stainless Steel For Frame and Panel Assembly	PC-1016 -SS

STEP 1 DETERMINE FRAME SIZE

Determine Frame Width:



Note: Check opening for squareness and plumb at both ends; units must be installed in a true rectangle.

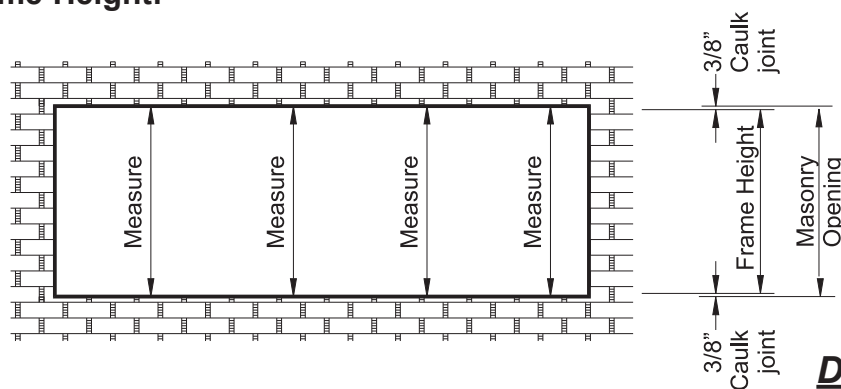


Detail 1

- Measure the width of the masonry opening at the top, middle, and bottom.
- Select the smallest dimension measured and subtract(-) 3/4" to determine the frame width size to be used.

See **DETAIL 1**.

Determine Frame Height:



Detail 2

- Measure the height of the masonry opening several times along the entire length of the opening.
- Select the smallest dimension measured and subtract(-) 3/4".

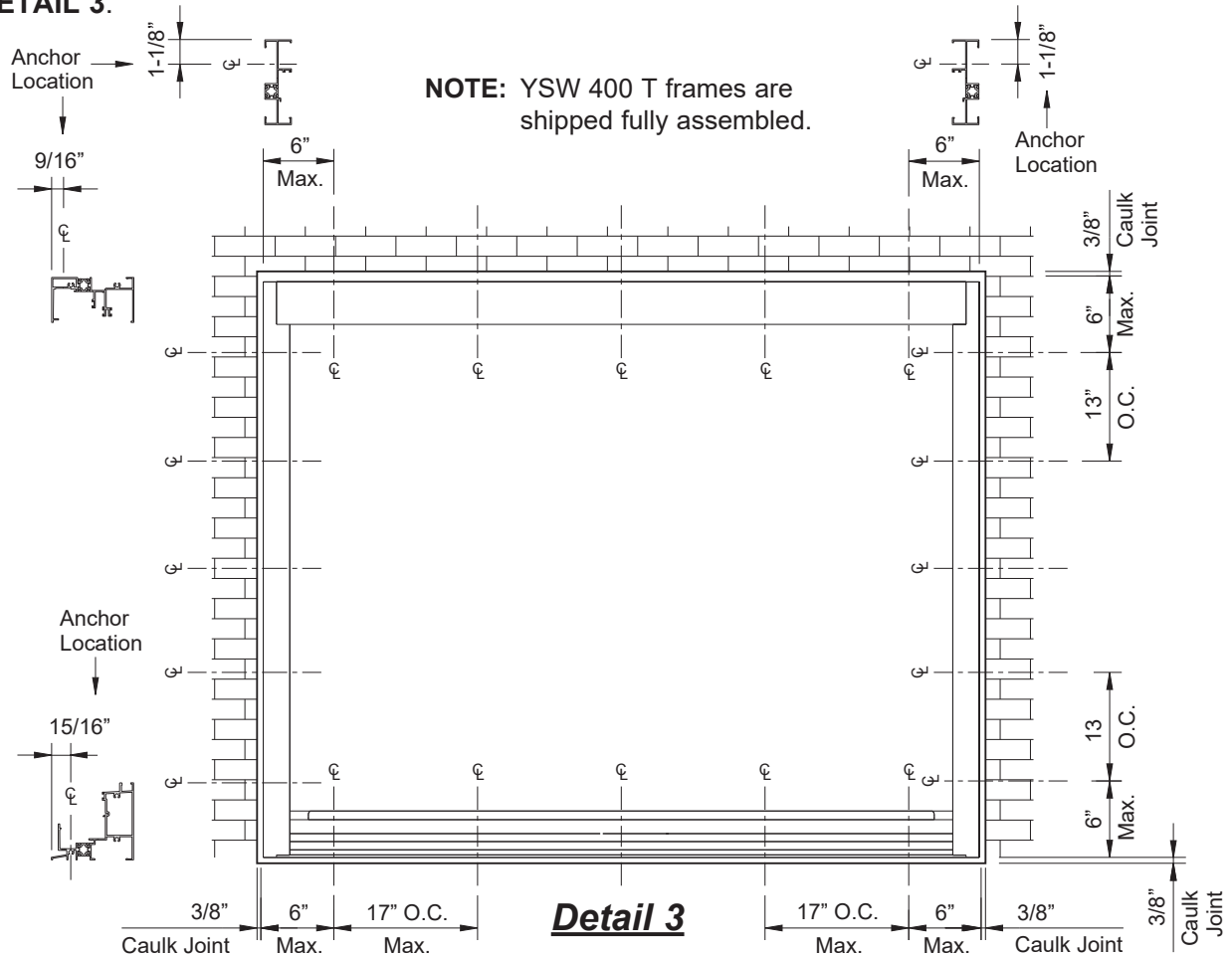
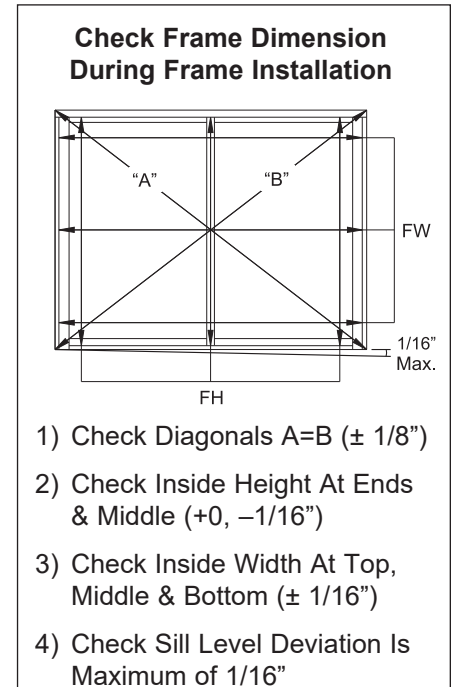
See **DETAIL 2**.

STEP 3 INSTALL FRAME

- Chalk a line on the structure to indicate the front of the sill.
- Run a bead of quality perimeter sealant just inside of the line.
- Immediately set the frame up into the opening.
- Shim the sill member as required to ensure that the frame is level.
- Locate perimeter anchors (#10 fastener) at the sill:
 - Anchors are located at 2-1/8" in from the outside face of the frame, locate sill anchors at 15/16" in from the outside face of the frame.
 - Locate anchors at 6" from each end and then a maximum of 17" on center.
- Locate perimeter anchors (#10 fastener) at the head:
 - Anchors are located at 9/16" in from the outside face of the frame.
 - Locate anchors at 6" from each end and then a maximum of 17" on center.
- Locate perimeter anchors (#10 fastener) at the jambs:
 - Shim jambs to ensure that frame is plumb.
 - Anchors are located at 1-1/8" in from the inside face of the frame.
 - Locate anchors at 6" from each end and then a maximum of 13" on center.

*P.E. calculations may require different fasteners and or spacing.

See **DETAIL 3**.

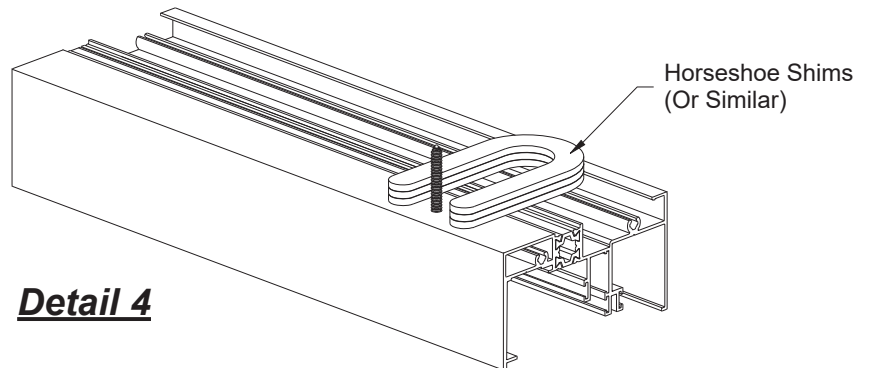


**STEP 3 (Continued)
INSTALL FRAME**

- Use perimeter anchors as indicated on the shop drawings or engineering calculations.
- A shim must be installed at all anchor locations at the head, sill, and jambs.

See **DETAIL 4**.

Note: The sill must be set level and true to allow proper operation of the sliding panel.

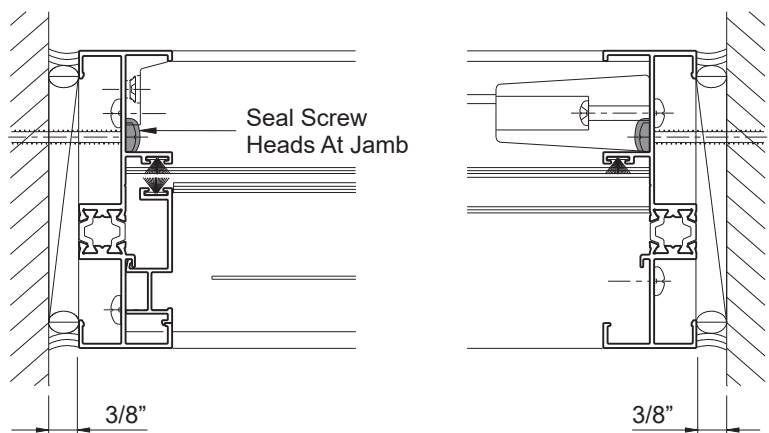
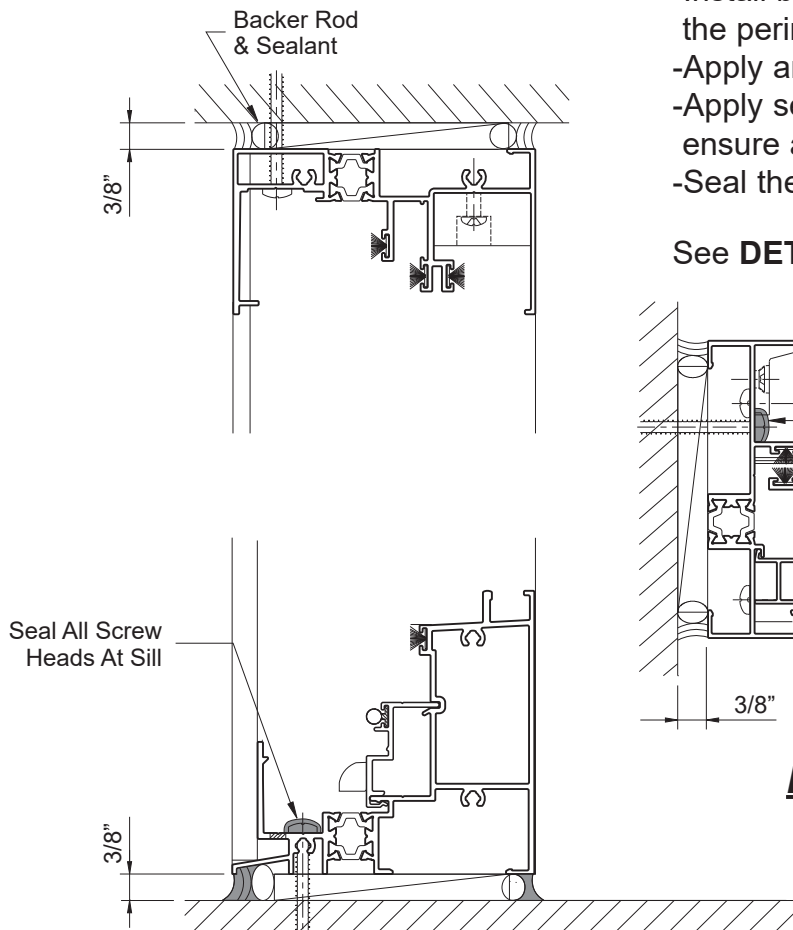


Detail 4

**STEP 4
PERIMETER SEALANT**

- Install backer rod to provide a back-up for the perimeter sealant.
- Apply and tool perimeter sealant.
- Apply sealant along the sill as required to ensure a water tight joint.
- Seal the heads of all perimeter anchors.

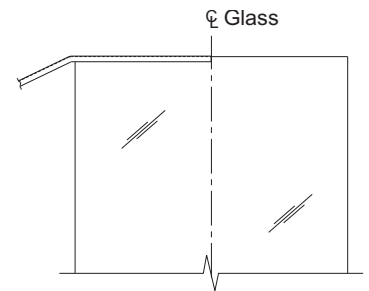
See **DETAIL 5**.



Detail 5

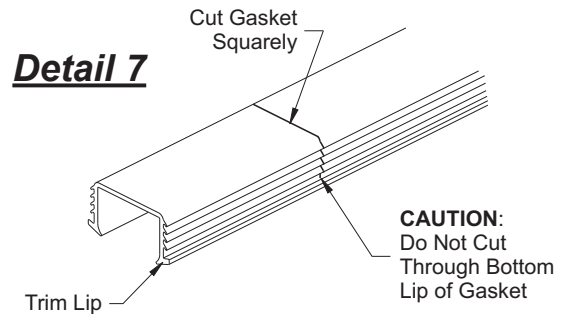
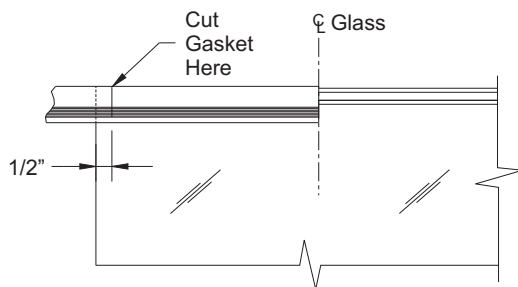
STEP 5 INSTALL GASKETS

- Locate the roll of gasket supplied with the sliding window package.
- Calculate the total gasket length required for each insulated unit:
 $(2 \times \text{Width}) + (2 \times \text{Height})$
 A unit 34" wide by 60" tall would require 188" of gasket.
- Cut gasket E2-0703 to the length determined above for each unit.
- Begin by installing the gasket at the center of the top of each unit.
 See **DETAIL 6**.



Detail 6

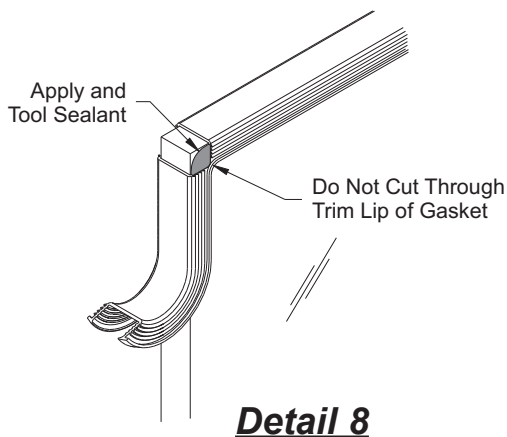
- Cut the gasket 1/2" away from the corner.
- Cut the gasket squarely.
- Caution: Do Not** cut through the trim lip of the gasket.
 See **DETAIL 7**.



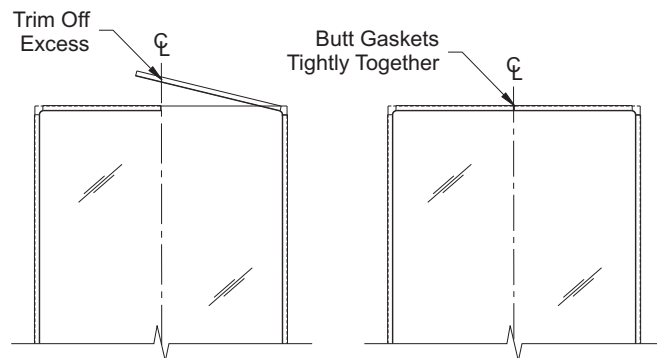
Detail 7

- Wrap the gasket around the corner and install the gasket around the glass moving down the side of the unit. Apply and tool sealant at corners on exterior side of glass as shown in **DETAIL 8**.
- Cut the gasket 1/2" away from the next corner.
 See **DETAIL 7**.

- Proceed around the unit repeating the steps called out above.
- Trim off the end of the gasket and butt the ends of the gasket tight against each other.
 See **DETAIL 9**.



Detail 8



Detail 9

STEP 6 ASSEMBLE PANELS

- Refer to the shop drawings to determine which stiles and rails are required.
 - Locate the appropriate rails and stiles.
 - Install setting blocks E2-0704 at quarter points of each bottom rail.
- See **DETAIL 10**.

- Center the top and bottom rails on the insulated unit.
- Use a rubber mallet to install the rails around the glass. Be careful not to dent the aluminum.
- Apply sealant to the ends of the top and bottom rails.
- Center the stiles and use a rubber mallet to install the stiles onto the glass.
- Screw the panel together.

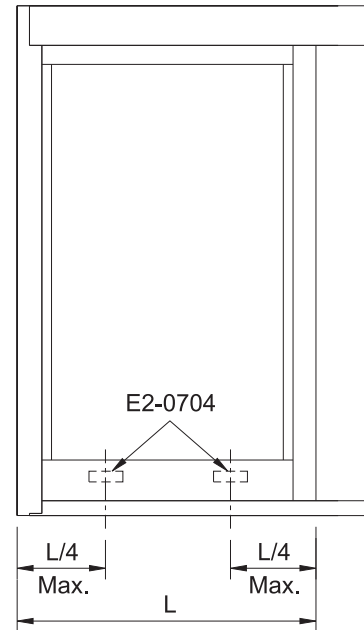
Sliding Panel:

- Two PC-1016-SS at each corner for top rail.
- One PC-1016-SS at each corner for bottom rail.

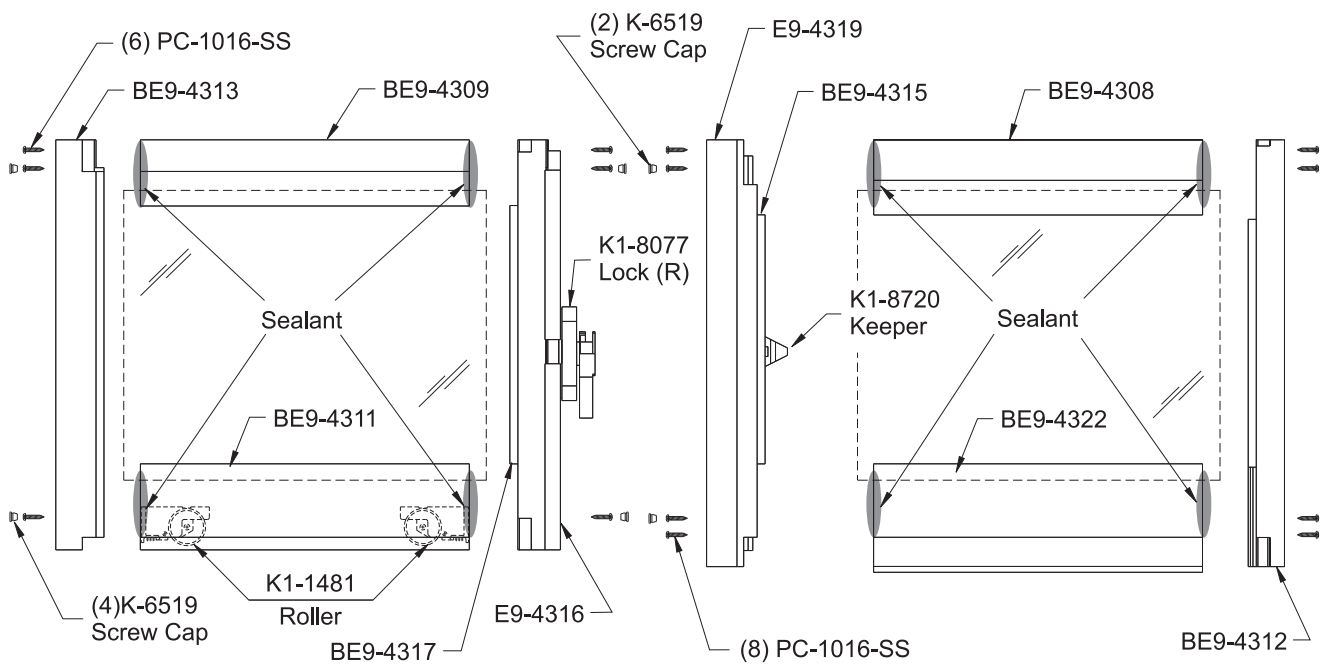
Fixed Panel:

- Two PC-1016-SS at each corner of top & bottom rails.

See **DETAIL 11**.



Detail 10



SLIDING PANEL

Detail 11

FIXED PANEL

STEP 6 (Continued) ASSEMBLE PANELS

-Install screw caps into stiles.

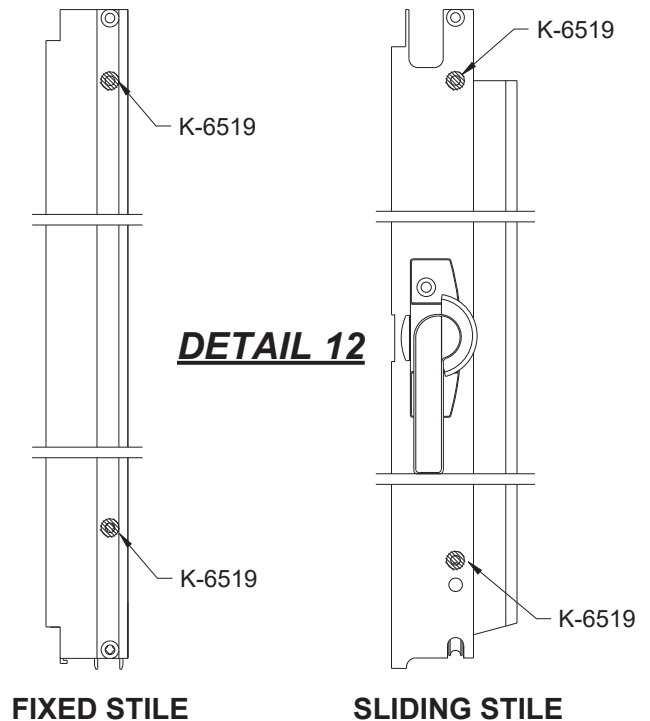
Sliding Panels:

- Each stile has two holes at the bottom.
- Install screw cap K-6519 into the upper hole of each stile.
- Each stile has two holes at the top.
- Install screw cap K-6519 into the lower hole of each stile.

Fixed Panels:

- Each stile has two holes at the bottom.
- Install screw cap K-6519 into the upper hole of meeting stile only.
- Each stile has two holes at the top.
- Install screw cap K-6519 into the lower hole of meeting stile only.

See **DETAIL 12**.

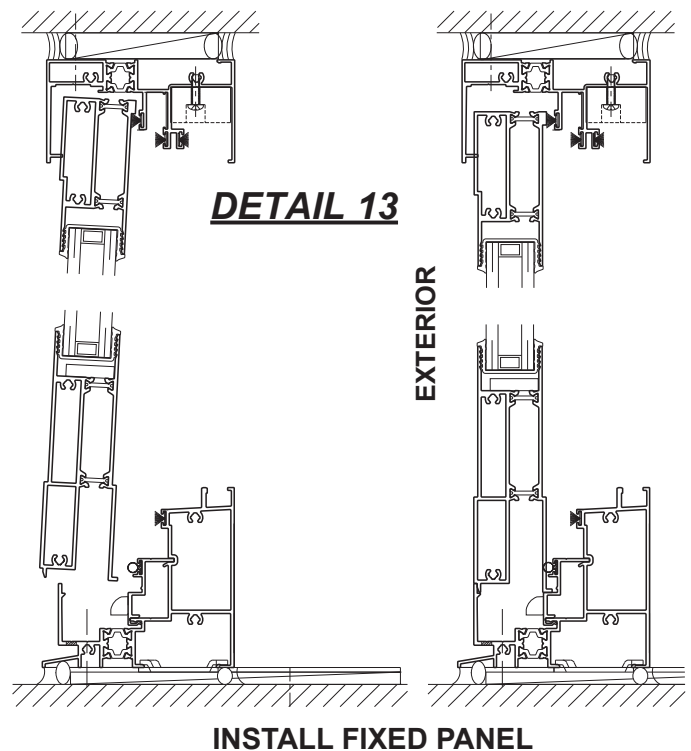


STEP 7 INSTALL PANELS

Install Fixed Panel(s):

-Set the exterior fixed panel into the frame from the exterior sliding side. Slide the panel over, tight against the fixed jamb.

See **DETAIL 13**.



**STEP 7 (Continued)
INSTALL PANELS**

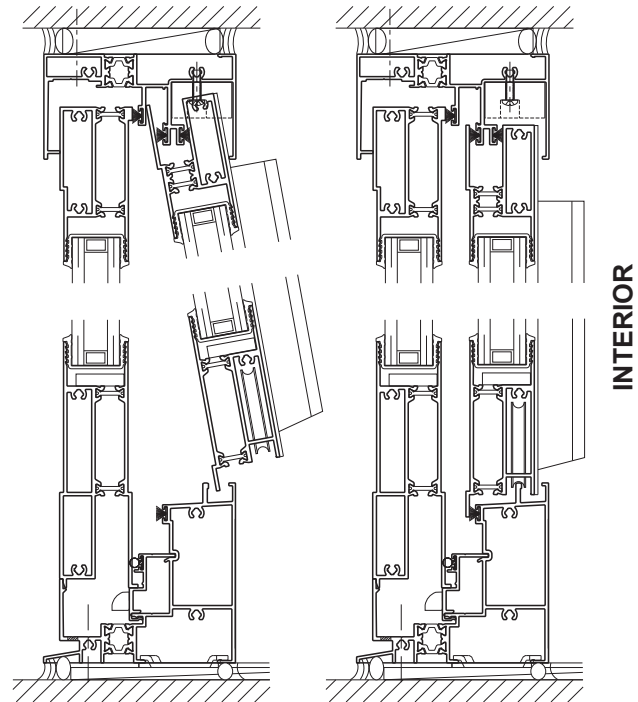
Install Sliding Panel(s):

-Set the interior sliding panel into the frame from the interior fixed side. Slide the panel over, tight against the sliding jamb.

See **DETAIL 14**.

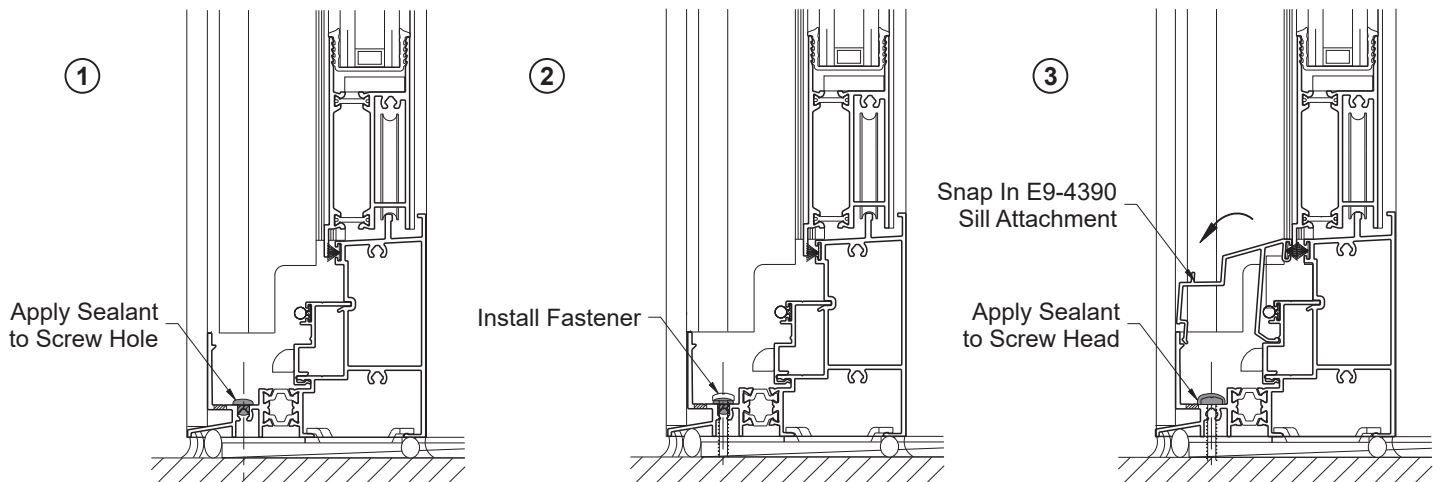
-After fixed and sliding panels are installed, sill attachment E9-4390 must be installed.
-Snap in E9-4390 sill attachment as shown.

See **DETAIL 15**.



INSTALL SLIDING PANEL

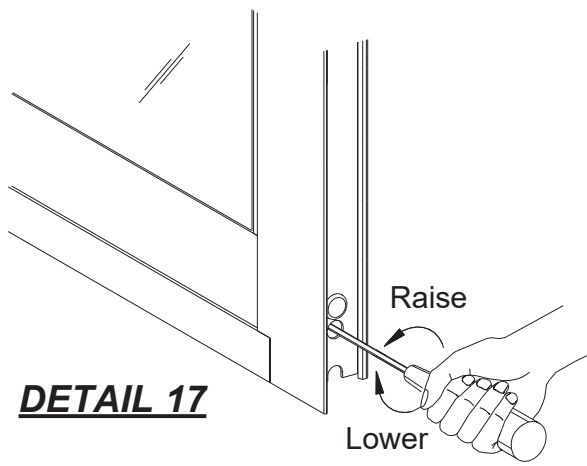
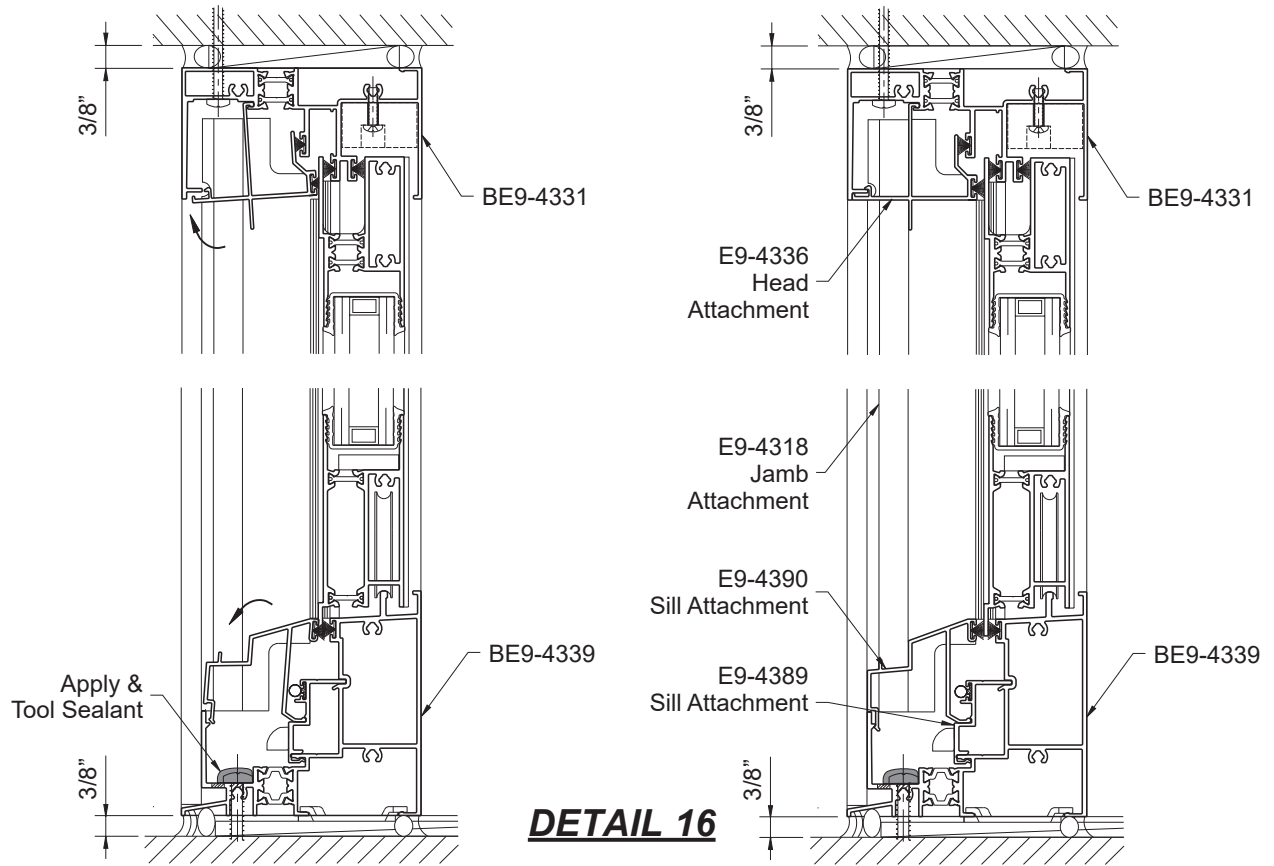
DETAIL 14



DETAIL 15

STEP 7 (Continued) INSTALL PANELS

-Snap head attachment E9-4336 onto the outside head track to hold the fixed panel in position.
See **DETAIL 16**.



-Adjust both rollers of the panel so that it is level and rolls freely.
-Adjust the rollers for both panels on XOX units.

See **DETAIL 17**.

**STEP 8 (Optional)
INSTALLATION OF STACKING MULLIONS**

Refer to the **Window Accessories Installation Manual** for installation of optional stacking mullions.

STEP 9 INSTALL SCREENS (OPTIONAL)

- Optional screens are available for all YSW 400 T sliding window configurations.
- Screens for OX, XO & XOX configurations have spring clips mounted on one side only.
- Screens for OXO configuration have spring clips mounted on both sides.

See **DETAIL 18**.

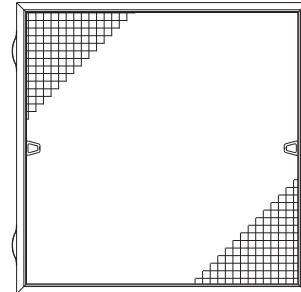
For OX, XO & XOX screens:

- Insert the spring clip side of the screen into the fixed stile screen track.
- Compress the spring clips against the fixed stile to clear the jamb.
- Swing the exposed end of the screen into the jamb attachment screen track and release the screen.

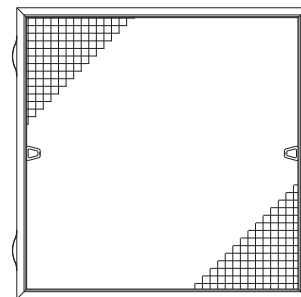
See **DETAIL 19**.

For OXO screens:

- Insert either side of the screen into one of the fixed stile screen tracks.
- Push the screen at the exposed spring clips and compress the screen to clear the other fixed stile.
- Swing the exposed end of the screen into the fixed stile screen track and release the screen.

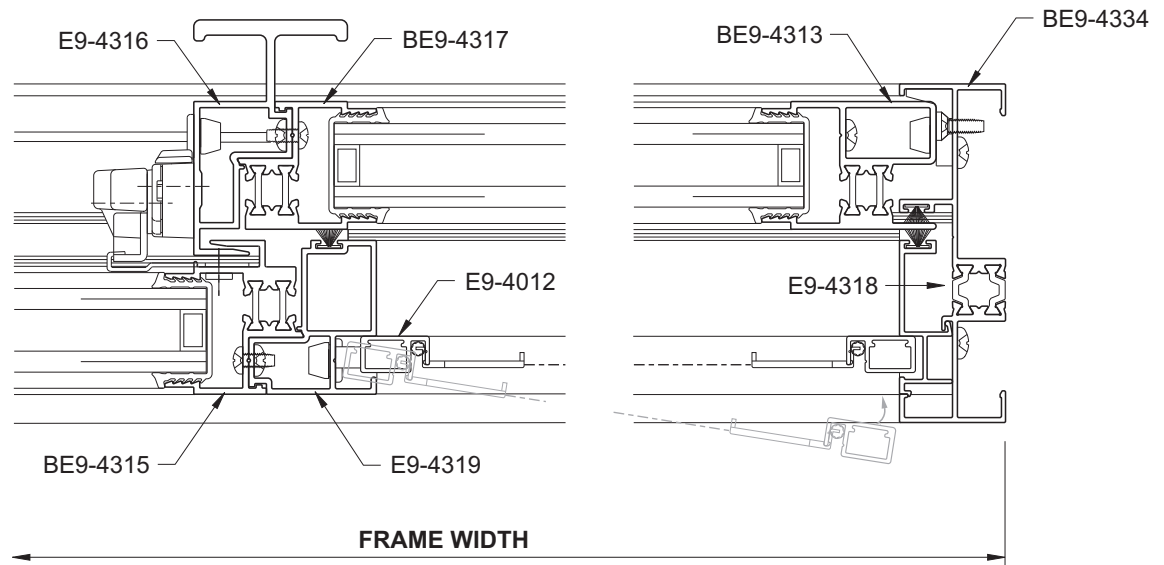


FOR OX, XO & XOX



FOR OXO

DETAIL 18



DETAIL 19

OX Shown
Others Similar

CALCULATE GLASS SIZES

CONFIGURATION	<p>XO / OX 1/2 - 1/2 LITES</p>
	<p>GLASS WIDTH $(FW - 5 \frac{5}{8}'') / 2$</p> <p>GLASS HEIGHT $FH - 10''$</p>

CONFIGURATION	<p>OXO 1/3 - 1/3 - 1/3 LITES</p>
	<p>GLASS WIDTH $(FW - 6 \frac{1}{2}'') / 3$</p> <p>GLASS HEIGHT $FH - 10''$</p>

CONFIGURATION	<p>XOX 1/4 - 1/2 - 1/4 LITES</p>
	<p>GLASS WIDTH $1/4 \text{ Panel: } (FW - 7 \frac{3}{4}'') / 4, \quad 1/2 \text{ Panel: } (FW - 7 \frac{3}{4}'') / 2$</p> <p>GLASS HEIGHT $FH - 10''$</p>

NOTE: For other non-equal lite glass sizes, contact YKK AP for more information.



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